FINAL

Supplemental Environmental Impact Report

for the

Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project

April 2020

Lead Agency:

Monterey One Water
Providing Cooperative Water Solutions

In Partnership with:

Monterey Peninsula Water Management District

FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

for the

Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project

April 2020

(SCH#2013051094)

Prepared for:
MONTEREY ONE WATER
in partnership with:
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

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CHAPTER 1 INTRODUCTION TO THE FINAL SEIR

1.1 BACKGROUND

In November 2019, Monterey One Water (M1W), formerly the Monterey Regional Water Pollution Control Agency, as Lead Agency, circulated a Draft Supplemental Environmental Impact Report (Draft SEIR) prepared under the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et seq*. M1W prepared the Draft SEIR to provide the public and responsible and trustee agencies with information on the potential environmental effects of implementation of the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment (PWM/GWR) Project (Proposed Modifications). The Draft SEIR was circulated for a public review period, between November 7, 2019, and January 31, 2020.

As Lead Agency, M1W prepared this document pursuant to CEQA Guidelines Section 15132, which specifies the following requirements for a Final EIR (in this case, a Final SEIR):

> "The Final EIR shall consist of:
>
> a) The Draft EIR or a revision of the draft.
>
> b) Comments and recommendations received on the Draft EIR either verbatim or in summary.
>
> c) A list of persons, organizations, and public agencies commenting on the Draft EIR.
>
> d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
>
> e) Any other information added by the Lead Agency."

This Final SEIR contains a list of the comments submitted on the Draft SEIR, copies of the comment letters received on the Draft SEIR during the public review period, responses to the environmental points raised in those comments, and revisions to the Draft SEIR made as a result of the public review process. This document, together with the Draft SEIR, constitutes the Final Supplemental Environmental Impact Report for the Proposed Modifications.

1.2 PROJECT OVERVIEW

The Proposed Modifications would expand the existing PWM/GWR Project and serve northern Monterey County. The expanded PWM/GWR Project would provide: 1) additional purified recycled water for recharge of a groundwater basin that serves as drinking water supply; and 2) additional recycled water to augment the existing Castroville Seawater Intrusion Project's agricultural irrigation supply.

The Proposed Modifications would expand the Advanced Water Purification Facility peak capacity from 5.0 mgd to 7.6 mgd and increase recharge of the Seaside Groundwater Basin by an additional 2,250 AFY (for an average annual yield for the Expanded PWM/GWR Project of 5,750 AFY). As explained above and in greater detail in the Draft SEIR, the Proposed Modifications are considered a "back-up plan" to the MPWSP desalination project.

The Proposed Modifications include the following new or modified M1W facilities:

- Improvements to the existing Advanced Water Purification Facility (adding equipment, pipelines, and storage within the approved and constructed facility buildings and paved areas);
- Addition of up to two miles of new product water conveyance pipelines;
- Addition of one new Injection Well in the Expanded Injection Well Area and associated infrastructure;
- Relocation of two approved Injection Well Sites and associated infrastructure to the Injection Well Area; and
- Relocation of previously approved monitoring Well Sites to the area between the Injection Well Area and the closest Extraction Wells located along General Jim Moore Boulevard.

In order for CalAm to extract additional groundwater injected by the Proposed Modifications into the Seaside Groundwater Basin and deliver it to meet its system demands and to provide for redundancy and back-up, the following CalAm improvements would be required:

- Addition of four new Extraction Wells and associated infrastructure (e.g., treatment facilities, electrical buildings, and pipelines), including two new Extraction Wells located at Seaside Middle School, and two new Extraction Wells located near General Jim Moore Boulevard;[1] and
- Addition of potable and raw water pipelines along General Jim Moore Boulevard and at the Seaside Middle School site (referred to as CalAm Conveyance Pipelines).

For a complete description, please refer to **Chapter 2.0, Project Description** of the Draft SEIR.

1.3 PUBLIC REVIEW OF DRAFT SEIR

CEQA Guidelines Section 15087(a) requires that a Notice of Availability (NOA) of a Draft EIR be mailed to the last known name and address of all organizations and individuals who have previously requested such notice in writing. Section 15087(a) also requires that, in addition to the above notifications, at least one of the following procedures be implemented:

- Publication at least one time by the public agency in a newspaper of general circulation in the area affected by the proposed project;
- Posting of notice by the public agency on and off the site in the area where the project is to be located; or
- Direct mailing to the owners and occupants of property contiguous to the parcel or parcels on which the project is located.

Guidelines Section 15087(d) requires the NOA be posted for at least 30 days in the office of the county clerk of each county in which the project will be located. Section 15087(f) requires that an NOA be sent to state agencies through the State Clearinghouse. Section 15087(g) states that

[1] The two of the four new Extraction Wells located near General Jim Moore Boulevard are located at the sites of proposed ASR Wells 5 and 6. The potential environmental effects associated with the construction and operation of ASR Wells 5 and 6 are considered in the MPWSP EIS/EIR.

lead agencies should place copies of the Draft EIR in public libraries. The method by which these requirements were satisfied is provided below:

- On November 7, 2019, the NOA and Notice of Completion were delivered to the State Clearinghouse/Governor's Office of Planning and Research, along with electronic copies of the Draft SEIR. In addition, M1W distributed the NOA for the Draft SEIR to approximately 800 interested responsible and trustee agencies, interested groups, organizations, and individuals. The distribution list included all parties that commented on the Notice of Preparation (NOP) and all parties that contacted M1W requesting to be notified about the project.
- The NOA was published in the Monterey County Herald on November 9, 2019.
- A hard copy of the Draft SEIR was made available for review during normal business hours at the M1W Administrative Office, 5 Harris Court, Bldg. D, Monterey, CA 93940 and at the MPWMD Offices, 5 Harris Court, Bldg. G, Monterey, CA 93940. The Draft SEIR was made available online at the M1W and PWM/GWR Project websites at: www.montereyonewater.org and www.purewatermonterey.org. The Draft SEIR was also available in hardcopy at the following libraries: Seaside Public Library, Marina Public Library, Castroville Public Library, and Monterey Public Library.
- On November 7, 2019, M1W posted the NOA at the following locations: the Regional Treatment Plant, the M1W and MPWMD offices, and near the CalAm Facilities and Injection Well Facilities site at the corner of General Jim Moore Boulevard and Eucalyptus Avenue.
- M1W held a public meeting during the Draft SEIR review period to inform the public of the content of the Draft SEIR and CEQA process and to provide an opportunity for the public to comment orally. The meeting was held on December 12, 2019, at 5:30 p.m. at the Oldemeyer Center (986 Hilby Avenue, Seaside, CA 93955). Spanish translation was available, and both venues were accessible under the Americans with Disabilities (ADA). The NOA (described above) contained information about the meeting.
- On December 19, 2019, M1W held a special meeting to consider extending the public comment period and took comments from the public on the item before the Board. The Board approved extending the public review period to January 31, 2020, at 5:00 p.m.
- On December 20, 2019, M1W staff prepared a Revised NOA with the new date for the close of the public review period and sent it to the State Clearinghouse/Governor's Office of Planning and Research and posted it with the County Clerk. In addition, M1W distributed the Revised NOA for the Draft SEIR to the same email distribution list and posted the Revised NOA at the locations listed above.
- The Revised NOA was published in the Monterey County Herald on December 25, 2019.

1.4 FINAL SEIR CERTIFICATION

The M1W Board of Directors will review and consider the Final SEIR prior to taking an action on the Proposed Modifications to the Project. The Final SEIR will be made available to agencies who provided comments on the Draft SEIR a minimum of ten days prior to the Board's consideration of the Final SEIR. If the Board finds that the Final SEIR reflects M1W's independent judgment and has been prepared in accordance with CEQA and the CEQA Guidelines, M1W will certify the adequacy and completeness of the Final SEIR. A decision to approve the project would be

accompanied by written findings prepared in accordance with CEQA Guidelines Section 15091, and if applicable, Section 15093. For each significant effect identified in the Final SEIR, the findings will describe whether the effect can be reduced to a less-than-significant level through feasible mitigation measures.

If in approving the Proposed Modifications to the Project, M1W adopts mitigation measures to reduce significant effects, it also will adopt a Mitigation Monitoring and Reporting Program (MMRP), as required by Section 15097 of the CEQA Guidelines. The MMRP would describe how each of the mitigation measures will be implemented and provide a mechanism for monitoring and/or reporting on their implementation. If M1W approves the Proposed Modifications or an alternative with associated significant effects on the environment that cannot be feasibly avoided or reduced to less-than-significant levels, M1W must also adopt a Statement of Overriding Considerations that explains how the benefits of the project outweigh the significant unavoidable environmental effects, in accordance with Section 15093 of the CEQA Guidelines.

1.5 ORGANIZATION OF THE FINAL SEIR

This Final SEIR is organized into the following sections:

- **Chapter 1, Introduction to the Final SEIR,** contains this introduction to the Final SEIR, including a discussion of the background of the environmental review, a description of the contents of the Final SEIR, a summary of the project decision-making process, and an introduction to the master responses.
- **Chapter 2, List of Comments,** contains a list of all comment documents received on the Draft SEIR.
- **Chapter 3, Master Responses to Comments,** contains master responses to common topics raised by the commenters.
- **Chapter 4, Comments and Responses on the Draft SEIR,** contains copies of all comment documents received on the Draft SEIR, and responses to each identified comment within the comment documents.
- **Chapter 5, Changes to the Draft SEIR,** contains revisions to the text of the Draft SEIR made in response to the public review process.
- **Chapter 6, References and Persons Contacted,** contains a list of sources cited for the Final SEIR and persons contacted.
- **Chapter 7, Report Preparers,** contains a list of agencies and consultants and their staff that assisted with preparation of this Final SEIR.
- **Appendices, including the following:**

  The following appendices from the Draft SEIR have been revised and replaced in this Final SEIR:

  F (Revised) Air Quality and Greenhouse Gas Emission Impacts Technical Memorandum

  K (Revised) Noise Assessment Report

  The following new appendices have been added in this Final SEIR:

  L Health Risk Assessment for the EW-1/EW-2 Extraction Wells

  M Source Water Operational Plan Technical Memorandum

N	Letter from David J. Stoldt to Ian Crooks, RE: California American Water Peer Review of Supply and Demand for Water on the Monterey Peninsula
O	Supply and Demand for Water on the Monterey Peninsula
P	Biographical Information of Key SEIR Contributors
Q	Hydraulic Analysis of Potential Additional Injection Wells – Hydraulic Modelling Parameters and Results)
R	Charts of Source Water for AWPF and SVRP Production

1.6 MASTER RESPONSES TO COMMENTS

Chapter 3 of the Final SEIR contains master responses that address common topics raised by the commenters. The intent of a master response is to provide a comprehensive response to an issue so that multiple aspects of the issue can be addressed in a coordinated, organized manner in one location. This ensures that each commonly raised topic is thoroughly addressed and reduces repetition of responses. Responses to individual comments in **Chapter 4** cross-reference the appropriate master response when the comment is pertinent to the master response.

CHAPTER 2 LIST OF COMMENTS

2.1 INTRODUCTION

This section provides the list of comment documents received on the Draft SEIR in accordance with CEQA Guidelines Section 15088. A total of 52 comment letters or emails were received on the Draft SEIR or on the Proposed Modifications during the public review period. In addition, oral comments were received at the December 12, 2019, public meeting and by phone on December 18 and 19 (related to the consideration of extending the public review period), and those are presented as Comment Documents AA and PP, respectively. Two additional letters from agencies were received after the close of the public review period and are also included on the list as Comment Documents as CCC and DDD.

2.2 LIST OF COMMENTS

Table 2-A, below, identifies the comment documents received by M1W on the Draft SEIR for the Proposed Modifications or on the Proposed Modifications. Each of the comment documents has been assigned a letter designation or identifier (ID); this letter designation corresponds to the organization of **Chapter 4** of the Final SEIR, which includes copies of the comments and responses to identified comments. Master Responses that comprehensively address issues that appear in multiple comments are provided in **Chapter 3** of the Final SEIR.

Table 2-A:
List of Comment Documents Received

Comment Document ID	Agency/Organization (if applicable)	Date Received	Author Name
Federal, State, and Local Agencies *(listed in the order received)*			
A	Monterey County Water Resources Agency	12/6/2019	Brent Buche
B	Monterey County Water Resources Agency	12/18/2019	Brent Buche
C	Monterey Bay Air Resources District	12/30/2019	Hanna Muegge
D	California Department of Fish and Wildlife	12/31/2019	Julie Vance
E	Seaside Basin Watermaster	1/8/2020	Robert Jaques
F	City of Salinas	1/29/2020	Joe Gunter
G	Marina Coast Water District	1/30/2020	Keith Van Der Maaten
H	Monterey County Water Resources Agency	1/31/2020	Brent Buche
I	State Water Resources Control Board	1/31/2020	Er k Ekdahl
J	Monterey Bay National Marine Sanctuary/National Oceanic and Atmospheric Administration	1/31/2020	Paul Michel

Table 2-A:
List of Comment Documents Received

Comment Document ID	Agency/Organization (if applicable)	Date Received	Author Name
K	Transportation Agency for Monterey County	1/31/2020	Stefania Castillo
Organizations and Individuals *(listed in the order received)*			
L	Individual	11/12/2019	John Moore
M	Individual	11/12/2019	Harry McMurray
N	Individual	11/14/2019	Vincent Tuminello
O	Individual	11/25/2019	Paul Bruno
P	Individual	12/2/2019	Carolyn Hill
Q	Individual	12/2/2019	Christopher Turek
R	Individual	12/2/2019	Karen O'Neal
S	Individual	12/2/2019	Peter Le
T	Individual	12/2/2019	Sandy M.
U	Individual	12/2/2019	Vince Tuminello
V	Individual	12/4/2019	Lindley Rolle
W	California American Water	12/10/2019	Ian Crooks
X	Individual	12/10/2019	Wendi Newman
Y	Individual	12/12/2019	Dale Huss
Z	Coalition of Peninsula Businesses	12/12/2019	Jeff Davi and John Tilley
AA	Individuals	12/12/2019	Public Meeting Comments
BB	Individual	12/13/2019	Paul Bruno
CC	Individual	12/16/2019	Julius VanderSpek
DD	Individual	12/16/2019	Marli Melton
EE	Public Water Now	12/16/2019	Melodie Chrislock
FF	LandWatch	12/16/2019	Michael DeLapa
GG	League of Women Voters Monterey County	12/17/2019	Howard Fosler
HH	Individual	12/17/2019	jhparise@aol.com
II	Individual	12/17/2019	Stefani Mistretta

Table 2-A:
List of Comment Documents Received

Comment Document ID	Agency/Organization (if applicable)	Date Received	Author Name
JJ	Individual	12/17/2019	Tamara Harris
KK	Individual	12/17/2019	Timothy Sanders
LL	Individual	12/18/2019	Margaret-Anne Coppernoll
MM	Individuals	12/18/2019	Mark Watson and Katalin Markus
NN	Individual	12/18/2019	Tammy Jennings
OO	Individual	12/19/2019	Barbara Moore
PP	Individuals	12/19/2019	Phone calls in opposition of extending public review period
QQ	Individual	12/19/2019	Renee Franken
RR	Individual	12/19/2019	Tina Walsh
SS	Individual	12/23/2019	Marli Melton
TT	Individual	1/23/2020	Jazmin Lopez
UU	Pisoni Farms	1/23/2020	Mark Pisoni
VV	California American Water	1/30/2020	Duncan Joseph Moore of Latham & Watkins LLP
WW	Fort Ord Regional Trail and Greenway (FORTAG) Project	1/31/2020	Fred Watson and Scott Waltz
XX	Coalition of Peninsula Businesses	1/31/2020	Jeff Davi and John Tilley
YY	Individual	1/31/2020 and 2/2/2020	Margaret L. Thum
ZZ	Individual	1/31/2020	Nancy McCready
AAA	Monterey County Farm Bureau[1]	01/10/2020	Norman C. Groot
BBB	Salinas Valley Water Coalition[1]	01/17/2020	Salinas Valley Water Coalition Board
Comments Received After the Close of the Public Review Period (listed in the order received)			
CCC	California Office of Planning and Research	2/7/2020	Scott Morgan
DDD	U.S. Department of the Army – Presidio of Monterey	2/12/2020	Gregory J. Ford

[1] Comment document was directed to the Board related to the proposed modifications to expand the PWM/GWR Project, but is not specific to the Draft SEIR, and is therefore listed out of sequence.

CHAPTER 3 MASTER RESPONSES TO COMMENTS

The master responses in this chapter address comments related to topics that are common to several comment letters. The intent of a master response is to provide a comprehensive response to a topic in a coordinated, organized manner in one location that clarifies and elaborates on the analysis in the Draft Supplemental EIR (Draft SEIR). The following master responses are included in this chapter (listed by section number):

3.1 MASTER RESPONSE #1: COMMENTS ON PUBLIC REVIEW PERIOD EXTENSION

This Master Response addresses (in whole or partially) the following comments: A-1, B-3, W-1, Z-1, AA-2, AA-5, AA-6a, AA-7, BB-1, CC-1, DD-1, DD-2, EE-1, FF-1, GG-1, HH-1, II-1, JJ-1, KK-1, LL-1, MM-1, NN-1, OO-1, PP-1, QQ-1, and RR-1.

The Draft SEIR was completed and published on November 7, 2019 with a noticed public review and comment period ending on December 23, 2019. In December 2019, M1W received several letters requesting that M1W extend the public review period for the Draft SEIR, including several requesting the review period be extended to end on January 31, 2020. These included the following entities:

- Brent Buche, General Manager, Monterey County Water Resources Agency, December 6. 2019 and December 18, 2019 (Letters A and B).
- Ian Crooks, Vice President California-American Water Company, December 10, 2019 (Letter W).
- Jeff Davi and John Tilley, Coalition of Peninsula Business, December 12, 2019
- Letter BB, Paul Bruno (Letter Z).

In response to these letters, M1W scheduled a special Board meeting on December 19, 2019. Numerous other letters (15) and phone calls (see letters CC through RR) requested that M1W maintain the public review period deadline of December 23, 2019. The Board was provided information on the various options related to the public review period timeframe and at the December 19, 2019 Special Board meeting voted to extend the public review period to January 31, 2020 as requested. The decision complied with all applicable laws, regulations, and statutes, including CEQA and the CEQA Guidelines. M1W subsequently revised and republished the Notice of Availability with the new public review period end date, including publishing it as a new legal notice in the Monterey County Herald, posting it at the County Clerk and at the State Office of Planning and Research (State Clearinghouse), emailing it to the same distribution list as was used for the Draft SEIR, and posting hard copies at the M1W and MPWMD offices, at the project sites, and at local libraries.

3.2 MASTER RESPONSE #2: COMMENTS ON PURIFIED RECYCLED WATER AND SEASIDE BASIN GROUNDWATER QUALITY

This Master Response addresses (in whole or partially) the following comments: L-1 through L-14, M-1, N-1, P-1, Q-1, R-1, T-1, U-1, V-1, YY-1 through YY-13, and ZZ-1.

The approved PWM/GWR Project is being implemented in compliance with groundwater replenishment regulations promulgated by the California State Water Resources Control Board (State Water Board), Division of Drinking Water (or DDW, formerly the Department of Public Health) and approved by the Office of Administrative Law on June 18, 2014. The groundwater replenishment regulations were incorporated into CCR Title 22, Division 4 (Uniform State Water Recycling Criteria). The approved PWM/GWR Project's operating permit issued by the Regional Water Board that implements requirements to protect groundwater quality for all designated beneficial uses of the Seaside Groundwater Aquifer (i.e., Municipal and Domestic Water Supply, Industrial Service Supply, and Agricultural Supply) (Order No. R3-2017-003, the WDR/WRR, and Order No. 2019-0116, the Monitoring and Reporting Program). Applicable water quality objectives are assigned as recycled water limits and compliance must be demonstrated prior to injection to a groundwater basin to ensure water quality meets State of California and Federal standards for drinking water quality protective of human health and the environment. Extensive and frequent monitoring is required to evaluate Advanced Water Purification Facility (AWPF) influent quality, treatment process performance, recycled water quality, and groundwater quality. Accelerated monitoring, notification, source identification, and treatment process modifications must be implemented if values are measured above public health goals, notification levels, maximum contaminant levels, or constituents of emerging concern (CEC) thresholds.

The State Water Board's Recycled Water Policy was adopted "to encourage the safe use of recycled water… that meets the definition in California Water Code Section 13050(n), in a manner that implements state and federal water quality laws and protects public health and the environment." In the Recycled Water Policy, recycled water is defined as "Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource." [1] The M1W Regional Treatment Plant (RTP) secondary effluent meets this definition with or without the use of new source waters as influent.

The regulations (CCR Title 22, Division 4) are applicable to recycled water from sources that contain domestic waste, in whole or in part (Section 60302). Therefore, new source waters used for the PWM/GWR Project are subject to these regulations because they are combined with municipal wastewater and treated at the RTP before being pumped to the AWPF for full advanced treatment. The water quality of these source waters was fully characterized during source water sampling programs in 2013-2014 and 2018 (see **SEIR Appendix E: Section 13**), and then reviewed by the DDW and determined applicable for meeting the regulatory criteria for a groundwater replenishment project.

The Proposed Modifications would not increase the quantity or type of new source waters that would flow into the RTP compared to the quantity and type of new source waters that were evaluated in the certified PWM/GWR Final EIR. Rather, the increased yield to the Seaside Basin would occur by M1W treating a higher percentage of source waters at the AWPF throughout the

[1] Cal. Water Code § 13050(n).

year, with a corresponding reduction of discharges of secondary effluent to the Monterey Bay. In other words, more of the source waters received at the RTP would be recycled and less would be discharged to the ocean. Neither annual nor peak source water diversions would increase compared to the volumes evaluated in the PWM/GWR Final EIR; therefore, there would be no new or more severe impacts to surface waters downstream of diversions compared to those disclosed by the certified 2015 EIR. Further the same type and maximum volumes of source waters would be used for the Proposed Modifications as were evaluated in the PMW/GWR Final EIR. Therefore, there would be no change in purified recycled water quality compared to the analysis of purified recycled water quality provided in the certified PWM/GWR Final EIR. *See* **Draft SEIR Appendix E: Section 12.1 and Appendix I** for further details.

Draft SEIR Appendix E: Section 10 presents information on studies and tools designed to evaluate the effects of recycled water used for groundwater replenishment on human health. These include epidemiological studies, risk assessments, and bioanalytical screening tools. The conclusions of the epidemiological studies included in this section have not changed from those that were referenced in the 2015 EIR. M1W has also corresponded with recycled water experts Rhodes Trussell, Ph.D., P.E., BCEE, and Adam Olivieri, Dr. PH, P.E. (see their qualifications in **Appendix P** of this Final SEIR) and confirmed there have not been any further epidemiological studies conducted since 2015. The recycled water produced for the PWM/GWR Project and the Proposed Modifications is subject to the water quality requirements specified in the groundwater replenishment regulations outlined in **Draft SEIR Appendix E: Section 13.1** including primary and secondary CCR Title 22 Maximum Contaminant Levels (MCLs) and pathogenic microorganism treatment requirements that are defined for public health protection. During pilot testing, the AWPF showed it was fully capable to provide sufficient treatment to comply with all MCLs. Based on the results of source water testing and pilot performance for the constituents detected above the MCLs, the inclusion of the additional source waters not used/treated by the pilot testing will also be able to meet the MCLs. For more information on full compliance of the AWPF with regulations and policy see **Draft SEIR Appendix E: Sections 13-17**.

The pilot test also tested the efficiency and reliability of the treatment processes. The results of this testing are more fully explained in **Draft SEIR Appendix E: Sections 13-16.** The AWPF was shown to be in compliance with all the requirements and regulations and no constituent was detected to be above its regulated concentration. The same conditions were experienced with regard to the pathogen removal process. This testing is ongoing, and ongoing monitoring and reporting will continue to test the efficiency and reliability of the treatment processes.

AWPF performance for CEC and pathogen removal was tested during the pilot test period. Pathogens and indicator organisms were lower than the detection limit during the pilot testing. The AWPF has added UV/AOP since the pilot test that will increase removal of CECs and pathogens (see **Draft SEIR Appendix E: Section 13.3 and 15**). Monitoring for these constituents and assessment of the treatment process will continue according to appropriate permits and regulations during the operation of the AWPF to ensure compliance with all regulated limits and requirements.

Analytical methods and monitoring requirements for waterborne antibiotic resistant bacteria (ARBs) and antibiotic resistant genes (ARGs) and their indicators are under consideration by the State of California for direct potable reuse regulations. To ensure that monitoring will incorporate the State-approved methods for detecting CECs, bioassays, and ARBs/ARGs when they are developed, operating permits include the following language: “A laboratory providing analyses of CECs and bioanalytical screening must hold a valid certificate of accreditation from the State of California Environmental Laboratory Accreditation Program (ELAP) for the analytical test methods or analytes selected if such methods or analytes are accredited by ELAP at the time that monitoring is required to begin. If ELAP accreditation for analytical test methods or an analyte

becomes available after monitoring is initiated, then the laboratory providing analysis of CECs shall be accredited by ELAP for those methods or analytes within one year of such accreditation becoming available. If ELAP accreditation is unavailable for a method or an analyte, the recycled water producer shall use a laboratory that has been accredited for a similar analytical method, instrumentation, or analyte until ELAP accreditation becomes available, unless otherwise approved by the regional water board or State Water Board for bioanalytical screening tools."

3.3 MASTER RESPONSE #3: COMMENTS ON WATER SUPPLY AND SOURCE WATER AVAILABILITY

This Master Response addresses (in whole or in part) the following comments: F-1 through F-3, H-1 through H-34, I-8, I-9, I-10, I-18, O-1, Y-2 and Y-3, AA-6d, AA-10, DD-2, SS-3, TT-1, TT-2, UU-1, UU-2, VV-2; VV-7(a)-(g); VV-9, VV-10, VV-11, VV-54, VV-83 through VV-105, and XX-1 though XX-10.

Water Demand Estimates

The General Manager of the MPWMD, David Stoldt, prepared an updated report dated March 13, 2020, which examines available water supplies and their ability to meet current and long-term demand for water on the Monterey Peninsula (the "MPWMD Supply and Demand Report").[2] This Report is incorporated into the Final SEIR as **Appendix O**. In particular, the MPWMD Supply and Demand Report discusses the changing nature of demand on the Monterey Peninsula, and compares new data and analysis to the underlying assumptions previously used in the sizing of CalAm's desalination project. The Report indicates that, with the passage of time and an opportunity for deeper research, revisiting past assumptions about consumer demand for water in the current context was warranted for this environmental review and water supply planning more generally.

The MPWMD Supply and Demand Report is evidence upon which CEQA lead and responsible agencies can reasonably rely. Its author, David Stoldt, has over 27 years of experience in the public infrastructure sector and has served as General Manager of MPWMD since 2011. He holds an MBA and Certificate in Public Management from Stanford, an MS in Energy and Resources from UC Berkeley, and a BS in Civil and Environmental Engineering from University of Illinois. In his role as General manager, Mr. Stoldt is responsible for all activities of the District, including oversight of the operations in administration and finance, water resources, planning and engineering, and water conservation and demand management. He has extensive professional experience with large-scale capital projects such as water supply projects, including in developing cash flow scenarios, structuring complex capital financings, negotiating water rights permit conditions and agreements, and advising about cost allocation. For this SEIR, Mr. Stoldt is considered to be an expert related to Monterey Peninsula water supply and demand. For more detail regarding Mr. Stoldt's qualifications, see **Appendix P**.

The MPWMD Supply and Demand Report identifies existing water supplies and water supplies that would be provided by the MPWSP and, as a back-up plan, the Proposed Modifications. It then compares those water supplies to projected demand for water in a range of future market absorption scenarios based on an analysis of growth in water demand associated with increases of population and jobs. It documents the assumptions that went into sizing the MPWSP plant in 2012 and explains why newer data indicate that it would be reasonable to change many of those assumptions.

[2] David Stoldt originally prepared an earlier version of this Report for a September 2019 meeting of the MPWMD Board of Directors. Subsequent to the release of the September 2019 version of the Report, an initial report of the 2019 water year was completed, providing an additional data point on current customer demand. The March 2020 version of the MPWMD Supply and Demand Report considers data from the 2019 water year, incorporates an additional growth forecast, and addresses comments by the public, city managers, and a January 22, 2020 analysis performed by Hazen & Sawyer.

The MPWMD Supply and Demand Report's principal conclusions are: the Proposed Modifications can meet the long-term needs of the Monterey Peninsula; the Proposed Modifications would be sufficient to lift the State Water Board Cease and Desist Order; the long-term needs of the Monterey Peninsula are likely to be less than previously thought; and several factors will contribute to pressure on decreasing per capita water use. The Report identifies relevant facts, reasonable assumptions predicated on those facts, and Mr. Stoldt's expert opinion based upon facts. As such, the MPWMD Supply and Demand Report meets CEQA's definition of substantial evidence and M1W is entitled to rely on the Supply and Demand Report in assessing regional demand for the purpose of disclosing the environmental impacts of the Proposed Modifications.

Commenters' issues with the MPWMD Supply and Demand Report largely amount to differences of opinion. Commenters indicate the conclusions in the Report differ from the water demand and supply estimates utilized in the California Public Utility Commission's ("CPUC") September 2018 Decision authorizing a Certificate of Public Convenience and Necessity for CalAm's MPWSP desalination plant. There, the CPUC issued factual and legal findings based upon the evidence presented to the CPUC at that time. Those factual findings formed the basis for the CPUC's decision whether CalAm, as a water utility, could pass the cost of physical improvements associated with the proposed MPWSP desalination plant on to its ratepayers. As the MPWMD Supply and Demand Report explains, the CPUC did not perform its own analysis, modeling or projections regarding demand for water on the Monterey Peninsula; rather, the CPUC surveyed testimony provided by others and chose supply and demand projections to support its findings and recommendations. Therefore, any suggestion that the CPUC developed demand numbers on its own is inaccurate. The MPWMD Supply and Demand Report provides the reasons why each of the water demand estimates that were provided to the CPUC prior to its decision should be revisited now, and the Report supplies updated data and analysis.

Furthermore, the CPUC was required to determine whether the proposed MPWSP system improvements had the capacity to meet the source capacity requirements as defined in the Waterworks Standards, Code of California Regulations Title 22, Section 64554. Those standards require a water source to have the capacity to meet the system's maximum day demand, based in part on the month with the highest water usage during at least the most recent ten years of operation. (22 CCR § 64554(b).) M1W, by contrast, is not subject to CPUC requirements pertaining to ratepayer recovery for physical improvements. However, M1W considered peak future demands in designing the Proposed Modifications. Specifically, the sizing of the CalAm Extraction Wells, pipelines, and other proposed modifications to CalAm facilities analyzed in the Draft SEIR do in fact meet the peak day demand as requested by CalAm (Ian Crooks and Chris Cook, CalAm, and Jonathan Lear and Dave Stoldt, MPWMD, personal communications, 2019). Further, M1W and other agencies considering whether to approve the Proposed Modifications are entitled to consider additional information that was not before the CPUC at the time that the CPUC made its factual findings, including newer data regarding actual water demand and usage including using projections of demand based on published economic growth data by AMBAG and local jurisdictions.

CEQA Impacts Related to Water Supply

The regional demand projections in the September 2019 version of the MPWMD Supply and Demand Report were used in the Draft SEIR's analysis of growth inducement. The updated MPWMD Supply and Demand Report does not change the analysis in the Draft SEIR. Based on the Report's conclusion that the Proposed Modifications may be able to accommodate long-term regional demand, the Draft SEIR discloses the possibility that the Proposed Modifications could induce growth in a manner comparable to the growth that could be induced by the CalAm MPWSP desalination plant, as identified in that project's Final EIR/EIS. (See Draft SEIR § 5.2.4; MPWSP Final EIR/EIS at pgs. 6-5 through 6-45.)

The Draft SEIR also discloses the possibility that more water than could be provided by the Proposed Modifications might be needed to accommodate growth, for instance, if demand exceeds the estimates in the MPWMD Supply and Demand Report (Draft SEIR at 5-6). Such an increase in consumer demand and resulting need for water would not be a consequence or adverse physical environmental effect of the Proposed Modifications. The Proposed Modifications do not create regional demand for water. The Proposed Modifications have been designed to serve as a back-up mechanism if the CalAm MPWSP desalination plant is delayed; the Proposed Modifications would provide a defined increment of water if the MPWSP is not built or operating. If the Proposed Modifications are approved and constructed, agencies approving any development projects that might increase water demand would need to consider the water supply that would be available through the Proposed Modifications, and any information available at the time of project approval as to whether sufficient water from all available sources would be available to serve the development project at issue.

Some commenters have opined that less source water may be available for advanced treatment than has been assumed by the Draft SEIR. As demonstrated below, facts and evidence reasonably support the conclusion that source water will be available to provide the expanded yield of advanced treated water that is anticipated to be produced by the Proposed Modifications. In any event, if there is less source water available as an input to the Proposed Modifications' treatment process, the environmental impacts associated with operation of the Proposed Modifications would not be greater than have been disclosed in the Draft SEIR. The maximum operations of the Proposed Modifications are analyzed in the Draft SEIR. If less source waters will be available than have been anticipated by the Draft SEIR, then impacts associated with operation of the Proposed Modifications, such as energy consumption and indirect greenhouse gas emissions, would be reduced.

Source Water Availability

The Draft SEIR analyzed source water availability under a scenario in which the conditions precedent in the Amended and Restated Water Recycling Agreement (ARWRA) are met. A further analysis performed by M1W, the Approved Pure Water Monterey Project and Proposed Modifications to Expand the PMW Project Source Water Operational Plan (April 2020) (M1W Source Water Technical Memorandum) analyzes source water availability under the following four scenarios: (a) ARWRA conditions precedent are met; normal water years; (b) ARWRA conditions precedent are met; drought years; (c) ARWRA conditions precedent are not met; normal water years; and (d) ARWRA conditions precedent are not met; drought years. The analysis also included use of recent and updated data and assumptions that considered various comments received on the Draft SEIR. The M1W Source Water Technical Memorandum demonstrates that there would be sufficient source water available to supply the incremental amount of water that the Proposed Modifications have been designed to treat and deliver under all four scenarios. See **Appendix M** to this Final SEIR, M1W Source Water Technical Memorandum. Thus, M1W would have rights to a sufficient quantity of source water to produce the yield in advanced treated, product water that is anticipated to be produced by the Proposed Modifications regardless of whether or not the conditions precedent are met and whether or not it is a dry or drought year or a normal or wet year.

In addition, even if the ARWRA were entirely eliminated, M1W would have rights to a sufficient quantity of source water to generate the yield in advanced treated, product water that is anticipated to be produced by the Proposed Modifications. Under this unlikely scenario, M1W would have rights to all municipal wastewater coming into the RTP, pursuant to California Water Code section 1210 (except for rights assigned to Marina Coast Water District).

Under this range of scenarios, M1W would have rights to a sufficient quantity of source waters to generate the yield in purified product water that is anticipated to be produced by the Proposed Modifications. While it is conceivable that a future amendment to the ARWRA could reduce M1W's rights to source waters, it would be impossible to analyze every potential variation of how the ARWRA might be amended. Any such amendments would have to be analyzed to see what environmental consequences would result, when and if any such amendments are proposed.

Section 4.18 of the Draft SEIR, together with Appendices B and I, describe the various source waters for the Proposed Modifications and the current status of water rights to each. Four different types of source waters are discussed: (1) municipal wastewater from within and outside of M1W's 2001 service area; (2) surface water diversions from the Reclamation Ditch and Blanco Drain diversions; (3) agricultural wash water conveyed from the City of Salinas' industrial wastewater system; and (4) urban stormwater runoff from the City of Salinas stormwater system. See Draft SEIR at 4.18-12, and Appendices B and I.

Background

M1W has entered into a number of relevant contracts, including contracts that assigned wastewater rights to Marina Coast Water District (MCWD) and Monterey County Water Resources Agency (MCWRA). M1W has entered into the following:

- The 1989 Annexation Agreement between M1W and the MCWD provides the MCWD with the right to obtain treated wastewater from M1W. The MCWD has not started using recycled water from the PWM/GWR Project facilities, but may do so in the future.
- The 1992 agreement between M1W and MCWRA (including amendments) (1992 Agreement) provides for the construction and operation of the Salinas Valley Reclamation Plant by M1W to provide water treated to a level adequate for agricultural irrigation for use by the Castroville Seawater Intrusion Project. In particular, Section 3.03 of the 1992 Agreement (Amendment 3) provides that M1W commits all of its incoming wastewater flows to the treatment plant from sources within the 2001 M1W service area, up to 29.6 million gallons per day, except for flows taken by the MCWD under the Annexation Agreements, losses, flows not needed to meet the MCWRA's authorized demand, and flows to which M1W is otherwise entitled (including 650 AFY) under the agreement.
- In 1996, pursuant to another Annexation Agreement, the MCWD received the right to tertiary-treated water from the Salinas Valley Reclamation Plant, in satisfaction of the 1989 agreement rights.
- In 2009, the MCWD and M1W entered into a Memorandum of Understanding relating to the Regional Urban Water Augmentation Agreement (RUWAP MOU). In the RUWAP MOU, the M1W assigned a portion of its allotment from the Amendment 3 of the 1992 Agreement between M1W and MCWRA. M1W agreed to, among other things, provide 650 AFY of recycled waters during the months of May through August each year from M1W entitlements. MCWD agreed to commit 300 AFY of recycled water during the months of April through September from MCWD's entitlements.

To address certain water rights, the stakeholder agencies entered into a Memorandum of Understanding (Source Waters MOU). The Source Waters MOU reaffirmed the MCWD's and MCWRA's recycled water entitlements and presented a proposal for collection of additional source waters to meet the PWM/GWR Project objectives.

The Source Waters MOU was not binding; rather, it was intended to provide a framework for negotiation of a definitive agreement that would establish the contractual rights and obligations of the parties. That definitive agreement between M1W and the MCWRA is the ARWRA.

The ARWRA

The ARWRA was approved by the M1W Board in October 2016, describes the framework for rights and associated responsibilities for the source waters, and supersedes the stakeholder agencies' earlier Source Waters MOU. The ARWRA addresses four potential sources of water for recycling: (1) excess municipal wastewater; (2) Reclamation Ditch and Blanco Drain surface water; (3) Agricultural Wash Water; and (4) City of Salinas urban runoff/ stormwater.

Municipal wastewater. In the absence of an agreement to the contrary, M1W has the right to recycle and reuse all municipal wastewater that enters the RTP (California Water Code section 1210). However, M1W has contractually granted certain rights to municipal wastewater to MCWD through the agreements described above. In addition, the ARWRA provides the MCWRA with rights to some of the municipal wastewater flows that enter the RTP. Under the ARWRA, certain wastewater flows are to be evenly divided between M1W and the MCWRA. Section 4.01(2) of the ARWRA states: "[MCWRA] shall be entitled to one-half of the volume of wastewater flows from areas outside of [M1W]'s 2001 Boundary provided; however, at the request of [MCWRA], [M1W] passes the wastewater flows through the tertiary treatment facility or Pure Water Monterey Facilities." This section of the ARWRA is not subject to the ARWRA conditions precedent described below and thus would remain in effect even if the conditions in ARWRA Section 16.15 are not satisfied or completed.

New Sources: As described in the ARWRA, the new source waters that will be available to M1W for recycling include:

- Reclamation Ditch surface water. M1W can divert this water into the City wastewater collection system by using the recently completed diversion structure near Davis Road (which then flows to the RTP), as allowed by State Board Water Rights Permit #21377 issued to the MCWRA and the ARWRA.
- Blanco Drain surface water. M1W can divert this water to the RTP headworks using the recently completed diversion structure near the Salinas River, as allowed by State Board Water Rights Permit #21376 issued to the MCWRA and the ARWRA.
- Agricultural Wash Water. M1W can divert this water directly from the City of Salinas' separate industrial wastewater collection system to the M1W Salinas Pump Station using M1W's diversion facilities, as allowed by the State Board's Order Approving Wastewater Change Petition #WW-0089 issued to the City of Salinas and the City/M1W Agreement for Conveyance and Treatment of Industrial Waste Water (October 27, 2015).

Conditions Precedent: The portions of the ARWRA that are applicable to these three new source water facilities do not become effective until the conditions in ARWRA Section 16.15 have been met. Because several of the conditions had not yet been completed, M1W and the MCWRA amended the ARWRA to allow additional time to address the conditions precedent, delay the requirement for payments by the MCWRA, and allow M1W to use some of these new source waters until such time as the conditions are met. Under the ARWRA amendment, approved in June 2019, M1W currently has the primary rights and ability to use the new source waters from the Blanco Drain and the Reclamation Ditch. MCWRA has the right to use the agricultural wash water until the conditions precedent are met. To be conservative, the scenarios presented in the M1W Source Water Technical Memorandum assume City of Salinas agricultural wash water would not be used for the Proposed Modifications, which would be the case if Section 16.16 is in operation or effect. In addition, M1W's analyses also assume that agricultural wash water would

be the last priority of use for the approved PWM/GWR Project; therefore, it is only used for the approved PWM/GWR Project in certain winter months of the drought scenario after the conditions precedent are met.

Even if, for the sake of argument, the ARWRA amendment could be construed as allowing the use of the new source waters from the Blanco Drain and the Reclamation Ditch for the approved PWM/GWR Project only and not for the Proposed Modifications, this interpretation would not change the total amount of source waters available. Rather, the relative allotments would change among the different sources: a greater amount of source water from the Blanco Drain and the Reclamation Ditch would be allocated to the approved PWM/GWR Project, leaving more of the remaining sources for the Proposed Modifications. To be conservative, the M1W Source Water Technical Memorandum does not assume use of the new source waters from the Blanco Drain and the Reclamation Ditch for the Proposed Modifications under any of the scenarios.

Other new source waters that are listed in the ARWRA include the following:

- City of Salinas urban runoff/ stormwater. This water, which currently flows to the Salinas River, will be mixed with agricultural wash water, conveyed to, and treated and stored in the Salinas Industrial Waste Water Treatment Facility (IWTF) ponds, and then diverted to the RTP from the northwest corner of Pond 3 at the IWTF. The infrastructure to enable this diversion is currently under construction. M1W currently does not have the ability to divert this water to the RTP but will be able to do so upon completion of the Pond 3 pump station (currently under construction). All analyses of source water availability in the M1W Source Water Technical Memorandum conservatively do not assume use of City of Salinas urban runoff/ stormwater.
- Lake El Estero waters and Salinas Valley Reclamation Plant modifications. These facilities are listed in the ARWRA, but, to date, the infrastructure improvements needed to utilize new source waters and for SVRP to deliver more recycled water, respectively, have not been implemented; the analyses of source water availability in the M1W Source Water Technical Memorandum do not assume use of these sources.

Status of Water Rights for Source Waters

1. Municipal Wastewater

With regard to the first category of source water (municipal wastewater), M1W's water rights are secured. The ARWRA is now in effect to address and resolve competing rights of M1W, MCWD, and MCWRA to municipal wastewater. The March 1996 *Annexation Agreement and Groundwater Mitigation Framework for Marina Area Lands* and the ARWRA are the main agreements governing the water rights to municipal wastewater flows.

Composition of municipal wastewater flows: Relative contributions of municipal wastewater from M1W's geographic areas that enters the M1W headworks and is metered there include: 51% from the Salinas urban area, 3% from Moss Landing and Castroville, 46% from the Monterey Peninsula, Marina, and Fort Ord areas (Source: M1W Sewer System Management Plan, 2019). Addition of agricultural wash water in recent years increases the percentage of flows from the Salinas area by approximately 2-4% on an annual basis. These municipal wastewater flows are primarily from areas within M1W's 2001 Service Area (as defined by LAFCO maps), but also include some municipal/domestic flows from outside M1W's 2001 Service Area, including the following key geographic locations:

- North County High School and the southeast portion of Castroville;
- Boronda and areas north and southeast of the City of Salinas;

- Starting in 2019, the Farmworker Housing site on Hitchcock Road, southwest of Salinas;
- Monterey Regional Waste Management District landfill, and
- M1W Regional Treatment Plant on-site wastewater.

These flows have not previously been individually metered; therefore, M1W estimated monthly volumes throughout the year based on the available pumping operations data, use assumptions, and other metered flow data (flow balance calculations). In its analysis of monthly volumes, M1W estimated the quantity of municipal wastewater that would be needed under current conditions to satisfy MCWD's contractual rights, as well as the quantity that would be provided to the SVRP/CSIP. The M1W Source Water Technical Memorandum assumes that the following annual quantities of source water are available to M1W for recycling/ reuse at the AWPF (which do not include North County High School and the southeast portion of Castroville nor areas north and southeast of the City of Salinas which would be additive to the volumes below):

Table 3-A: Municipal Wastewater Available to M1W for Recycling at the AWPF

Source Water	Annual AF of Water Available to M1W
Secondary Effluent to Ocean Outfall (Net of water for MCWD and SVRP/CSIP)	5,811
SVRP Backwash*	515
Boronda*	95
Farmworker Housing*	18
Recycle Sump #1*	41
Recycle Sump #2*	104
Approved PWM/GWR Base Project AWPF Backwashes including MCWD's portion*	290
PWM Expansion AWPF Backwashes (available only for Proposed Modifications)*	152
M1W's ARWRA Summer Water	650
*Those source waters marked with * vary year to year but consistently flow regardless of rainfall; they are available 1/2 for M1W and 1/2 for MCWRA. The values shown in column 2, above, for these sources are the M1W portion of these municipal source waters.	

See the M1W Source Water Technical Memorandum at **Appendix M** of this Final SEIR for more information.

2. *Reclamation Ditch and Blanco Drain Diversions*

With regard to the second category of source waters (surface water diversions from the Reclamation Ditch and Blanco Drain), the State Water Board has issued two permits authorizing the MCWRA to divert and use water from the Blanco Drain and the Reclamation Ditch. Under the ARWRA as amended, M1W currently has the rights to use the new source waters from the Blanco Drain and Reclamation Ditch. According to the ARWRA Section XVI, 16.16, in the event that conditions precedent in Section 16.15 are not satisfied, M1W would retain the right to divert and use these waters.

The analysis performed by M1W of the two scenarios under which the conditions precedent *are not* met assumed that the MCWRA has not provided funding for the new source waters described in the ARWRA and thus, MCWRA would have rights to use City of Salinas Agricultural Wash Water and M1W would retain rights to use the Reclamation Ditch and Blanco Drain surface waters. The analysis performed by M1W of the two scenarios under which the conditions precedent *are* met assumed that the MCWRA has provided funding for the new source waters described in the ARWRA and thus, M1W would retain primary rights to use up to 4,320 AFY of the Reclamation Ditch and Blanco Drain surface waters, and agricultural wash water prior to MCWRA use of these new source waters. In the M1W Source Water Technical Memorandum, M1W staff assumed that these waters would be used to satisfy influent needs for the approved PWM/GWR Project and not for the Proposed Modifications. Table 3-B shows the volumes available for M1W to use at the AWPF as assumed in Appendix I, the Schaaf & Wheeler, source water analysis, of the Draft SEIR, and **Appendix M**, the Source Water Technical Memorandum.

Table 3-B: New Source Waters Available to M1W for Recycling at the AWPF

Source Water	Annual AF of Water Available to M1W	
	Normal or Wet Scenarios	Dry or Drought Scenarios
Reclamation Ditch (see Note 1)	1,014 (Appendix I) 808 (Appendix M)	802 (Appendix I) 392 (Appendix M)
Blanco Drain	2,620	2,003

(1) The Schaaf & Wheeler analysis in Appendix I used the 2015 EIR baseline data (2009-2013 average) to provide an accurate comparison of the Proposed Modifications' environmental impacts compared to the approved PWM/GWR Project of the 2015 PWM/GWR Project Final EIR and those of the modifications evaluated in Addendum No. 3 (M1W/DD&A, 2017). The Source Water Technical Memorandum analysis used 2015 estimated flows for dry/drought scenarios and 2018 for normal/wet scenarios.

The analysis in the M1W Source Water Technical Memorandum is based upon current (more recent data) volumes of surface water that are available for diversion at the Reclamation Ditch and Blanco Drain. It is possible that there could be future increased irrigation efficiency, changes to crops to reduce water demand, or a fallowing of land; however, those possible future changes in conditions would only reduce the availability of agricultural irrigation water by a small percentage, as evidenced by the continued consistent demands per acre of farmland for irrigation water within the CSIP area, despite the conversion of large portions of this same area to drip irrigation over the last five years. Such changes would thus reduce associated surface water flows by only a small percentage. In addition, a large portion of the Blanco Drain watershed is also within the CSIP area, so reduction in irrigation water demand within that area due to increased efficiency in irrigation may also reduce Salinas Valley Reclamation Plant water demand, freeing up more municipal wastewater so that it can be recycled at the AWPF. Finally, the Schaaf & Wheeler analysis of Blanco Drain yield is conservative relative to return flows as the analysis assumes only a small fraction of irrigation water would percolate and be captured in tile drainage or daylight in the drain after percolating through soil. Due to semi-permeable aquitards in the CSIP area, percolation to the deeper aquifer is likely lower than estimated by Schaaf & Wheeler (meaning more flow than calculated, even in drought conditions). For these reasons, the quantities of surface water estimated by M1W to be available for diversion and reuse are considered to be reasonable under both current and future conditions and under varying hydrologic conditions.

3. Agricultural Wash Water

With regard to the third category of source waters (agricultural wash water), a contract is in place between M1W and the City of Salinas assigning rights for diversion and use of the agricultural wash water to M1W. Under the ARWRA, M1W has rights to use the new source waters from this source; however, that right is subject to conditions precedent. Under the scenario wherein the conditions precedent *are not* met, M1W did not assume any use of agricultural wash water in the M1W Source Water Technical Memorandum. Under the scenario wherein the conditions precedent *are* met, this new source water would only be used during the winter time of drought years for AWPF influent to meet approved PWM/GWR Project yields and conservatively was not assumed to be used for the Proposed Modifications in the M1W Source Water Technical Memorandum. (See **Appendix M** to this SEIR).

While use of agricultural wash water conservatively was not assumed in the scenarios under which the conditions precedent are not met in M1W's recent technical analysis, it remains reasonable to anticipate that such water may be available to M1W for recycling in the future. At this time, there is no plan for the use of agricultural wash water by any other entity. Nor are there plans for on-site recycling by the agricultural industry.

The quantification of agricultural wash water flows identified by the Draft SEIR is based upon reasonably available data. Two key sources of information regarding future projections of employment are the best representation of future wastewater flows from Salinas industrial dischargers:

- AMBAG's Regional Growth Forecast Technical Document (adopted June 13, 2018)
- Salinas' Economic Development Element Target Industry Analysis (prepared by Applied Development Economics, Inc., August 28, 2013)

Both documents project increased agricultural and industrial jobs into the future. If jobs in these industries are increasing, it follows that use of water will also increase. Innovative methods to process/wash/package produce and other agricultural products with no or significantly less water are not known and therefore, are not assumed.

4. City of Salinas Urban Runoff/Stormwater

Regarding a fourth possible category of source waters (urban runoff/stormwater), a contract would be needed between M1W and the City of Salinas for diversion of storm water, mixed with agricultural wash water, from the City's system. The State Water Board has approved the diversion of the agricultural wash water from the City of Salinas's percolation ponds. However, recovery of seasonally stored agricultural wash water, mixed with storm water, from the City's system requires a contract or contract amendment between M1W and the City of Salinas.

The SEIR quantifies the amount of water that might be available pursuant to such a contract; however, if the City of Salinas and M1W cannot reach agreement, this potential source of water would not be necessary. The M1W Source Water Technical Memorandum in **Appendix M** conservatively assumes this source would not be available under any of the scenarios.

Results of M1W Analyses of Source Water Availability

The M1W Source Water Technical Memorandum considered annual and seasonal amounts of each source water that would be available to M1W for recycling and treatment at the AWPF, including analyzing conditions both with and without the ARWRA conditions precedent completed. As discussed above, M1W conservatively assumed no use of agricultural wash water (except during the winters of drought years if conditions precedent are met and only for the approved PWM/GWR Project, not for the Proposed Modifications). M1W determined there would be more

than enough source waters available to provide the expanded quantity of purified recycled water anticipated by the Proposed Modifications even if the conditions precedent in the ARWRA are not met and even in dry or drought years.

For purposes of analysis, M1W prioritized the use of each type of source water to which M1W has rights to use (prioritization was based on the scenario), and then distributed these source waters to the approved PWM/GWR Project and to the Proposed Modifications on a month-by-month basis. The M1W Source Water Technical Memorandum shows that in typical normal and wet water years and in dry or drought type water years, the water sources over which M1W has a secure, current right would yield sufficient amounts of purified recycled water to supply both the approved PWM/GWR Project plus 2,250 acre-feet per year of additional CalAm yield with the Proposed Modifications. This is true with or without conditions precedent in Section 16.15 of the ARWRA having been complete. In fact, **Table 3-C**, below, summarizes the annual amounts of excess winter effluent and M1W Water Rights that would still remain available for M1W to use after implementation of the approved PWM/GWR Project and the Proposed Modifications for the various scenarios in the M1W Source Water Technical Memorandum (*See* **Appendix M** to this Final SEIR, Tables 6, 9, 12, and 15 for the volumes remaining seasonally and Attachments to the memorandum for the month-by-month volumes remaining).

In addition to M1W Water Rights that would remain available, MCWRA water rights will also remain available for their use for future projects. **Appendix R** summarizes the use of all available flows by the various recycled water users under the four scenarios with the approved PWM/GWR Project and with the Proposed Modifications implemented.

Table 3-C: M1W Source Water Rights Remaining After Approved PWM/GWR and Proposed Modifications (all values in AFY)

	Conditions Precedent in ARWRA §16.15 complete		**Conditions Precedent in ARWRA §16.15 not complete**	
	Normal or Wet Scenario (Table 6)	***Dry or Drought Scenario*** (Table 9)**	***Normal or Wet Scenario*** (Table 12)	***Dry or Drought Scenario*** (Table 15)
Excess Unused Secondary Effluent to Outfall	***1,331***	***2,023***	***1, 221***	***2,023***
M1W Source Waters				
SVRP Backwash	226	108	82	73
Boronda	63	34	31	24
Farmworker Housing	12	7	4	4
Recycle Sump #1	23	13	13	13
Recycle Sump #2	48	26	24	26
Approved PWM/GWR Project AWPF Backwash	142	70	68	70

Table 3-C: M1W Source Water Rights Remaining After Approved PWM/GWR and Proposed Modifications (all values in AFY)

	Conditions Precedent in ARWRA §16.15 complete		Conditions Precedent in ARWRA §16.15 not complete	
	Normal or Wet Scenario (Table 6)	***Dry or Drought Scenario*** (Table 9)**	***Normal or Wet Scenario*** (Table 12)	***Dry or Drought Scenario*** (Table 15)
Proposed Modifications' AWPF Backwash	129	65	72	65
Reclamation Ditch	253	205	299	215
Blanco Drain	750	1,530	799	750
M1W ARWRA 4.01 1 (d)	149	0	0	0
Total Unused Source Waters *(excl. Excess Unused Secondary Effluent to Ocean, above)*	**1,797**	**2,059**	**1,393**	**1,240**
Total Unused Source Waters *(incl. Excess Unused Secondary Effluent to Ocean, above)*	**3,128**	**4,082**	**2,614**	**3,263**

** Salinas Ag Wash Water and storm water that drains to the Salinas River, if available to M1W for diversion, would increase water remaining available for M1W to recycle by approximately 2,700 to 3,400 AFY.*

*** The reason that this table shows more source water rights available in the dry or drought year scenario, is the availability of the approved PWM/GWR Project's drought reserve. During a drought, this drought reserve could be drawn down, reducing the need to provide additional advanced treated water from the AWPF to the Seaside Groundwater Basin by 1,000 AFY in the summer months and reducing AWPF influent needs by 1,644 AFY (including backwash flows).*

The M1W Source Water Technical Memorandum supports the following conclusions:

1. There is plenty of source water available to recycle/ treat and deliver pursuant to the Proposed Modifications, regardless whether the ARWRA's conditions precedent that affect rights to new source water are met. The analysis in the Draft SEIR assumed the conditions precedent would be met. Because some comments stated the position that the conditions precedent would not be met in the foreseeable future, M1W staff prepared an additional analysis (**Appendix M** to this Final SEIR) that assumes MCWRA would not complete the conditions precedent for the new source water projects in Section 1 in the ARWRA and therefore, M1W would retain rights to waters in the Reclamation Ditch and Blanco Drain and would not have rights to the agricultural wash water for the AWPF. The analysis shows that the wastewater flows available for M1W to use at the AWPF are substantial. Even if the Water Resources Agency takes its full rights to municipal wastewater within the 2001 service area, and the rights given via contract under the ARWRA, M1W would still have sufficient water rights to produce the amount of advanced treated water anticipated for the Proposed Modifications.

2. Further, if, for the sake of argument, the signatory agencies decide to eliminate the ARWRA, Water Code 1210 and the 1996 Agreement with MCWD would apply. In this case, M1W would be able to use its municipal wastewater rights for the approved PWM/GWR Project and the

Proposed Modifications, and MCWRA would hold rights to Reclamation Ditch and Blanco Drain surface waters. M1W would retain its rights to agricultural wash water for the approved PWM/GWR Project. The increased quantities of municipal wastewater and agricultural wash water that would be available to M1W under such a scenario would offset the loss of Reclamation Ditch and Blanco Drain surface waters. Thus, regardless of the framework followed, there would be sufficient source waters for the Proposed Modifications and for other expanded or new recycled water projects in the future.

Effects of PWM/GWR Project on CSIP Yields

Under existing conditions, the Salinas Valley Reclamation Plant produces tertiary-treated, disinfected recycled water for agricultural irrigation within the Castroville Seawater Intrusion Project service area. Currently, the only sources of supply for the existing Salinas Valley Reclamation Plant are municipal wastewater from within the M1W 2001 service area, less rights to those waters retained by M1W and given to MCWD, and small amounts of urban dry weather runoff from the City of Pacific Grove. Municipal wastewater flows have declined in the past decade due to aggressive water conservation efforts by the M1W member entities; however, in the last three years wastewater flows have remained more consistent with total influent of 17 to 18 MGD (19,400 AFY). At present, the Salinas Valley Reclamation Plant produces approximately 12,070 AFY of treated irrigation water based on a 5-year average 2015 through 2019.

The approved PWM/GWR Project was designed to provide two sets of benefits: purified recycled water for recharge of a groundwater basin that serves as drinking water supply; and tertiary-treated recycled water to augment the existing CSIP crop irrigation supply. The certified Final EIR for the approved PWM/GWR Project quantified the amount of water that was anticipated to be produced for each of these purposes:

> *Replenishment of the Seaside Groundwater Basin:* The project would enable California American Water Company (CalAm) to reduce its diversions from the Carmel River system by up to 3,500 acre-feet per year (AFY) by injecting the same amount of highly-treated water into the Seaside Basin. This purified recycled water would be produced from a new advanced water treatment facility that would be constructed at the Regional Treatment Plant. This new facility would treat some of the new blend of source waters described above. The "product water" from the advanced treatment plant would be conveyed to and injected into the Seaside Basin via a new pipeline and new well facilities. The purified recycled water would then mix with the existing groundwater and be stored for future urban use by CalAm, thus enabling a reduction in Carmel River system diversions by the same amount.
>
> *Additional recycled water for agricultural irrigation in northern Salinas Valley:* By increasing the amount and type of source waters entering the existing wastewater collection system, additional recycled water can be provided for use in the Castroville Seawater Intrusion Project's agricultural irrigation system. The certified Final EIR anticipated that during normal and wet years approximately 4,500 to 4,750 AFY of additional recycled water supply could be created for irrigation purposes. During drought years, as much as 5,900 AFY could be created for crop irrigation by utilizing a drought reserve (described below) and if certain modifications to the water recycling facility and CSIP distribution system were made to optimize and enhance the delivery of recycled water to growers.

The approved PWM/GWR Project also included a drought reserve component to support use of the new supply for crop irrigation during dry years. The project was designed to provide for an additional 200 acre-feet per year of purified recycled water that would be injected in the Seaside Basin in wet and normal years for up to five consecutive years. This would result in a "banked" drought reserve totaling up to 1,000 acre-feet. During dry years, the approved PWM/GWR Project

could provide less than 3,500 acre-feet of water to the Seaside Basin; however, CalAm would be able to extract the banked water to make up the difference to its supplies, such that its extractions and deliveries would not fall below 3,500 AFY. The source waters that are not sent to the advanced treatment facility during dry years would be sent to the Salinas Valley Reclamation Plant to increase crop irrigation supplies for the Castroville Seawater Intrusion Project.

After M1W certified the PWM/GWR Final EIR, the following events resulted in changes to the estimated benefits (in terms of increased yield of recycled water) for the CSIP system:

1. The parties to the Amended and Restated Water Recycling Agreement recalculated the estimated benefits to the CSIP based on more conservative assumptions than were used in the Final EIR. Rather than assuming an increase of 4,500 to 4,750 AFY of recycled water during normal years (as had been assumed in the Final EIR) the ARWRA parties assumed an increase 4,381 AFY of recycled water would be available for CSIP.[3]

2. In 2017, MCWD elected to use its rights, plus some of M1W rights given by agreement to M1W, to municipal wastewater for urban irrigation (approved with PWM/GWR Project changes in October 2017). This resulted in a reduction in estimated benefits to the CSIP by approximately 490 AFY in normal years and by approximately 580 AFY in drought years (if the existing SVRP and CSIP system constraints are eliminated).

3. Settlement Agreements signed in 2017 with the National Marine Fisheries Service and with California Department of Fish and Wildlife to resolve the MCWRA and State Water Board protest for the Blanco Drain and Reclamation Ditch diversion water rights permits reduced the estimated benefits for to the CSIP by approximately 720 AFY in normal years and approximately 2,280 AFY in drought years.

The following table provides the changes to the estimates of total CSIP benefits that have occurred to date. The table also identifies the additional reduction in CSIP benefits after implementation of the Proposed Modifications based on the most recent analysis by Schaaf & Wheeler in Appendix I of the Draft SEIR:

Table 3-D:
Estimated PWM Project Supply to CSIP after Previous and Proposed M1W Board Actions

	Normal Year	Drought Year
PWM/GWR Project Final EIR (2015) *without CSIP and SVRP system constraints*	5,460 AFY	5,728 AFY
PWM/GWR Project Final EIR (2015) *with conservative assumptions of CSIP and SVRP system constraints*	Up to 4,500 to 4,700 AFY	

[3] This assumption was the basis for the proportional cost contributions assumed in the ARWRA in section 4.02(1) of 49.7% for M1W and 50.3% for MCWRA; however, the ARWRA provides for adjustments to this proportional cost assumption based on changes to the relative yields. Specifically, the ARWRA section 4.02(1) states: "Said percentages shall be adjusted to reflect actual flows, with such adjustments mutually agreed upon in writing following one year of operation of the Pure Water Monterey Project, and for each year thereafter."

Table 3-D:
Estimated PWM Project Supply to CSIP after Previous and Proposed M1W Board Actions

	Normal Year	Drought Year
Assumed CSIP yield in Amended and Restated Water Recycling Agreement section 4.02(1)	4,381 AFY	
PWM/GWR Project EIR Addendum No. 3 (2017) *with MCWD RUWAP Phase 1 & without CSIP.and SVRP system constraints*	4,970 AFY	5,150 AFY
Settlement Agreement with NMFS & CDFW for Blanco Drain & Reclamation Ditch Diversion Water Rights Permits (2018)	4,250 AFY	2,870 AFY
PWM/GWR Project with Proposed Modifications	3,600 AFY	2,858 AFY
Note: These numbers assume: (1) wastewater and surface water flows per Schaaf & Wheeler (October 2015, October 2017 and November 2019); (2) MCWRA participates in funding capital, operation, maintenance/repair, and replacement, costs of new source water facilities; (3) SVRP modifications are completed, and (4) drought-reserve is available.		

The Proposed Modifications would not change the quantity of wastewater that MCWRA has a right to recycle at the Salinas Valley Reclamation Plant for delivery to the CSIP service area. If the Proposed Modifications are approved and implemented, M1W would use more of the wastewater sources that it has a right to recycle at the AWPF per the ARWRA section 4.01 1(d), instead of at the SVRP as has been done in the past, and therefore, some of this wastewater would not be available to be recycled for the benefit of CSIP.[4] The Proposed Modifications would change the estimate of the potential future benefit that the CSIP would receive under the approved PWM/GWR Project, because M1W would choose to use more of its rights for the Proposed Modifications than it would otherwise use.

Based on the assumptions in the Draft SEIR Appendix I, the reduction in future CSIP benefits between the amount of the future benefit assumed in the ARWRA and the amount that would be available with the Expanded PWM Project would be 4,381 AFY minus 3,600 AFY in Normal and Wet Years (or 781 AFY) and the reduction from the future benefit calculated after the Settlement Agreement for the Blanco Drain and Reclamation Ditch Water Rights would be 4,250 AFY minus 3,600 AFY (or 650 AFY).[5] Because these calculated future yields depend upon a number of variables (including of critical importance, demand in the CSIP system and operation of the Salinas River Diversion facility), these yields and the ability of CSIP to use the additional new source waters will vary greatly from year to year. In addition, the ability of the drought reserve to deliver additional water to the CSIP system depends on the amount previously "banked" in the Seaside Groundwater Basin that enables reduction in use of new source waters for the AWPF influent needs.

[4] Rather than M1W using its rights to municipal wastewater in section 4.01(1)(d) of the ARWRA, M1W could use more of the new source waters (Blanco Drain, Reclamation Ditch, and Agricultural Wash Water) for meeting influent needs for the existing or approved PWM/GWR Project. In either case, there are enough volumes of source waters to supply all existing and reasonably foreseeable future recycled water demands, in addition to the demands to meet the yields of the Proposed Modifications, as shown in **Appendix M**.

[5] See also **Appendix M** for the M1W Source Water Technical Memorandum for an analysis of excess wastewater remaining to be used in the future after the Proposed Modifications are implemented.

In sum, the Proposed Modifications would reduce the future beneficial increase in recycled water that would be available for the CSIP. The Proposed Modifications would not decrease the current amount of water that is recycled at the Salinas Valley Reclamation Plant nor would it affect the amount of water CSIP uses from the Salinas River Diversion Facility or from the CSIP Supplemental Wells. And, with the Proposed Modifications, the PWM/GWR Project would still be capable of providing a future increase in tertiary treated recycled water for the CSIP. Because the amount of water provided to the CSIP from the Salinas Valley Reclamation Plant and the Salinas River Diversion Facility would not decrease compared to current conditions, the Proposed Modifications would not result in a depletion of groundwater levels compared to current conditions.

It bears noting that future benefits to the CSIP will also depend on whether and when the conditions precedent in the ARWRA are satisfied and additional funding is secured to fully implement the new source water components of the approved PWM/GWR Project. M1W is currently able to provide increased recycled water to the CSIP area if MCWRA were to provide funding for its use of the new source waters. However, MCWRA staff has indicated that they cannot provide the requisite funding to M1W until the conditions precedent in AWRA section 16.15 are complete, and they acknowledge those conditions will not be satisfied for another one to two years or longer. This delay is not caused by or related to the Proposed Modifications. In addition, the Draft SEIR discloses that the modifications to the Salinas Valley Reclamation Plant that were included in the approved PWM/GWR Project have not been funded to date. Without those modifications, increased recycled water through the use of additional new source waters still could be delivered to the CSIP but the future benefits to the CSIP would be further reduced from the amounts assumed above. As with funding for the new source waters, any delay in funding for the modifications to the Salinas Valley Reclamation Plant is not caused by the Proposed Modifications.[6]

The ARWRA was established to provide for joint funding of the new source waters and the Salinas Valley Reclamation Plant modifications by M1W and MCWRA. M1W has funded the construction of the Blanco Drain and Reclamation Ditch diversions. M1W has committed considerable resources and has managed the construction, permitting, and testing of diversions of City of Salinas Agricultural Wash Water. In addition, M1W is managing the implementation of the Salinas Storm Water Projects, including the construction and operation of a pump station and forcemain to bring treated Salinas Agricultural Wash Water, mixed with storm water, to the RTP as an additional new source water. M1W still seeks to have a financial partner to implement the remainder of the new source water projects (including Lake El Estero diversion and the Salinas Valley Reclamation Plant modifications) through a commitment from MCWRA to fund the infrastructure and treatment costs.

Additional analyses of source water availability and use have been prepared and included in this Final SEIR (see **Appendix M**) to show that M1W would hold legal rights to use secondary treated

[6] The Draft SEIR also discloses that the brine mixing structure that was included in the approved PWM/GWR Project has not been funded to date. The brine mixing strucure is not related to water for the Salinas Valley Reclamation Plant/ CSIP. A mixing and sampling structure was constructed as part of the AWPF construction to allow accurate measurement of the outfall effluent. As a result, the brine mixing structure is no longer needed for the approved PWM/GWR Project. The brine mixing structure only would be needed for the MPWSP desalination project to obtain state and federal discharge permits for seawater desalination brine via the M1W ocean outfall. It has no bearing on recycled water production volumes and the Proposed Modifications would not affect the future construction or funding of the brine mixing structure as part of the MPWSP.

effluent in adequate volumes to meet the yield objectives of the Proposed Modifications even if one of the following future scenarios occurs:

- conditions precedent in section 16.15 of the ARWRA are not completed and section 16.16 becomes effective, or
- new source waters in Blanco Drain and Reclamation Ditch are not available for use by M1W for the Proposed Modifications.

In addition, based on the M1W Source Water Technical Memorandum, **Appendix R** summarizes the use of all available flows by the various recycled water users under the four scenarios with the approved PWM/GWR Project and with the Proposed Modifications implemented.

With the approved PWM/GWR Project, the quantity of source waters entering the existing wastewater collection system is expected to be increased such that additional tertiary recycled water still can be provided for use in the CSIP's agricultural irrigation system. The PWM/GWR Project Final EIR estimated that additional source waters could provide 4,500 to 4,750 AFY of additional recycled water supply, in normal and wet years, for CSIP irrigation purposes. In order to produce enough recycled water to meet the yield objectives of the Proposed Modifications, additional wastewater, to which M1W has the rights to use would be diverted to the Advanced Water Purification Facility. Nevertheless, the CSIP would continue to receive substantial benefits from the approved PWM/GWR Project.

3.4 MASTER RESPONSE #4: ADEQUACY OF SCOPE AND RANGE OF CUMULATIVE IMPACTS DISCLOSED

This Master Response addresses (in whole or partially) the following comments: VV-1; VV-3; VV-10; VV-108; VV-109; VV-117; VV-129; VV-130; VV-139.

Several commenters indicated that the Draft SEIR should have analyzed the cumulative impacts of operating both the Proposed Modifications and CalAm's Monterey Peninsula Water Supply Project ("MPWSP"). A cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other past, present, or reasonably foreseeable future projects causing related impacts. Cumulative impacts must be addressed if the incremental effect of a project, when combined with the effects of other projects, is cumulatively considerable. Here, no cumulative impacts associated with operation of the Proposed Modifications and CalAm's MPWSP desalination project would occur.

The Draft SEIR followed the direction of the M1W Board of Directors and analyzed impacts assuming that the Proposed Modifications would only occur if the CalAm MPWSP desalination project is delayed beyond the December 31, 2021 deadline in the Cease and Desist Order. Thus, the Draft SEIR assumed that the Proposed Modifications would only deliver expanded quantities of water to the Seaside Groundwater Basin for CalAm if the MPWSP desalination project is not doing so. The previously approved PWM/GWR Project (without Proposed Modifications) would operate regardless of the status of the MPWSP desalination project, but the expanded treatment and delivery associated with the Proposed Modifications would not operate simultaneously with the MPWSP desalination project.

Advanced treatment and delivery of the expanded quantities of water associated with operation of the Proposed Modifications would not occur if CalAm's MPWSP desalination project operates to deliver the same amount or more water to the CalAm Monterey District service area. This means that:

- The Proposed Modifications could proceed even if they would not be completed by December 31, 2020 -- but only if the Proposed Modifications are needed to meet the Monterey District demands while still enabling CalAm to achieve the Cease and Desist Order [WR2016-0016] applicable effective diversion limits and the Seaside adjudication requirements until such time as CalAm can complete its desalination project. The Proposed Modifications to the PWM/GWR Project are intended to serve as a back-up mechanism to deliver additional water in the event that the CalAm MPWSP desalination project is delayed such that the MPWSP desalination project would not be able to provide water as quickly as the Proposed Modifications to the PWM/GWR Project. Both the Proposed Modifications and the CalAm MPWSP desalination project may be constructed and capable of operating. The approved PWM/GWR Project would operate at the same time as the MPWSP desalination project and would be supplemental to the desalination project. By contrast, the expanded amount of water associated with the Proposed Modifications would not be treated and delivered at the same time as the MPWSP desalination project is operating to treat and deliver the same amount of water.
- If the Proposed Modifications are constructed and commence operations, M1W will cease treating and delivering the expanded quantities of water associated with operation of the Proposed Modifications once CalAm's MPWSP desalination project operates to deliver the same or more water to the CalAm Monterey District service area. There are currently no foreseeable replacement uses for the expanded quantities of advanced treated water associated with the Proposed Modifications. If, in the future, a new use of this advanced

treated water is identified, then additional CEQA analysis would be performed in connection with any proposal to sell or convey the expanded quantities of advanced water associated with operation of the Proposed Modifications.

If implemented, the CalAm MPWSP desalination project is not expected to operate concurrently with treatment and delivery of the expanded quantities of water associated with the Proposed Modifications, as commenters suggest. The MPWSP desalination project could, however, operate concurrently with the previously approved PWM/GWR Project. Accordingly, the previously certified PWM/GWR Final EIR thoroughly analyzed the MPWSP (including the desalination project) as a cumulative project, assuming both that construction of MPWSP components may overlap with construction of PWM/GWR components, and that operation of the MPWSP would be concurrent with operation of the PWM/GWR Project (*see* PWM/GWR EIR § 4.1.3.2; Table 4.1-2; Appendix Y). For each resource area, the EIR described cumulative impacts as the combined impacts of the PWM/GWR Project plus MPWSP (*see, e.g.* §§ 4.2.4.5, 4.3.4.5, 4.4.4.5).

The Proposed Modifications Draft SEIR also evaluates cumulative impacts associated with construction of MPWSP components that may overlap with construction of components of the Proposed Modifications. The SEIR relies on the comprehensive list of cumulative projects contained in the PWM/GWR Project Final EIR, which included the MPWSP desalination project. Draft SEIR Table 4.1-2 describes overlapping construction schedules for listed projects and the PWM/GWR Project. As explained in the SEIR, to the extent construction of a listed project might occur at the same time as construction of any of the Project Modifications, similar overlapping impacts would be expected as were disclosed for the PWM/GWR Project. There is a possibility construction of the Proposed Modifications could overlap with the shifted schedule for the MPWSP desalination project, in which case any overlapping construction-related impacts would be as described in the PWM/GWR Final EIR.

With respect to operation of the Proposed Modifications, however, the SEIR explains throughout the analysis that the expanded treatment and delivery components of the Proposed Modifications would not operate concurrently with the CalAm MPWSP desalination project. (See, e.g. Draft SEIR §§ 4.10.4.5; 4.11.4.5.) Treatment and delivery of the expanded quantities of water associated with operation of the Proposed Modifications would cease if and when the MPWSP desalination project operates to deliver this water. It should also be noted that the two extraction wells proposed as part of the Proposed Modifications (EW-3 and EW-4) are also a component of the MPWSP (studied in the MPWSP EIR/EIS as wells ASR-5 and ASR-6); therefore, while those components of the Proposed Modifications could be operated as part of the MPWSP, the impacts of operating EW-3 and EW-4 are already included in the analysis of the MPWSP and are not additive.

3.5 MASTER RESPONSE #5: ADEQUACY OF SCOPE AND RANGE OF ALTERNATIVES

This Master Response addresses (in whole or partially) the following comments: VV-1; VV-3; VV-4; VV-11; VV-110; VV-111; VV-112; VV-113; VV-124; VV-125; VV-126; VV-145.

A commenter asks that the Draft SEIR analyze CalAm's MPWSP desalination project as an alternative to the Proposed Modifications. CEQA Guidelines § 15126.6 requires an EIR to describe a range of reasonable alternatives to the project which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. An EIR is not required to consider alternatives which are infeasible. Here, the MPWSP desalination project would not avoid or substantially lessen any of the significant effects of the Proposed Modifications, nor is it a feasible alternative to the Proposed Modifications. Therefore, the MPWSP desalination project does not meet CEQA's criteria for an alternative to the Proposed Modifications.

The Draft SEIR explains that the Proposed Modifications would move forward only if it is not feasible to timely construct and implement the desalination project. In describing the Proposed Modifications as a "back-up to the CalAm MPWSP," the Project Description quotes the M1W Board of Directors approval to proceed with the Proposed Modifications as "only as a back-up plan for, and not as an alternative to, CalAm's MPWSP desalination project…" and "only to have a ready-to-go alternative plan in place in the event that the CalAm desalination project is delayed beyond the Cease and Desist Order deadline of December 31, [2021][7]." (Draft SEIR at 2-1, fn. 1.) The Project Description goes on to explain that "[t]he Proposed Modification would be implemented if the MPWSP encounters obstacles that prevent its timely, feasible implementation." (Draft SEIR at 2-3.)

The Proposed Modifications would move forward only if the Proposed Modifications are needed to meet the Monterey District demands while still enabling CalAm to achieve the Cease and Desist Order [WR2016-0016] applicable effective diversion limits and the Seaside adjudication requirements until such time as CalAm can complete its desalination project. The Proposed Modifications to the PWM/GWR Project are intended to serve as a back-up mechanism to deliver additional water in the event that the CalAm MPWSP desalination project is delayed such that the desalination project would not be able to provide water as quickly as the Proposed Modifications. M1W will cease treating and delivering the expanded quantities of water associated with operation of the Proposed Modifications once CalAm's MPWSP desalination project operates to deliver the same or more water to the CalAm Monterey District area.

The CalAm MPWSP desalination project is not a feasible alternative to the Proposed Modifications because the Modifications will only go forward in the event the desalination project cannot be timely constructed and implemented. The infeasibility of the MPWSP to deliver water on the same or similar schedule as the Proposed Modifications is thus a condition precedent to the Proposed Modifications.

[7] The Draft SEIR quotes the Board of Directors' approval as identifying a December 31, 2019 deadline of the Cease and Desist Order. This is an inadvertent error in the Board of Directors' approval which was transposed into the Draft SEIR at p. 2-1, footnote 1. As correctly referenced elsewhere in the Board of Directors' approval and throughout the Draft SEIR, the Cease and Desist Order deadline is December 31, 2021.

Nor would the CalAm MPWSP desalination project achieve most of the objectives of the Proposed Modifications. CEQA requires that an alternative must be capable of achieving most of the project objectives. The Proposed Modifications have different objectives than the MPWSP desalination project. For example, one of the key objectives of the Proposed Modification is to further reduce secondary effluent discharges to the Bay. The MPWSP desalination project would not achieve this project objective.

Nor would the MPWSP avoid or substantially reduce the new significant impacts resulting from the Proposed Modifications, as CEQA requires for an alternative. The analysis in Draft SEIR Chapter 4 determined that the Proposed Modifications would result in new significant impacts related to noise that, even with implementation of mitigation measures would remain significant and unavoidable. Specifically, the construction of CalAm Extraction Wells EW-3 and EW-4 would require 24-hour construction activities for up to seven days during well construction, with nighttime noise that exceeds applicable sleep interference thresholds. The Draft SEIR examines an alternative that would eliminate these wells to avoid this new significant impact (*see* Draft SEIR § 6.2.2.) These same wells are a component of the MPWSP (studied in the MPWSP EIR/EIS as wells ASR-5 and ASR-6) and would similarly require nighttime construction if the MPWSP were implemented. Thus, the MPWSP would not substantially reduce or eliminate this new significant impact of the Proposed Modifications. (*See* CalAm MPWSP Final EIR/EIS § 4.12.6.1.)

The Proposed Modifications could also induce growth, which the Draft SEIR identifies as their only other possible significant and unavoidable impact. This growth-inducing impact would not be avoided or substantially reduced by the CalAm MPWSP, considering that the MPWSP Final EIR/EIS also identifies significant and unavoidable growth-inducing effects (*See* CalAm MPWSP Final EIR/EIS at p. 6-38 through 6-45.) The Draft SEIR explains that the Proposed Modifications could induce growth in a manner that is comparable to that identified in the MPWSP Final EIR/EIS (*see* Draft SEIR § 5.2.4).

Finally, as compared to the Proposed Modifications, the MPWSP (including the CalAm MPWSP desalination project) would entail additional significant and unavoidable impacts that would not occur with the Proposed Modifications. Significant and unavoidable impacts unique to the MPWSP include: construction criteria pollutant emissions, conflicts with implementation of the applicable air quality plan, and consistency with local plans protecting biological resources. The MPWSP would also entail numerous significant but mitigable impacts that will either be less than significant or not an impact with the Proposed Modifications. Table 3-D compares the impacts from the Proposed Modifications and the MPWSP.

Table 3-E: Comparison of Impacts Between the Proposed Modifications and the MPWSP

Impact Code / Section		Description of Impact	Significance of Impact	
Proposed Modifications Draft SEIR	MPWSP Final EIR/EIS		Proposed Modifications	MPWSP (Alternative 5)
Aesthetics				
AE-1	4.14.-1	Construction impacts on scenic views, scenic resources and visual quality of the surrounding areas.	LS	LS
AE-2	4.14-2	Temporary sources of substantial light or glare during construction.	S / LS	S / LS

Table 3-E: Comparison of Impacts Between the Proposed Modifications and the MPWSP

Impact Code / Section		Description of Impact	Significance of Impact	
Proposed Modifications Draft SEIR	MPWSP Final EIR/EIS		Proposed Modifications	MPWSP (Alternative 5)
AE-3	4.14-3	Degradation of visual quality of sites and surrounding areas.	S / LS	S / LS
AE-4	4.14-4	Permanent light and glare from operation.	S / LS	S / LS
Air Quality and Greenhouse Gas				
AQ-1	4.10-1	Construction Criteria Pollutant Emissions (PM_{10}).	S / LS	SU
AQ-2	4.10-3	Construction exposure of sensitive receptors to Pollutant Emissions.	LS	LS
AQ-3	N/A	Construction odors.	LS	--
AQ-4	4.11-1	Construction Greenhouse Gas Emissions.	LS	S / LS
AQ-5	4.10-5	Expose sensitive receptors to substantial pollutant concentrations or create objectionable odors affecting a substantial number of people during operations.	LS	LS
AQ-6	4.11-1	Operational greenhouse gas emissions.	LS	S / LS
N/A	4.10-2	Construction activities could conflict with implementation of the applicable air quality plan	--	SU
N/A	4.10-4	Long-term increase of criteria pollutant emissions that could contribute to a violation of an ambient air quality standard during operations.	--	LS
N/A	4.11-2	Conflict with the Executive Order B-30-15 Emissions Reduction Goal.	--	S / LS
N/A	4.11-3	Conflict with AB32 Climate Change Scoping Plan.	--	S / LS

Table 3-E: Comparison of Impacts Between the Proposed Modifications and the MPWSP

Impact Code / Section		Description of Impact	Significance of Impact	
Proposed Modifications Draft SEIR	MPWSP Final EIR/EIS		Proposed Modifications	MPWSP (Alternative 5)
Biological Resources: Fisheries				
BF-1	N/A	Habitat modification due to construction of diversion facilities.	NI	--
BF-2	N/A	Interference with fish migration due to project operations.	NI	--
BF-3	N/A	Reduction in fish habitat or fish populations due to project operations.	BI	--
Biological Resources: Terrestrial				
BT-1	4.6-1	Construction impacts to special-status species and habitat.	S / LS	S / LS
BT-2	4.6-2	Construction impacts to Riparian, Federally Protected Wetlands as defined by Section 404 of the Clean Water Act, or Other Sensitive Natural Community.	LS	S / LS
BT-3	4.6-10	Construction conflicts with local policies, ordinances, or approved Habitat Conservation Plan.	S / LS	S / LS
N/A	4.6-3	Result in substantial adverse effects on federal wetlands, federal other waters, and/or waters of the State during construction.	NI	S / LS
N/A	4.6-4	Be inconsistent with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance with local tree ordinances.	NI	SU
N/A	4.6-5	Introduce or spread an invasive non-native species during construction.	NI	S / LS
N/A	4.6-6	Result in substantial adverse effects on candidate, sensitive, or special-status species during project operations.	NI	S / LS

Table 3-E: Comparison of Impacts Between the Proposed Modifications and the MPWSP

Impact Code / Section		Description of Impact	Significance of Impact	
Proposed Modifications Draft SEIR	MPWSP Final EIR/EIS		Proposed Modifications	MPWSP (Alternative 5)
N/A	4.6-7	Result in substantial adverse effects on riparian habitat, critical habitat, or other sensitive natural communities during operations.	NI	S / LS
N/A	4.6-8	Result in substantial adverse effects on federal wetlands, federal other waters, and waters of the State during project operations.	NI	S / LS
N/A	4.6-9	Introduce or spread an invasive non-native species during project operations.	NI	S / LS
Cultural, Paleontological, and Tribal Resources				
CR-1	4.15-2, 4.15-4	Construction impacts on archaeological resources or unknown human remains.	S / LS	S / LS
CR-2	4.15-3	Construction impacts on unknown paleontological resources.	S / LS	LS
N/A	4.15-1	Cause a substantial adverse change in the significance of a historical resource as defined in state or federal regulation.	--	NI
Energy				
EN-1	4.18-1	Construction impacts due to temporary energy use.	S / LS	S / LS
EN-2	4.18-2	Operational impacts due to energy use.	LS	LS
N/A	4.18-3	Constrain local or regional energy supplies, require additional capacity, or affect peak and base period of electrical demand during operations.	--	LS
Geology, Soils, and Seismicity				
GS-1	4.2-1	Construction-related erosion or loss of topsoil.	LS	S / LS
GS-2	N/A	Construction-related soil collapse and soil constraints during pipeline trenching.	LS	--

Table 3-E: Comparison of Impacts Between the Proposed Modifications and the MPWSP

Impact Code / Section		Description of Impact	Significance of Impact	
Proposed Modifications Draft SEIR	MPWSP Final EIR/EIS		Proposed Modifications	MPWSP (Alternative 5)
N/A	4.2-2	Exposure of people or structure to substantial adverse effects related to fault rupture.	--	LS
GS-3	4.2-3	Exposure of people or structure to substantial adverse effects related to seismically-induced groundshaking.	LS	LS
GS-3	4.2-4	Exposure of people or structures to substantial adverse effects related to seismically-induced ground failure, including liquefaction, lateral spreading, or settlement.	LS	LS
GS-4	N/A	Hydro-collapse of soils from well injection.	LS	--
N/A	4.2-5	Exposure of people or structures to substantial adverse effects related to landslides or other slope failures.	--	LS
N/A	4.2-6	Exposure of people or structures to substantial adverse effects related to expansive soils.	--	LS
N/A	4.2-7	Exposure of structures to substantial adverse effects related to corrosive soils.	--	LS
N/A	4.2-8	Exposure of structures to substantial adverse effects related to land subsidence.	--	NI
N/A	4.2-9	Exposure of people or structures to substantial adverse effects related to alternative wastewater disposal systems.	--	LS
N/A	4.2-10	Accelerate and/or exacerbate natural rates of coastal erosion, scour, or dune retreat, resulting in damage to adjoining properties or a substantial change in the natural coastal environment.	--	S / LS
N/A	4.2-11	Degrades the physical structure of any geologic resources or alters and oceanographic process, such as sediment transport, that is measurably different from preexisting conditions.	--	NI

Table 3-E: Comparison of Impacts Between the Proposed Modifications and the MPWSP

Impact Code / Section		Description of Impact	Significance of Impact	
Proposed Modifications Draft SEIR	MPWSP Final EIR/EIS		Proposed Modifications	MPWSP (Alternative 5)
Hazards, Hazardous Materials, and Wildfire				
HH-1	4.7-1	Use and disposal of hazardous materials during construction.	LS	LS
HH-2	4.7-2	Accidental release of hazardous materials during construction.	LS	S / LS
HH-3	4.7-3	Construction of facilities on known hazardous materials site.	LS	LS
HH-4	4.7-4	Use of hazardous materials during construction within .25-miles of schools.	LS	LS
HH-5	4.7-5	Wildland fire hazard during construction.	LS	LS
HH-6	4.7-6	Use and disposal of hazardous materials during operation.	LS	LS
HH-7	4.7-3	Operation of facilities on known hazardous materials site.	LS	LS
Hydrology and Water Quality: Groundwater				
GW-1	4.4-1	Construction groundwater depletion, levels, and recharge.	LS	NI
GW-2	4.4-2	Construction groundwater quality.	LS	LS
GW-3	N/A	Operational groundwater depletion and levels: Salinas Valley Groundwater Basin.	BI	--
GW-4	N/A	Operational groundwater depletion and levels: Seaside Basin.	LS	--
N/A	4.4-3	Deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level during operations, so as to expose well screens and pumps.	--	S / LS

Table 3-E: Comparison of Impacts Between the Proposed Modifications and the MPWSP

Impact Code / Section		Description of Impact	Significance of Impact	
Proposed Modifications Draft SEIR	MPWSP Final EIR/EIS		Proposed Modifications	MPWSP (Alternative 5)
GW-5	N/A	Operational groundwater quality: Salinas Valley.	BI	--
GW-6	N/A	Operational groundwater quality: Seaside Basin.	BI / LS	--
N/A	4.4-4	Violate any water quality standards or otherwise degrade groundwater quality during operations.	--	S / LS
Hydrology and Water Quality: Surface Water				
HS-1	4.3-2 / 4.3-3	Construction impacts to surface water quality due to discharges.	LS	S / LS, LS
HS-2	4.3-1	Construction impacts to surface water quality due to earthmoving and drainage alterations.	LS	LS
HS-3	4.3-6	Operational impacts to surface water quality due to well maintenance discharges.	LS	LS
HS-4	N/A	Operational marine water quality due to ocean discharges.	LS	--
N/A	4.3-4	Violate water quality standards or waste discharge requirements or degrade water quality from increased salinity as a result of brine discharge from the operation of the MPWSP Desalination Plant.	--	S / LS
N/A	4.3-5	Violate water quality standards or waste discharge requirements or degrade water quality as a result of brine discharge form the operation of the MPWSP Desalination Plant.	--	S / LS
HS-5	4.3-7 / 4.3-8	Operational drainage pattern alterations.	LS	LS / LS
HS-6	N/A	Operational Carmel River flows.	BI	--
N/A	4.3-9	Impedence or redirection of flood flows due to the siting of project facilities in a 100-year flood hazard area.	--	LS

Table 3-E: Comparison of Impacts Between the Proposed Modifications and the MPWSP

Impact Code / Section		Description of Impact	Significance of Impact	
Proposed Modifications Draft SEIR	MPWSP Final EIR/EIS		Proposed Modifications	MPWSP (Alternative 5)
N/A	4.3-10	Exposure of people or structures to a significant risk of loss, injury, or death from flooding due to a tsunami.	--	LS
N/A	4.3-11	Exposure of people or structures to a significant risk of loss, injury, or death from flooding due to sea level rise.	--	LS
Land Use, Agricultural, and Forest Resources				
LU-1	4.8-1	Operational consistency with plans, policies, and regulations.	S / LS	LS
N/A	4.8-2	Disrupt or preclude public access to or along the coast during construction.	--	S / LS
N/A	4.16-1	Result in changes in the environment that, due to their location or nature, could temporarily disrupt agricultural activities or result in the permanent conversion of farmland to non-agricultural use.	--	S / LS
N/A	4.16-2	Convert prime farmland, unique farmland, or farmland of statewide importance to non-agricultural use.	--	LS
N/A	4.16-3	Conflict with zoning for agricultural uses or with Williamson Act contract.	--	LS
Noise and Vibration				
NV-1	4.12-1, 4.12-2, 4.12-4	Construction noise.	SU	SU, S / LS
NV-2	4.12-5	Operational noise.	S / LS	S / LS
N/A	4.12-3	Exposure of people to or generation of excessive groundborne vibration during construction.	--	S / LS
Public Services, Utilities, and Recreation				
PS-1	4.13-1	Construction public services demand.	LS	S / LS
PS-2	4.13-2	Construction landfill capacity.	LS	S / LS

Table 3-E: Comparison of Impacts Between the Proposed Modifications and the MPWSP

Impact Code / Section		Description of Impact	Significance of Impact	
Proposed Modifications Draft SEIR	MPWSP Final EIR/EIS		Proposed Modifications	MPWSP (Alternative 5)
PS-3	4.13-2	Construction solid waste policies and regulations.	S / LS	S / LS
PS-4	4.13-4	Public services demand during operation.	LS	S / LS
PS-5	4.13-3	Landfill capacity for operations.	LS	LS
N/A	4.13-5	Increased corrosion of the MRWPCA outfall and diffuser as a result of brine discharge associated with project operations.	--	S / LS
Traffic and Transportation				
TR-1	4.9-1, 4.9-3, 4.9-5	Construction traffic.	LS	S / LS
TR-2	4.9-2, 4.9-4	Construction traffic delays, safety and access limitations.	S / LS	S / LS
TR-3	4.9-6	Construction-related roadway deterioration.	S / LS	S / LS
TR-4	4.9-7	Construction parking interference.	S / LS	S / LS
TR-5	4.9-8	Operational traffic.	LS	LS
Population and Housing				
PH-1	4.19-1	Construction-related growth inducement.	LS	LS
PH-2	4.19-2	Operations-related growth inducement.	LS	LS
Socioeconomic and Environmental Justice				
N/A	4.20-1	Reductions in the rate of employment, total income, or business activity in Monterey County.	--	S / LS
N/A	4.20-2	Cumulative impacts related to Socioeconomics and/or Environmental Justice.	--	S / LS

Table 3-E: Comparison of Impacts Between the Proposed Modifications and the MPWSP

Impact Code / Section		Description of Impact	Significance of Impact	
Proposed Modifications Draft SEIR	MPWSP Final EIR/EIS		Proposed Modifications	MPWSP (Alternative 5)
"N/A" denotes impacts identified in the MPWSP Final EIS/EIS with no equivalent impact for Proposed Modifications, or vice versa.				
KEY TO ACRONYMS:				
BI: Beneficial Impact		NI: No Impact		
LS: Less than Significant		SU: Significant		
S / LS: Before Mitigation: Significant After Mitigation: Less than Significant		"+": Impact is greater than Proposed Project impact "—" : Impact is less than Proposed Project impact		
If neither "—" nor "+" is shown, the impact is the same as or similar to the Proposed Project impact				

3.6 MASTER RESPONSE #6: TIMING OF THE PROPOSED MODIFICATIONS

This Master Response addresses (in whole or partially) the following comments: H-8, I-3, I-5, VV-5, V-90, VV-103.

Several commenters have asked whether the Proposed Modifications can be completed by December 31, 2021, the date by which CalAm must achieve the Cease and Desist Order's [WR2016-0016] applicable effective diversion limits. Based on currently available information, it appears unlikely that either the MPWSP desalination project or the Proposed Modifications could be fully operational by December 31, 2021. The Proposed Modifications continue to be capable of achieving the project objective: "To be Capable of commencing operation, or being substantially complete, by the end of 2021 or as necessary to meet CalAm's replacement water needs."

In 2018, M1W's "Progress Report on the Pure Water Monterey Expansion" (Monterey One Water, May 10, 2018), indicated that the Proposed Modifications could be completed by the beginning of 2021, well before the CDO deadline. That schedule was based on assumptions that the project would be constructed using a design/bid/build procurement procedure and an approved Water Purchase Agreement with CalAm would be completed by September 30, 2019. At that time, the MPWSP Newsletter 2018 for Quarter #2 (Q2) (July 31, 2018) showed MPWSP start of construction as "Q2/Q3 2019" with Commissioning & Start-up of the MPWSP in "Q2/Q3 2021." Thus, schedules published for both projects showed potential completion ahead of the CDO deadline.

At the June 2019 Public Scoping Meeting, M1W indicated that the Proposed Modifications could be substantially complete, producing the full allocation of water by mid-December 2021, just before the CDO deadline. That schedule was based on a design/bid/build procurement procedure for the AWPF improvements, CEQA certification in February 2020, and a Water Purchase Agreement with CalAm in early 2020. For reference, at that time, the MPWSP Newsletter 2019 Q2 (July 31, 2019) showed a MPWSP start of construction as "Q3/Q4 2019" with Commissioning & Start-up in "Q3/Q4 2021." Again, schedules published for both projects showed potential completion ahead of the CDO deadline.

The last published MPWSP Newsletter (Q4 2019, February 3, 2020) states that "Due to the delay in the Coastal Commission decision and construction schedule, California American Water officials have stated that Monterey Water Supply Project will be unable to meet the 2021 deadline." It no longer appears that the MPWSP desalination project will be capable of producing replacement water supplies in time for CalAm to meet the CDO deadline.

M1W's Board has been clear that the Proposed Modifications would be a back-up project to the MPWSP and that the Proposed Modifications would not be pursued without a Water Purchase Agreement with CalAm. Without knowing when or whether a Water Purchase Agreement will be negotiated, it is currently not possible to estimate when the Proposed Modifications would be completed. M1W staff recently acknowledged that the Proposed Modifications could not be completed by December 31, 2021 (*see* Comment I-3, fn. 1, included in Chapter 4 to this Final SEIR). The rationale for the delay compared to the Progress Report is that M1W does not have a Water Purchase Agreement (or an amended Water Purchase Agreement) that is a precursor to having a source of funding to complete design and permitting activities, and to secure financing for construction.

The full implementation of the Proposed Modifications is estimated to require between 24 and 27 months after a Water Purchase Agreement or amended Water Purchase Agreement is signed.

It is important to note that the objective for the Proposed Modifications is: "To be Capable of commencing operation, or being substantially complete, by the end of 2021 **or as necessary to meet CalAm's replacement water needs**." The Proposed Modifications would proceed only if needed to meet the Monterey District demands while still enabling CalAm to achieve the CDO's [WR2016-0016] applicable effective diversion limits and the Seaside adjudication requirements without the MPWSP desalination project built or operating. The Proposed Modifications are intended to serve as a backup mechanism to deliver additional water in the event that the MPWSP desalination project is delayed such that the MPWSP desalination project would not be able to provide water as quickly as the Proposed Modifications. Even if the Proposed Modifications commenced operations after December 31, 2021, as long as the Proposed Modifications would be implemented sooner than CalAm's desalination project, the Proposed Modifications would be beneficial in terms of meeting CalAm's replacement water needs and the Proposed Modifications would achieve this Project Objective.

CHAPTER 4 COMMENTS AND RESPONSES ON THE DRAFT SEIR

4.1 INTRODUCTION

This section provides responses to the comments received on the Draft Supplemental Environmental Impact Report (Draft SEIR). A list of the comment documents received during the public review period is presented in **Chapter 2**. A copy of each comment document is included in this section, followed by corresponding responses to individual comments.

4.2 COMMENTS AND RESPONSES TO COMMENTS

Each comment document on the Draft SEIR is included herein and assigned an alphabet identifier (i.e., A through DDD). Within each comment document, all individual comments are assigned numbers located in the right-hand margin of the Comment Document. Responses to each comment are provided immediately following each Comment Document.

Some responses reference a master response, in which case the reader is directed to **Chapter 3, Master Responses to Comments.** Where a comment states an agency position or opinion and does not comment on issues relevant to the environmental analysis presented in the Draft SEIR, the corresponding response reads: "No response is required." If the comment is directed at the Monterey One Water (M1W) Board regarding the decision on the project, the response reads: "The comment is referred to the decision makers for their consideration." Typically, these comments do not raise issues relevant to the environmental analysis. Where the response notes an addition or deletion to the text, tables, or figures in the Draft SEIR, the reader is directed to **Chapter 5, Changes to the Draft SEIR**.

Letter A

MONTEREY COUNTY

WATER RESOURCES AGENCY

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SALINAS, CA 93902
P: (831) 755-4860
F: (831) 424-7935

BRENT BUCHE
GENERAL MANAGER

STREET ADDRESS
1441 SCHILLING PLACE, NORTH BUILDING
SALINAS, CA 93901

December 6, 2019

Monterey One Water
Attn: Rachel Gaudoin
5 Harris Court, Bldg. D
Monterey, CA 93940

Email: purewatermontereyinfo@my1water.org

Dear Ms. Gaudoin:

The Monterey County Water Resources Agency (Agency) requests Monterey One Water extend the comment period on its **Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project** (Draft Supplemental EIR).

The Agency has a vested interest in the contents of the Draft Supplemental EIR and needs a substantial amount of time to evaluate the proposed modifications to the Ground Water Replenishment Project, especially as it pertains to the available water to increase the amount of purified recycled water. The current time period is insufficient for meaningful comment given the scope and size of material, and the importance of this Project. A-1

An extension until January 31, 2020 at 5:00 pm would allow for more adequate time for public review, analysis, and feedback.

Sincerely,

Brent Buche

Comment Document A: Monterey County Water Resources Agency (12/6/2019)

A-1 See Master Response #1: Comments on Public Review Period Extension

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Letter B

MONTEREY COUNTY

WATER RESOURCES AGENCY

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BRENT BUCHE
GENERAL MANAGER

STREET ADDRESS
1441 SCHILLING PLACE, NORTH BUILDING
SALINAS, CA 93901

December 18, 2019

Sent via US Mail and Email

Chairperson Ron Stefani
Monterey One Water
Board of Directors
5 Harris Court, Bldg. D
Monterey, CA 93940
Chavito@my1water.org

Re: Time Extension to the Comment Period for Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project

Dear Chairperson Stefani:

The Monterey County Water Resources Agency (MCWRA) has had a long collaborative relationship with Monterey One Water (M1W) (formerly Monterey Regional Water Pollution Control Agency). This collaboration began with the construction and operation of the Monterey County Water Recycling Projects (Castroville Seawater Intrusion Project (CSIP) and the Salinas Valley Reclamation Project (SVRP)) which have supplied and delivered irrigation water to growers in the Castroville area for over 20 years. The partnership continued with the construction of the Salinas River Diversion Facility (SRDF), which has been in operation since 2010. The capital costs as well as the operations and maintenance costs for all these projects are borne by the stakeholders of MCWRA. The commitment from M1W for the delivery of water to 12,000 acres of irrigated agriculture lands came with the funding and construction of these projects. B-1

Over the years MCWRA and M1W have entered into numerous agreements and amendments to identify each parties' roles and responsibilities. The latest version of those documents outlines the Pure Water Monterey (PWM) project as a collaboration of the two agencies with MCWRA holding the water rights for the Blanco Drain and Reclamation Ditch source water.

MCWRA is required to ensure that the commitments to and the assets of our stakeholders are retained. As MCWRA evaluates future water needs, there are necessary projects that will need to be completed. One such project includes expanding the existing CSIP boundaries that will increase the demand for recycled water and such a project has the potential to use all excess

water that is available. The Salinas Valley Basin Groundwater Sustainability Agency is very close to adopting the Groundwater Sustainability Plan for the 180/400-foot subbasin, and there are projects on its priority list intended to utilize recycled water for the improvement of the Salinas Valley Groundwater Basin.

MCWRA and M1W staff met multiple times prior to the release of the Draft Supplemental Environmental Impact Report (DSEIR) for the PWM Expansion Project to discuss the "New Water Sources". While those meetings were informative, MCWRA staff has not been able to verify the amount of new available water identified in the DSEIR in any substantive way and questions M1W's ownership of some of the sources. MCWRA believes that there are potential inaccuracies in the amount of water available as described in the DSEIR. Or worse yet, it is possible that M1W has no access to the water described. These issues need to be fully analyzed. Specifically, one fundamental disagreement is outlined in Section 2.6.1 of the DSEIR at page 2-12 entitled "Source Water under Proposed Modifications", which states that approximately 700 to 800 acre-feet/year (AFY) less of water would be available for agricultural irrigation with the expansion project. A second fundamental point of disagreement is described in Section 2.6.1.1 of the DSEIR at page 2-13 entitled "Amended and Restated Water Recycling Agreement" where M1W claims half of backwash flow water at around 2,200 AFY.

M1W has stated that this project is "just" a backup and will be put on the shelf and never built. In that light, MCWRA is puzzled by the pressure to keep the current deadline for comments of December 23, 2019. With the above discussed issues, there is simply not enough time for MCWRA to fully evaluate the claims made in the DSEIR to the extent necessary to fulfill our obligation to our stakeholders and to the ratepayers that built the Monterey County Water Recycling Projects. As such, MCWRA respectfully requests that the comment period be extended until January 31, 2020. Thank you for your consideration of this matter.

B-1 Cont.

B-2

B-3

B-4

Sincerely,

Brent Buche
General Manager

Comment Document B: Monterey County Water Resources Agency (12/18/2020)

B-1 The comments on partnership and collaboration are referred to decision-makers. This comment states: "The latest version of those documents outlines the Pure Water Monterey (PWM) Project as a collaboration of the two agencies with MCWRA holding the water rights for the Blanco Drain and Reclamation Ditch source water." M1W would like to clarify that the document referenced is the ARWRA and in that agreement as amended, M1W has the current right to use water diverted from the Blanco Drain and Reclamation Ditch. See response to comment H-4 regarding the Salinas Valley Groundwater Sustainability Plan for the 180/400-ft Subbasin and Master Response #3: Comments on Water Supply and Source Water Availability regarding amounts and availability of rights to the various source waters.

B-2 M1W possesses rights to use various source waters as described in California Water Code Section 1210, M1W's agreement with MCWD, the ARWRA, and the City/M1W Agreement (see Appendices B, C and I of the Draft SEIR). The reduction of yield for CSIP is not related to the M1W use of "new source waters" (as defined in the ARWRA) that would otherwise be used to augment CSIP yields. This reduction of yield for CSIP compared to the ARWRA-assumed CSIP yield of 4,381 AFY is due to the following factors:

- Blanco Drain and Reclamation Ditch water rights permitting conditions triggered by Settlement Agreements with California Department of Fish and Wildlife and the National Marine Fisheries Service, which were signed by the MCWRA in 2016;
- reductions in wastewater flows to the RTP compared to historic flows; and
- use of legal rights to municipal wastewater by MCWD for the RUWAP[1] Phase 1 irrigation demands (see Appendix B to the Draft SEIR).

If conditions precedent in Section 16.15 of the ARWRA are not completed and the new source waters are fully funded by M1W and its state and federal funding partners, M1W will retain rights to use Blanco Drain and Reclamation Ditch source waters for its recycled water customers as needed to meet demands. M1W may choose to use the new source waters to the extent needed and may limit that use to those entities from which it can recover treatment, operations and maintenance costs of the water diversions.

This information has now been included in the Final SEIR as shown in **Chapter 5, Changes to the Draft SEIR** (see changes to pages 2-11 and 2-12 and 4.18-13). See also Master Response #3: Comments on Water Supply and Source Water Availability. In addition, see **Appendix M** of this Final SEIR for a Technical Memorandum titled "Approved Pure Water Monterey Project and Proposed Modifications to Expand the PWM Project Source Water Operational Plan (April 2020)" ("M1W Source Water Technical Memorandum") that responds to concerns that the Proposed Modifications do not have adequate source water in all year types. The analysis in the M1W Source Water Technical Memorandum assumes that the MCWRA has not provided funding

[1] See Addendum No. 3 to the PWM/GWR Final EIR for a complete description of MCWD's RUWAP and the use of municipal wastewater rights for its urban irrigation demands.

for the new source waters described in the ARWRA and thus, MCWRA would have rights to use City of Salinas Agricultural Wash Water and M1W would retain rights to use the Reclamation Ditch and Blanco Drain surface waters.

B-3 The comment refers to Salinas Valley Reclamation Plant (SVRP) and Salinas River Diversion Facility (SRDF) backwash waters. This wastewater enters the M1W-owned RTP headworks when the two facilities are operating. These flows have been discharged into RTP the since the two projects began operating (1998 for SVRP and 2010 for SVRP) and they add quantifiable flows to member entity municipal wastewater and must be treated through the primary and secondary treatment processes. The treatment of these flows adds to the power (pumping), solids processing, and equipment maintenance requirements, including reduced longevity of the primary and secondary treatment equipment. One-half of this wastewater is considered assigned to MCWRA through the ARWRA §4.01(2). As an example, in 2018, a typical or average year type, the total annual volume of SVRP backwash water treated by M1W at the RTP was 1,928 AF, so the amount that would be available to each M1W and MCWRA is 964 AF per year (See Attachment 1, Appendix M of this Final SEIR for the distribution by month). In 2015, a very dry year, the total annual volume of SVRP backwash water was 1,709 AF, or approximately 855 AFY for each. Similarly, the approved PWM/GWR Project with Proposed Modifications would result in additional backwash flows that would also be sent to the RTP headworks. The total annual volume for the expanded AWPF would be 882 AF, or 441 AF for each M1W and MCWRA, less in a drought year when the approved (base) PWM/GWR Project will produce 1,000 AF less assuming the drought reserve is available for MCWRA to use.

B-4 Although the Proposed Modifications are considered to be a backup to the MPWSP desalination project, M1W does not agree that the Proposed Modifications "will be put on the shelf and never built." Many factors will be considered by the M1W Board in deciding whether and when to implement the Proposed Modifications. Currently, M1W does not have adequate funding for the next steps of project implementation (design, permitting, and construction); however, it is possible that the desalination project may not be implemented in time to meet the Cease and Desist Order milestone of December 31, 2021 for operation and that a source of funding may be available to M1W if this occurs. See also Master Response #1: Comments on Public Review Period Extension Requests. For more information on the conditions under which M1W would implement the Proposed Modifications, see Master Response #4: Comments on Adequacy of Scope and Range of Cumulative Impacts Disclosed and Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

Letter C

Monterey Bay Air Resources District
Serving Monterey, San Benito, and Santa Cruz Counties

24580 Silver Cloud Court
Monterey, CA 93940
PHONE: (831) 647-9411 • FAX: (831) 647-8501

December 27, 2019

Rachel Gaudoin
Monterey One Water
5 Harris Ct., Bldg. D
Monterey, CA 93940
Email: purewatermontereyinfo@my1water.org

SUBJECT: Draft Supplemental EIR for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project

Dear Ms. Gaudoin,

Thank you for providing the Monterey Bay Air Resources District (Air District) with the opportunity to comment on the Draft Supplemental EIR for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project. The Air District has reviewed the DSEIR and has the following comments:

Air Quality:

- Construction Dust:
  The Air District appreciates that the Construction Fugitive Dust Control Plan applies to all proposed modifications. C-1
- Construction Equipment:
  The Air District recommends using cleaner than required construction and tree remover equipment that conforms to ARB's Tier 3 or Tier 4 emission standards. We further recommend that whenever feasible, construction equipment use alternative fuels such as compressed natural gas (CNG), propane, electricity or biodiesel. This would have the added benefit of reducing diesel exhaust emissions. C-2

Permits Required:

- Portable Equipment:
  The Air District permits to operate, or statewide portable equipment registration, may be required for portable equipment such as engine generator sets and compressors. *Chapter 2: Drilling, Logging, and Installation*, mentions using a temporary diesel pump (up to 500-hp) at the various well sites. Please make sure all project equipment has applicable permits. Contact the Air District's Engineering Division at (831) 647-9411 for Portable Registration questions. C-3

Hazards and Hazardous Materials:

- The discussion in *Chapter 4* should include reference to the potential hazards from asbestos containing materials in non-building structures, such as subsurface utility lines that could be disturbed during construction activities. For example, there are likely subsurface transite (asbestos cement) pipes or asbestos coated gas lines that would need abatement prior to starting construction activities. From the District's experience at the former Fort Ord site, the as-built drawings for the subsurface utilities in the area have not been accurate. C-4
- The District recommends developing a Standard Operating Procedure to mitigate a situation where unknown subsurface asbestos containing utility lines are exposed during the course of construction work and need to be removed prior to continuing construction. C-5
- Air District notification is required at least 10 working days prior to renovation or demolition activities. If old underground piping or other asbestos containing construction materials are encountered during trenching activities, Rule 424 may also apply. Rule 424 can be found online at https://www.arb.ca.gov/drdb/mbu/cur.htm. Please contact Shawn Boyle, Air Quality Compliance Inspector, at (831) 718-8010, sboyle@mbard.org for more information regarding asbestos survey, notification requirements, and if subsurface transite pipe removal is going to be part of the project scope in the future. C-6

General:

- For consistency purposes, please ensure that all references to the Air District mention the Monterey Bay Air Resources District (MBARD). MBARD and MBUAPCD are both used throughout the DSEIR and its Appendices. C-7

I appreciate the opportunity to comment on the DSEIR for the proposed modifications to the Pure Water Monterey Groundwater Replenishment Project. Please let me know if you have any questions. I can be reached at (831) 718-8021 or hmuegge@mbard.org.

Best Regards,

Hanna Muegge

Hanna Muegge
Air Quality Planner

cc: Richard A. Stedman, Air Pollution Control Officer
David Frisbey, Planning & Air Monitoring Manager
Shawn Boyle, Air Quality Compliance Inspector III

Comment Document C: Monterey Bay Air Resources District

C-1 Comment agrees with Draft SEIR application of the Constructive Fugitive Dust Control Plan to all Proposed Modifications. No response required.

C-2 The analysis of Impact AQ-1 in the Draft SEIR shows that construction activity would not result in significant emissions of criteria pollutants, with the exception of particulate matter. The Construction Fugitive Dust Control Plan would reduce the significant emissions of particulate matter associated with project construction to a less-than-significant level. Accordingly, additional mitigation is not required by CEQA. Nevertheless, the Monterey Bay Air Resources District's requested measure will be added to the construction mitigation program to require, when feasible, use of construction and tree remover equipment that conforms to ARB's Tier 3 or Tier 4 standards, or use construction equipment that uses alternative fuels such as compressed natural gas (CNG), propane, electricity or biodiesel. See **Chapter 5, Changes to the Draft SEIR**; the recommendation for construction equipment has been added to Mitigation Measure AQ-1, Section 4.3.4.3 of the Draft SEIR on page 4.3-12.

C-3 M1W intends to apply for and secure all applicable permits prior to operating relevant portable equipment.

C-4 See **Chapter 5**, **Changes to the Draft SEIR**; page 4.9-16 of the Draft SEIR has been modified to add the recommended text changes to identify the potential for asbestos-containing materials to be present in existing subsurface utility lines and other structures at the former Fort Ord.

C-5 As requested by MBARD, M1W will require its contractors to prepare and submit a Standard Operating Procedure for addressing unknown subsurface asbestos-containing material if it is encountered during construction. See also response to comment C-4.

C-6 As required by existing regulation, M1W will contact the MBARD prior to renovation or demolition of subsurface pipelines. See also response to comment C-4.

C-7 All references to MBARD are correct in Section 4.3.

State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
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December 30, 2019

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Monterey, California 93940

**Subject: Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project (Project)
Draft Supplemental Environmental Impact Report (DSEIR)
State Clearinghouse No. 2013051094**

Dear Ms. Gaudoin:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability for a DSEIR from the Monterey One Water (formerly Monterey Regional Water Pollution Control Agency) for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through exercise of our own regulatory authority under the Fish and Game Code. D-1

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in the trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 *et seq.*) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 *et seq.*), related authorization as provided by the Fish and Game Code will be required. D-1 Cont.

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, eggs and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

PROJECT DESCRIPTION SUMMARY

Proponent: Monterey One Water.

Objectives: The primary objectives of the Project are to reduce discharges of secondary effluent to Monterey Bay and to replenish the Seaside Groundwater Basin with 2,250 acre-feet per year (AFY) of additional purified recycled water to replace the California American Water Company (CalAm) use of existing water sources.

Summary of Proposed Modifications to Project Description:

The Project would expand the Advanced Water Purification Facility peak capacity from 5 million gallons per day (mgd) to 7.6 mgd and increase recharge of the Seaside Groundwater Basin by an additional 2,250 AFY for a total average yield of 5,750 AFY. The Project is considered a "back-up plan" to the Monterey Peninsula Water Storage Project, which is CalAm's proposed 6.4 mgd desalination project. The Project would be implemented if the Monterey Peninsula Water Storage Project encounters obstacles that prevent its timely, feasible implementation. The Project includes the following new or modified Monterey One Water facilities: D-2

- **Modifications to the Advanced Water Purification Facility.** The Project includes expanding the facility capacity from 5.0 mgd to 7.6 mgd. This would require installation of additional treatment and pumping equipment, chemical storage, electrical hook-up, pipelines, and facility appurtenances within the 3.5-acre existing building area.

- **Modifications to Product Water Conveyance Pipeline.** These modifications include the construction of a new product water conveyance pipeline extending from the existing Blackhorse Reservoir to the Expanded Injection Well Area. In total, the proposed pipeline would be approximately one mile to the first injection well (Well Site #5) and an additional 2,000 feet from Well Site #5 to Well Site #7. An additional 2,000 feet of pipeline for backflushing wells will be located along the same general alignment as the product water pipeline between Well Site #5 and Well Site #7. The existing product water pump station at the Monterey One Water Regional Treatment Plant would need to be upgraded in order to convey water produced at the Advanced Water Purification Facility to the new portion of the Product Water Conveyance Pipeline.

- **Modifications to Injection Well Facilities.** Two injection well sites already approved in the original design would be relocated and an additional well site would be constructed. The Project also includes an increase in the amount of injection to achieve an additional 2,250 AFY of yield. Ninety percent of the Project yield would be injected into the confined Santa Margarita Aquifer of the Seaside Groundwater Basin using deep injection wells. Under the proposed modifications, 5,750 AFY on average would be injected into the Seaside Groundwater Basin, with a maximum of up to 5,950 AFY when the maximum drought reserve injections are occurring and less when the Castroville Seawater Intrusion Project area is using the drought reserve.

  The additional 2,250 AFY yield includes capture diversion of urban stormwater and dry weather runoff that is pumped into the Salinas River. This amount also includes two surface water diversion sites to provide new source waters for recycling. The first diversion is on the Reclamation Ditch, and a second diversion is on Blanco Drain, just upstream of its confluence with the Salinas River.

- **Modifications to CalAm Facilities – Extraction Wells.** The Project includes a total of four new extraction wells; two at the Seaside Middle School Property (Extraction Wells EW-1 and EW-2) and two near the Fitch Park Community (Extraction Wells EW-3 and EW-4), located southeast of the intersection of General Jim Moore Boulevard and Ardennes Circle. All extraction wells would be constructed with associated appurtenances, electrical works, pipeline tie-ins, access roads, and other site works including grading and fencing. Extracted raw water from all four new wells would be conveyed in new raw water pipelines within General Jim Moore Boulevard for treatment using new water treatment facilities, including disinfection, located at Extraction well EW-3. The treatment at EW-3 would include a building measuring approximately 24-feet by 30-feet and 15-feet tall with raw and treated water pipelines and appurtenances,

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Cont.

chemical delivery, storage, metering, feed/injection systems, electrical instrumentation and controls, and safety and climate control equipment.

- **Modifications to CalAm Facilities – Conveyance Facilities.** The Project would require construction of new segments of the CalAm Distribution System pipeline. It is anticipated that pipeline construction would occur using open trench construction methods.

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Location: Northwestern Monterey County.

Timeframe: By the end of 2021 or as necessary to meet CalAm's replacement water needs.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist Monterey One Water in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

Based on aerial imagery, species occurrence records, and the land cover types that intersect and compose the project alignment, the Project area is known to or has high potential to support numerous special-status species, including CESA-listed species (CDFW 2019, CNPS 2019, U.C. Davis 2018). Therefore, the Project has the potential to significantly impact these species. Specifically, CDFW is concerned about the potential of the Project to significantly impact the State and federally threatened California tiger salamander (*Ambystoma californiense*); the State threatened, federally endangered, and California Rare Plant Ranked (CRPR) 1B.2 Monterey gilia (*Gilia tenuiflora* ssp. *arenaria*); the State endangered and CRPR 1B.1 seaside bird's-beak (*Cordylanthus rigidus* ssp. *littoralis*); the federally threatened and State species of special concern California red-legged frog (*Rana draytonii*); the federally threatened and CRPR 1B.2 Monterey spineflower (*Chorizanthe pungens* var. *pungens*); the State species of special concern northern California legless lizard (*Anniella pulchra*), coast horned lizard (*Phrynosoma blainvillii*), western pond turtle (*Emys marmorata*), burrowing owl (*Athene cunicularia*), and American badger (*Taxidea taxus*); and numerous CRPR plant species including but not limited to the CRPR 1B.1 Eastwood's goldenbush (*Ericameria fasciculata*), Pajaro manzanita (*Arctostaphylos pajroensis*), pink Johnny-nip (*Castilleja ambigua* var. *insalutata*), Kellogg's horkelia (*Horkelia cuneata* var. *sericea*), Monterey pine (*Pinus radiata*); and the CRPR 1B.2 Hickman's onion (*Allium hickmanii*), Hooker's manzanita (*Arctostaphylos hookeri* ssp. *hookeri*), Jolon clarkia (*Clarkia jolonensis*), northern curly-leaved monardella (*Monardella sinuata* ssp. *nigrescens*), sand-loving wallflower (*Erysimum ammophilum*), sandmat manzanita (*Arctostaphylos*

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pumila), and Toro manzanita (*Artostaphylos montereyensis*). Many of these species occur in maritime chaparral, coastal scrub, coastal prairie, and grassland communities, which are present within and adjacent to the Project area. In addition, the Salinas River is adjacent to the Project area and is known to support breeding populations of California red-legged frogs (CDFW 2019). Other natural areas where the species mentioned above are known or likely to occur also lie adjacent to the Project area including the Fort Ord Natural Reserve, lands managed by the University of California Natural Reserve System, Fort Ord Dunes State Park, and the Frog Pond Wetland Preserve. D-3 Cont.

To evaluate impacts of the Project on these species, CDFW recommends that a qualified biologist conduct species-specific focused habitat assessments and, if suitable habitat is present, protocol-level surveys. CDFW further recommends that the results of these surveys be summarized and used to evaluate Project impacts and potential permitting needs in the Project's CEQA document. D-4

I. Environmental Setting and Related Impact

Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or United States Fish and Wildlife Service (USFWS)?

COMMENT 1: California tiger salamander (CTS)

Issue: The DSEIR does not evaluate impacts to CTS, and Table 4.5-1 (on page 4.5-1 of DSEIR) states that construction impacts from the proposed modifications will not affect special status species or their movement. CTS are known to occur in the vicinity of the Project area (CDFW 2019). Review of aerial imagery indicates the presence of several wetland features in the Project's vicinity that have the potential to support breeding CTS. In addition, the Project area or its immediate surroundings may support small mammal burrows, a requisite upland habitat feature for CTS.

Specific impact: Without appropriate avoidance and minimization measures for CTS, potentially significant impacts associated with the Project's construction include burrow collapse; inadvertent entrapment; reduced reproductive success; reduction in health and vigor of eggs, larvae, and/or young; and direct mortality of individuals. In addition, depending on Project design, the Project has the potential to result in the creation of barriers to CTS dispersal and other movements. D-5

Evidence impact would be significant: Up to 75% of historic CTS habitat has been lost to development (Shaffer et al. 2013). Loss, degradation, and fragmentation of habitat are among the primary threats to CTS (CDFW 2015,

USFWS 2017a). The Project area is within the range of CTS and is both composed of and bordered by suitable upland habitat. As a result, there is potential for CTS to occupy or colonize the Project area and for the Project to impact CTS.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact)

To evaluate potential impacts to CTS associated with the Project, CDFW recommends conducting the following evaluation of the Project area and including the following mitigation measures as conditions of Project approval in the CEQA document.

Recommended Mitigation Measure 1: CTS Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment well in advance of Project implementation, to determine if the Project area or its vicinity contains suitable habitat for CTS.

Recommended Mitigation Measure 2: Focused CTS Surveys

If the Project area does contain suitable habitat for CTS, CDFW recommends that a qualified biologist evaluate potential Project-related impacts to CTS prior to ground-disturbing activities using the USFWS (2003) "Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander". CDFW advises that the survey include a 100-foot buffer around the Project area in all areas of wetland and upland habitat that could support CTS.

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Recommended Mitigation Measure 3: CTS Avoidance

CDFW advises that avoidance for CTS include a minimum 50-foot no-disturbance buffer delineated around all small mammal burrows in suitable habitat and a minimum 250-foot no-disturbance buffer around potential breeding pools within the Project area and a 250-foot radius. CDFW also recommends avoiding any impacts that could alter the hydrology or result in sedimentation of breeding pools. If avoidance is not feasible, consultation with CDFW is warranted to determine if the Project can avoid take.

Recommended Mitigation Measure 4: CTS Take Authorization

If through surveys it is determined that CTS are occupying the Project area and take cannot be avoided, take authorization may be warranted prior to initiating ground-disturbing activities. Alternately, in the absence of protocol surveys, the

applicant may assume presence of CTS within the Project area and obtain an Incidental Take Permit from CDFW at any time. D-5 Cont.

COMMENT 2: Listed and other special status plant species

Issue: Monterey gilia, seaside bird's-beak, and the other CRPR plant species mentioned above are known to occur on and in the vicinity Project area (USFWS 2008, CDFW 2019). Monterey gilia, sandmat manzanita, Monterey ceanothus, Monterey spineflower, Eastwood's goldenbush, Kellogg's horkelia, and sand gilia were identified within the Project's biological survey area during focused surveys conducted by Denise Duffy and Associates during the spring and summer of 2019. Known occurrences of Monterey gilia and other CRPR plant species are summarized and mapped in Appendix G: Terrestrial Biological Resources Technical Memorandum prepared for the SDEIR in October 2019.

Lands designated for development that were transferred from the Department of the Army's former Fort Ord, as is the case with portions of the Project site, contain high quality habitat for the CESA-listed Monterey gilia (USFWS 2008). In addition, the sandy soils and maritime chaparral vegetation community present within portions of the Project area are suitable to support the CESA-listed seaside bird's-beak (CDFW 2019, CNPS 2019, UC Davis 2018). The Project area also supports coastal scrub and coastal prairie communities, which have the potential to support numerous CRPR-species including, but not limited to, Monterey spineflower, Eastwood's goldenbush, Pajaro manzanita, pink Johnny-nip, Kellogg's horkelia, Monterey pine, Hickman's onion, Hooker's manzanita, Jolon clarkia, northern curly-leaved monardella, sand-loving wallflower, sandmat manzanita, and Toro manzanita. Therefore, grading and development associated with the Project have the potential to impact special-status plant species. D-6

Mitigation Measure BT-1f states that a qualified biologist will be retained to conduct protocol-level botanical surveys for those areas where impacts are anticipated, but surveys were not conducted in 2019.

Specific impact: Without appropriate avoidance and minimization measures potential impacts to special-status plant species include inability to reproduce and direct mortality. Unauthorized take of species listed as threatened, endangered, or rare pursuant to CESA or the Native Plant Protection Act is a violation of Fish and Game Code.

Evidence impact would be significant: Monterey gilia, seaside bird's-beak, and many of the CRPR-listed plant species above are narrowly distributed endemic species with specific habitat requirements. These species are threatened with habitat loss and habitat fragmentation resulting from development, vehicle and foot

traffic, and non-native plant species (CNPS 2019), all of which may be unintended impacts of the Project. Therefore, impacts of the Project have the potential to significantly impact populations of the species mentioned above.

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure BT-1f states that a qualified biologist will be retained to conduct protocol-level botanical surveys for those areas where impacts are anticipated. Because biological surveys were not conducted prior to the circulation of the DSEIR, a complete analysis of biological impacts may not yet be available. To evaluate all potential impacts to special-status plants associated with the Project, CDFW recommends conducting an evaluation that includes the entire Project area and incorporating the following mitigation measures as conditions of Project approval in the Project's CEQA document.

Recommended Mitigation Measure 5: Special-Status Plant Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment well in advance of project implementation, to determine if the Project area or its vicinity contains suitable habitat for special-status plant species.

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Recommended Mitigation Measure 6: Focused Surveys

CDFW recommends that the entire Project area be surveyed for special-status plants by a qualified botanist following the "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (CDFW 2018). This protocol, which is intended to maximize detectability, includes identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period. In the absence of protocol-level surveys being performed, additional surveys may be necessary.

Recommended Mitigation Measure 7: Special-Status Plant Avoidance

CDFW recommends that special-status plant species be avoided whenever possible by delineation and observing a no-disturbance buffer of at least 50-feet from the outer edge of the plant population(s) or specific habitat type(s) required by special-status plant species. If established buffers cannot be maintained, then consultation with CDFW is warranted to determine appropriate minimization and mitigation measures for impacts to special-status plant species.

Recommended Mitigation Measure 8: Special-Status Plant Take Authorization

The State threatened sand gilia was identified during botanical surveys. Consultation with CDFW is warranted to determine if the Project can avoid take during implementation. If take cannot be avoided, take authorization would need to occur through issuance of an Incidental Take Permit by CDFW pursuant to Fish and Game Code section 2081(b). D-6 Cont.

COMMENT 3: California Red-Legged Frog (CRLF)

Issue: CRLF have been documented to occur within the Salinas River, which is immediately adjacent to a portion of the Project Area (CDFW 2019). CRLF primarily inhabit ponds but can also be found in other waterways including marshes, streams, and lagoons. The species will also breed in ephemeral waters (Thomson et al. 2016). As a result, the Project has the potential to impact CRLF.

Specific impact: Without appropriate avoidance and minimization measures for CRLF, potentially significant impacts associated with the Project's activities include burrow collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of eggs, larvae and/or young, and direct mortality of individuals.

Evidence impact is potentially significant: CRLF populations throughout the state have experienced ongoing and drastic declines and many have been extirpated (Thomson et al. 2016). Habitat loss from growth of cities and suburbs, invasion of nonnative plants, impoundments, water diversions, stream maintenance for flood control, degraded water quality, and introduced predators such as bullfrogs are the primary threats to CRLF (Thomson et al. 2016, USFWS 2017b). All of these impacts have the potential to result from the Project. Therefore, Project activities have the potential to significantly impact CRLF. D-7

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to CRLF associated with the Project, CDFW recommends conducting the following evaluation of the Project Area and including the following mitigation measures as conditions of Project approval in the Project's CEQA document.

Recommended Mitigation Measure 9: CRLF Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation, to determine if the Project Area or its immediate vicinity contain suitable habitat for CRLF.

Recommended Mitigation Measure 10: CRLF Surveys

If suitable habitat is present, CDFW recommends that a qualified wildlife biologist conduct surveys for CRLF within 48 hours prior to commencing work (i.e., two night surveys immediately prior to construction or as otherwise required by USFWS) in accordance with the USFWS *"Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog"* (USFWS 2005) to determine if CRLF are within or adjacent to the Project area.

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Recommended Mitigation Measure 11: CRLF Avoidance

If any CRLF are found during preconstruction surveys or at any time during construction, CDFW recommends that construction cease and that CDFW be contacted to discuss a relocation plan for CRLF with relocation conducted by a qualified biologist with any required approvals or permits to handle the species. CDFW recommends that initial ground-disturbing activities be timed to avoid the period when CRLF are most likely to be moving through upland areas (i.e., November 1 and March 31). When ground-disturbing activities must take place between November 1 and March 31, CDFW recommends a that qualified biologist monitor construction activity daily for CRLF.

COMMENT 4: Western Pond Turtle (WPT)

Issue: Portions of the Project area lie adjacent to the Salinas River, which may provide suitable aquatic habitat for WPT. Upland areas adjacent to the Salinas River may provide overwintering and nesting habitat for WPT, which are known to overwinter terrestrially, and which require loose soils and/or leaf litter (Thomson et al. 2016). In addition, several occurrence records of WPT are reported within the vicinity of the Project area (CDFW 2019). The presence of these requisite habitat features increases the likelihood of WPT occurrence and the potential for the Project to significantly impact the local WPT population.

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Specific impact: Without appropriate avoidance and minimization measures for WPT, potential significant impacts associated with development of the Project include nest abandonment, reduced reproductive success, reduced health and vigor of eggs and/or young, and direct mortality.

Evidence impact would be significant: WPT are capable of nesting up to 1,600 feet away from waterbodies. Nesting occurs in spring or early summer and hatching occurs in fall. Hatchlings can remain in the nest throughout the first winter, emerging the following spring. In addition, WPT are slow to reach sexual maturity, which naturally reduces the number of WPT that are recruited into a population each year (Thomson et al. 2016). Threats to WPT include land use changes and habitat

fragmentation associated with development, road mortality, as well as a decrease in suitable upland nesting/overwintering habitat (Thomson et al. 2016), all of which are potential impacts of the Project. As a result, Project development has the potential to significantly impact the local population of WPT.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate the potential for the Project to impact WPT, CDFW recommends conducting the following evaluation of the Project area and including the following measures as conditions of approval in the Project's CEQA document.

Recommended Mitigation Measure 12: Preconstruction Surveys

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CDFW recommends that a qualified wildlife biologist conduct focused surveys for WPT during the nesting season (i.e., March through August). If any nests are discovered, CDFW recommends that they remain undisturbed until the eggs have hatched, and the nestlings are capable of independent survival. In addition, CDFW recommends conducting pre-construction surveys for WPT immediately prior to initiation of construction activities.

Recommended Mitigation Measure 13: Avoidance

WPT detection during surveys warrants consultation with CDFW to discuss how to implement ground-disturbing activities and avoid take. However, CDFW recommends that if any WPT are discovered immediately prior to or during Project activities, they be allowed to move out of the Project area of their own volition. If this is not feasible, CDFW recommends that a qualified biologist capture and relocate the turtle(s) out of harm's way to the nearest suitable habitat immediately upstream or downstream from the Project Area.

COMMENT 5: Burrowing Owl (BUOW)

Issue: BUOW have been documented to occur in the vicinity of the Project area (CDFW 2019). Review of aerial imagery reveals that suitable habitat for BUOW is present both within and in the vicinity of the Project area. BUOW inhabit open, treeless areas containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover (Poulin et al. 2011). Habitat that is present both within and bordering portions of the Project area has the potential to support these habitat features. Therefore, there is potential for BUOW to occupy or colonize the Project area.

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Specific impact: Potentially significant direct impacts associated with Project construction include burrow collapse, inadvertent entrapment, nest abandonment,

reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.

Evidence impact is potentially significant: BUOW rely on burrow habitat year-round for their survival and reproduction. Habitat loss and degradation are considered the greatest threats to BUOW in California (Gervais et al. 2008). Therefore, ground-disturbing activities associated with the Project have the potential to significantly impact local BUOW populations. In addition, and as described in CDFW's "*Staff Report on Burrowing Owl Mitigation*" (CDFG 2012), excluding and/or evicting BUOW from their burrows is considered a potentially significant impact under CEQA.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact)

To evaluate potential impacts to BUOW associated with the Project, CDFW recommends conducting the following evaluation of the Project area and including the following mitigation measures as conditions of Project approval in the Project's CEQA document.

Recommended Mitigation Measure 14: BUOW Habitat Assessment

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Cont.

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation to determine if the Project area or its vicinity contains suitable habitat for BUOW.

Recommended Mitigation Measure 15: BUOW Surveys

If suitable habitat for BUOW is present, CDFW recommends assessing presence/absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium (1993) "*Burrowing Owl Survey Protocol and Mitigation Guidelines*" and the CDFW (2012) *Staff Report on Burrowing Owl Mitigation*". Specifically, these documents suggest three or more surveillance surveys conducted during daylight with each visit, occurring at least three weeks apart during the peak breeding season (April 15 to July 15) when BUOW are most detectable. In addition, CDFW advises that surveys include a 500-foot buffer around the Project area.

Recommended Mitigation Measure 16: BUOW Avoidance

Should a BUOW be detected, CDFW recommends that no-disturbance buffers, as outlined in the "*Staff Report on Burrowing Owl Mitigation*" (CDFG 2012), be implemented prior to and during any ground-disturbing activities. Specifically, this

document recommends that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

* meters (m)

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Recommended Mitigation Measure 17: BUOW Passive Relocation and Mitigation

If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that according to the Staff Report (CDFG 2012), exclusion is not a take avoidance, minimization, or mitigation method and is considered a potentially significant impact under CEQA. However, if necessary, CDFW recommends that burrow exclusion be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. CDFW recommends replacement of occupied burrows with artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1) as mitigation for the potentially significant impact of evicting BUOW. Since BUOW may attempt to colonize or re-colonize an area that will be impacted, CDFW recommends ongoing surveillance, at a rate that is sufficient to detect BUOW if they return.

II. Editorial Comments and/or Suggestions

Fisheries: Section 4.4-2, Summary of Biological Impacts to Fisheries, does not include an analysis of the potential impacts to fisheries, including steelhead from a potential reduction of 2,250 AFY of source water to the Salinas River. CDFW recommends including an analysis of impacts to anadromous and other fisheries, red-legged frog, and western pond turtle based on the Project-related diversion of source flows to the Salinas River.

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Climate Change: CDFW recommends an analysis of the long-term effects of climate change on sea level rise and subsequent saltwater intrusion. CDFW also recommends an analysis of the long-term effects of sea level rise on the ability of infrastructure to

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sustain such a change. CDFW recommends including in any such analysis the latest projections on the inland migration of sand and marsh locations due to climate change. D-11 Cont.

Nesting Birds: CDFW encourages that Project implementation occur during the bird non-nesting season. However, if ground-disturbing activities must occur during the breeding season (i.e., February through mid-September), the Project applicant is responsible for ensuring that implementation of the project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above.

To evaluate project-related impacts on nesting birds, CDFW recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground disturbance to maximize the probability that nests that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the work site to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends that a qualified biologist continuously monitor nests to detect behavioral changes resulting from the project. If behavioral changes occur, CDFW recommends that the work causing that change cease and CDFW be consulted for additional avoidance and minimization measures. D-12

If continuous monitoring of identified nests by a qualified wildlife biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography.. CDFW recommends that a qualified wildlife biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

Lake and Streambed Alteration: CDFW has regulatory authority over certain activities affecting rivers, streams and lakes, pursuant to Fish and Game Code sections 1600 *et seq.* If the Project would substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or deposit or dispose of debris, waste, sediment, or other material containing crumbled, flaked, or ground pavement where it may pass into any D-13

river, stream, or lake, then notification to CDFW is required. Portions of the Project area are immediately adjacent to the Salinas River, and Project work may require notification.

In addition to on-site, direct impacts, construction activities also have the potential to impact downstream waters. Streams function in the collection of water from rainfall, storage of various amounts of water and sediment, discharge of water as runoff and the transport of sediment, and they provide diverse sites and pathways in which chemical reactions take place and provide habitat for fish and wildlife species. Disruption of stream systems such as these can have significant physical, biological, and chemical impacts that can extend into the adjacent uplands adversely effecting not only the fish and wildlife species dependent on the stream itself, but also the flora and fauna dependent on the adjacent upland habitat for feeding, reproduction, and shelter.

D-13 Cont.

In addition, water diversions can impact flow regimes. Prolonged low flows can cause streams to become degraded and cause channels to become disconnected from floodplains (Poff et al. 1997). This process decreases available habitat for aquatic species including fish that utilize floodplains for nursery grounds. Prolonged low flows can also increase mortality for species that rely on specific flow regimes, such as endangered salmonids (Moyle 2002). Amphibians can be sensitive to decreased flows, and Kupferberg et al. (2012) reported that low flows were strongly correlated with early life stage mortality and decreased adult densities of California red-legged frogs. In addition, alterations to flows can affect the health of riparian vegetation, reducing habitat quality for wildlife species.

CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration Agreement (Agreement); therefore, if the CEQA document approved for the Project does not adequately describe the Project and its impacts, a subsequent CEQA analysis may be necessary for Agreement issuance. For additional information on notification requirements, please contact CDFW staff in the Central Region Lake and Streambed Alteration Program at (559) 243-4593.

Federally Listed Species: CDFW recommends consulting with the USFWS on potential impacts to federally listed species including, but not limited to, CTS, CRLF, sand gilia, and Monterey spineflower. Take under the federal Endangered Species Act (ESA) is more broadly defined than CESA; take under ESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS, in order to comply with ESA, is advised well in advance of any ground disturbing activities.

D-14

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database that may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNDDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be emailed to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals. D-15

FILING FEES

If it is determined that the Project will impact fish and/or wildlife, an assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089). D-16

CONCLUSION

CDFW appreciates the opportunity to comment on the Project to assist Monterey One Water in identifying and mitigating the Project's impacts on biological resources.

More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (https://www.wildlife.ca.gov/Conservation/Survey-Protocols). If you have questions regarding this letter or for further coordination please contact Annette Tenneboe, Senior Environmental Scientist Specialist, at the address provided on this letterhead, by telephone at (559) 243-4014 extension 231, or by email at Annette.Tenneboe@wildlife.ca.gov. D-17

Sincerely,

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Comment Document D: California Department of Fish and Wildlife

D-1 The comment provides information on the California Department of Fish and Wildlife's (CDFW) CEQA role as a Trustee and Responsible Agency and is not a comment on the environmental analysis in the Draft SEIR. The comment also discusses CDFW jurisdiction over actions with potential to result in disturbance or destruction of active nest sites or the unauthorized take of birds. CDFW's CEQA role and jurisdiction on active nests sites and unauthorized take of birds was discussed in the PWM/GWR Final EIR (Section 4.5.3.2). No response is necessary.

D-2 The CDFW accurately summarizes the Proposed Modifications features; no response is necessary.

D-3 CDFW lists the potential special-status species that are known or have a high potential to occur within the Proposed Modifications Area.[2] Each of the species identified in this comment is presented in detail with specific requests in the remainder of the comment letter or has been evaluated in the Draft SEIR. Specific responses have been prepared below to address CDFW's comments on each of these species.

D-4 CDFW recommends that species-focused habitat assessments and, if suitable habitat is present, protocol-level surveys be conducted for special-status species and that the results of these surveys be summarized and used to evaluate impacts and potential permitting needs in the Proposed Modifications' CEQA document. Each of the recommendations identified in this comment is presented in detail with specific requests in the remainder of the comment letter. Specific responses have been prepared below to each of these comments.

D-5 CDFW states that the Draft SEIR does not evaluate impacts to California tiger salamander (*Ambystoma californiense*, CTS), and that CTS are known to occur in the vicinity of the Proposed Modifications Area. CDFW states that "review of aerial imagery indicates the presence of several wetland features in the Project's vicinity that have the potential to support breeding CTS" and "the Project's area or its immediate surroundings may support small mammal burrows, a requisite upland habitat feature for CTS." CDFW states that without appropriate avoidance and minimization measures for CTS, potentially significant impacts associated with the Proposed Modifications' construction may occur. CDFW recommends mitigation measures including CTS habitat assessment, CTS focused surveys, CTS avoidance and CTS take authorization.

An attempt was made to contact CDFW to request more specific information regarding the statement that several wetland features were identified within the Project's vicinity. No additional information was provided by CDFW to determine the specific area CDFW refenced in this comment. The Draft SEIR relies upon the analysis of CTS and

[2] Throughout its comment letter, CDFW uses the term "Project Area" rather than "Proposed Modifications Area." These responses to comments conservatively assume that CDFW intended to refer to the Proposed Modifications Area.

CTS habitat conducted for the PWM/GWR Final EIR (page 4.5-27) and the additional analysis conducted for the Proposed Modifications that is summarized in the Terrestrial Biological Resources Technical Memorandum (Appendix G). The PWM/GWR Final EIR determined that none of the PWM/GWR Project components were located within two kilometers (km) of a known CTS breeding location. While areas of the PWM/GWR Project Area were located within two km of a potential CTS breeding location, that resource was graded and under active agricultural use prior to the start of the PWM/GWR Project and therefore, was determined not to be potential habitat.

One component of the Proposed Modifications is located in the vicinity of this resource: the modifications to the AWPF. The AWPF is within the larger urbanized treatment facilities within the M1W Regional Treatment Plant and the Proposed Modification (AWPF) is within an area of the RTP that has been an active construction site for over two years, with construction now completed. As stated in Section 2.6.2 (page 2-17) of the Draft SEIR, expansion of the AWPF will occur within the preexisting developed building envelope of the larger AWPF site and will not require additional grading/excavation. Also, see Site Photos – Advanced Water Purification Facility ono page 4.2-4 of the Draft SEIR. Therefore, the modifications to the AWPF would have no potential to affect CTS.

The Proposed Modifications Area (Draft SEIR, pages 2-3 through 2-5) was evaluated for potential CTS habitat in the Terrestrial Biological Resources Technical Memorandum (Appendix G). A qualified biologist conducted a review of the Proposed Modifications area, as a component of the Terrestrial Biological Resources Report (TBRR, Appendix G), to determine whether the areas in which construction would occur constituted potential CTS habitat. Potential CTS upland habitat consists of undeveloped oak woodland, oak savanna, and/or grassland vegetation types, within the known range of the species, occupied by mammal burrows, within two km of a potential CTS breeding location (USFWS 2017). Upon review of the existing species-focused data, the qualified biologist who prepared the Terrestrial Biological Resources Report determined that no ground disturbance within undeveloped land would occur within two km of any potential CTS breeding locations. Given that no ground disturbance is anticipated in potential CTS habitat, neither a focused survey, nor mitigation is required.

D-6 CDFW identifies special-status plant species with the potential to occur within the Proposed Modifications Area. The list of species includes; Monterey gilia *(Gilia tenuiflora* ssp. *arenaria);* seaside bird's-beak (*Cordylanthus rigidus* ssp. *littoralis);* Monterey spineflower *(Chorizanthe pungens* var. *pungens),* Eastwood's goldenbush *(Ericameria fasciculata),* Pajaro manzanita *(Arctostaphylos pajaroensis),* pink Johnny-nip *(Castilleja ambigua* var. *insalutata),* Kellogg's horkelia *(Horkelia cuneata* var. *sericea),* Monterey pine *(Pinus radiata),* Hickman's onion *(Allium hickmanii),* Hooker's manzanita *(Arctostaphylos hookeri* ssp. *hookeri),* JoIon clarkia (*Clarkia jolonensis),* northern curly-leaved monardella *(Monardella sinuata* ssp. *nigrescens),* sand-loving wallflower *(Erysimum ammophilum),* sandmat manzanita *(Arctostaphylos pumila), and Toro manzanita (Arctostaphylos montereyensis)*. CDFW states that unauthorized take of plant species listed as threatened, endangered, or rare pursuant to CESA or the Native Plant Protection Act is a violation of Fish and Game Code. CDFW recommends mitigation measures including special-status plant habitat assessment, focused surveys, special-status plant avoidance, and special-status plant take authorization.

The Proposed Modifications Area, not including the AWPF, is within the former Fort Ord and located within parcels designated by the Fort Ord Habitat Management Plan (HMP) (United States Army Corps of Engineers [USACOE], 1997) as “development.” Monterey spineflower, Eastwood's goldenbush, Pajaro manzanita, Hooker's manzanita, sand-loving wallflower, sandmat manzanita, and Toro manzanita are all HMP species. In the Fort Ord HMP, impacts to Fort Ord HMP species and habitats occurring within the designated development parcels were anticipated and mitigated through the establishment of habitat reserves and corridors, and the implementation of habitat management requirements within habitat reserve parcels on former Fort Ord. Parcels designated as “development” have no management restrictions. As described in Section 4.5.4.2 of the Draft SEIR (page 4.5-9) because the Proposed Modifications are: 1) only proposing development activities within designated development parcels; 2) required to comply with the habitat management restrictions identified in the Fort Ord HMP; and 3) would not result in any additional impacts to Fort Ord HMP species and habitats beyond those anticipated in the Fort Ord HMP, no additional mitigation measures for these Fort Ord HMP species or central maritime chaparral habitat are required. Impacts to these special-status species and central maritime chaparral are considered less-than-significant because these impacts already have been mitigated through the HMP.

The Draft SEIR determines that potential impacts to special-status plant species, which include those plants that have been formally listed or proposed for listing as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA), as well as, plants listed as rare under the California Native Plant Protection Act (CNPPA) or listed in California Native Plant Society (CNPS) CRPR 1A, 1B, 2A, and 2B, would be considered significant. For special status plant species identified by the comment that are not HMP species, Mitigation Measures are identified within the Draft SEIR to reduce any potential significant impacts to these species to less-than significant. Mitigation Measures BT-1a, BT-1c, BT-1e, and BT-1f include provisions to address special-status plant habitat assessment, focused surveys, special-status plant avoidance, and special-status plant take authorization. Mitigation Measure BT-1f includes provisions for potential impacts to state-listed Monterey gilia that include complying with the CESA and consulting with the CDFW to determine whether authorization for the incidental take of the species is required, prior to commencing construction. These Mitigation Measures reduce this potentially significant impact to less than significant.

A qualified biologist conducted a review of the Project area, prior to the final design of the Proposed Modifications, as a component of the TBRR, which included focused botanical surveys within the boundaries of the Focused Botanical Survey Area (FBSA, Appendix G, Figure 3). The FBSA was surveyed for botanical resources following the applicable guidelines outlined in: *Guidelines for Conducting and Reporting Botanical Inventories for Federally listed, Proposed and Candidate Plants* (USFWS, 2000), *Protocols for Surveying and Evaluating Impacts to Special-status Native Plant Populations and Natural Communities* (CDFW, 2018), and *CNPS Botanical Survey Guidelines* (CNPS, 2001). The results of the focused botanical surveys will be used to place facilities to avoid special-status-plant species where feasible, in accordance with the requirements of the Mitigation Measures. For areas that were not surveyed in 2019 due to adjustments to the project design, additional survey efforts will be required prior to construction in accordance with Mitigation Measure BT-1f.

In sum, a qualified biologist has completed an evaluation of potential habitat in advance of project implementation. Most of the Proposed Modifications Area has been surveyed for special-status plants, using the protocol recommended by CDFW. The remaining area will be surveyed using the protocol identified by CDFW prior to construction per Mitigation Measure BT-1f. The surveys will be used in the final siting of Proposed Modifications components, and special-status plant species will be avoided when it is feasible to do so. Finally, as required by Mitigation Measure BT-1f(2), if take of the sand gilia cannot be avoided, the project proponent would seek take authorization through issuance of an Incidental Take Permit by CDFW pursuant to Fish and Game Code section 2081(b).

D-7 CDFW states that California red-legged frog (*Rana draytonii*, CRLF) have been documented to occur within the Salinas River. CDFW states that impacts from the Project have the potential to significantly impact CRLF. CDFW recommends mitigation measures including CRLF habitat assessment, CRLF surveys, and CRLF avoidance.

Potential CRLF habitat can occur in areas within 1.6 km (1 mile) of a waterway that is occupied by CRLF. 1.6 km (1 mile) was selected as a proximity radius to a project site based on telemetry data collected by Bulger et al. (2003), rounded to the nearest whole mile. It is used to produce a site assessment for a protocol level survey and is therefore considered the accepted distance that should be used when evaluating the potential for CTS to occur. The PWM/GWR Final EIR determined that the only known occurrence of CRLF within 1.6 kilometers (1 mile) of the PWM/GWR Project Area was located on the Salinas River. The PWM/GWR Final EIR determined that this species is assumed present within the riparian habitat at the Salinas Treatment Facility and Blanco Drain Diversion sites; however, suitable upland or breeding habitat does not occur within the remaining PWM/GWR Project Area.

The Proposed Modifications Area associated with the AWPF, which is the component closest to the Salinas River, is located approximately 0.6 miles south of the Salinas River. The AWPF is the only component of the Proposed Modifications located within 1.6 kilometers (1 mile) of the Salinas River or Blanco Drain. As stated in Section 2.6.2 of the Draft SEIR, expansion of the AWPF will occur within the preexisting developed building envelope and will not require additional grading/excavation. Therefore, the expansion of the AWPF will have no effect on the CRLF.

The remaining portions of the Proposed Modifications Area are located on the former Fort Ord. The closest known occurrence of CRLF is approximately 4.4 kilometers (2.7 miles) south of the Proposed Modifications Area (CDFW 2019). A qualified biologist conducted a habitat evaluation for special-status species in connection with preparation of the Draft SEIR for the Proposed Modifications as a component of the TBRR. The results were detailed within the text of the TBRR or within Appendix D of the TBRR. Within the Proposed Modifications Area, no undeveloped land is located within 1.6 kilometers (1 mile) of a potential aquatic breeding resource (DD&A 2019). For the preceding reasons, CRLF are not expected to occur within the Proposed Modifications Area; therefore, no impacts to the species are anticipated as a result of the Proposed Modifications. Because suitable habitat is not present within the Proposed Modifications Area, a CRLF survey is not required and no mitigation measures are necessary.

D-8 CDFW states that portions of the Proposed Modifications Area lie adjacent to the Salinas River, which may provide suitable aquatic habitat for western pond turtle (*Emys marmorata*, WPT) and that WPT are capable of nesting up to 1,600 feet away from waterbodies. CDFW states that the Proposed Modifications have the potential to significantly affect WPT and CDFW recommends mitigation measures including habitat assessment, preconstruction surveys and avoidance.

The PWM/GWR Final EIR disclosed that WPT are known to occur within the Salinas River, and analyzed the potential for components of the approved PWM/GWR Project to affect WPT.

The Proposed Modifications Area is not adjacent to the Salinas River. The AWPF, the only component of the Proposed Modifications located near the Salinas River, is located approximately 3,500 feet south of the Salinas River. As stated in Section 2.6.2 of the Draft SEIR, expansion of the AWPF will occur within the preexisting developed building envelope and will not require additional grading/excavation. Therefore, expansion of the AWPF will not affect WPT.

The remaining portions of the Proposed Modifications Area are located on the former Fort Ord. A qualified biologist conducted a habitat evaluation for special-status species in connection with preparation of the Draft SEIR for the Proposed Modifications, as a component of the TBRR. The results were detailed within the text of the TBRR or within Appendix D of the TBRR. No undeveloped land within the Proposed Modifications Area is located within 1,600 feet of any potential WPT aquatic breeding resources. For the preceding reasons WPT are not expected to occur within the Proposed Modifications Area; therefore, no focused preconstruction surveys are warranted and no impacts to the species are anticipated as a result of the Proposed Modifications. No mitigation measures are necessary.

D-9 CDFW states that western burrowing owl (*Athene cunicularia,* BUOW) have been documented to occur in the vicinity of the Proposed Modifications Area (CDFW 2019), that suitable habitat for BUOW is present both within and in the vicinity of the Proposed Modifications Area and that ground-disturbing activities associated with the Proposed Modifications have the potential to significantly impact local BUOW populations. CDFW recommends mitigation measures including BUOW habitat assessment, preconstruction surveys, BUOW avoidance, and passive relocation.

The PWM/GWR Final EIR determined that suitable habitat for BUOW was present within the non-native grassland habitat along the Product Water Conveyance: RUWAP and Coastal alignment options. Additionally, the PWM/GWR Final EIR disclosed that this species may be present within the coastal dune scrub areas within the CalAm Distribution System: Monterey Pipeline, based on CNDDB observations within the area, despite the lack of typical habitat for the species. The PWM/GWR Final EIR discusses BUOW habitat and occurrences in Section 4.5.2.4 (page 4.5-25).

A qualified biologist conducted a habitat evaluation for special-status species in connection with preparation of the Draft SEIR for the Proposed Modifications as a component of the TBRR. The results were detailed within the text of the TBRR or within Appendix D of the TBRR. The Proposed Modifications Area does not include

any of the areas identified as potential BUOW habitat in the PWM/GWR Final EIR. Additionally, reconnaissance-level surveys of the Proposed Modifications Area were conducted for the TBRR. Habitat types identified in the TBRR were consistent with those documented previously in the PWM/GWR Final EIR. None of the habitat types identified in the TBRR/Draft SEIR were consistent with BUOW habitat. Due to lack of suitable habitat within the Proposed Modifications Area, impacts to this species are not anticipated as a result of the Proposed Modifications, a BUOW survey is not required, and no mitigation is required.

D-10 The Proposed Modifications would not divert more source water from the Salinas River compared to the quantity of diversions that was analyzed in the PWM/GWR Final EIR. The Proposed Modifications thus would not create a new significant impact or increase the severity of previously identified significant impacts of the approved PWM/GWR Project. The PWM/GWR Final EIR provided a full quantitative, technical analysis of impacts to fisheries including changes in flow quantities, relative flow quantities (by season), and water levels within the downstream water bodies by affected reach for each water body due to the combined maximum potential diversions from all proposed points of diversion associated with the approved PWM/GWR Project (2015). Specifically, the PWM/GWR Final EIR concluded operational impacts of diverting all source waters in the Salinas Valley would result in less-than-significant impacts on the riparian, wetland and fisheries habitats of the Salinas River. The PWM/GWR Project (and the Proposed Modifications) would reduce the volume of water pumped from Salinas Valley groundwater aquifers. See also Master Response #3: Comments on Water Supply and Source Water Availability.

D-11 See Response VV-100 and Master Response #3: Comments on Water Supply and Source Water Availability.

D-12 CDFW encourages that implementation of the Proposed Modifications occur during the bird non-nesting season and, if that is not possible, recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground disturbance within a sufficient area around the work site to identify nests and determine their status, including any areas potentially subject to nest destruction as well as areas subject to noise, vibration and movement of workers or equipment. If nests are identified, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral baseline, and then continuously monitor nests during construction to detect behavioral changes resulting from the project. If continuous monitoring is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors, with the caveat that variance of these non-disturbance buffers may occur when there is a compelling biological or ecological reason to do so, and CDFW recommends that a qualified wildlife biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

The Draft SEIR includes Mitigation Measure BT-1k, which requires that a qualified biologist conduct pre-construction surveys for suitable nesting habitat within the Proposed Modifications Area and within a suitable buffer area from the Proposed Modifications Area, prior to the start of construction activities at each project component site. Under that mitigation measure, pre-construction surveys are required

no more than 14 days prior to the start of construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August).

To incorporate CDFW's recommendations, Mitigation Measure BT-1k has been modified to require that construction surveys occur no more than 10 days prior to the start of ground disturbance. As recommended by CDFW, the mitigation measure has been expanded to require a baseline survey and continuous monitoring of active nests of non-listed bird species within 300 feet of the construction boundary and active nests of raptors within 500 feet of the construction boundary, or if such monitoring is not feasible, a no-disturbance buffer shall be established within 250 feet of active nests of non-listed bird species and 500 feet of active nests of raptors, with the potential for variances from these no-disturbance zones when there is a compelling biological or ecological reason to do so. Application of Mitigation Measure BT-1k will reduce any potential significant impacts to nesting birds to less-than-significant. See **Chapter 5, Changes to the Draft SEIR** for changes to Mitigation Measure BT-1k, Section 4.5.4.3 of the Draft SEIR on page 4.5-21.

D-13 CDFW states that portions of the Proposed Modifications Area are immediately adjacent to the Salinas River, and that the Proposed Modifications may require notification under Section 1600-1616 (Lake and Streambed Alteration, LSAA) of the Fish and Game Code.

The Proposed Modifications are not located in an area that is immediately adjacent to the Salinas River, and the Proposed Modifications are not expected to impact resources that are subject to the regulation of CDFW under Section 1600-1616 of the Fish and Game Code. Fish and Game Code Section 1602(a) states that an entity shall not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. Review of the Proposed Modifications Area confirms that the Proposed Modifications would not encounter any river, stream, or lake. The closest resource that fits this description is the Salinas River (approximately 0.6 miles north of the Proposed Modifications Area at the site of the AWPF). As stated in Section 2.6.2 of the Draft SEIR, modification of the AWPF would occur within the preexisting developed building envelope, would not require additional grading/excavation, and no addition of buildings would be required. Due to the lack of ground disturbance and the considerable distance between the Proposed Modifications Area and the Salinas River, the Proposed Modifications are not anticipated to result in any direct impacts to resources under the jurisdiction of Fish and Game Code 1600-1616 and therefore, neither notification or a Lake or Streambed Alteration Agreement is required.

CDFW's comment continues by describing potential downstream impacts associated with construction activities. Mitigation measures in the Draft SEIR include provisions to prevent the impacts identified by CDFW. For grading, excavating, and other activities that involve substantial soil disturbance, the mitigation measures require that these activities be planned and carried out in consultation with a qualified hydrologist, engineer, or erosion control specialist, and utilize standard erosion control techniques

to minimize erosion and sedimentation (pre-, during, and post-construction). Additionally, mitigation measures have been included in the Draft SEIR requiring that refueling or maintaining vehicles and equipment only occur within a specified staging area that is at least 100 feet from a waterbody (including riparian and wetland habitat) and that sufficient management measures to prevent fluids or other construction materials including water from being transported into waters of the State. Mitigation Measure BT-1a and BT-1c include best management practices to reduce any potential indirect significant impacts to resources under the jurisdiction of Fish and Game Code 1600-1616 that may be a result of construction-related activities. Given the considerable distance between the Proposed Modifications Area and the Salinas River and the inclusion of mitigation measures to avoid indirect impacts to resources downstream, no additional mitigation measures are necessary to reduce the any potential significant impacts to less-than-significant.

Finally, CDFW's comment states that water diversions can impact flow regimes. Section 2.6.1 of the Draft SEIR explains: The Proposed Modifications would recycle and reuse water from the same sources as the approved PWM/GWR Project. The Proposed Modifications would not change the maximum operations to divert, meter/monitor, and convey the approved source waters to the Regional Treatment Plant as described and evaluated in the PWM/GWR Final EIR. Given that the Proposed Modifications would not increase the amount of water diverted beyond the quantity that was already analyzed by the PWM/GWR Final EIR, no new significant impacts would occur.

D-14 CDFW recommends that the Proposed Modifications proponents consult with the United States Fish and Wildlife Service (USFWS) on potential impacts to federally listed species including, but not limited to, CTS, CRLF, Monterey gilia, and Monterey spineflower. As discussed in the TBRR for the Proposed Modifications, Response to Comment D-6 above, and the PWM/GWR Final EIR, Monterey gilia and Monterey spineflower have the potential to occur within the Project area located on the former Fort Ord and are Fort Ord HMP species. In the Fort Ord HMP, impacts to Fort Ord HMP species and habitats occurring within the designated development parcels were anticipated and mitigated through the establishment of habitat reserves and corridors, and the implementation of habitat management requirements within habitat reserve parcels on former Fort Ord. Parcels designated as "development" have no management restrictions. As described in Section 4.5.4.2 of the Draft SEIR (page 4.5-9) because the Proposed Modifications are: 1) only proposing development activities within designated development parcels; 2) required to comply with the habitat management restrictions identified in the Fort Ord HMP; and 3) would not result in any additional impacts to Fort Ord HMP species beyond those anticipated in the Fort Ord HMP, no additional mitigation measures for these Fort Ord HMP species are required. Impacts to these special-status species are considered less-than-significant because these impacts already have been mitigated through the HMP. The Proposed Modifications will comply with the HMP. Potential impacts to CTS and CRLF are discussed above in comment D-5 and D-7, respectively. Given that these species are not anticipated within the Proposed Modifications Area, federal consultation is not required. All other federally listed species with the potential to occur were evaluated and determined "unlikely to occur" and/or "unlikely to be impacted" for the species-specific reasons presented in the TBRR and/or the PWM/GWR Final EIR.

D-15 CDFW requests that any special status species and natural communities detected during Project surveys be reported to the California Natural Diversity Database (CNDDB). If such species are detected, the project proponents will report them to the CNDDB.

D-16 CDFW notes that if it is determined that the Proposed Modifications will impact fish and/or wildlife, payment of filing fees will be necessary upon filing of the Notice of Determination. M1W agrees that a filing fee will be due for this phased project.

D-17 CDFW provides links to survey and monitoring protocols and offers assistance in the event there are questions about the comment letter. CDFW's materials and offer are appreciated.

Seaside Basin Watermaster
P.O. Box 51502
Pacific Grove, CA 93950
(831) 641-0113

January 8, 2020

Monterey One Water
Attention: Rachel Gaudoin
5 Harris Court, Building D
Monterey, CA 93940

Subject: Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project (Draft Supplemental EIR)

Dear Ms. Gaudoin:

The Watermaster is the Court-appointed body responsible for ensuring that the Seaside Groundwater Basin is managed in accordance with the requirements set forth in the Seaside Basin Adjudication Order (Superior Court of the State of California in and for the County of Monterey, Case No. M66343).

The Watermaster previously submitted comments regarding the Notice of Preparation for the Expanded Pure Water Monterey Groundwater Replenishment Project on June 5, 2019. The following are our additional comments on this project.

The Seaside Basin has been utilized to help meet the demands of California American Water Company's (CAWC's) customers throughout its entire service area. To help alleviate and/or reduce damage being caused to the Carmel River Basin, as required by the SWRCB's Cease and Desist Order No. 95-10, the Seaside Basin has been pumped beyond its natural safe yield. To address this problem, CAWC developed the Monterey Peninsula Water Supply Project (MPWSP) as part of a water supply portfolio to reduce pumping from the Seaside Basin. E-1

The Proposed Modified Pure Water Monterey Groundwater Replenishment Project (the Expansion Project) clearly has direct ties to the Seaside Basin. As discussed below, there is the strong potential for negative impacts to the Seaside Basin to occur if the Expansion Project were to be implemented in place of the desalination plant that is being pursued by (CAWC). The desalination plant is a key component of CAWC's MPWSP.

An agreement was executed between the Watermaster and CAWC in December 2008, and amended in June 2014, to utilize water from the MPWSP to payback to the Seaside Basin CAWC's cumulative volume of overproduction since the date of issuance of the Seaside Basin Adjudication Order. This payback is to be accomplished by in-lieu recharge of 700 acre-feet per year for 25 or more years. This in-lieu recharge is to occur by CAWC pumping 700 acre-feet per year less than it would otherwise be entitled to pump under the Seaside Basin Adjudication Order. Depending on when all components of the MPWSP become operational, the payback amount is currently estimated to be in excess of 18,000 acre-feet. E-2

If the Expansion Project were to be implemented in place of CAWC's desalination plant, CAWC would still need to have sufficient in-lieu replenishment water to fulfill its payback obligations. If the desalination plant is not constructed, the payback water would have to come from the Expansion Project. It does not appear that this is being addressed in the sizing of the capacity of the Expansion Project. If the Expansion Project cannot provide this in-lieu replenishment water, the DEIR should address the detrimental impacts on the Basin that will occur if the Expansion Project is utilized as an alternative to the desalination plant. Those impacts would include:

- Continued falling groundwater levels in the Seaside Basin
- An increased risk of seawater intrusion into the Seaside Basin

E-3

CAWC's payback program will greatly benefit the Seaside Basin by helping to raise groundwater levels. However, since the Seaside Basin was overpumped for many years prior to the issuance of the Adjudication Order, even with CAWC's payback program portions of the Seaside Basin will still have groundwater levels below sea level. Thus, the threat of seawater intrusion will still exist. The only solution to that problem will be to inject additional water that would be left in the Seaside Basin and not pumped out, until such time as groundwater levels reach elevations that would prevent seawater intrusion from occurring (these are referred to as "protective elevations"). Modeling studies conducted for the Watermaster indicate that on the order of 25,000 acre-feet of additional water would need to be injected and left in the Seaside Basin over a period of years in order to achieve protective elevations along the coastline.

E-4

This highlights the need for additional water beyond that needed just to serve customer demands and carry out CAWC's payback program. The need for this additional water should also be addressed in the DEIR for the Expansion Project.

If you have any questions regarding these comments, please contact our Technical Program Manager, Mr. Robert Jaques, at (831) 375-0517 or by his email at bobj83@comcast.net.

Sincerely,

Robert S. Jaques

Robert S. Jaques
Technical Program Manager

Comment Document E: Seaside Basin Watermaster

E-1 The Proposed Modifications to the PWM/GWR Project are not intended to be implemented in place of the MPWSP desalination project. The modifications are intended as a back-up supply in case the MPWSP desalination is not implemented in time to meet the Cease and Desist Order referenced in this comment. The Proposed Modifications would not reduce the availability of water to the Seaside Groundwater Basin nor increase extractions from the Basin in exceedance of the amounts injected, but instead would provide for a new source of water to be injected into and extracted from the basin in the event that the MPWSP desalination project does not meet the CDO milestone for delivery of new water by December 31, 2021. See also response to E-2 and Master Response #3: Comments on Water Supply and Source Water Availability, and Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

E-2 The analysis prepared for the Proposed Modifications assumed that their implementation would constitute a new water supply that would meet the Cease and Desist Order and thus would trigger the requirement for CalAm to commence their in-lieu recharge of 700 acre-feet per year for 25 or more years. The Draft SEIR acknowledges and assumes that CalAm would have a reduction of 700 AF of native groundwater available from the Seaside Basin upon implementation of the Proposed Modifications. This assumption is relevant for the growth inducement analysis in **Chapter 5** of the Draft SEIR. Accordingly, page 5-5 of the Draft SEIR shows that native groundwater supplies are assumed to be only 774 AFY, compared to 1,474 AFY that can be pumped under CalAm's adjudicated rights. This same assumption is also included in the groundwater modeling as described in the Draft SEIR **Appendix D**, page 16, Final SEIR **Appendix O** MPWMD Supply and Demand Report, page 2, and the Expanded PWM/GWR Project SEIR: Groundwater Modeling Analysis (Montgomery & Associates November 1, 2019).

E-3 See response to E-2 and the Master Response #3: Comments on Water Supply and Source Water Availability. By assuming that only 774 AFY of native groundwater is pumped from the Seaside Basin, the MPWMD Water Supply and Demand Analysis (MPWMD, March 2020) demonstrates that the Proposed Modifications would provide sufficient water to enable Cal-Am to fulfill its payback obligations. Further, the Proposed Modifications are a backup supply; the Proposed Modifications do not preclude future implementation of the MPWSP desalination project.

E-4 Neither the Proposed Modifications nor the MPWSP desalination project were sized to provide 25,000 acre-feet of additional water to the Seaside Basin, for the purpose of raising groundwater levels. This amount of new water supply yield would be in excess of CalAm's needs for meeting the CDO, Seaside Basin adjudication, and customer demands. It is possible that, in the future, excess source waters could be treated and conveyed by the Proposed Modifications for this purpose; however, such a project has not been proposed or evaluated, and it is beyond the scope of this SEIR for the Proposed Modifications.

City of Salinas
OFFICE OF THE MAYOR • 200 Lincoln Avenue • Salinas, California 93901 • (831) 758-7201 • Fax (831) 758-7368

January 29, 2020

Via U.S. Mail and Electronic Mail

Rachel Guadoin, Public Outreach Coordinator
Monterey One Water
5 Harris Court, Building D
Monterey, CA 93940
purewatermontereyinfo@my1water.org

Re: Use of Agriculture Produce Wash Water for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project, Draft Supplemental Environmental Impact Report (Draft SEIR)

Dear Ms. Guadoin:

The City of Salinas provides the following comments on the Draft Supplemental Environmental Impact Report ("Draft SEIR") for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project ("Expansion Project"). In particular, the City is providing clarifications as to Monterey One Water's (formerly the Monterey Regional Water Pollution Control Agency) ("M1W") permissible use of agriculture produce wash water pursuant to its existing agreements with the City.

The City of Salinas is known as the "Salad Bowl of the World" and is surrounded by agriculture on all sides. The City remains committed to preserving agriculture as its major industry, which is important for maintaining our community's quality of life. Water is a critical component of the agriculture industry, and agriculture methods and technologies continue to evolve not only to make water use more efficient, but to find ways to treat and reuse water in agriculture processes to avoid wasting limited water resources. Accordingly, any potential use of agriculture produce wash water generated in the City without the City's consent is a critical issue for our residents and businesses. F-1

Agriculture produce wash water is an important component of the source water for the Expansion Project, which is projected in the Draft SEIR to be an annual average of 3,732 acre-feet per year ("AFY"). (Draft SEIR, App. I, p. 3.) While the Draft SEIR appears to rely on the availability of this water in order to produce the 2,250 AFY of additional potable water that the Expansion Project proposes to produce, M1W does not have sufficient agreements in place with the City to permit M1W to use the City's agriculture produce wash water for the Expansion Project. In fact, and as discussed in detail below, existing agreements limit M1W's use of the City's agriculture produce wash water to the previously approved 3,500 AFY Pure Water Monterey Replenishment Project ("GWR Project"). In the absence of further agreements from the City, the City intends to use available agricultural wash water for its own purposes, including to support farmers, ranchers and

the City's agriculture industry. Accordingly, M1W's ability to produce an additional 2,250 AFY of potable water through the Expansion Project is uncertain.

F-1 Cont.

Section 4.18.3.3 of the Draft SEIR and Draft SEIR Appendix B (the Revised Source Water Rights Memorandum) confirms that the City has exclusive right to its treated wastewater, absent agreements with M1W. (Draft SEIR Appx B, p. 6.) While the City has entered into certain agreements with M1W to permit M1W to use the City's agricultural wash water for specified purposes, the Draft SEIR (see Draft SEIR p. 4.18-6) overlooks the limited scope of M1W's rights under the Amended and Restated Water Recycling Agreement ("ARWRA") (**Exhibit A**) and does not consider the limitations in the October 27, 2015 Agreement for Conveyance and Treatment of Agricultural Produce Wash Water by and between the City of Salinas and M1W ("2015 Conveyance and Treatment Agreement") (**Exhibit B**).

The 2015 Conveyance and Treatment Agreement allows agricultural produce wash water to be used for the approved GWR Project, but does not permit that water to be used for the proposed 2,250 AFY Expansion Project. The 2015 Conveyance and Treatment Agreement has two permitted uses of the agricultural produce wash water: 1) to serve the GWR Project, and 2) augment the existing Castroville Seawater Intrusion Project's ("CSIP") crop irrigation supply. (Agreement, §1.a-b.) Sections 1.a and 1.b provide that agricultural wash water is conveyed for the "uses described in Recital B." Recital B states "The MRWPCA [now M1W] has an existing need for source water for 1) to serve its Pure Water Monterey Groundwater Replenishment Project (the "GWR Project") and 2) to augment the existing Castroville Seawater Intrusion Project's ("CSIP") crop irrigation supply." Therefore, use of the agricultural wash water is limited to these express uses, which does not include the Expansion Project.

F-2

The 2015 Conveyance and Treatment Agreement does not allow for water use beyond the scope of the approved GWR Project as it was approved in 2015. Specifically, the "Agreement implements the Pure Water Monterey Groundwater Replenishment Project ('GWR') that the MRWPCA Board approved on October 8, 2015." (Agreement, p. 2 [Recital F].) Further, the 2015 Conveyance and Treatment Agreement was approved by the parties "based on the EIR as certified" for the GWR Project. (Agreement, p. 2 [Recital F].) This language therefore limits the use of agricultural wash water to the scope of the GWR Project as it was approved in 2015, which does not include the later proposed Expansion Project.

The ARWRA does not contemplate the use of agricultural produce wash water for the Expansion Project. The ARWRA "provides for new source waters from the Blanco Drain, Reclamation Ditch and the City of Salinas [] for CSIP and the Pure Water Monterey Project." (**Exhibit C, p. 1** [Monterey One Water Staff Report].) The ARWRA contains the same limiting language as the 2015 Conveyance and Treatment Agreement, stating that it "relates to and implements certain portions of the [GWR Project] that the MRWPCA Board approved on October 8, 2015." (ARWRA, pp. 6-7 [Recitals].) The ARWRA was also "approved based on the EIR as certified" in 2015. (ARWRA, pp. 6-7 [Recitals].)

F-3

For the same reasons discussed above, the ARWRA does not support the use of agricultural produce wash water for the Expansion Project, which was not a part of the GWR Project at the time it was approved in 2015. Moreover, although the ARWRA was amended in 2019, the parties did not amend it to include use of agricultural produce wash water for the Expansion Project. (**Exhibit D** [Amendment No. 1 to Amended and Restated Water Recycling Agreement between Monterey County Water Resources Agency and Monterey One Water.])

F-3
Cont.

The City of Salinas appreciates the opportunity to comment on the Draft SEIR. Should you have questions or wish clarification on the important issues the City has raised, please contact me.

Sincerely,

Joe Gunter
Mayor

Cc: City Council
City Manager
Public Works Director

Amended and Restated Water Recycling Agreement Between Monterey Regional Water Pollution Control Agency and Monterey County Water Resources Agency

October 8, 2015. The MRWPCA Board certified the Environmental Impact Report ("EIR") for the GWR Project as complete and in compliance with the California Environmental Quality Act ("CEQA"), and adopted the findings required by CEQA on October 8, 2015. This Agreement does not change the GWR Project and no change of circumstances or new information herein shows that the GWR Project would result in new or substantially more severe environmental impacts such that major revisions to the certified EIR would be required. This Agreement is approved based on the EIR as certified.

NOW, THEREFORE, for and in reliance of the foregoing, the parties hereby agree as follows:

1.0 Definitions

For the purposes of this Water Recycling Agreement, the following definitions are provided:

A. The term "Annexation Agreements" refers to the Annexation Agreement between MCWD and PCA dated April 25, 1989, and the Annexation Agreement between MCWD and WRA dated March 26, 1996. The individual Annexation Agreements are referenced herein by their respective dates.

B. The term "Bureau Loan Contract" refers to the Contract Between the United States and the Monterey Regional Water Pollution Control Agency (MRWPCA) for "A Loan for Construction of a Small Reclamation Plant," dated June 2, 1995,

C. The terms "Castroville Irrigation System," "Castroville Seawater Intrusion Project," and "CSIP," as used in this Water Recycling Agreement, refer to the tertiary treated water distribution system and are hereinafter collectively referred to simply as the "CSIP", which is owned by WRA. Reclaimed water produced by the SVRP for CSIP will be delivered to a distribution system, known as the Castroville Irrigation System, at the points indicated on Exhibit A, attached hereto and made a part hereof, as may be amended by agreement of the parties, and through that system it will be delivered to growers in the Castroville area, for use in the irrigation of crops.

D. The term "Drainage Flows" refers to WRA's portion of New Source Waters originating from Blanco Drain, Reclamation Ditch, and Tembladero Slough.

E. The term "Drought Reserve" shall refer to storage of up to 1,000 acre-ft of water for potential use during a drought.

F. The term "Interruptible Rate" applies to PCA charges for primary and secondary treatment of New Source Waters.

G. The term "New Source Water Facilities" applies to facilities required to be constructed to convey Blanco Drain, Reclamation Ditch and Tembladero Slough waters to the PCA Regional Treatment Plant, and those to be constructed to allow wintertime operation of the SVRP.

H. "New Source Waters" are defined as waters originating at the following:

1. Agricultural Wash Water
2. Blanco Drain Water
3. Reclamation Ditch/Tembladero Slough water
4. Monterey Storm Water
5. Salinas Storm Water

I. The term "Pure Water Monterey Facilities" refers to those advanced treatment facilities necessary to transform secondary treated wastewater from the Regional Treatment Facility into drinking water quality water, the agreement terms for which are not included in this Water Recycling Agreement.

J. The terms "reclaimed water", "reclaimed wastewater", "recycled water", and "tertiary treated water" all refer to the water produced by the 29.6 MGD (33,154 acre-ft per year) tertiary treatment system and are hereinafter collectively referred to as "tertiary treated water".

K. The term "Regional Treatment Plant" refers to the facilities constructed and sized to

I. CONSTRUCTION OF THE NEW SOURCE WATER FACILITIES

1.01. PCA to construct New Source Water Facilities.

Upon the receipt of final commitments for the financing described below by all applicable governmental agencies and when conditions precedent of Section 16.15 are met, PCA will finance, design, construct, and install the New Source Water Facilities, in substantial conformity with designs and plans approved by the parties in writing.

1.02. Change orders.

Change orders must be approved in writing. Any change order or related set of change orders that increases the New Source Water Facilities cost by $100,000 or more shall require the written consent of both Parties within 30 days of presentation. Any change order or related set of change orders that increases the New Source Water Facilities cost by less than $100,000 or that lowers the New Source Water Facilities cost may be approved by PCA alone, without the consent of the WRA, except that a copy of any proposed or executed change order shall promptly be provided to WRA as soon as it is available to PCA. Each Party's contract administrator shall be authorized to give consent to change orders for that Party. Neither Party's consent to a change order will be unreasonably withheld or delayed.

1.03. Location of the New Source Water Facilities.

The New Source Water Facilities shall be located as shown in Exhibit G, attached hereto and made a part hereof. PCA will acquire any rights-of-way necessary for the construction and maintenance of pipelines from the sources points of delivery to the Regional Treatment Plant.

1.04. Projected Future New Source Water Facilities.

New Source Water Facilities consist of, but are not limited to the following:

1. Blanco Drain Water
   (a) 2,738 gpm (6.1 cfs) pump station
   (b) 7,700 feet of 18 inch diameter HDPE, PVC, or Ductile Iron pipe
   (c) Intake Screen/Wet Well with appropriate appurtenances
2. Reclamation Ditch Water
   (a) 2,693 gpm (6.0 cfs) pump station
   (b) 43 feet of 6 and 12 inch diameter DIP or PVC discharge pipe
3. Tembladero Slough Water
   (a) 1,346 gpm (3 cfs) pump station
   (b) 120 feet of 16 inch diameter DIP and PVC discharge pipe
   (c) Intake screen/Wet Well with appropriate appurtenances
4. Monterey Storm Water (Lake El Estero)
   (a) 2,500+/- gpm pump station
   (b) 45 feet if 12+/- inch PVC pipe
5. Salinas Storm Water
   (a) Diversion Point No. 1
      i. 54" x 54" concrete diversion structure
      ii. 24" x 24" concrete diversion structure plus weir
      iii. Parshall Flume
      iv. Intake Screen/Sluice Gate with appropriate appurtenances
   (b) Diversion Point No. 2
      i. 66"x 66"concrete diversion structure

2.02. Estimated design and construction costs of New Source Water Facilities.

Table 1.

Component	WRA	PCA	Monterey/Salinas	TOTAL
Blanco Drain Water	$2.3 Million	$2.7 Million	0	$5.0 Million
Reclamation Ditch	$0.5 Million	$0.6 Million	0	$1.1 Million
Tembladero Slough	$0.5 Million	$0.6 Million	0	$1.1 Million
Monterey Storm Water	0	0	Not Estimated	
Salinas Storm Water	0	0	Not Estimated	
Salinas Pond Water Return Facilities	$1.3 Million	$1.5 Million		$2.8 Million
Modifications to Regional Treatment Facility	$0.6 Million	$0.7 Million		$1.3 Million
TOTAL	$5.2 Million	$6.1 Million		$11.3 Million

WRA's share of capital costs is 45.1% and PCA's share of capital costs is 54.9%. This same allocation of capital costs will be applied to Replacement and Renewal costs associated with the New Source Water Facilities, as identified in Section 9.02.

2.03. Source Water.

1. WRA shall obtain water rights to Drainage Flows from the California State Water Resources Control Board. Costs of obtaining and maintaining said water rights shall be reimbursed to WRA on the same proportional basis for water used as a component of the New Source Facilities.
2. Water rights for New Source Water within the City of Salinas and City of Monterey, and any future new source waters not identified herein, including without limitation, dry and wet weather storm drainage system flows and/or volumes, are not subject to this Agreement and may be the subject of future agreements.

III. OWNERSHIP, OPERATION AND MAINTENANCE OF CSIP, SVRP, SRDF AND NEW SOURCE WATER FACILITIES.

3.01. Ownership, operation, and maintenance, in general.

1. PCA will own, operate, and maintain the SVRP as described in Exhibit B, "Operation and Maintenance of SVRP, CSIP, SRDF, and New Source Water Facilities", attached hereto and made a part hereof, and will keep the SVRP in good condition and repair for the term of this Water Recycling Agreement. WRA shall be required to reimburse PCA for such costs and expenses of ownership, operation, and maintenance of the SVRP as described in Article VII of this Water Recycling Agreement. After expiration of this Water Recycling Agreement and any extension thereof, the SVRP will remain the property of PCA, except that WRA will own the discharge pipeline from the PCA property line near the discharge side of the storage pond to the connection with the CSIP.

2. WRA will own the CSIP facilities and PCA will operate and maintain the CSIP facilities as described in Exhibit B, "Operation and Maintenance of SVRP, CSIP, SRDF, and New Source Water Facilities", and will keep the CSIP in good condition and repair for the term of this Water Recycling Agreement. WRA shall be required to reimburse PCA for such costs

supply water to WRA on a daily basis when source water is available as described in Exhibit B "Operation and Maintenance of SVRP, CSIP, SRDF, and New Source Water Facilities", except for temporary periods of shut-down authorized by this Water Recycling Agreement or made necessary by circumstances beyond the control of PCA.

3.06. Incidental uses.
PCA may use such amounts of tertiary treated water from the SVRP as may be needed for the normal operation and maintenance of PCA's facilities, including, but not limited to, the SVRP and the primary and secondary treatment facilities.

3.07. Notice of temporary cessation of water deliveries.
PCA will give immediate notice to WRA, by telephone to WRA's General Manager, or to the person designated by the General Manager to receive such notices, with a prompt follow-up notice in writing, as soon as PCA becomes aware of the need to cease deliveries to the CSIP, whatever may be the reason for such interruption in service. Whenever an unforeseen cessation of deliveries occurs without prior notice to WRA, PCA shall immediately give notice to WRA as provided above. In addition, whenever a cessation of deliveries occurs, PCA shall use every reasonable effort to restore service as soon as possible.

3.08. Outside Contracts.
When PCA deems it more appropriate for someone other than PCA to make a repair directly, PCA will obtain contracts to perform this work through bidding or other appropriate competitive procurement process.

3.09. Access to CSIP, SRDF, and New Source Water Facilities on WRA Land or Easements.
WRA shall provide the necessary access arrangements for PCA personnel to carry out their required work on the CSIP, SRDF, and New Source Water Facilities on WRA land or Easements. WRA shall notify landowners, growers, and others who may be affected by this work in advance that PCA personnel will be entering onto and performing work on their property. Any disputes arising between PCA personnel and these affected parties will cause PCA to discontinue work on the affected facilities until WRA has established necessary access arrangements for the work to continue.

IV. PROVISION OF RECYCLED WATER TO WRA FROM PCA

4.01. Existing Allocations

1. WRA shall be entitled to tertiary treated recycled water for its CSIP Project during the agricultural growing season in a volume not less than total wastewater flows to the Regional Treatment Plant from all PCA members existing at the Effective Date of this Water Recycling Agreement, plus all other areas within PCA's 2001 boundaries less the following amounts (may be taken before tertiary treatment):
   (a) Amount claimed and utilized by MCWD pursuant to Section 15.04 as provided pursuant to the Annexation Agreements.
   (b) Such flows as are lost or as must be diverted in the ordinary course of operating and maintaining the treatment plant and ocean outfall.
   (c) Such flows as are not needed to meet WRA's authorized demand pursuant to this Water Recycling Agreement.
   (d) 650 AF of water allocated by WRA to PCA per Table 2:

WRA may be utilized by PCA for the Pure Water Monterey Project, other purposes, or be discharged.

(a) With the exception of any other New Source Waters the primary and secondary treatment costs of which are paid by others, WRA will be proportionately assessed for the incremental operation and maintenance costs of the influent pump station, primary treatment and secondary treatment of its portion of New Source Water flows actually delivered to tertiary treatment.

(b) WRA will be responsible for incremental tertiary treatment operations, maintenance, repair and replacement costs related to the volume of New Source Waters that are delivered to CSIP.

4.03. Operations and Maintenance Treatment Cost Allocation.

Table 3.

O&M Treatment Cost Allocation			
Source	**Primary and Secondary**	**Tertiary**	Pure Water Monterey Facilities
Domestic W/W	Member Entities	WRA[1]	PCA-Winter
Ag Wash Water $198[2]	Salinas (I.R)	WRA[1]	PCA
Blanco Drain $74[2]	WRA/PCA (IR)	WRA[1]	PCA
Rec/Tembladero Ditch $77/$91[2]	WRA/PCA (IR)	WRA[1]	PCA
Storm Water – Monterey $69[2]	Monterey (IR)	WRA[1]	PCA
Salinas Pond Water Return Facilities $83[2]	Intended User (IR)	WRA[1]	PCA
Storm Water – Salinas $69[2]	Salinas (IR)	WRA[1]	PCA
Future WW in 2001 PCA Bound.	Member Entities	WRA[1]	PCA – Winter
Future WW outside 2001 PCA Bound.	Member Entities	WRA (50% of Flow if through SVRP)[1]	PCA – Winter (50% of Flow if through SVRP; all flows otherwise
MCWD – Delivery	Member Entities	MCWD	MCWD
Interruptible Rate (IR)			

[1]PCA – if through tertiary treatment; operations and maintenance and increased interest rate

[2]Interruptible rates are subject to change by PCA Board as described in Exhibit F, attached hereto and made a part hereof.

All treatment costs associated with the New Source Waters will be incorporated into the annual WRA budget process, as identified in Section VII. Annual Source Water costs will be based on the demand schedule provided by WRA to PCA; and PCA's Interruptible Rate Schedule for New Source Waters.

1. If any party utilizes tertiary treated water, other than water provided to PCA pursuant to Section 3.06, Incidental Uses, it shall be proportionately assessed by PCA for operation, maintenance, repair and replacement costs and increased interest costs, for the amount of water claimed and utilized from tertiary treatment facilities.
2. PCA agrees that it will cause MCWD, or itself, in use of its recycled water entitlements, to comply with all applicable requirements set forth in Contract No. 5-07-20-W1284, between the Bureau of Reclamation and WRA including, but not limited to, those contained in the Bureau Loan Agreement, all at PCA's or MCWD's sole cost and expense.

4.04. New Incremental and Interruptible Allocations – Phase II.

PCA and WRA plan to acquire and treat additional flows up to the Regional Treatment Facility's

V. DELIVERY OF WATER TO WRA.

5.01. Quantity of water to be delivered to WRA SVRP.
Each year during the term of this contract, PCA shall deliver tertiary treated water from the SVRP to the Castroville Irrigation System. Subject to PCA's and MCWD's rights to the water as set forth in Article IV, the quantity so delivered shall include water provided in response to WRA's demand, determined as set forth in this Water Recycling Agreement.

5.02. WRA's demand schedule.
For water which will be delivered during the term of this Water Recycling Agreement, WRA shall, not later than November 1 each year, submit to PCA a schedule (see Exhibit C, attached hereto and made a part hereof) of requested water deliveries for the next calendar year. The schedule may request water deliveries of amounts up to amounts provided for WRA pursuant to Section 4.01 and 4.02 as WRA's demand. This demand schedule shall show the amount requested for each calendar month in the year.

5.03. WRA's demand.
It is understood and agreed that the wastewater committed by PCA, to which WRA is entitled pursuant to this Water Recycling Agreement, is dedicated for use by WRA for purposes of the CSIP as that seawater intrusion project as it may exist from time to time, and thereafter for direct application for such other non-urban agricultural irrigation projects in the Salinas Valley as WRA may develop for the purpose of curing seawater intrusion and other severe impacts of the groundwater imbalance in the Salinas Valley which threaten the viability of the groundwater basin as a water supply for agricultural and municipal uses, and for no other purpose. Where otherwise consistent with WRA's entitlement pursuant to this Water Recycling Agreement, WRA may use tertiary treated water produced by the SVRP for non-agricultural irrigation applications in the Salinas Valley only if PCA declines in writing to undertake such applications in the Salinas Valley; provided, however, PCA consents in writing to WRA's doing so, which consent shall not be unreasonably withheld. In no event shall PCA's obligation to provide secondary treated wastewater exceed the amount needed to produce the tertiary treated water to which WRA is entitled pursuant to this Water Recycling Agreement.

5.04. PCA'S duty to comply with WRA demand.
PCA shall supply the amount of water demanded in accordance with this Water Recycling Agreement and the demand schedule submitted by WRA, except when the SVRP and SRDF cannot produce enough water to satisfy the WRA's demand, PCA's demand, and MCWD's demand, all as limited by their respective entitlements, either because there is not enough wastewater flowing into the PCA Regional Treatment Plant, or because, for reasons beyond the reasonable control of PCA, the SVRP is unable to operate for a sufficient period of time or the SVRP fails to produce enough water of the quality described in Section 6.01, "Water Quality," for use in the CSIP.

VI. MAINTENANCE OF WATER QUALITY.

6.01. Water Quality.
1. General Water Quality: PCA will produce tertiary treated water of a quality suitable for the irrigation of edible crops, such as artichokes, Brussels sprouts, and row crops (e.g., lettuce, cauliflower, broccoli, and celery) that do not require cooking prior to human consumption. All water produced and delivered to WRA shall meet all applicable standards of quality

served. No private sector member of the Committee and no grower or private sector user of water shall be required to disclose proprietary information in connection with the Committee's work, except as may be required by governing law or regulation. The SRDF Water Quality Monitoring Plan shall be presented to the Water Quality and Operations Committee at least once per year or prior to any significant changes, for committee review and input. Any financial changes approved by the Water Quality and Operations Committee at this meeting will be submitted to the WRA Board of Director's for approval and the approved Board Resolution will be forwarded to PCA for any budget modifications.

VII. PAYMENTS BY WRA TO PCA

7.01. Consideration paid by WRA.
As consideration for the water provided and the other obligations performed by PCA under this Water Recycling Agreement, WRA shall make payments to PCA pursuant to this Water Recycling Agreement.

7.02. Amounts to be paid.
The consideration paid by WRA shall be the dollar amount that equals 100% of the annual costs reasonably and necessarily incurred in connection with the SVRP, CSIP, and SRDF (including both direct and indirect expenses), and no more. PCA will make all reasonable efforts to stay within, or below, the amounts budgeted for the SVRP, CSIP and SRDF. All budgetary savings will be applied to the following year's budgets. The annual costs include the following:

1. Amortization of any loans (USBR, SWRCB, etc.), bonds, certificates of participation, and any interim or other financing;
2. The SVRP, CSIP, and SRDF operation, maintenance, repair, replacement, power, capitalized equipment, capital improvements, contingency, and reserve costs as are contained in the budgets for the SVRP, CSIP and the SRDF. PCA will make all reasonable efforts to stay within the total budget amounts for these budgets, but will have the latitude to incur variances between individual budget accounts, so long as the total budget amounts are not exceeded.
3. Unused funds received from WRA will be placed by PCA in an interest bearing account. All interest earned on WRA accounts will be applied for WRA's benefit on a monthly basis. PCA will adjust the second semi-annual billing and year-end reconciliation statement by any interest earned on WRA accounts. PCA shall be reimbursed by WRA for the reasonable loss of interest earnings on PCA's monies used to cover any SVRP or CSIP operations and maintenance costs until such costs are reimbursed by WRA.

7.03. Payment schedule.
PCA will establish separate accounts for the SVRP, SRDF, and the CSIP. Each year, WRA will fund each account by June 30 with a payment that adjusts seed monies to 50% of the projected operations, maintenance, capital outlay, and reserve expenses for the next fiscal year. Thereafter, PCA will record into this account the payments noted in Section 7.04 based on cost share estimates determined pursuant to Section 4.02 (1) herein.

1. WRA will make six payments to PCA each year as follows:
   (a) Thirty (30) days before the date that PCA's annual payment on the USBR loan for the SVRP is due, WRA will pay an amount equal to the then current payment on the USBR loan;

2. For as long as any notes or bonds issued to finance the SVRP or CSIP are outstanding, PCA will not exercise its right to terminate or reduce the water supply of the tertiary treated water to the CSIP, except that PCA may reduce the water supply to the extent that the failure of WRA leaves PCA without all necessary and sufficient funds to operate the SVRP.
3. In addition, if WRA should fail to make any payment to PCA required under this Water Recycling Agreement for a period of ninety (90) days or more after the due date, the PCA shall have the right to seek any appropriate judicial relief, at law or in equity, for such default. Such relief may include, but need not be limited to, damages, injunctive relief, and the appointment of a receiver.

7.06. Prior approval of budget by WRA.

1. Each year, in accordance with its normal budgeting schedule, PCA will adopt budgets for the operation of the SVRP, CSIP, and SRDF, in advance of the operating year for which the budgets are proposed, including therein all costs to be paid by WRA. In preparing these budgets, the demand schedule approved by WRA's General Manager will be provided to PCA by November 1 of each year. Within six (6) weeks of receipt of the demand schedule, PCA will provide WRA with a preliminary budget estimate. Any additional costs associated with the New Source Waters will be calculated based on the demand schedule and PCA's Interruptible Rate; and will be included as a separate line item in the SVRP, CSIP, or SRDF budget. Upon receipt of the preliminary budget, both agencies will agree to meet in a timely manner sufficient to enable review and approval by both agencies' respective governing boards.
2. Once the budgets are approved by WRA's Board of Directors, WRA's Board of Supervisors, and PCA's Board of Directors, PCA will not modify the budgets so as to exceed the amount of expenditures approved by WRA without first submitting the proposed changes to WRA's Board of Directors and WRA's Board of Supervisors for review and approval, except as provided for in Section 7.11. In addition, both agencies will provide advance notification of any proposed budgetary modifications that will be considered by each agency's respective board.
3. In the event WRA's revenues to fund the CSIP, SVRP, and SRDF budgets fall below projected amounts, WRA may request that PCA revise the operations to incur lower operating costs to stay within the revised revenue projections.

7.07. SWRCB as third party beneficiary.

The State Water Resources Control Board (SWRCB) shall be a third party beneficiary of the WRA's payment obligations under this Article VII, to the extent that the WRA's payment obligations are intended to provide funds to PCA to repay the loan to the PCA from the SWRCB. In the event of default by the PCA in the repayment of said loan, the SWRCB may enforce the loan repayment obligations against the WRA, and to the extent that the WRA makes payment to the SWRCB, the WRA shall be relieved of its corresponding obligation to the PCA. If, through no fault of the WRA, the PCA defaults in its repayment obligation to the SWRCB, and the WRA thereby becomes obligated to pay any penalties, extra charges, or amounts in excess of the basic principal and interest on the loan, then PCA shall reimburse WRA for any such amounts paid by WRA.

7.08. Priorities of payment.

Notwithstanding anything to the contrary contained herein, WRA's obligations to make payments with respect to the SVRP, CSIP, and SRDF shall be prioritized as follows, and the obligations in each category shall be subordinate to the obligations in each prior category, shall be on a parity

VIII. ACCOUNTING SYSTEM, REPORTS

8.01. Accounting system.

PCA will maintain an accounting system that is in conformity with generally accepted accounting principles (GAAP) and will allow for the segregation and tracking of all revenues and direct costs related to the SVRP, CSIP, and SRDF. The accounting system shall properly allocate costs to the SVRP, CSIP, and SRDF and to PCA's other activities that are not subject to reimbursement by WRA under this Water Recycling Agreement. The accounting system shall provide the ability to adequately identify indirect cost centers and establish allocation factors to assign indirect costs proportionally to the CSIP, SVRP, SRDF, and the Interruptible Rate for New Source Waters. Cost accounting, including any overhead distributions, shall be in accordance with GAAP. PCA shall make the details of such system available to or known to WRA and/or to WRA's auditor, at WRA's request.

8.02. Financial reports.

By the last day of each month PCA will provide to WRA a report on expenditures made during the previous month and year-to-date, for each line item in the SVRP, CSIP, and SRDF budgets. These reports will identify any line items which vary appreciably from anticipated budget to date. PCA will provide WRA an annual report of WRA's proportional share of Reserves retained in the Pure Water Monterey Fund for New Source Water Facilities. This report will be provided by PCA to WRA by September 30 of each year; and include WRA's deposits made to the Repair/Renewal Reserve, proportional interest earned, and the proportional share of any replacement/renewal costs.

8.03. Direct and indirect costs.

1. Direct costs of the SVRP, CSIP and SRDF are costs which can be tracked as costs of these particular activities through invoices, time cards, record keeping systems, and other records that specifically allocate a cost to these activities. Indirect costs are all other costs incurred by PCA in order to manage, maintain, support, and operate the SVRP or the CSIP.
2. PCA shall implement the accounting system described in Section 8.01 to uniformly identify and allocate all direct and indirect costs for the SVRP and the CSIP and for all the PCA's other activities. PCA shall identify the specific functions that are typically considered administrative or support in nature. These functions or departments shall include Human Resources, Finance, Administration, Information Technology, and Safety. The annual budgeted costs of these functions will be allocated proportionally to all operational activities based on a percentage relational to the services provided to SVRP, CSIP, SRDF and all other PCA activities. A sample overview is provided in Exhibit J, attached hereto and made a part hereof. The budgets associated with the administrative or support functions will not be directly charged to the SVRP, SRDF, or CSIP. PCA will make reasonable efforts to maximize the extent to which costs to be paid by WRA can be identified as direct costs rather than as indirect costs.
3. For purposes of allocating indirect costs, PCA will not include as a direct cost the debt service (principal and interest) on the loans obtained for the project.
4. PCA and WRA retain the right to transition from the cost allocation plan identified in 8.02 (b) to a cost allocation model that is compliant with the Office of Management and Budget (OMB) Circular A-87 – Cost Principles for State, Local, and Indian Tribe Governments or a subsequent revision. Any cost allocation subject to this provision shall be accompanied by a Certificate of Cost Allocation Plan and be in compliance with Title 2 CFR, Part 200. All indirect costs charged to functional activities will be applied consistently with the results of

9.02. Replacement and Renewal Costs Associated with New Source Water Facilities.
WRA shall pay PCA the proportional share of amortized capital renewal costs associated with the New Source Water Facilities. WRA's annual contribution is provided in Exhibit I. All funds received from WRA will be placed in the Pure Water Monterey Fund's Renewal and Replacement Reserve in accordance with Section VI. All funds will be held in the Reserve for the purpose of funding capital outlay projects for the New Source Water Facilities; assisting in meeting any fiscal sustainability plan requirements for the Clean Water State Revolving Loans; and maintaining a proportional share of the Loan's debt covenant ratio. At the completion of the thirty-year loan cycle, WRA and PCA will develop a long-term Capital Improvement Plan, which includes establishing an appropriate level of Renewal and Replacement reserves. Any WRA funds that are held in Reserves in excess of the Capital Improvement Plan will be refunded within ninety (90) days of the Plan's establishment.

9.03. Expansion of treatment plant capacity.
PCA may expand the Regional Treatment Facility above the current capacity of 29.6 MGD and may construct additional reclamation facilities, at its sole cost and expense and without receiving the consent of WRA. Any increases in capacity and any additional reclamation facilities so constructed shall be used at PCA's discretion, provided, however, that PCA is precluded from providing water to customers within WRA's water supply jurisdiction.

9.04. Interruptions of service.
1. No work of construction, remodeling, renovation, replacement, repairs, addition, or expansion authorized under this Water Recycling Agreement and performed on the SVRP, CSIP and SRDF shall, either before, during, or after such work, interfere with, interrupt, or reduce the delivery of tertiary treated water and river water to WRA under this Water Recycling Agreement, except that minor interferences, interruptions, or reductions shall be allowed when necessary, unavoidable, or beyond the control of PCA.
2. PCA shall schedule its planned maintenance activities on the SVRP, CSIP and SRDF to minimize interruption of distribution of tertiary, river and/or well water by the CSIP. Unscheduled work to perform repairs or maintenance will be performed in the manner deemed by PCA to have the least impact on the distribution of tertiary, river and/or well water by the CSIP. In case of any interruption of service, PCA shall give notice in the same manner as required by Section 3.07.

9.05. Duty to apply insurance proceeds.
If either party recovers any insurance proceeds on account of loss or damage to the SVRP, CSIP, or SRDF, such proceeds shall be applied to repair or replace the damaged portion of the SVRP, CSIP, or SRDF, and not otherwise. If either party is self-insured and any loss or damage occurs that would have been covered by insurance otherwise required to be maintained by such party under this Water Recycling Agreement, then such party shall provide the funds that would have been recovered had the party been insured and shall apply the funds to repair or replace the damaged portion of the SVRP, CSIP, or SRDF.

9.06. Payment of uninsured losses.
If the SVRP, CSIP, or SRDF is damaged or destroyed during the term of this Water Recycling Agreement, by other than an intentional or willful misconduct of a PCA employee, and the amount of available insurance and self-insurance monies plus replacement reserves is insufficient to repair or replace the damage, then WRA shall pay the balance necessary to restore these facilities to their condition prior to the damage.

approval of the indemnified party. The indemnifying party shall also have the right to defend against, negotiate with respect to, settle or otherwise deal with such proceeding, claim or demand. However, no settlement of such proceeding, claim or demand shall be made without the prior written consent of the indemnified party, which consent shall not be unreasonably withheld or delayed. The indemnified party may participate in any such proceeding with counsel of its choice at its own expense.

3. In the event, or to the extent, the indemnifying party elects not to, or fails to, defend such proceeding, claim or demand and the indemnified party defends against, settles or otherwise deals with any such proceeding, claim or demand, any settlement thereof may be made without the consent of the indemnifying party if it is given written notice of the material terms and conditions of such settlement at least ten days before a binding agreement with respect to such settlement is executed.
4. Each of the Parties agrees to cooperate fully with each other in connection with the defense, negotiation or settlement or any such proceeding, claim or demand.

10.04. Payment of indemnified claims.

The indemnifying party shall forthwith pay all of the sums owing to or on behalf of the indemnified party, upon the happening of any of the following events:

1. Upon the rendition of a final judgment or award with respect to any proceeding described in Section 10.03, above, by a court, arbitration board or administrative agency of competent jurisdiction and upon the expiration of the time in which an appeal therefrom may be made; or
2. Upon the making of a settlement of such proceeding, claim or demand; or
3. Upon the parties' making of a mutually binding agreement with respect to each separate matter indemnified thereunder.

10.05. Contribution in the event of shared liability.

In the event any proceeding, claim or demand described in Section 10.03 is brought, in which allegations of fault are made against both the parties, the extent of indemnification shall be determined in accordance with the agreement of the parties, or, if there is no agreement, then in accordance with the findings of the court as to the relative contribution by each of the parties to the damage suffered by the party seeking indemnity with respect to such proceedings.

10.06. Exclusion from O&M costs.

Amounts payable by either party as indemnification shall not be included in the operations and maintenance costs of the SVRP, CSIP, SRDF, and New Source Water Facilities.

1. The indemnifying party shall have the right, at its option and at its own expense, to utilize counsel of its choice in connection with such proceeding, claim or demand, subject to the approval of the indemnified party, which approval shall not be unreasonably withheld or delayed. The indemnifying party shall also have the right to defend against, negotiate with respect to, settle or otherwise deal with such proceeding, claim or demand. However, no settlement of such proceeding, claim or demand shall be made without the prior written consent of the indemnified party, which consent shall not be unreasonably withheld or delayed, unless, pursuant to the terms and conditions of such settlement, the indemnified party is released from any liability or other exposure with respect to such proceeding, claim or demand. The indemnified party may participate in any such proceeding with counsel of its choice at its own expense.
2. In the event, or to the extent, the indemnifying party elects not to, or fails to, defend such proceeding, claim or demand and the indemnified party defends against, settles or otherwise

insurance policy and shall give WRA thirty (30) days' advance notice of any cancellation or proposed change in the insurance required by this section, and any such change shall be subject to review and approval by WRA.

2. WRA shall maintain insurance covering the CSIP and SRDF against loss or damage due to fire and other perils to the extent that such insurance is readily and practically available and within available funds for the SRDF. The amount of the insurance shall be not less than the then-current replacement cost of the CSIP and SRDF, without depreciation. Insurance coverage for the CSIP and SRDF shall be reviewed and approved by PCA, which shall not unreasonably withhold or delay its approval. WRA shall provide PCA with a copy of the insurance policy and shall give PCA thirty (30) days' advance notice of any cancellation or proposed change in the insurance required by this section, and any such change shall be subject to review and approval by PCA.

11.05. Workers' compensation insurance.

PCA shall maintain a workers' compensation plan covering all of its employees as required by Labor Code Sec 3700, either (a) through workers' compensation insurance issued by an insurance company, with coverage meeting the statutory limits and with a minimum of $100,000 per accident for employer's liability, or (b) through a plan of self-insurance certified by the State Director of Industrial Relations, with equivalent coverage. If PCA elects to be self-insured, the certificate of insurance otherwise required by this Water Recycling Agreement shall be replaced with a consent to self-insure issued by the State Director of Industrial Relations.

11.06. Certificate of insurance.

PCA shall file certificates of insurance with the WRA and with the Monterey County Risk Management Division, showing that PCA has in effect the insurance required by this agreement. PCA shall file a new or amended certificate promptly after any change is made in any insurance policy which would alter the information on the certificate then on file.

11.07. Self-insurance.

Each Party may, instead of obtaining the insurance required of it by this Water Recycling Agreement, elect to be self-insured or to participate in a self-insurance pool, provided the other Party first gives its written consent, which will not be unreasonably withheld or delayed. The Parties shall enter into a separate written memorandum of understanding specifying the proportionate amount or share of such self-insurance allocated to SVRP, CSIP, and SRDF.

11.08. Insurance costs.

Insurance expenses and equivalent self-insurance expenses are CSIP/SVRP costs, except for: costs excludable under indemnification, PCA's share of the liability insurance premium costs under Section 11.02; and costs of PCA's workers' compensation insurance covering work outside the scope of this Water Recycling Agreement. All deductibles under Section 11.02 liability insurance and Section 11.04 property insurance, as well as any self-insured retention under excess insurance held by WRA, PCA, or Monterey County will be borne by WRA. All damages, liabilities, losses and costs, including fines and penalties, that are not covered under a policy of insurance, a self-insurance pool, or other self-insurance program shall be borne by the Parties according to this Water Recycling Agreement.

11.09. Periodic increases in coverage requirements.

The coverage limits stated herein in dollar values shall be adjusted upwards by 15% for every 15% increase in the consumer price index for all urban consumers in the San Francisco Bay area over the

XIII. DISPUTE RESOLUTION.

13.01. Dispute resolution procedure.
If any dispute arises between the Parties as to the proper interpretation or application of this Agreement, and/or the proper operation of the facilities, the Parties shall first seek to resolve the dispute in accordance with this Article, and the Parties must proceed through arbitration under this Article before filing any court action as set out below.

13.02. Duty to meet and confer.
If any dispute under this Agreement arises, the Parties shall first meet and confer, in an attempt to resolve the matter between themselves. Each Party shall make all reasonable efforts to provide to the other Party all the information that the Party has in its possession that is relevant to the dispute, so that both Parties will have ample information with which to reach a decision.

13.03. Mediation and Arbitration.

1. If the dispute is not resolved by meeting and conferring within 30 days of commencing that process, the matter may be submitted to mediation. The terms of and process for the mediation shall be set by the Parties and the mediator. The Parties agree that they may, by or through consensus, elect to convert the mediation into arbitration.
2. If the dispute is not resolved by meeting and conferring, and mediation is not chosen or not implemented by the parties, or is unsuccessful, the Parties shall submit the matter to arbitration. In that event the Parties will jointly select a single arbitrator, or, if the Parties are unable to agree, they shall each select an arbitrator, and the matter shall be handled by two arbitrators. The two arbitrators may, if they deem it appropriate and warranted by the nature and significance of the dispute, themselves select a third arbitrator. Any person selected as an arbitrator shall be a qualified professional with expertise in the area that is the subject of the dispute, unless the Parties otherwise agree. The arbitration shall be conducted in accordance with the rules of the American Arbitration Association. The decision of the arbitrator or arbitrators shall be binding, unless within 30 days after issuance of the arbitrator's written decision, either party files an action in court.

XIV. ADDITIONAL RESPONSIBILITIES.

14.01. Compliance with water reclamation requirements for the CSIP.
PCA shall be responsible for compliance with all of the requirements contained in the "Recycled Water User Requirements for Monterey County Water Resources Agency (User), Castroville Seawater Intrusion Project, Monterey County," Order No. 97-52, issued by the State of California Regional Water Quality Control Board, Central Coast Region, on September 5, 1997, or as said Order may from time to time be revised and re-issued by the Regional Water Quality Control Board. PCA's responsibilities shall be limited to complying with the Water Reclamation Requirements for the SVRP, as described in Section 6.01, and for notifying WRA of any obvious violation of the CSIP requirements.

14.02. Grower and landowner requirements.
WRA shall require the growers and landowners to operate their irrigation systems and to use reclaimed water in accordance with the requirements of Water Reclamation Requirements Order No. 97-52, or as subsequently revised.

SWRCB Loan Contract. The "Actual Costs" consist of the sum of: 1) the proportional SVRP operation and maintenance, plus 2) Supplemental Well Pumping Costs, if any plus 3) the proportional cost of SVRP debt service for the SWRCB Loan Contract, plus 4) the proportional cost of principal and interest payments for the SVRP due pursuant to Article 9 (b) of the Bureau Loan Contract, including any proportional interest due pursuant to Article 9 (b) (2) of the Bureau Loan Contract as a result of deliveries of tertiary treated water to the PCA for its M&I use.

2. PCA payments will be determined and made consistent with Exhibit H and, to the extent applicable, Articles VI and VII of this Water Recycling Agreement.

15.04. No Modification of MCWD Contract Entitlement.
Nothing in this Water Recycling Agreement is intended to, nor shall it be interpreted to, expand, limit or otherwise modify MCWD's existing contractual rights, entitlements, and obligations pursuant to either of the Annexation Agreements.

XVI. GENERAL PROVISIONS.

16.01. Compliance with laws.
PCA will comply with all permit and licensing requirements applicable to the SVRP, CSIP and SRDF, and will operate the SVRP in accordance with all requirements of law and governmental regulations. Compliance with water quality requirements will be limited strictly to those set forth in Section 6.01, "Water quality."

16.02. Attorney's fees.
In the event it shall become necessary to commence or defend litigation for purposes of enforcing this Agreement or rights hereunder, the prevailing party shall be entitled to recover reasonable attorney's fees and costs.

16.03. Amendments.
No amendment or modification shall be made to this Water Recycling Agreement, except in writing, approved by the respective Boards and duly signed by both Parties.

16.04. Contract administrators.

1. WRA hereby designates its General Manager as its contract administrator for this Agreement. All matters concerning this Agreement which are within the responsibility of WRA shall be under the direction of or shall be submitted to the General Manager or such other WRA employee in the WRA as the General Manager may appoint. WRA may, in its sole discretion, change its designation of the contract administrator and shall promptly give written notice to PCA of any such change.
2. PCA hereby designates its General Manager as its contract administrator for this Agreement. All matters concerning this Agreement which are within the responsibility of PCA shall be under the direction of or shall be submitted to the General Manager or such other PCA employee in the PCA as the General Manager may appoint. PCA may, in its sole discretion, change its designation of the contract administrator and shall promptly give written notice to WRA of any such change.

16.05. Assignment.
Any assignment of this Water Recycling Agreement shall be void without the written consent of the

EXHIBIT C: SAMPLE WRA BASIC DEMAND SCHEDULE
EXHIBIT D: WASTEWATER RECLAMATION SYSTEM PROJECT DESCRIPTION AND MITIGATION MEASURES
EXHIBIT E: CALCULATION OF PAYMENTS PURSUANT TO SECTION 17.08 OF THIS WATER RECYCLING AGREEMENT
EXHIBIT F: OPERATION AND MAINTENANCE ESTIMATED TREATMENT COSTS
EXHIBIT G: PROPOSED GWR PROJECT FACILITIES OVERVIEW FIGURE S-1
EXHIBIT H: DEBT SERVICE OVERVIEW AND AMORTIZATION SCHEDULE
EXHIBIT I: SCHEDULE OF AMORTIZED REPLACEMENT AND RENEWAL COSTS FOR NEW SOURCE WATER FACILITIES
EXHIBIT J: SAMPLE COST ALLOCATION PLAN FOR INDIRECT COSTS

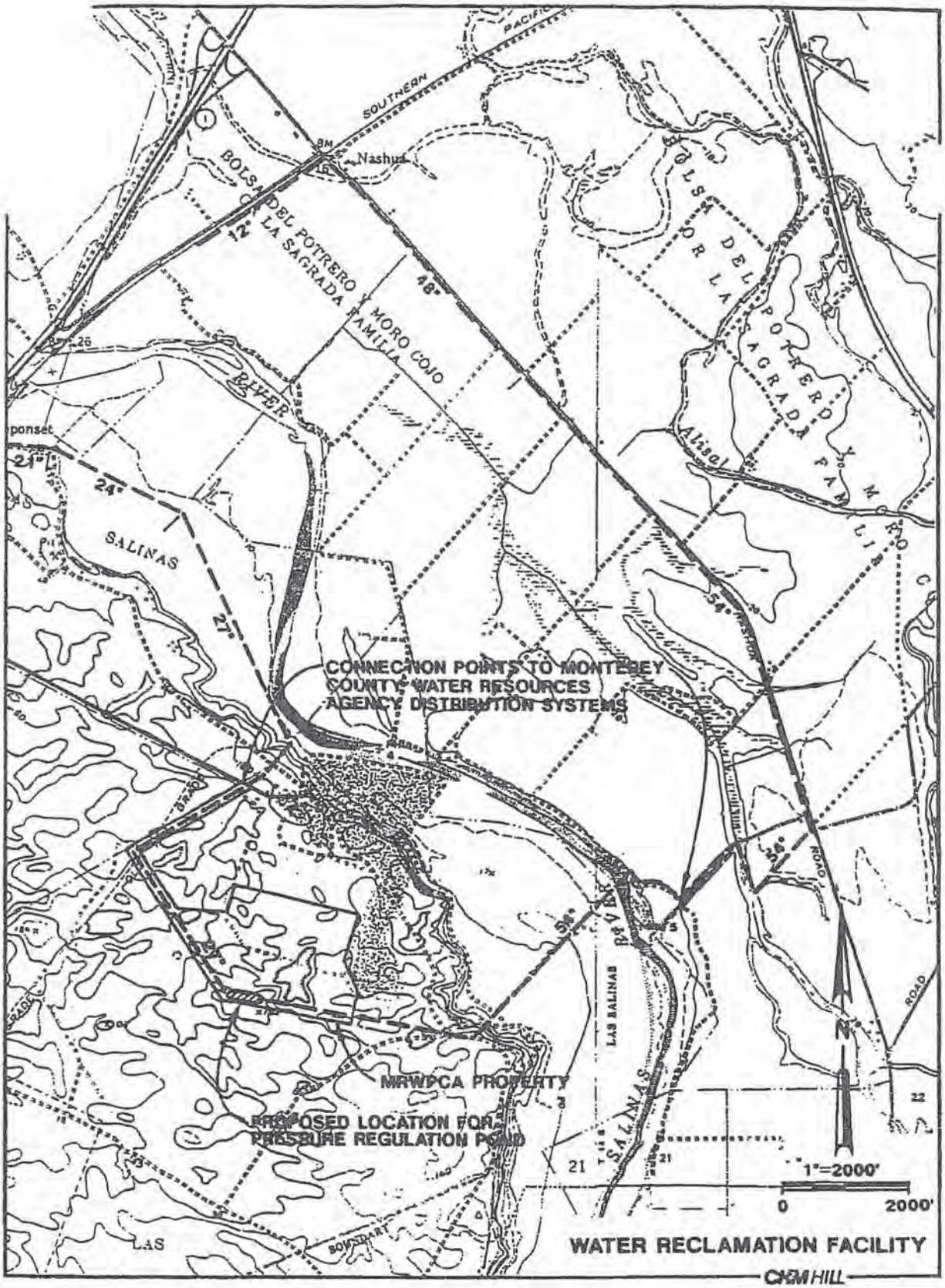
16.13. Severability.
If any provision of this Water Recycling Agreement is declared invalid or unenforceable by any court of competent jurisdiction, then such portion or provision shall be deemed to be severable, to the extent invalid or unenforceable, from this Water Recycling Agreement. Such declaration shall not affect the remainder of this Water Recycling Agreement, which shall remain in full force and effect, as though the invalid portion had never been included.

16.14. Waiver.
No waiver of any right or obligation of any of the parties shall be effective unless in a writing, specifying such waiver, executed by the party against whom such waiver is sought to be enforced. A waiver by any of the parties of any of its rights under this Water Recycling Agreement on any occasion shall not be a bar to the exercise of the same right on any subsequent occasion or of any other right at any time.

16.15. Conditions Precedent for New Source Water Facilities.
The portions of this Water Recycling Agreement applicable to the New Source Water Facilities (see Section I) shall not become effective until the following conditions are met:

1. Water Rights for the Blanco Drain and Reclamation Ditch are obtained from the California State Water Resources Control Board; and
2. A fully executed, and California Public Utilities Commission approved, Water Purchase Agreement, between PCA, Monterey Peninsula Water Management District, and California-American Water is approved by the California Public Utilities Commission and executed by the parties thereto; and
3. Written findings are made by the Regional Water Quality Control Board that utilization of the Blanco Drain dry weather flows as New Source Water meets all treatment requirements for the aforesaid dry weather flows; and
4. An independent third-party review of proposed capital and operating costs and preparation of an Engineer's Report is approved by the WRA Board of Directors and Board of Supervisors. The costs of the aforesaid third party review shall be shared equally between WRA and PCA; and
5. A successful assessment or Proposition 218 process for rates and charges related to the operation and maintenance of the New Source Water Facilities and proportional primary and secondary treatment charges; and
6. Inclusion of Salinas Pond Water Return Facilities as New Source Water Facilities requires execution of a separate agreement between the Parties.

EXHIBIT A


SOUTHERN PACIFIC
Nashua
BOLSA DEL POTRERO DE LA SAGRADA FAMILIA
BOLSA DEL POTRERO DE LA SAGRADA FAMILIA
MORO COJO
RIVER
Alisal
SALINAS
CONNECTION POINTS TO MONTEREY COUNTY WATER RESOURCES AGENCY DISTRIBUTION SYSTEMS
MRWPCA PROPERTY
PROPOSED LOCATION FOR PRESSURE REGULATION POND
LAS BALINAS
SALINAS
ROAD
1"=2000'
0
2000'
WATER RECLAMATION FACILITY
CH2M HILL

Perform normal operation and maintenance on the distribution well pumps, booster stations, pipelines, instrumentation, SCADA system and cathodic protection system. Perform repairs and major maintenance services as required due to wear and tear or failure of equipment. These will be performed as prescribed in the System Operations & Maintenance Manual prepared for the CSIP by WRA's design engineer, as well as the CSIP equipment manufacturers' manuals furnished in accordance with the CSIP construction contract documents, including:

- Inspect the pipelines, supplemental wells and booster stations.
- Inspect the pipelines for leaks.
- Inspect supplemental wells for general condition, log entries, fill pump bearing oilers, and perform general housekeeping.
- Inspect of booster stations for general condition, log entries, and perform general housekeeping.
- Inspect the turn-outs for serviceability.
- Inspect and calibrate conductivity meters.
- Read power and water meters at turnouts and supplemental wells once a month for records, and once a quarter at turnouts for billing purposes.
- Respond to after-hours problems on an on-call basis.
- Perform housekeeping of all assigned areas.
- Receive water orders and schedule water deliveries.
- Assess capability of the SVRP and the CSIP to supply water orders at the times and in the quantities requested.
- Notify growers as to whether each water order can or cannot be filled.
- Monitor turn-out flow rates to insure they conform with designed flow rate.
- Read water meters monthly.
- Monitor water quality within the distribution system and perform laboratory analyses and special studies as necessary to confirm the safety and public acceptance of the water.
- Maintain proper operation of air release and vacuum relief valves, and periodically exercise isolation valves.
- Maintain accurate and complete operational records and prepare reports as required by the recycled water user requirements referred to in Section 15.01 for the CSIP Copies of these reports will be provided to WRA.
- As necessary, replace motors, bearings and gaskets; repair valves and electrical or instrumentation equipment; and remove equipment from installed locations and transport to repair facilities.

Operation and maintenance of the SRDF

The SRDF is a seasonally operated facility. WRA shall notify PCA when SRDF seasonal operations are to begin and cease. As governed by project permits, raising the inflatable dam and pumping and chlorinating of river water may occur no sooner than April 1 of each year. Cessation of pumping and chlorinating river water shall occur no later than October 31 of each year. At the end of each operational season, the river water impoundment shall be filled to capacity and allowed to drain at 2 cfs through November 29 of each year unless directed otherwise by WRA. Depending on service area water demand, river water availability, quality, or other circumstances, raising of

- Perform testing as needed to determine and optimize chemical dosages and control chemical applications for river water treatment process.
- Inventory, order and store chemicals for the SRDF.
- Inventory, order and store spare parts and equipment for the SRDF.
- Maintain accurate and complete operational records and prepare monthly and any other reports as required by the WRA, or regulatory bodies.
- Read meters, gauges, and charts.
- Utilize computers and SCADA system to assist with the operation of the SRDF.
- Maintain and monitor reclaimed water storage reservoir.
- Collect samples from throughout the various SRDF processes to ensure and optimize river water production.
- Perform laboratory analyses and studies as necessary to ensure compliance with water safety concerns.
- Abide by PCA's safety and loss prevention program policies and maintain a safe working environment.
- Perform regular preventive maintenance on the SRDF equipment. Such maintenance may be performed in the off-season if determined to be more cost effective.
- Perform general maintenance, housekeeping and grounds maintenance of all assigned areas.
- Assist with, and provide support for, tours of the SRDF for members of the public.
- Inspect the pipelines for leaks.
- Assist WRA's grower liaison with the operation of the SRDF.
- Respond to after-hours problems on an on-call basis.
- Receive water orders and schedule water deliveries.
- Assess capability of the SRDF to supply water orders at the times and in the quantities requested.
- Notify growers as to whether water orders cannot be filled, and coordinate filling of the water orders as necessary.
- Monitor water quality within the delivery system and perform laboratory analyses and special studies as necessary to confirm the safety and public acceptance of the water.
- As necessary, replace motors, bearings and gaskets; repair valves and electrical or instrumentation equipment; and remove equipment from installed locations, transport to repair facilities and back to the project.
- PCA will be responsible for the care, maintenance, and use of additional equipment to be furnished by WRA for PCA's use in providing service under this agreement.
- Maintain and repair signage at SRDF site as needed. Signage will be supplied and installed by WRA.
- Implement the River Water Contaminant Response Plan as required by Plan criteria.

In addition to those services listed above, WPCA shall operate and maintain the SRDF river water chlorination system to conform to the following parameters:

- The chlorination system shall be capable of operation whenever the SRDF is operational, 24 hours per day, 7 days per week.
- The chlorination system shall be maintained to operate under normal flow capacity ranges from approximately 12 cubic feet per second (cfs) to 36 cfs. Maximum flow capacity is up to 48 cfs. Maximum flow capacity is intended only for short durations of significant water supply loss, such as when the SVRP is out of operation.
- A two-phase river water disinfection process including contact with free chlorine and

EXHIBIT C

SAMPLE WRA BASIC DEMAND SCHEDULE

FY 2015-2016 CSIP/SVRP/SRDF

DEMAND SCHEDULE

MONTH	PROJECTED RTP INFLUENT ACRE-FEET[1]	CSIP SUPPLEMENTAL WELLS PRODUCTION ACRE-FEET	SRDF RIVER PRODUCTION ACRE-FEET	SVRP + NEW SOURCE WATERS PRODUCTION ACRE-FEET	NEW SOURCE WATERS PRODUCTION ACRE-FEET	TOTAL DEMAND ACRE-FEET
July	1,976	1,355	-	2,045	245	3,400
August	1,959	802	-	2,198	348	3,000
September	1,864	197	-	2,003	303	2,200
October	1,930	20	-	1,268	300	1,288
November	1,767	70	-	786	200	856
December	1,783	100	-	-	-	100
January	1,601	250	-	-	-	250
February	1,491	150	-	806	150	956
March	1,620	130	-	1,670	170	1,800
April	1,858	450	-	1,950	250	2,400
May	1,946	1,210	-	2,040	240	3,250
June	1,894	1,324	-	1,926	226	3,250
TOTALS	**21,689**	**6,058**	-	**16,692**	**2,432**	**22,750**

NOTES:

(1) Based on actuals November previous calendar year through October of current calendar year

EXHIBIT E

CALCULATION OF PCA PAYMENTS PURSUANT TO SECTION 15.03 OF THIS WATER RECYCLING AGREEMENT

As required by Section 17.08 of this Water Recycling Agreement, PCA shall pay the Actual Costs of tertiary treated water to which it takes delivery for its use. The Actual Costs will be calculated from the cost components which comprise PCA's existing budget and actual spreadsheet model(s) for the annual SVRP and CSIP costs.

The four cost elements that compromise the Actual Costs will be computed as follows:

(1) SVRP O&M Costs: The SVRP O&M budget will be calculated based on the Total Tertiary Treated Water Production needed to serve both the CSIP and M&I uses of tertiary treated water. The amount to be paid by PCA will be computed using the formula below,in which:
A= Total Tertiary Treated Water Production, AFY
B =Tertiary Treated Water Production delivered to PCA for PCA use, AFY
C = Total O&M Expenditures from the SVRP O&M budget, excluding debt service
D =Amount to be paid by PCA

$$D = \frac{B}{A} \times C$$

(2) **Supplemental Well Pumping Cost:** The amount to be paid by PCA will be computed as indicated in Section 2.G. of Amendment No. 3.

S = Amount to be paid by PCA

(3) **SWRCB Loan Contract Debt Service:** The amount to be paid by PCA will be computed using the formula below, in which:
A= Total Tertiary Treated Water Production, AFY
B = Tertiary Treated Water Production delivered to PCA for its use, AFY
E = SVRP SWRCB Loan Debt Service
F = Amount to be paid by PCA

$$F = \frac{B}{A} \times E$$

(4) **Bureau Loan Contract Debt Service:** The amount to be paid by PCA will be computed using the formula below, in which:
A = Total Tertiary Treated Water Production, AFY
B =Tertiary Treated Water Production delivered to PCA for its use, AFY
G = SVRP Bureau Loan Debt Service, computed pursuant to Article 9 (b) (1) and 9 (c) of Bureau Loan Contract
H = Additional interest charged by the Bureau for the Bureau loan on the SVRP pursuant to Article 9 (b) (2) of Bureau Loan Contract
I = Amount to be paid by PCA

$$I = \frac{B}{A} \times G + H$$

$$\text{TOTAL PCA PAYMENTS} = D + S + F + I$$

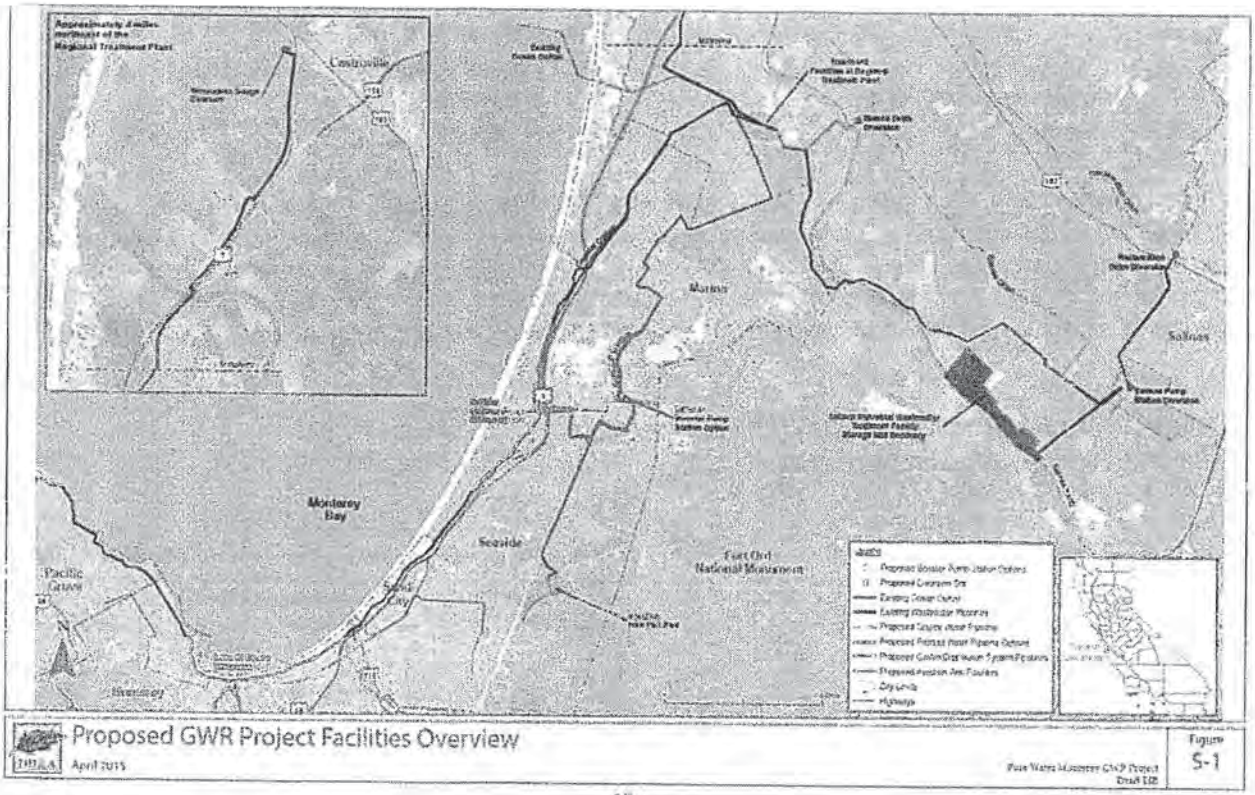

Castroville
Marina
Seaside
Monterey Bay
Pacific Ocean
Fort Ord National Monument
Salinas
Proposed GWR Project Facilities Overview
April 2015
Figure
5-1

EXHIBIT G

New Source Water Facilities

State Water Resources Control Board

Original Principal	$3.9 Million (estimated)
Term	30 Years
Rate	1% (estimated)
Estimated Principal Payment	$112,117 (variable)
Estimated Interest Payment	$39,000 (variable)
Estimated Total Annual Debt Service	$151,117

Notes: Invoice projected to be received by PCA from the SWRCB. PCA will invoice WRA for the loan payment.

Salinas Valley Reclamation Plant
SWRCB - State Revolving Fund Loan

Year		Principal Payment	Interest on Loan	Total Payment	Loan Balance
3/31/1998	Balance				9,319,708.22
3/31/1999	1	0	632,672.76	632,672.76	9,319,708.22
3/31/2000	2	626,019.10	6,653.66	632,672.76	8,693,689.12
3/31/2001	3	365,193.60	267,479.16	632,672.76	8,328,495.52
3/31/2002	4	376,514.61	256,158.15	632,672.76	7,951,980.91
6/30/2002	Adj	72,591.27	-72,591.27	0	7,879,389.64
3/31/2003	5	387,829.11	244,261.08	632,090.19	7,491,560.53
3/31/2004	6	399,851.81	232,238.38	632,090.19	7,091,708.72
3/31/2005	7	412,247.22	219,842.97	632,090.19	6,679,461.50
3/31/2006	8	425,026.88	207,063.31	632,090.19	6,254,434.62
3/31/2007	9	438,202.72	193,887.47	632,090.19	5,816,231.90
3/31/2008	10	452,279.63	170,810.56	623,090.19	5,363,952.27
3/31/2009	11	465,807.67	166,282.52	632,090.19	4,898,144.60
3/31/2010	12	480,247.71	151,842.48	632,090.19	4,417,896.89
3/31/2011	13	495,135.39	136,954.80	632,090.19	3,922,761.50
3/31/2012	14	510,816.84	121,273.35	632,090.19	3,411,944.66
3/31/2013	15	526,319.91	105,770.28	632,090.19	2,885,624.75
3/31/2014	16	542,635.82	89,454.37	632,090.19	2,342,988.93
3/31/2015	17	559,457.53	72,632.66	632,090.19	1,783,531.40
3/31/2016	18	576,951.78	55,138.41	632,090.19	1,206,579.62
3/31/2017	19	594,686.22	37,403.97	632,090.19	611,893.40
3/31/2018	20	611,893.40	18,968.70	630,862.10	0

EXHIBIT I

Schedule of Amortized Replacement and Renewal Costs

New Source Water Facilities

DRAFT

	PCA Proportional Share 54.9%	WRA Proportional Share 45.1%	Total Costs
Estimated Original Cost - Equipment Requiring Replacement			
Electrical Equipment & Sluice Gates (part of Construction Cost, above)	$ 124,455	$ 102,239	$ 226,695
Instrumentation Equipment (part of Construction Cost, above)	$ 16,177	$ 13,289	29,466
Pumps & Motors	$ 252,063	$ 207,068	459,130
	$ 392,695	# $ 322,596	$ 715,291

	Estimated Life	Replacement Frequency Thirty Year Term	Estimated Annual Proportional Amount (1)
Estimated Annual Proportional Contribution			
Electrical Equipment & Sluice Gates (part of Construction Cost, above)	30	1	38,747
Instrumentation Equipment (part of Construction Cost, above)	15	2	4,448
Pumps & Motors	20	1.5	68,263
Estimated Annual Proportional Contribution			**$ 111,458**
		PCA Share	$ 61,191
		WRA Share	$ 50,268
(1) Annual inflation factor for replacement cost of equipment (Based on Cal-American Water Company factor)	5.60%		

MRWPCA COST ALLOCATION PLAN

TABLE OF CONTENTS

allocation plan was not established to be consistent with *Title 2, Code of Federal Regulations, Part 225, Cost Principles for State, Local, and Indian Tribal Governments (formerly known as OMB A-87). The* primary goal of the Title 2 Plan is typically to obtain reimbursement of overhead costs associated with State and Federal grants.

The MRWPCA Cost Allocation Plan has been reviewed by an independent consultant, NBS, and has been determined to be reasonable for this specified use. The MRWPCA Cost Allocation Plan may be replaced at any time with a Plan that is compliant with Title 2, CFR, Part 225 for the purpose of obtaining reimbursement of overhead costs associated with State and Federal Grants.

Data Sources

MRWPCA referenced the following data to support the development of the initial Cost Allocation Plan:

- Budgeted expenditures for Fiscal Year 2015/16
- Listing of all Agency positions by Department
- Number of invoices and purchase orders processed by each fund and department for Fiscal Years: 2012/13, 2013/14, and 2014/15

SUPPORT SERVICE DEPARTMENT NARRATIVES

The full cost allocation plan allocates six administrative support departments to various operational department cost centers, based on a variety of factors. The plan identifies total allocable costs at approximately $3.37 million from the following administrative units for distribution to the operating functions:

Budget Account	Allocable Department Budget	Total Allocable Expense
01-010	Administration	$1,106,677
01-013	Finance	916,737
01-011	Human Resources	383,624
01-015	Information Technology	242,449
01-030	RTP Administration	415,631
01-016	Safety	305,165
	Total Administrative Allocations	$3,370,283

The following paragraphs provide a brief description of each Administrative service department, along with a general explanation of how administrative costs are allocated to each functional department within the Plan.

Administration (01-010)

The Administration Department is responsible for all aspects of administration, operation, and planning activities of the Agency staff. The General Manager and the Executive Assistant/Clerk to the Board's salaries are included in this budget. The Administration Department is responsible for assisting the Board with policy development, implementation of strategic goals, and providing Agency leadership and management. Costs include legal counsel, insurance, contract services, and utility costs for the Harris Court administrative offices. While the Stormwater Program Manager's salaries are included in the FY 15/16 personnel expenses, they are directly charged to

telephone, and audio video systems; while serving as a technical resource to staff on technology needs. The Information Systems Department defines, delivers, and supports strategic plans for implementing information technologies.

- The costs of the Information Systems budget are allocated based on the percentage of full-time equivalent positions in each operating department

RTP Administration (01-030)

The RTP Administration Department is a centralized support service team located at the Regional Treatment Plant Facility. The Assistant General Manager provides leadership to all departments located at the Regional Treatment Plant and works closely with the General Manager to accompany Agency goals. Costs included within this budget unit primarily consist of salary and benefits associated with the Assistant General Manager, Administrative Support Specialist, and office expenses.

All costs associated with the RTP Administration are allocated based on the following:

- General Manager salary and proportional share of expenses based on the operational department's percentage of the budget

- Administrative Support Specialist salary and proportional share of expenses based on the average percentage of budget and full-time equivalency positions within each operational department.

Safety (01-016)

The Safety Department provides service to all Agency employees though training and assistance in implementing safe work practices. The Safety Officer works to implement programs which meet and exceed Federal, State, and Regional requirements for work safety, contractor safety; and materials safety at all Agency facilities. The Safety Budget includes costs associated with Agency-wide safety training, protective equipment, and the safety shoe reimbursement program.

- Costs associated with the Safety Department are allocated based on the percentage of full-time equivalent positions in each operating department

Additional Notes

Administrative costs that are charged directly to specific functional areas or capital projects are not allocated as part of this cost allocation plan.

NAVIGATING THE COST ALLOCATION PLAN

An overview of the MRWPCA Cost Allocation Plan is listed below and attached to this report.

- Agency-Wide Chart – Illustrates the departments identified as administrative cost centers and departments identified as operational cost centers. The allocation percentage of each administrative cost center is listed below each administrative cost function.

RESOLUTION NO. 20862 (N.C.S.)

A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE AN AGREEMENT FOR CONVEYANCE AND TREATMENT OF AGRICULTURAL PRODUCE WASH WATER BY AND BETWEEN THE CITY OF SALINAS AND MONTEREY REGIONAL WATER POLLUTION CONTROL AGENCY

WHEREAS, the City of Salinas is interested in providing alternative sources of water to the Monterey Peninsula Cities for a Groundwater Replenishment facility (GWR) to be built and operated by the Monterey Regional Water Pollution Control Agency (PCA) for the purpose of supplying replacement drinking water supplies; and

WHEREAS, the City of Salinas is also interested in providing alternative sources of water to Salinas Valley agricultural producers to hold sea water intrusion in abeyance via the Castroville Seawater Intrusion Project (CSIP) that is owned by local agricultural interests and managed by the Monterey County Water Resources Agency (WRA); and

WHEREAS, the signing of this Agreement will set the framework for PCA and the City of Salinas to come to a final agreement in the near future on the treatment and conveyance of the produce wash water and storm water for use as a source water for the GWR and CSIP of said waters for the next thirty years; and

WHEREAS, in order to provide water to these sources the City of Salinas agrees that the PCA is the agency best qualified to transfer and recycle the produce wash water and storm water to these projects; and

WHEREAS, the PCA Board certified the Environmental Impact Report ("EIR") for the GWR Project as complete and in compliance with the California Environmental Quality Act ("CEQA"), and adopted the findings required by CEQA on October 8, 2015; and

WHEREAS, the City of Salinas commented on the Draft EIR because it included using the City's produce wash water and storm water for use as source water for the Ground Water Replenishment (GWR) project and the Castroville Seawater Intrusion Project (CSIP); and

WHEREAS, by signing this agreement will allow PCA to begin taking over maintenance of the City's industrial waste water facility and begin paying the City of Salinas $300,000 annual lease starting on 2017; and

WHEREAS, approving this agreement will result in low interest State Revolving Fund resources (loans/grants) being acquired by PCA to complete final design, engineering, and implementation of the GWR project.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SALINAS AS FOLLOWS:

Section 1. The above recitals are true and correct.
Section 2. That the Mayor is authorized to execute the agreement attached hereto for the purpose of conveyance and treatment of agricultural produce wash water for use as source water for the Ground Water Replenishment (GWR) project and the Castroville Seawater Intrusion Project (CSIP).

PASSED AND ADOPTED this 27th day of October 2015, by the following vote:

AYES: Councilmembers: Barrera, Craig, De La Rosa, Lutes, McShane and Mayor Gunter

NOES: Councilmember Castaneda

ABSENT: None

ABSTAIN: None

APPROVED:

Joe Gunter, Mayor

ATTEST:

Patricia M. Barajas, City Clerk

AGREEMENT FOR CONVEYANCE AND TREATMENT OF INDUSTRIAL WASTE WATER BY AND BETWEEN THE CITY OF SALINAS AND THE MONTEREY REGIONAL WATER POLLUTION CONTROL AGENCY

THIS AGREEMENT is made and entered into on October 27, 2015, by and between the **City of Salinas**, a California charter city and municipal corporation (hereinafter referred to as the "City"), and the **Monterey Regional Water Pollution Control Agency**, a California joint powers agency (hereinafter referred to as the "MRWPCA"), sometimes collectively referred to herein as the "Parties" and individually as "Party," as follows:

Recitals

A. The City owns and operates an Industrial Waste Water Collection and Conveyance System (the "IWCCS") that receives industrial waste water from approximately 25 processing and related businesses operating in the southeast corner of the City, and transports that water to the City's Industrial Waste Water Treatment Facility (the "IWTF") located at South Davis Road in the City and has the rights and access to and receives for treatment (by aeration) and disposal (by evaporation and percolation) approximately 4,000 acre feet/year of industrial waste water or also called agricultural wash water.

B. The MRWPCA has an existing need for source water for 1) to serve its Pure Water Monterey Groundwater Replenishment Project (the "GWR Project") and 2) to augment the existing Castroville Seawater Intrusion Project's ("CSIP") crop irrigation supply.

C. In July 2014 the Parties hereto, along with the Monterey County Water Resources Agency (the "MCWRA"), entered into a short-term Produce Wash Water Utilization Agreement (the "Utilization Agreement"), whereby industrial waste water from the IWTF was diverted, by means of a by-pass shunt to the MRWPCA's Regional Treatment Plant (the "RTP"), for treatment to provide additional water for treatment to the MRWPCA/MCWRA Salinas Valley Reclamation Project, to then be delivered as recycled water to the CSIP service area. That Utilization Agreement has been extended by the parties thereto for additional periods as deemed necessary and it is anticipated by the Parties that it will be extended into 2017.

D. In March 2015 the City and the MRWPCA entered into a further agreement, set forth and memorialized in mutual resolutions and minute actions of the governing bodies of each Party, to share the costs of design and construction of the permanent diversion facilities necessary to permit the redirection of the industrial waste water from the IWTF to the municipal waste water system for conveyance to the RTP. The permanent diversion facilities are as depicted and described in **Attachment A**, consisting of two pages, attached hereto and incorporated herein by this reference.

E. The purpose and intent of this Agreement, therefore, is for the Parties to set forth the terms and conditions by which they will continue the transfer, conveyance, treatment and use of the industrial waste water, utilizing the permanent diversion facilities, to the mutual benefit of the Parties and the communities served by the GWR Project and the CSIP.

F. This Agreement implements the Pure Water Monterey Groundwater Replenishment Project ("GWR") that the MRWPCA Board approved on October 8, 2015. The MRWPCA Board certified the Environmental Impact Report ("EIR") for the GWR Project as complete and in compliance with the California Environmental Quality Act ("CEQA"), and adopted the findings required by CEQA on October 8, 2015. This Agreement does not change the GWR Project and no change of circumstances or new information shows the GWR Project would result in new or substantially more severe environmental impacts such that major revisions to the certified EIR would be required. This Agreement is approved based on the EIR as certified.

Terms & Conditions

In consideration of the foregoing recitals, and the mutual promises, conditions and covenants made herein, the Parties agree to the following terms and conditions:

1. Source and Conveyance of Industrial Waste Water.

a. The City currently operates and maintains an industrial waste water, collection, conveyance and treatment system, the IWCCS, described in Recital A, above. For the term and any extended term of this Agreement, City agrees to continue to operate that system, or contract for operation of the system in a manner consistent with this agreement, and agrees unless otherwise directed by MRWPCA, to convey all industrial waste water collected in IWCCS to the permanent diversion facilities described in Recital D, to MRWPCA via its Salinas pump station and other facilities to the RTP for treatment and distribution for the uses described in Recital B, above.

b. For the term of this Agreement, City will provide MRWPCA access and rights to the industrial waste water in order for the MRWPCA to use the industrial waste water in a manner that is beneficial and consistent with the uses described in Recital B, above, and consistent with the Recitals and the terms and conditions listed in this Section.

c. For purposes of this Agreement, the point of transfer of industrial waste water described hereinabove from the City to the MRWPCA is the permanent shunt jointly installed by the Parties located ahead of the IWTF, as depicted in Attachment A.

d. As of the date of execution of this Agreement, City confirms that it is aware that approximately 25 wastewater producers deliver waste water to the City's

industrial waste water system described hereinabove, the IWCCS, with those producers and amounts they delivered in the years noted and listed in **Attachment B**, consisting of two pages, attached hereto and incorporated herein by this reference. All waste water from all producers listed in Attachment B, and all waste water from producers added to the industrial waste water system subsequent to the execution of this Agreement, shall be directed and conveyed as provided by this Section 1.

e. Non-Compliant Discharge

(i) City agrees to cooperate with MRWPCA's Source Control division to ensure that all water quality characteristics are complied with.

(ii) Non-compliant waste water means water, delivered pursuant to this Section 1, that does not meet applicable legal standards or standards agreed to by the Parties by separate agreement, and that therefore is not suitable for delivery to MRWPCA.

(iii) City shall notify MRWPCA immediately upon City becoming aware of any non-compliant discharge. MRWPCA will then direct such rejected discharge to the IWTF.

(iv) Attached hereto as **Attachment C,** and incorporated herein by this reference is the Interruptible Rate Schedule, including Parties' agreed upon handling of non-compliant waste water. In case of conflict between **Attachment C** and the body of this agreement, provisions of the body of this agreement shall apply.

f. Disruption/Interruption of Service

(i) Disruption or interruption of service caused by but not limited to, acts of God, acts of war, or criminal acts of others, water shortages, fires, floods, earthquakes, epidemics, quarantine restrictions, strikes, or failure or breakdown of transmission or other facilities or similar occurrences may result in damages. Other reasons for disruption/interruption may include but are not limited to the flooding of the Salinas River, high flows at the pump station, industrial waste water not being needed at the regional treatment plant, a spill or toxic matter in the waste water. The harm thereby caused may delay or suspend delivery of the industrial waste water until such time as successful effort is made to restore service.

(ii) In the event of such disruption or interruption MRWPCA may close the permanent diversion facility to allow the industrial waste water to flow to the City's IWTF. MRWPCA will notify the appropriate City personnel within 24 hours regarding the reasons for diversion.

(iii) Interruption or disruption of service shall be according to the Interruptible Rate schedule set out in **Attachment C**, attached hereto and incorporated herein by this reference.

Lease for Operation and Maintenance of IWTF

g. (i) Upon execution of this Agreement, the parties will negotiate and endeavor in good faith to enter into an agreement whereby MRWPCA would assume responsibility for the operation and maintenance of the IWTF ponds starting in 2017. The annual lease payment shall be $300,000 a year, payable as negotiated, with an escalation factor to be negotiated as well.

(ii) The parties shall negotiate terms regarding the City's obligation to repair, maintain, reimburse or contract out in order to uphold their responsibility as the lessor of the Industrial Waste Treatment Facility Ponds to MRWPCA the Lessee. These items include but are not limited to rate of treatment which would include capital and reserve allocations, infrastructure improvements, water quality parameters, electricity, roads, costs associated with removal of sludge, etc.

(iii) As conditions of the lease agreement, the parties shall negotiate the level of MRWPCA's commitment to provide infrastructure improvements to the IWTF during the term of the lease to include MRWPCA consulting with the City regarding improvements required for the ponds to remain a productive and efficient means for treating, storing and reusing industrial waste water and which the infrastructure improvements are allocated. MRWPCA would employ a variety of options in order to meet the required infrastructure improvement figure. Options for securing the resources necessary to improve the pond infrastructure may include but are not limited to low interest loans, grants, public/private partnerships, in-kind labor by MRWPCA or other partner agencies.

2. Payment for Treatment.

a. City agrees to pay to MRWPCA all costs of treatment of the industrial waste water conveyed to MRPWCA and measured by meter pursuant to Section 1 above. As determined by a rate study prepared by MRWPCA and agreed to by City, the initial rate for treatment shall be $179.00/acre foot. If and as costs of treatment change, either as provided in the rate study or by other means, MRWPCA shall, by written notice given no later than 45 days prior to a rate change, notify City of such rate change, to include an explanation and accounting of the costs requiring a change. City shall, upon the effective date of a rate change, pay for costs at the new rate. MRWPCA shall make no more than one rate change in any twelve-month period, unless otherwise provided in the rate study. MRWPCA invoices for treatment costs shall be rendered monthly and paid by City within 45 days of receipt.

b. If City contests an invoice submitted under this Section, it shall give MRWPCA notice of the dispute at least 10 days prior to the day payment is due. To the

extent MRWPCA finds City's contentions correct, it shall revise the statement accordingly and City shall make payment of the revised amount within 45 days of notice of the revised amount. If MRWPCA rejects City's contentions or where time is not available for review of the contentions prior to the due date, City shall make payment of the invoiced amount on or before the due date and make the contested part of such payment under protest and seek to recover the amount thereof from MRWPCA.

c. Upon the improvements to the IWTF system, industrial waste water or storm water that is stored at the IWTF site and returned to the Salinas Pump Station for the treatment and reuse at the Regional Treatment Plant (RTP), it is anticipated that the intended user of the water will pay for the cost of conveyance and treatment of water. The rates for treating this stored water will be in accordance to the Interruptible Rate table as calculated by the MRWPCA.

3. **Source Control Monitoring.** Source control monitoring of the City's industrial waste water processing facilities by MRWPCA shall continue pursuant to existing agreements between City and MRWPCA.

4. **Term.** The effective date of this Agreement is January 1, 2016. Unless earlier terminated or extended in writing by mutual agreement of the Parties, this Agreement shall remain in effect for a period of thirty (30) years from the effective date hereof. This Agreement shall be automatically extended for two successive five-year terms after the initial thirty (30) year term unless either Party gives written notice of termination no later than two years before the end of the initial term or later term as extended per this Section.

5. **Disputes.**

a. If any dispute under this Agreement arises, the Parties shall first meet and confer in an attempt to resolve the matter between themselves. Each Party shall make all reasonable efforts to provide to the other Party all the information in its possession that is relevant to the dispute, so that both Parties have ample information with which to reach a decision.

b. In the event a dispute involving the enforcement or interpretation of this Agreement is not resolved by the meet and confer process described in subsection a. of this Section, it must be submitted to non-binding mediation before suit is filed. Upon request by either Party, the Parties will within ten (10) days of submission to such arbitration, select a single mediator to mediate the dispute. If the Parties are unable to agree on a mediator within ten (10) days of the request to select, then either Party may ask the then presiding judge of the Monterey County Superior Court to select a mediator. If a dispute is not resolved within 45 days of selection, however selected, either Party may file suit specifically to enforce or interpret this Agreement and to seek any damages to which the Party may be entitled.

6. **Insurance/Self-Insurance.** Each Party is either insured or self-insured as to any requirements under this Agreement. No policies or bonds are required of either Party as to any provisions of this Agreement. The Parties are aware of and shall comply with the requirements of Section 3700 of the California Labor Code at their own cost and expense and, further, neither Party nor its insurer shall be entitled to recover from the other any costs, settlements, or expenses of Workers' Compensation claims arising out of this agreement.

7. **Indemnification and Hold Harmless.** Each Party hereto agrees that it shall indemnify, defend, and hold harmless the other Party, including Party's officers, agents and employees, from and against any and all claims, liabilities, and losses whatsoever occurring or resulting to any person, firm, corporation, or other entity for foreseeable consequential damage, property damage, injury, or death arising out of or connected a Party's negligence or non-performance of its obligations under this Agreement. The provisions of this Section 7 shall survive the expiration of the term or termination of this Agreement.

8. **Miscellaneous.**

   a. Each Party represents that it has read all terms set out herein and each fully understands and accepts all terms of this Agreement.

   b. The Parties acknowledge that each has reviewed this Agreement and that the usual rule of construction that ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Agreement

   c. This Agreement sets for the entire understanding of the Parties with respect to the subject matter hereof. Neither Party has made any statement or inducement for the other to enter into this Agreement, except as expressly set forth herein or incorporated herein by reference. The Parties agree that this Agreement shall not be altered, amended, modified, or otherwise changed except in writing by mutual consent of the Parties.

   d. This Agreement shall be governed by the laws of the State of California. Venue for any legal action relating to this Agreement is Monterey County.

   e. If any part of this Agreement is for any reason ruled unenforceable by a court of competent jurisdiction, the remainder shall remain in full force and effect unless the unenforceable part is a material consideration to a Party.

f. In the event of any claim, controversy or dispute that results in litigation or binding arbitration, the prevailing Party shall be entitled to recover from the losing party reasonable expenses, attorney fees, and costs.

g. Both parties shall cooperate fully to execute any and all documents, and to take any actions necessary and appropriate to give full force and effect to this Agreement, and which are not inconsistent with its terms.

h. The individuals whose signatures appear herein below represent, warrant and guarantee that they have the authority to execute this Agreement on behalf of the Party on whose behalf they purport to sign and execute.

i. It is expressly understood that this Agreement is intended by the Parties to be between two independent contractors and that no agency, employment, partnership, joint venture, or other relationship is established by this Agreement.

j. The Parties agree that neither Party shall be considered or deemed to have waived, released, or altered in any manner any or all rights which it would otherwise have pursuant to law with regard to any other matter not dealt with or affected by this Agreement.

9. **Counterparts.** This Agreement may be executed in two counterparts, each of which shall be deemed an original, but each of which shall be deemed to constitute one and same document.

10. **Notices.** All notices or other writings in this Agreement provided to be given or made or sent, or which may be given or made or sent, by one Party hereto or another, shall be deemed to have been fully given or made or sent with made in writing and deposited in the United States mail, registered, certified or first class, postage paid, and addressed as follows:

To MRWPCA: General Manager
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940

To City of Salinas: City Manager
City of Salinas City Hall
200 Lincoln Ave.
Salinas, CA 93901

With a copy provided to the City & Agency's Attorney.

The address to which any notice or other writing may be given or made or sent to either Party may be changed upon written notice given by such Party as provided above.

IN WITNESS WHEREOF, the Monterey Regional Water Pollution Control Agency and the City of Salinas have entered into this Agreement as of the date first written above.

MONTERREY REGIONAL WATER POLLUTION CONTROL AGENCY

By Gloria De La Rosa

Its Board Chair

Approved as to Form: Robert R. Wellington
Robert Wellington, Legal Counsel

CITY OF SALINAS

By

Its Mayor

Approved as to Form: Christopher Callihan
Christopher Callihan, City Attorney

Monterey One Water
Providing Cooperative Water Solutions

Board of Directors Meeting
Staff Report

TO:	Board of Directors
FROM:	Paul A. Sciuto, General Manager
MEETING DATE:	June 24, 2019
AGENDA ITEM NO:	8 – B
SUBJECT:	Consider Approval of Amendment No. 1 to the Amended and Restated Water Recycling Agreement (ARWRA) Between Monterey One Water (M1W) and Monterey County Water Resources Agency (MCWRA)

BACKGROUND

In October of 2016 the Monterey One Water (M1W) Board approved the Amended and Restated Water Recycling Agreement (ARWRA) with Monterey County Water Resources Agency (MCWRA.) The ARWRA provides, *inter alia*, for new source waters from the Blanco Drain, Reclamation Ditch and the City of Salinas (produce wash water) for Castroville Seawater Intrusion Project (CSIP) and the Pure Water Monterey Project. It was developed by combining provisions of (i) the M1W agreement with MCWRA, dated June 15, 1992, for construction and operation of a tertiary treatment system (the "1992 Agreement"), with subsequent amendments thereto, as follows: Amendment No. 1 on May 30, 1994; Amendment No. 2 on February 16, 1998; and Amendment No. 3 on May 28, 2002, (ii) agreement between M1W and MCWRA entitled "Operation and Maintenance of the Salinas River Diversion Facility," dated February 3, 2011 (SRDF Agreement) and, (iii) the MOU.

Portions of the ARWRA applicable to the New Source Water Facilities will not become effective until the following conditions are met:

1. Water Rights for the Blanco Drain and Reclamation Ditch are obtained from the California State Water Resources Control Board; and,
2. A fully executed, and California Public Utilities Commission (CPUC) approved, Water Purchase Agreement, between MRWPCA, MPWMD, and California-American Water, is approved by the CPUC and executed by the parties thereto; and,
3. Written finding by the Regional Water Quality Control Board that utilization of the Blanco Drain dry weather flows as New Source Water meets all treatment requirements for the aforesaid dry weather flows; and,

4. An independent third-party review of proposed capital and operating costs and preparation of an Engineer's Report is approved by the MCWRA Board of Directors and Board of Supervisors. The costs of the aforesaid third-party review shall be shared equally between MCWRA and MRWPCA; and,
5. A successful assessment or Proposition 218 process for rates and charges related to the operation and maintenance of the New Source Water Facilities and proportional primary and secondary treatment charges; and,
6. Inclusion of Salinas Pond Water Return Facilities as New Source Water Facilities requires execution of a separate agreement between the Parties.

Due to delays in completing the cost based Engineers Report (Number 4 above) and changes in MCWRA personnel, the conditions noted above have not been completed.

Therefore, MCWRA and M1W have developed an amendment to the ARWRA that will allow additional time to address the conditions precedent, delay required payments for the project by MCWRA, and allow M1W to use source waters for the Pure Water Monterey Project.

The Monterey County Water Resources Agency Board of Directors unanimously recommended approval of Amendment No. 1 at their June 17 Board meeting.

FISCAL IMPACT

The cost of the above items is to be determined with future costs to be funded from a combination of M1W Reclamation funds from MCWRA and Pure Water Monterey funds.

RECOMMENDED ACTION:

That the Board of Directors approve Amendment No. 1 to the Amended and Restated Water Recycling Agreement (ARWRA) Between Monterey One Water (M1W) and Monterey County Water Resources Agency (MCWRA)

ATTACHMENTS:

1. Draft Amendment No. 1 to ARWRA
2. Original ARWRA

AMENDMENT NO. 1 TO
AMENDED AND RESTATED WATER RECYCLING AGREEMENT
BETWEEN MONTEREY COUNTY WATER RESOURCES AGENCY AND
MONTEREY ONE WATER

THIS AMENDMENT NO. 1 to the Amended and Restated Water Recycling Agreement , dated November 3, 2015, (hereinafter, "Agreement") between the Monterey County Water Resources Agency, a political subdivision of the State of California (hereinafter, "WRA") and Monterey One Water (hereinafter, "M1W," referred to in the Agreement as "PCA") is hereby entered into between WRA and M1W (collectively, WRA and M1W are referred to as the "Parties").

WHEREAS, the portions of Agreement applicable to the New Source Water Facilities will not become effective until the following conditions in Section 16.15 are met:

1. Water Rights for the Blanco Drain and Reclamation Ditch are obtained from the California State Water Resources Control Board; and,
2. A fully executed, and California Public Utilities Commission approved, Water Purchase Agreement, between MRWPCA, MPWMD, and California-American Water, is approved by the California Public Utilities Commission and executed by the parties thereto; and,
3. Written findings are made by the Regional Water Quality Control Board that utilization of the Blanco Drain dry weather flows as New Source Water meets all treatment requirements for the aforesaid dry weather flows; and,
4. An independent third-party review of proposed capital and operating costs and preparation of an Engineer's Report is approved by the WRA Board of Directors and Board of Supervisors. The costs of the aforesaid third-party review shall be shared equally between WRA and M1W; and,
5. A successful assessment or Proposition 218 process for rates and charges related to the operation and maintenance of the New Source Water Facilities and proportional primary and secondary treatment charges; and,
6. Inclusion of Salinas Pond Water Return Facilities as New Source Water Facilities requires execution of a separate agreement between the Parties; and,

WHEREAS, the status of the conditions in Section 16.15 are as follows; conditions 1 and 2 are satisfied; conditions 3,4, and 5 are pending; and condition 6 has not yet commenced; and,

WHEREAS, the capital cost of the New Source Water Facilities are funded by M1W through grants and a low-interest loan from the State of California, Water Resources Control Board, State Revolving Funds with the first payment due on December 31, 2019; and,

WHEREAS, if all conditions in Section 16.15 are satisfied, the WRA's share of the capital costs and the repair and replacement costs associated with the New Source Water Facilities are 45.1%; and,

Approved as to Fiscal Provisions

By: _____
Auditor-Controller

Date: _____

Approved as to Indemnity, Insurance Provisions

By: _____
Risk Management

Date: _____

Comment Document F: City of Salinas

F-1 M1W and City of Salinas have been working together for over 15 years jointly operating and managing the industrial and municipal wastewater systems in the City. M1W and the City entered into numerous agreements to allow joint operations and maintenance and to provide for M1W to treat the industrial wastewater (referred to as Agricultural Wash Water herein) for recycling/reuse. In the past, M1W diverted the Agricultural Wash Water at the request of the City due to capacity and compliance issues in the City's Industrial Wastewater Treatment Facility. The Industrial Wastewater Treatment Facility is located within the 100-year flood zone along the Salinas River The discharge of untreated Agricultural Wash Water to the Salinas River is not permitted by the RWQCB and the RWQCB permit for the Industrial Wastewater Treatment Facility also requires a minimum of 2-feet of freeboard in the ponds and the system must demonstrate adequate treatment through the aeration basin. This source of water is likely to be available for recycling and reuse for the foreseeable future; M1W is unaware of any projects or plans that would result in another treatment plant that could enable beneficial use of the Agricultural Wash Water for another purpose, such as enabling the City to use this water to support farmers, ranchers and the City's agricultural industry. However, to provide a conservative analysis, M1W has calculated the quantity of source water supplies that would be available to be treated at the AWPF under an assumption that no Agricultural Wash Water would be available for the approved PWM/GWR Project and Proposed Modifications. That analysis demonstrates that the approved PWM/GWR Project and Proposed Modifications would be capable of providing the yield anticipated for these Projects even if no Agricultural Wash Water is available for treatment at the AWPF. See **Appendix M** of this Final SEIR, M1W Source Water Technical Memorandum, and Master Response #3: Comments on Water Supply and Source Water Availability.

F-2 The use of Agricultural Wash Water from the City of Salinas has been included as a source water component of the approved PWM/GWR Project, and is allowed to be diverted to the RTP for primary and secondary treatment then either: (1) for advanced tertiary treatment for supplying water to the Castroville Seawater Intrusion Project, or (2) for use as influent to the AWPF and then after treatment for conveyance and injection into the Seaside Basin. However, as explained above, M1W possesses adequate rights to municipal wastewater and to new source waters to meet the anticipated yield of the approved PWM/GWR Project and Proposed Modifications even without use of the Agricultural Wash Water needed by CSIP. See also Master Response #3: Comments on Water Supply and Source Water Availability.

F-3 See responses to comments F-1 and F-2 and Master Response #3: Comments on Water Supply and Source Water Availability. M1W does not agree with the assertion that the ARWRA does not support use of Agricultural Wash Water for the Proposed Modifications. Nevertheless, as explained above, M1W possesses adequate rights to municipal wastewater and to new source waters to meet the anticipated yield of the approved PWM/GWR Project and Proposed Modifications even without use of the Agricultural Wash Water.

MARINA COAST WATER DISTRICT

11 RESERVATION ROAD, MARINA, CA 93933-2099
Home Page: www.mcwd.org
TEL: (831) 384-6131 FAX: (831) 883-5995

January 30, 2020

VIA ELECTRONIC & REGULAR MAIL

Rachel Gaudoin, Public Outreach Coordinator
Monterey One Water
5 Harris Ct., Bldg D
Monterey, CA 93940
Email: purewatermontereyinfo@my1water.org

Re: Marina Coast Water District's Comments on Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project (November 2019 - SCH No. 2013051094.)

Dear Ms. Gaudoin:

This letter provides Marina Coast Water District's ("MCWD") comments on the Draft Supplemental Environmental Impact Report ("Draft SEIR") for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project ("PWM Expansion" or "Project). The purpose of this letter is twofold.

First, MCWD wishes to convey its full support for the Monterey One Water's ("M1W") and Monterey Peninsula Water Management District's ("MPWMD") objectives for the proposed PWM Expansion Project—i.e., to replenish the Seaside Groundwater Basin with 2,250 AFY of additional purified recycled water to replace Cal-Am's use of existing water sources. As explained herein, MCWD is confident that it can work with M1W to ensure MCWD's senior contractual rights to recycled water are fully protected or a mutually beneficial resolution of those rights is achieved that allows both the Project to move forward and MCWD to meet the present and planned future water supply needs of the Central Marina and Ord Community service areas. G-1

Second, MCWD believes changes and clarifications to the Draft SEIR are necessary to ensure it complies with Environmental Quality Act ("CEQA") (Public Resources Code, § 21000 et seq.) and the CEQA Guidelines (Cal. Code Regs., titl.14, § 15000 et seq.). Foremost, MCWD believes the Project Description must be modified to sever certain proposed Cal-Am Distribution System elements that are unnecessary to meet the Project's purpose and objectives. As explained below, it appears that Cal-Am proposes modifications to its facilities [1] to address deficiencies in the Monterey Peninsula Water Supply Project ("MPWSP") and to avoid mitigation requirements for these facilities required by the California Public Utilities Commission ("CPUC") in the G-2

[1] The SEIR should also clarify that Cal-Am is not proposing to modify existing Cal-Am facilities, but is proposing to build entirely new facilities.

MPWSP EIR/EIS. To avoid this subversion of CEQA, MCWD supports and believes CEQA requires exploring mutually beneficially uses of MCWD's potable water conveyance pipeline that can meet the present and planned future needs of MCWD and the PWM Expansion **without** Cal-Am's proposed new 36" pipeline. G-2 Cont.

I. The Proposed Modifications to Cal-Am's Distribution System Are Not Properly included in the PWM Expansion Project; the CPUC is the CEQA Lead Agency for the Proposed Modifications to Cal-Am's Distribution System.

Section 2.6.5 of the Draft SEIR includes a limited discussion of proposed modifications to Cal-Am facilities that are purportedly necessary for the PWM Expansion Project. Based on the Draft SEIR's limited discussion, however, it is apparent the proposed modifications to Cal-Am's facilities are **not** needed for PWM Expansion. Rather, it appears the facilities have been included and sized to address deficiencies in Cal-Am's MPWSP. The following are examples of why the proposed facilities are vastly larger than what is needed for the PWM Expansion Project: G-3

1. Cal-Am's proposed new 36" pipeline would have a flow capacity of 15,682 gpm when flowing at a normal 5 feet-per-second, and a maximum capacity of 22,207 gpm when flowing at 7 feet-per-second. The PWM Expansion maximum flow rate is only 4,000 gpm. Therefore, Cal-Am's proposed new 36" pipeline is more than four times larger than what is needed for the PWM Expansion Project. Moreover, as explained below, MCWD's existing product water conveyance pipeline would appear to have adequate capacity to accommodate the PWM Expansion flows.

2. Each of Cal-Am's four new extraction wells are sized at 1750 gpm. This equates to a new extraction capacity of 2,823 AFY per well, or a total new extraction capacity of 11,292 AFY. The PWM Expansion only proposes to add 2,250 AFY of new supply. The additional extraction well expansion capacity is more than five times larger than the supply being added by the PWM Expansion Project. While MCWD understands the need for redundancy, it appears that at least two of these new extraction wells are proposed to address inadequate extraction pumping capacity for the MPWSP. G-4

Based on the foregoing, it appears that the proposed modifications to Cal-Am's facilities are not needed for the PWM Expansion Project, but are instead proposed by Cal-Am to belatedly address deficiencies in the MPWSP. To the extent that these facilities are needed by Cal-Am to accommodate MPWSP desal water, the CPUC is the only appropriate lead agency under CEQA. CEQA defines the "Lead Agency" as "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment." (Public Resources Code, § 21067; see also CEQA Guidelines, § 15051 ["Lead Agency shall be the public agency with the greatest responsibility for supervising or approving the project as a whole."].) The CEQA Guidelines further provide G-5

> The Lead Agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency G-6

> with a single or limited purpose such as an air pollution control district or a district which will provide a public service or public utility to the project.

(CEQA Guidelines, § 1505, subd. (b)(1).)

Here, the CPUC is the only appropriate CEQA Lead Agency for the proposed modifications to Cal-Am's facilities because it has the greatest responsibility for approving and supervising the proposed modifications to Cal-Am's facilities. In fact, it does not appear that M1W has any role in approving or supervising Cal-Am's proposed modifications to these facilities. Rather, it appears these facilities are proposed by Cal-Am in an attempt to avoid supplementing the MPWSP EIR and obtaining the required CPUC approvals for modifications to that project. This is not harmless error. "The lead agency's function in the environmental review process is so important that it cannot be delegated to another body." (*Friends of the Eel River v. North Coast Railroad Authority* (2017) 3 Cal.5th 677, 712–713; see also *Planning & Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4th 892, 907.) G-6 cont

Inclusion of Cal-Am's proposed modifications to its facilities in the PWM Expansion SEIR is akin to "piecemealing" the CEQA approvals for the MPWSP and prevents the full disclosure, review, and mitigation of the MPWSP's environmental impacts. For example, the CPUC's EIR for the MPWSP disclosed that air quality impacts associated with construction of Cal-Am's MPWSP were significant and unavoidable:

> Short-term emissions associated with construction of the proposed project could contribute to an exceedance of a state and/or federal standard for ozone, NO2, and, PM10 based on the estimated maximum daily mass emissions levels presented in Table 4.10-5, which would exceed the MBUAPCD significance threshold for PM10. However, this impact with respect to the ozone and NO2 standards would be significant and unavoidable even with implementation of Mitigation Measures 4.10-1a and 4.10-1b. This significant impact could increase the susceptibility of sensitive individuals to respiratory infections. With respect to the PM10 standards, this impact would be reduced to a less-than-significant level with implementation of Mitigation Measures 4.10-1a through 4.10-1c. Short-term construction emissions associated with other criteria pollutants, including ROG, CO, and PM2.5, would not be expected to contribute to an exceedance of an ambient air quality standard and the associated impact for all other criteria pollutants would be less than significant. G-7

(Cal-Am MPWSP Final EIR/EIS, p. 4.10-24.)[2] Here, the PWM Expansion EIR concludes the air quality impacts associated with construction of the Project—including the proposed modifications to Cal-Am's facilities—are less than significant. (PWM Expansion Draft SEIR, pp. 4.3-11 through G-8

[2] Available at https://www.cpuc.ca.gov/Environment/info/esa/mpwsp/feir-eis/4-10_air_quality_feir-eis.pdf.

4.3-13.) As a result, the mitigation for air quality impacts for Cal-Am's proposed modifications to its facilities is significantly less protective of Monterey residents and the environment than what is required for other components of the MPWSP. (***Compare*** Cal-Am MPWSP Final EIR/EIS, p. 4.10-25 through 4.10-26 [Mitigation Measure 4.10-1a: Equipment with High-Tiered Engine Standards; Mitigation Measure 4.10-1b: Idling Restrictions; Mitigation Measure 4.10-1c: Construction Fugitive Dust Control Plan; Mitigation Measure 4.10-1e: Off-site Mitigation Program] ***with*** PWM Expansion Draft SEIR, pp. 4.3-11 through 4.3-13 [MM AQ-1: Construction Fugitive Dust Control Plan.].) Therefore, the failure to sever any and all of the proposed modifications to Cal-Am's facilities that are not required for the PWM Expansion would violate both the purpose and requirements of CEQA. G-8 Cont.

In addition to violating CEQA, including the proposed modifications to Cal-Am's facilities violates the CPUC's exclusive jurisdiction to approve Cal-Am's water distribution facilities. Section 1001 of the Public Utilities Code requires Cal-Am to obtain CPUC approval of proposed new facilities and extensions of its existing utility systems. Although the CPUC approved the MPWSP in September of 2018, that approval – including certification of the EIR for the MPWSP – did not include the newly-proposed pipeline and extraction wells that are described as Cal-Am facilities in the Draft SEIR. If Cal-Am is now proposing to add facilities to the MPWSP, it must return to the CPUC for supplemental environmental review and approval of its newly-proposed facilities. Moreover, the CPUC must consider whether the proposed new Cal-Am facilities would be within the cost cap of the MPWSP. G-9

PWM Expansion's Use of MCWD's Existing 100% Owned Potable Water Pipeline for Extracted PWM Expansion Water.

MCWD believes the Final SEIR should modify the Project to eliminate the proposed 36" Cal Am Conveyance pipeline alternatives analysis based on the availability of MCWD's existing 30" potable water pipeline in General Jim Moore Blvd. At minimum, the SEIR should include an alternative utilizing MCWD's existing 30" potable water pipeline in place of the proposed 36" Cal Am Conveyance pipeline. The MCWD 30" pipeline is already in use for distribution of potable water from the existing ASR wells and may be able to be utilized for the extraction wells. MCWD owns and operates the existing 30" pipeline through an Agreement with Cal Am, which allows Cal Am to use the pipeline to inject into and extract ASR water from the Seaside Groundwater Basin. While the pipeline has insufficient capacity to be used for the large flows from the Desal plant because of priority uses, including PWM prior to expansion, it appears there is enough available, unused, capacity in the pipeline for PWM Expansion. Under the max day scenario, there is 4,145 gpm currently available in the MCWD pipeline which appears sufficient for the 4,000 gpm max flow rate for Pure Water Monterey Expansion. This alternative would completely avoid the need to construct and install the oversized 36" pipeline proposed in the SEIR and likely would avoid all of the environmental impacts of doing so. To the extent the proposed 36" pipeline is intended merely to serve as a work-around to provide Cal-Am with feasible firm conveyance capacity for full flows from the MPWSP for the lifetime of that project, it should be addressed in a request to G-10

the CPUC for approval of additional necessary MPWSP facilities. Reviewing the pipeline only as a Cal-Am facility under the Draft SEIR would violate both CEQA and the Public Utilities Code. G-10 Cont.

II. Comments on PWM Expansion Draft SEIR.

The following paragraphs detail MCWD's comments on the Draft SEIR's compliance with CEQA and the CEQA Guidelines.

A. Project Description (Chapter 2)

In Chapter 2, Project Description, Section 2.2.2 of the Draft SEIR (p. 2-8) states that the "Expanded PWM/GWR Project is proposed as a back-up to the MPWSP, not as an option or alternative to the MPWSP." As the Draft SEIR does not evaluate the MPWSP, there is no factual support for this statement. Moreover, it is not appropriate for an EIR to prejudge whether the PWM Expansion could be a CEQA alternative to the MPWSP unless it is evaluating a CEQA approval for the MPWSP. Approving the EIR with these statements would eliminate both agencies ability to exercise their independent judgement as required by CEQA when evaluating future approvals relating to the MPWSP. Therefore, this statement – and similar references throughout the environmental document - should be stricken. G-11

Section 2.6.5 (Modifications to CalAm Facilities for Expanded PWM/GWR Project) of the Draft SEIR (p. 2-28) lists a new Cal-Am Conveyance System as part of this Project, which is referenced in Chapter 1 (p. 1-4) as: "the addition of potable and raw water pipelines along General Jim Moore Boulevard and at the Seaside Middle School site (referred to as CalAm Conveyance Pipelines)." The Project Description does not include any information about the proposed potable and raw water pipelines. It does not describe where the additional potable pipeline begins and ends, where the additional raw water pipeline begins and ends, what the sizes of these pipes are, and where exactly on General Jim Moore Blvd. they will be constructed (under the existing pavement, under the sidewalk, or adjacent to the sidewalk). Additionally, the Draft SEIR does not describe whether one of these new pipes will be connected to the Cal-Am desalinated pipeline that is part of the MPWSP. The Project Description must be updated to include this information. G-12

Section 2.7 (Permits and Approvals) of the Draft SEIR (p. 2-33) does not indicate whether Cal Am will need to obtain approval from the CPUC for Cal-Am's new facilities in connection with PWM Expansion and for new and/or additional components for its approved MPSWP desal project. The SEIR should clarify which, if any, of these components of this project will require approval from CPUC and what approvals will be required. G-13

Chapter 2 (Figure 2-2) includes reference to a shared potable water pipeline on General Jim Moore Blvd but it does not describe that this pipe is owned 100% by MCWD and it does not describe the manner in which use of the MCWD-owned pipeline is shared among agencies. G-14

Finally, the SEIR should clarify that MCWD owns the existing RUWAP recycled water conveyance pipeline that is located on General Jim Moore Blvd as well as the existing Black Horse Reservoir (recycled water conveyance facilities). The SEIR should clarify whether it has identified any potential impacts (including any mitigation measures and alternatives) to the existing MCWD G-15

recycled water conveyance facilities resulting from the Proposed Modifications and the full 1,427 AFY [3]RUWAP. In addition, Section 2.7 (Permits and Approvals) should acknowledge that M1W will need to obtain approvals from MCWD to convey the additional 2,250 AFY of recycled water in MCWD's recycled water pipeline as well as to use the MCWD-owned Black Horse Reservoir storage capacity for the PWM Expansion. We anticipate that approval process will take place in the near future as the project moves forward. G-15 Cont.

B. Environmental Setting, Impacts, and Mitigation Measures (Chapter 4)

- **Air Quality and Greenhouse Gas (Section 4.3)**

An EIR must discuss cumulative impacts when they are significant and the project's incremental contribution is "cumulatively considerable." (CEQA Guidelines, § 15130, subd. (a). A project's incremental contribution is cumulatively considerable if "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, § 15065, subd. (a)(3).) To the extent that the proposed modifications to Cal-Am's facilities are not needed for the PWM Expansion Project, but are required to overcome existing conveyance limitations for MPWSP desal water, the Draft SEIR's discussion of cumulative air quality and greenhouse gases is inadequate.

The CPUC's EIR for the MPWSP disclosed that air quality impacts associated with construction of Cal-Am's MPWSP were significant and unavoidable. (Cal-Am MPWSP Final EIR/EIS, p. 4.10-24.) The PWM Expansion EIR, however, concludes the air quality impacts associated with construction of the Project—including the proposed modifications to Cal-Am's facilities—are less than significant. (PWM Expansion Draft SEIR, pp. 4.3-11 through 4.3-13.) As explained above, Cal-Am appears to be avoiding required mitigation under the MPWSP for its expanded facilities by proposing to include them in the PWM Expansion. Notably, the mitigation for air quality impacts for Cal-Am's proposed modifications to its facilities is significantly less protective of local residents and the environment than what is required for other components of the MPWSP. (***Compare*** Cal-Am MPWSP Final EIR/EIS, p. 4.10-25 through 4.10-26 [Mitigation Measure 4.10-1a: Equipment with High-Tiered Engine Standards; Mitigation Measure 4.10-1b: Idling Restrictions; Mitigation Measure 4.10-1c: Construction Fugitive Dust Control Plan; Mitigation Measure 4.10-1e: Off-site Mitigation Program] ***with*** PWM Expansion Draft SEIR, pp. 4.3-11 through 4.3-13 [MM AQ-1: Construction Fugitive Dust Control Plan.].) Cal-Am also appears to be avoiding the required mitigation for GHG emissions. (***Compare*** Cal-Am MPWSP Final EIR/EIS, p. 4.11-21 [Mitigation Measure 4.18-1: Construction Equipment and Vehicle Efficiency Plan] ***with*** PWM Expansion Draft SEIR, pp. 4.3-11 through 4.3-14 [no mitigation required.] G-16

[3] The RUWAP projects utilize MCWD's wastewater flows sent to the M1W Regional Treatment facility, and MCWD's rights to these flows as described in various agreements including the 1989 PCA-MCWD Annexation Agreement, to provide recycled water to its customers to augment and protect groundwater supplies. The RUWAP is part of the District's 2015 Urban Water Management Plan and other planning documents dating back to 2006.

Therefore, unless the proposed additions to Cal-Am's facilities are severed from the project, the Draft SEIR's discussion of cumulative air quality and GHG impacts and proposed mitigation fail to comply with CEQA.

- **Water Supply (Section 4.18)**

Section 4.18 of the Draft SEIR (Water Supply and Wastewater Systems) accurately states that MCWD has existing agreements in place with MW1 that entitle it to receive tertiary treated recycled water from the Regional Treatment Plant. While the Draft SEIR recognizes MCWD's senior recycled water rights, Section 4.18.3.4 does not mention the amended Pure Water Delivery and Supply Project Agreement Between M1W (Monterey Regional Water Pollution Control Agency) and MCWD. Among other ownership, operation and maintenance rights and obligations, the agreement provides MCWD with capacity entitlements based on a maximum annual use of 1,427 AFY of ATW water (Phase 1 of 600 AFY; Phase 2 of 827 AFY) and M1W capacity entitlement of 3,700 AFY of ATW water. The Final SEIR should include this information and identify any impacts, mitigation measures or alternatives analysis for this agreement. G-17

MCWD also notes that Section 4.18.3.4 and Appendix B discuss the 1989 Annexation Agreement between MCWD and M1W and state that "MCWD has not exercised its recycled water rights but may do so in the future." Both documents should be clarified to acknowledge the Pure Water Delivery and Supply Project Agreement between M1W (Monterey Regional Water Pollution Control Agency) and MCWD wherein MCWD is exercising its rights and has completed construction of its RUWAP recycled water conveyance pipeline for that purpose. G-18

Finally, Appendix I, pg. 7 recognizes M1W's allocation of 600 AFY to MCWD. However, it does not mention M1W's additional allocation of 827 AFY to MCWD. Appendix I states that "the approved PWM/GWR Project will also provide up to 600 AFY of purified recycled water to the Marina Coast Water District." The appendix should be updated to clarify that the 600 AFY is for only Phase 1 of MCWD's RUWAP project. The Pure Water Delivery and Supply Project Agreement between M1W (Monterey Regional Water Pollution Control Agency) and MCWD includes rights to MCWD for the source flows for both Phase 1 of 600 AFY and Phase 2 of an additional 827 AFY for a total of 1,427 AFY for MCWD customers. MCWD's analysis of the existing municipal sewer flows to M1W, especially from MCWD's service areas, shows more than sufficient sewer flows for the additional 827 AFY as well as for the additional 2,250 AFY for PWM Expansion. Appendix I should also clarify that the transmission facilities to provide the 1,427 AFY of water to MCWD's customers is complete and the related MCWD distribution facilities are currently being designed and constructed. G-19

C. Alternatives (Chapter 6)

The Draft SEIR correctly notes that an EIR must describe and evaluate a reasonable range of alternatives to a project, or to the location of the project, that would feasibly attain most of the project's basic objectives, but that would avoid or substantially lessen any significant adverse effects of the project. (CEQA Guidelines Sec. 15126.6(a).) As described above, the use of MCWD's potable water conveyance pipeline to meet the present and planned future needs of G-20

MCWD and the PWM Expansion without Cal-Am's proposed new 36" pipeline would appear to be feasible. It would also eliminate the significant impacts associated with construction of Cal-Am's proposed new 36" pipeline. Therefore, the Final SEIR should include an alternative that eliminates Cal-Am's proposed new 36" pipeline. G-20 Cont.

Additionally, the Final SEIR should consider an alternative for a single pipeline segment in the unpaved road from the Blackhorse Reservoir to the intersection of Eucalyptus Road and Parker Flats Cutoff Road to accommodate the combined flows between M1W's expanded project and MCWD's RUWAP. The pipeline should have an 8" turnout where M1W's pipeline would depart from Eucalyptus Road for MCWD to serve future Seaside East customers. Construction of the expanded project pipeline to MCWD's reservoir site cannot impact MCWD's ability to access the reservoir site to operate the MCWD water systems. MCWD will work with M1W and MPWMD staff to discuss and implement the point of connection and pipeline alignment for any pipeline segment. G-21

MCWD also supports the elimination of extraction wells EW-3 and EW-4 addressed in Section 6.2.2. As noted above, each of Cal-Am's four proposed new extraction wells are sized at 1750 gpm, which equates to a new extraction capacity of 2,823 AFY per well, or a total new extraction capacity of 11,292 AFY. The PWM Expansion only proposes to add 2,250 AFY of new supply. The additional extraction well expansion capacity is more than five times larger than the supply being added by the PWM Expansion Project. Therefore, it would appear that eliminating extraction wells EW-3 and EW-4 would provide more than sufficient pumping capacity as well as redundancy for the PWM Expansion and meet all of the project objectives. Given that this alternative would greatly decrease the Project's significant and unavoidable noise impacts, there would not appear to be any basis for including extraction wells EW-3 and EW-4 in this Project. G-22

Finally, MCWD notes that Section 6.3 should be updated to clarify that the elimination of Cal-Am's proposed new 36" pipeline as well as extraction wells EW-3 and EW-4 is the environmentally superior alternative based on the EIR's analysis. G-23

* * *

MCWD hopes these comments assist M1W and the MPWMD in evaluating the Draft SEIR's compliance with CEQA. As noted above, MCWD looks forward to working with M1W and the MPWMD to assess whether a mutually beneficial use of MCWD's 30" potable water pipeline is feasible. MCWD continues to look forward to continuing to work with M1W and the MPWMD in advancing regional goals through implementation of the PWM Expansion Project.

Sincerely,

Keith Van Der Maaten
General Manager

Comment Document G: Marina Coast Water District

G-1 MCWD's comment states that MCWD is in full support of the objectives of the Proposed Modifications. The comment is referred to decision makers for their consideration.

G-2 The comment opines that the proposed CalAm Conveyance Facilities appear to address deficiencies in the MPWSP EIR and are not needed for the Proposed Modifications to the PWM/GWR Project. The proposed CalAm facilities are needed for CalAm to extract and deliver water from the Proposed Modifications on a seasonal basis, while at the same time implementing the ongoing Aquifer Storage and Recovery (ASR) program and meeting maximum day demands during the summer months. Some of the proposed CalAm Facilities are located at the same sites as components of the approved MPWSP, such as Extraction Wells 3 and 4, which are located at the same sites as the ASR-5 and ASR-6 wells in the MPWSP, and the associated pipelines connecting these wells to the existing CalAm system are also located within the same segments of roadway right of way as those for the MPWSP. The Draft SEIR applies many of the same mitigation measures to these overlapping components as were required by the MPWSP EIR. Other CalAm Facilities components would not overlap with the components of the MPWSP but are also included in the Proposed Modifications because they are needed to deliver the full amount of water that would be produced by the Proposed Modifications, while enabling CalAm to continue its existing operations.

MCWD suggests that the Draft SEIR explore using MCWD's potable pipeline rather than the proposed new 36-inch CalAm Conveyance Facilities pipeline described and evaluated in the Draft SEIR. MCWD does not provide information demonstrating that such an approach would be potentially feasible. If this proposal were feasible, it would reduce construction activity by eliminating up to 2,900 linear feet of new CalAm Conveyance Facilities pipelines from the Proposed Modifications (i.e. the length of 36-inch potable water pipeline between EW-3 and the Seaside Middle School site EW-1 and EW-2). In this corridor, CalAm would also be installing backwash and raw water pipelines (albeit with smaller diameters) between the well sites, so trenching and construction would not be eliminated within this portion of General Jim Moore Boulevard. See Figure 2-8 of the Draft SEIR. The Draft SEIR determines that no new significant environmental effects would result from construction and operation of the new CalAm Conveyance Facilities pipelines. Thus, the Draft SEIR is not required to evaluate this potential option as an alternative (or alternative component) to the Proposed Modifications. The 2,900 linear feet of CalAm Conveyance Facilities that the commenter suggests could be eliminated, all of which would be constructed within an existing road, would contribute to the following significant impacts, each of which would be mitigated to a less-than-significant level:

AE-2: Construction Impacts due to Temporary Light and Glare. Construction of the Proposed Modifications would not result in a substantial degradation of the visual character of the project area and its surroundings.
AQ-1: Construction Criteria Pollutant Emissions. Construction of the Proposed Modifications would result in emissions of criteria pollutants, specifically PM10, that may result in a cumulatively considerable net increase of any criteria pollutant for

which the project region is non-attainment under an applicable Federal or State ambient air quality standard.
BT-3: Construction Conflicts with Local Policies, Ordinances, or Approved Habitat Conservation Plan. Construction of the Proposed Modifications would potentially conflict with local policies or ordinances protecting biological resources. A potential conflict may occur if the Fort Ord HMP plant species on the former Fort Ord that do not require a take authorization from the Service or CDFW are impacted, and salvage is not conducted. There are no approved HCPs applicable to the Proposed Modifications.
CR-1: Construction Impacts on Archaeological Resources or Human Remains. Construction of the Proposed Modifications may result in a substantial adverse change in the significance to unknown archaeological resources during construction and/or encounter unknown human remains.
EN-1: Construction Impacts due to Temporary Energy Use. Proposed Project and Project Modifications construction could result in wasteful or inefficient use of energy if construction equipment is not maintained or if haul trips are not planned efficiently. The Proposed Project and Project Modifications would not conflict with existing energy standards.
LU-1: Operational Consistency with Plans, Policies, and Regulations. The Proposed Modifications would have one or more components that would potentially conflict, or be inconsistent with, applicable land use plans, policies, and regulations without implementation of mitigation measures identified in this Supplemental EIR.
NV-1: Construction Noise. Construction would result in a temporary increase in ambient noise levels in the vicinity of all Proposed Modifications sites. Temporary construction noise would not be substantial at most construction sites, except at the CalAm Extraction Wells.
PS-3: Construction Solid Waste Policies and Regulations. Construction of the Proposed Modifications would potentially conflict with State and local statutes, policies and regulations related to solid waste.
TR-2: Construction-Related Traffic Increases, Safety and Access Limitations. Construction activities could result in temporary traffic increases, safety hazards, and/or disruption of access.
TR-3: Construction-Related Roadway Deterioration. Construction truck trips could result in increased wear-and-tear on the designated haul routes, which could result in temporary impacts to performance of the regional circulation system.
TR-4: Construction Parking Interference. Construction activities may temporarily affect parking availability.

Eliminating the 2,900 linear feet of 36-inch pipeline that is included in the CalAm Conveyance Facilities would reduce, but not avoid, the significant impacts associated with this component of the Proposed Modifications. For the reasons explained in

responses to comments G-3 and G-4, elimination of this pipeline segment would not accomplish the project objectives.

G-3 MCWD states that the proposed 36-inch potable water transmission main for CalAm is oversized for the Proposed Modifications to the PWM/GWR Project. An introductory paragraph has been added to Section 2.6.5.1 on page 2-30 to explain the need for a parallel 36-inch potable pipeline. (See **Chapter 5**, pages 5-2 and 5-3.) The groundwater modeling report by Montgomery Associates (**Appendix D**) shows that there will be periods where ASR injection will be occurring while most demands in the CalAm Service area must be met with Seaside Basin extractions. During these periods, the existing 30-inch water main will be used for ASR injection and the new parallel pipeline would be used to convey Seaside Groundwater Basin extractions for customer delivery from all four new extraction wells north of ASR-3 and ASR-4. In other words, water would flow toward the ASR wells using the existing 30-inch pipeline and water would flow out for delivery to customers using the new 36-inch pipeline.

G-4 The PWM Expansion capacity of 2,250 AFY is the annual volume injected into the Seaside Basin for indirect potable reuse. It is incorrect to assume that this would represent a consistent 2.0 mgd every day of the year. The amount injected would vary seasonally based upon operational and maintenance needs of the RTP and AWPF (i.e., the Proposed Modifications assume substantially higher injections in the wintertime). Similarly, the amount extracted by CalAm would vary seasonally based upon customer demands, extraction and ASR wells operating, and the availability of water rights and volumes from the Carmel River, the local water project in Pacific Grove, the Sand City desalination plant, and the Carmel Area Wastewater District recycling plant. Peak use of the Seaside Groundwater Basin would occur in the summer and early fall. Also, the intent of installing additional extraction wells beyond the minimum capacity needed is that one may operate some while the others are maintained or rehabilitated or while one or more rests to reduce disinfection byproducts, while still ensuring adequate redundancy in the proposed CalAm extraction capacity and conveyance to meet peak day demands in all situations. Once installed, the new extraction wells would be part of the overall CalAm well system, and therefore could be used to extract both PWM/GWR Project (and Expansion) water and any other water within the Seaside Groundwater Basin to which CalAm has extraction rights. The CalAm Conveyance Facilities components of the Proposed Modifications were conceptually designed to accommodate full CalAm needs (peak day demand and total customer demand). Use of all four new extraction wells (EW-1 through EW-4) and full capacity in the conveyance pipelines could occur using only Seaside Groundwater Basin extractions. (See **Chapter 5**, page 5-3.)

G-5 The opinion that the CalAm Conveyance Facilities are not needed for the Proposed Modifications to the PWM/GWR Project is addressed in responses G-3 and G-4. These facilities would be used to deliver the previously injected PWM/GWR Project water (from the approved and expanded PWM/GWR Project) along with other rights to Seaside Groundwater Basin water and they are sized to enable delivery during short duration “peak” demand time periods. The CalAm Conveyance Facilities must be included in the SEIR for the Proposed Modifications because they would be undertaken to carry out the Proposed Modifications. Under CEQA, an EIR must evaluate the environmental consequences of the whole of the action, meaning all of the activities that would be undertaken to implement the project, even if some of those activities are within the regulatory authority or control of another agency. Inclusion of

the CalAm Conveyance Facilities in the SEIR is similar to the inclusion of the Monterey Pipeline in the PWM/GWR Final EIR in October 2015. There too, the CalAm improvements overlapped with the components of the MPWSP and there too, the CalAm facilities were not funded or constructed by M1W. However, because the CalAm facilities were needed to deliver the PWM/GWR Project water to CalAm's customers, the CalAm facilities were included in the M1W environmental document. Here too, CalAm Extraction and Conveyance Facilities have been included in the M1W environmental document to ensure that the environmental impacts of all steps associated with treating, conveying, injecting, extracting and delivering the project water have been evaluated. Other agencies can then rely on the M1W environmental document to issue approvals for these project components over which they have jurisdiction or control.

G-6 MCWD opines that the CPUC is the appropriate lead agency for approval of the modification of CalAm facilities. Here, however, the CalAm facilities are part of a larger set of activities that would be undertaken to treat, convey, inject, extract and deliver expanded quantities of advanced treated water. M1W is the appropriate lead agency in this case for evaluation of the whole of the action, as is the principal proponent of the Proposed Modifications to its PWM/GWR Project.

G-7 MCWD opines that inclusion of CalAm's facilities in the Proposed Modifications SEIR is "akin to 'piecemealing'". To the contrary, inclusion of the facilities in the SEIR ensures that all of the actions that would be implemented for the Proposed Modifications are studied in a single environmental document: this is the opposite of piecemealing. The comment points out that some of the CalAm facilities overlap with the MPWSP, yet the impact conclusions in the SEIR are not identical to the impact conclusions for the MPWSP. MCWD points to air quality impacts as an example of this difference, noting that the MPWSP EIR determined air quality impacts associated with construction of the MPWSP would be significant because construction-related particulate emissions would exceed the relevant standards published by the air district. The PWM/GWR Final EIR Project similarly found that emissions from project construction would be significant because construction-related particulate emissions would exceed the standards published by the air district. The Draft SEIR summarizes this conclusion and recognizes that construction of each of the components of the Proposed Modifications would contribute to this significant impact. (See Draft SEIR at 4.3-9 through 4.3-12). The assessment of air quality impacts for the Proposed Modifications is based upon the analysis by Illingworth and Rodkin, Inc., included as **Appendix F** to the Draft SEIR, which has been revised and attached to this Final SEIR.

G-8 MCWD mistakenly states that the PWM Expansion SEIR concludes the air quality impacts associated with construction of the Project -- including the proposed modifications to CalAm's facilities are less than significant and that, as a result, mitigation for impacts of constructing CalAm facilities will be less protective than mitigation for impacts of constructing the MPWSP. As explained in the response to comment G-7, the Draft SEIR concludes that construction of the Proposed Modifications would contribute to a significant air quality impact. The Draft SEIR requires implementation of mitigation for all components of the Proposed Modifications, including the CalAm facilities, to reduce this significant effect to a less-than-significant level. Because the mitigation measures will reduce the impact to a less-than-significant level, no additional mitigation is required. The MPWSP has many

more and larger components and many more overlapping construction activities than those identified for the PWM/GWR Project and Proposed Modifications and was evaluated pursuant to CEQA by a different lead agency (a state agency which evaluates projects outside the air district of the Proposed Modifications), so it is not surprising that the mitigation measures for that project differ somewhat compared to construction emission mitigation for the PWM/GWR Project and/or its Proposed Modifications.

See also response to comment C-2, which explains that, even though no additional mitigation is required, measures requested by the Monterey Bay Air Resources District will be added to the construction mitigation program to require, when feasible, use of construction and tree remover equipment that conforms to ARB's Tier 3 or Tier 4 standards, or that uses alternative fuels such as compressed natural gas (CNG), propane, electricity or biodiesel. See **Chapter 5, Changes to the Draft SEIR**, which details the additions to Mitigation Measure AQ-1, Section 4.3.4.3 of the Draft SEIR on page 4.3-12. All Proposed Modifications components will also comply with applicable regulations regarding idling restrictions, as required by existing law. No additional mitigation is required to address that topic.

G-9 Evaluation of a project component in a CEQA document does not prevent relevant agencies from exercising their jurisdiction over approvals for that component. Prior to issuing any approvals for the CalAm facilities and/or a Water Purchase Agreement, the CPUC would determine whether the CEQA document is adequate for its use.

G-10 Please see Responses G-3 and G-4, which explain the basis for a seasonal need for two parallel pipelines, one dedicated to ASR injection and another for concurrent CalAm extraction, and the basis for sizing the parallel pipeline to accommodate peak demands with CalAm's largest well out of service and ASR wells unavailable for resting requirements of DDW (to eliminate disinfection byproducts), or for maintenance or rehabilitation. It is a condition of the ASR water rights that that supply be placed into aquifer storage and then recovered for later use.

G-11 As described in the Notice of Availability of the Draft SEIR and on page 2-8 of the Draft SEIR, the Proposed Modifications are intended to be a back-up to the MPWSP. Please see Master Response #5: Comments on Adequacy of Scope and Range of Alternatives for a full explanation why the MPWSP is not an alternative to the Proposed Modifications, as that term is defined by CEQA.

G-12 The Draft SEIR provides location and size information about the CalAm extraction pipelines for the Proposed Modifications at Figure 2-7 on page 2-27[3] and Table 2-6 on page 2-31. As requested, additional pipeline details are added to the Final SEIR as an introductory paragraph in Section 2.6.5.1 on page 2-30; see **Chapter 5, Changes to the Draft SEIR**. The Proposed Modifications evaluated in this SEIR do not include a connection to a potential future desalination project pipeline. The desalination project

[3] Note: Draft SEIR page 2-27 was incorrectly labeled as page 2-28; therefore, the document contained two pages labeled 2-28. The first page 2-28 is referred to as page 2-27 herein. See **Chapter 5, Changes to the Draft SEIR**.

is a separate, independent project. If CalAm proposes in the future to connect pipelines of the Proposed Modifications to other pipelines in a way that is not described nor evaluated in the SEIR, then another CEQA review may be necessary prior to allowing that to occur.

G-13 Table 2-8 has been updated to add CPUC approval as a potential requirement for CalAm to construct or operate the CalAm components of the Proposed Modifications. See **Chapter 5, Changes to the Draft SEIR** regarding changes to page 2-33.

G-14 Figure 2-2 labels the referenced pipeline as the "PWM/RUWAP Shared Pipeline" which was described in Addendum 3 to the PWM/GWR Final EIR for the approved PWM/GWR Project and on pages 2-6 and 2-7 of the Draft SEIR. Additional information has been added to the SEIR regarding the shared use of the pipeline; see **Chapter 5, Changes to the Draft SEIR**, which includes additional text added to the Draft SEIR on page 2-19 as revisions to Section 2.6.3.

G-15 Text of the Draft SEIR on page 2-19 in Section 2.6.3 has been added to describe that the shared product water conveyance system components are owned by MCWD. M1W and its engineering consultant, Kennedy-Jenks, have found that the existing conveyance pipeline would have sufficient capacity for the increased flow from the operation of the Proposed Modifications, including the ability of the conveyance pipeline to convey both the additional water associated with the Proposed Modifications and the water to meet reasonably foreseeable RUWAP irrigation demands. See **Appendix Q**. Text has been added to Section 2.6.3 on page 2-33 to address these comments; see **Chapter 5, Changes to the Draft SEIR**. The existing conveyance pipeline is 24-inches in diameter, and the peak flow rate from the expanded product water pump station is 7.6 mgd. That results in a peak velocity of 4 ft/s in the pipeline, which is feasible. Table 2-8 has been updated to add MCWD consultation in accordance with the Delivery and Supply Agreement as a requirement for M1W's use of additional capacity in the RUWAP/PWM product water conveyance pipeline.

G-16 Please see responses to comments G-7 and G-8 regarding the Draft SEIR's conclusion that construction of the CalAm Extraction Wells and CalAm Conveyance Facilities would contribute to a significant air quality impact. Cumulative impacts associated with overlapping construction of MPWSP components and PWM/GWR components were disclosed in the PWM/GWR Final EIR, and the Draft SEIR determines that construction of the Proposed Modifications would not result in a new cumulative impact to air quality. Also see the response to comment VV-3 and Master Response #4: Comments on Adequacy of Scope and Range of Cumulative Impacts Disclosed.

The comment opines that CalAm would avoid required mitigation specified by the MPWSP EIR/EIS for GHG emissions associated with its components of the Proposed Modifications. The Draft SEIR explains that the total GHG emissions from the PWM/GWR Project with the Proposed Modifications, including the CalAm components, would not make a cumulatively considerable contribution to significant cumulative impacts associated with GHG emissions and the effects of climate change. Therefore, no additional mitigation is necessary.

G-17 As requested, Section 4.18.3.4, page 4.18-5, has been amended to include a description of the April 2016 M1W-MCWD Pure Water Delivery and Supply Agreement and its amendment dated December 18, 2017 (Delivery and Supply Agreement). See **Chapter 5, Changes to the Draft SEIR**. The Proposed Modifications would not prevent M1W from meeting its obligations under the Delivery and Supply Agreement, as amended in December 2017.

G-18 Section 4.18.3.4, page 4.18-5, has been revised to indicate that MCWD intends to exercise its right to use recycled water. See **Chapter 5, Changes to the Draft SEIR**.

G-19 The approved PWM/GWR Project, as described under Addendum 3 to the PWM/GWR Final EIR, only includes the Phase 1 portion of the RUWAP, which is 600 AFY. MCWD has not requested the AWPF be expanded to provide the additional 827 AFY of Phase 2 RUWAP irrigation supply; therefore, neither the MCWD use of additional secondary effluent as AWPF influent nor delivery of an addition 827 AFY of purified recycled water for urban irrigation are included in this Final SEIR. The source of supply for MCWD's recycled water is municipal wastewater from within its service area. Until MCWD actually develops, funds, and constructs a project (including a different AWPF increased capacity project) to enable them to exercise those water rights, that particular source of supply is included in the supply used by CSIP in the source water availability, use and yield analysis in Appendix I.

G-20 MCWD states that the Draft SEIR should consider using MCWD's existing 30-inch pipeline instead of constructing a new 36-inch pipeline from the ASR 4 site to the ASR 1 and ASR-2 site. As discussed in response G-3, there will be a seasonal need for two pipelines, one dedicated to ASR injection and another for concurrent PWM extraction therefore, this suggested change to the project would not meet the project objectives. Please see responses to comments G-2, G-3 and G-4.

G-21 As detailed in **Chapter 5,** Section 2.6.3 on page 2-19 has been amended to reflect that the MCWD Recycled Water Master Plan identifies the need for a future distribution lateral from the tank site to the corner of Eucalyptus Road and Parker Flats Cut-Off. That connection is outside the scope of the Proposed Modifications and this SEIR. The future shared use of this pipeline segment would not achieve any of the objectives of the Proposed Modifications or reduce any of the environmental impacts of the Proposed Modifications; therefore, future shared use of this pipeline segment does not meet CEQA's criteria for a project alternative.

G-22 As stated in response to Comment G-4, the extraction wells are sized to operate seasonally and meet maximum day demands in the summer months with other CalAm wells not operating, so it is incorrect to use the annual average production rate as a basis for evaluating the well capacity. As Section 6.2.2.3 of the Draft SEIR explains, the Elimination of Extraction Wells EW-3 and EW-4 would not provide the same level of reliability as the Proposed Modifications. By evaluating Elimination of Extraction Wells EW-3 and EW-4 as a project alternative, the Draft SEIR enables decision-makers to evaluate the trade-offs between reducing environmental impacts and fully accomplishing the project objectives.

G-23 As stated in the responses to Comments G-2, G-3 and G-4, the CalAm Conveyance Facilities would be needed to meet maximum day demands and not just annual average supply rates.

Letter H

MONTEREY COUNTY

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January 31, 2020

Monterey One Water
ATTN: Rachel Gaudoin
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Monterey, CA 93940

purewatermontereyinfo@my1water.org

VIA MAIL AND EMAIL

Re: Comments on the Draft Supplemental Environmental Impact Report (DSEIR) for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project, SCH#2013051094

Dear Ms. Gaudoin,

The Monterey County Water Resources Agency (MCWRA) has had a long collaborative relationship with Monterey One Water (M1W) (formerly Monterey Regional Water Pollution Control Agency). This collaboration began with the construction and operation of the Monterey County Water Recycling Projects (Castroville Seawater Intrusion Project (CSIP) and the Salinas Valley Reclamation Project (SVRP)), which have supplied and delivered irrigation water to growers in the Castroville area for over 20 years. The partnership continued with the construction of the Salinas River Diversion Facility (SRDF), which M1W has operated for MCWRA since 2010. The capital costs as well as the operations and maintenance costs for all these projects are borne by the stakeholders of MCWRA. The commitment from M1W for the delivery of water to 12,000 acres of irrigated agriculture lands came with the funding and construction of these facilities. H-1

For the past five plus years, MCWRA has been working collaboratively with M1W on the establishment of new source waters for both the CSIP growers and the Pure Water Monterey (PWM) base project. This entailed working side by side through water rights protest negotiations, facility design, operations planning, and ultimately construction. It is exciting that the PWM project is so close to completion and is a credit to the hard work of many. This is a huge accomplishment and important milestone for water resource sustainability for the future.

Unfortunately, the development of the Proposed Modifications to the PWM Groundwater Replenishment Project (Project) has not gone through that same level of collaboration with a team approach. It was contemplated periodically throughout the development of the base project, but the issue of reliable source water going into the future was never solved. Ultimately, a *New Source Water Supply Study* was received by both M1W and MCWRA Board of Directors in October 2018, and can be found at the following link: H-2

https://montereywaterwater.civicclerk.com/Web/GenFile.aspx?ad=732. It focused on water availability for CSIP and was intended to be the foundation of a subsequent Engineer's Report and assessment process for new source water facilities. This was a joint effort between both agencies. The study demonstrated that CSIP would receive up to 2,300 AF of new source waters during dry year types when the Salinas River Diversion facility was not operating. The document is not discussed in your Draft Supplemental Environmental Impact Report (DSEIR) and the DSEIR is not consistent with the data and analysis in that report. H-2 Cont.

There are numerous agreements between different parties concerning who is entitled to the water M1W treats, some long-term and others that are short-term or revocable. The current agreement between M1W and MCWRA (referred to in the DSEIR as the ARWRA) contemplates the base project but does not contemplate the additional commitments necessary to support the modifications M1W proposes.

The DSEIR relies on new source waters that are only available to M1W for a limited time: H-3

1) M1W has the use of "all new source waters" until June 30, 2020. The intention of Amendment No. 1 to the ARWRA was to clarify that until the MCWRA completed the assessment process for the various new source water facilities including the Blanco Drain diversion, the Reclamation Ditch diversion, and the SVRP modifications, M1W has the right to utilize them in full. The City of Salinas industrial wastewater use does not fall under that category as there are no new facilities subject to the provisions of Section 16.15 of the ARWRA, nor does it fall under the assessment process.
2) M1W has the right to wastewater that is not currently being utilized by MCWRA. There are reasonable and foreseeable projects that propose to use this water and must be considered when determining if there will be a sustainable yield for PWM Expansion.

MCWRA is required to ensure that the commitments to and the assets of our stakeholders are retained. As MCWRA evaluates future water needs, there are necessary projects that will need to be completed. The Salinas Valley Basin Groundwater Sustainability Agency has adopted the *Salinas Valley Groundwater Basin 180/400-foot Subbasin Groundwater Sustainability Plan* (GSP) that includes projects to be developed in the near and foreseeable future to utilize recycled water for the improvement of the Salinas Valley Groundwater Basin. These projects include expanding/optimizing the existing CSIP, thereby increasing the demand for recycled water. These projects have the potential to use all excess water that is currently available and being proposed for this Project. The DSEIR completely fails to consider the projects in the GSP. H-4

Further complicating the source water analysis presented in the DSEIR is the lack of data on both source water quantities and their origins. The data that informs the study may be adequate for rough estimates of yields, but this data will need to be far more comprehensive and reliable before actual operations of a project of this scale is implemented. MCWRA needs assurances that the water it is entitled to is delivered to its stakeholders. H-5

MCWRA and M1W staff met multiple times prior to the release of the DSEIR for the Project to discuss the "new water sources". While those meetings were informative, MCWRA staff has not been able to verify the amount of new available water identified in the DSEIR in any substantive way and questions M1W's claim of ownership to some of the sources. In short, MCWRA staff believes that there are potential inaccuracies in the amount of water available as described in the DSEIR. These questions and concerns were not answered, nor alleviated by a thorough review of the DSEIR. H-6

MCWRA appreciates that M1W extended the public review period but contends that M1W's release of the DSEIR was premature. As further discussed in the comments below, M1W has failed to fully collect and H-7

analyze necessary data to evaluate the impacts of the PWM Expansion. M1W has also made premature assumptions as to potential sources of water for the Project. In general, an EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been taken in account. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449). These goals cannot be accomplished without an accurate project description. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199). An accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity. (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 660). The process of drafting and releasing this DSEIR for comment has been accelerated to the point that MCWRA had not been afforded the time to work through the data and assumptions and therefore cannot verify that this proposed Project has a sustainable, reliable, drought resistant water supply that does not impact the rights of MCWRA's stakeholders.

H-7 Cont.

MCWRA staff has reviewed the DSEIR for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment (PWM/GWR) Project, dated November 2019, and is providing the following comments on specific sections of the DSEIR:

Summary, Section S.2, page S-1

Text: Project Objectives: Be capable of commencing operation, or of being substantially complete, by the end of 2021 or as necessary to meet Cal-Am's replacement water needs;

Comment: Numerous issues (as described in the paragraphs above and the comments below) regarding the availability of water to provide a secure water supply, have not been fully addressed nor analyzed in this DSEIR. Meeting the 2021 deadline to provide additional Cal-Am replacement water seems overly ambitious.

H-8

Summary, Table S-1, page S-9

Text: GW-3 Operational Groundwater Depletion and Levels: Salinas Valley Groundwater Basin. Operation of the Project with the Proposed Modifications would not deplete groundwater supplies in the Salinas Valley Groundwater Basin nor interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater levels in the Salinas Valley Groundwater Basin. It also claims that the Project will have an overall Beneficial Impact.

Comment: Chapters 2 and 3 state that there will be approximately 700 to 800 AFY less water available for agricultural irrigation There is no indication of how that lost water is to be replaced. It is likely the 700 to 800 AFY of water needed for agricultural irrigation will come from additional groundwater pumping in the CSIP area, which is already impaired by seawater intrusion. Therefore, the Proposed Modifications will likely result in an intensification of seawater intrusion in the area over the base project, and the Impact on the Groundwater Quality in the Salinas Valley Groundwater Basin (as shown in Table S-1, Table 4.10-1 and 4-10-2) would not be a "Beneficial Impact" and should be further analyzed. No supporting documentation or mitigation is provided to justify that a reduction in water availability in an overdrafted groundwater basin would not have a negative impact.

H-9

Chapter 2, Section 2.6, page 2-12 and Chapter 3, pages 3-1 to 3-2

Text: Approximately 700 to 800 AFY less water would be available for agricultural irrigation.

Comment: The *New Source Water Supply Study* dated October 2018 applied the ARWRA to determine that MCWRA would have access to approximately 2,300 AFY of new source water. This reduction from the original estimate of 4,381 AFY was based on a variety of factors such as the removal of certain source waters, seasonality of irrigation demands, reductions in Blanco Drain and Reclamation Ditch diversions through the water rights permitting process, and reduction in estimates of available Industrial Wastewater based on more years of data available. Importantly, the new source waters as described in section 4.02 (2) of the ARWRA allow for the first priority use of up to 4,320 AF for M1W. The remainder is available to

H-10

MCWRA. MCWRA does not agree to further reducing this new source water for the Project. Additionally, the proposed total reduction of water available to MCWRA for agricultural irrigation was based on estimates and assumptions that MCWRA does not agree with. The analysis should be reviewed and agreed on before proceeding with the FSEIR. H-10 Cont.

Chapter 2, Section 2.6.1.1, page 2-134

Text: Several flows that are treated at the Regional Treatment Plant are considered to be out of the 2001 M1W Service Area and thus, pursuant to the ARWRA section 4.01(2), rights to these wastewater flows would be evenly divided between M1W and MCWRA, …

Comment: MCWRA disagrees that process water flows that are used in the operations and maintenance of the RTP facilities and are retreated at the RTP, are considered new influent from outside of the 2001 M1W Service Area. MCWRA believes M1W does not have the right to half of those flows nor should they be included in additional source water calculations. Appendix I: *Source Water Availability, Yield and Use Technical Memorandum* supports the statement that there is not net inflow or outflow from these process waters and the data should be consistent with that statement. This concept that the process water used to keep the facilities running would then be subject to a 50/50 split was not contemplated in any of the previous studies or agreements prior to the DSEIR for the Project. The interpretation presented in the DSEIR results in losses in source water on a continual basis. MCWRA recommends that the source water flows be updated to reflect the need and recirculation of process waters to keep the projects functioning. They should not be included as available waters until such a time they have no more use, such as after plant shutdown. H-11

Chapter 2, Section 2.6.1.1, page 2-13

Text:

- Backwash flows from the Salinas River Diversion Facility screening process (totaling up to approximately 200 AFY, when the facility is operating and limited to April through September).
- Filter backwashing flows from the mixed media filters at the Salinas Valley Reclamation Plant (totaling approximately 2,000 AFY peaking in the summer months).

Comment: An evaluation of SVRP & SRDF production and backwash volumes data provided by M1W does not support the backwash estimates used in the analysis. Based on the meter readings of the backwash equalization pumps, MCWRA believes that the average annual backwash for 2017 through 2019 (SVRP & SRDF both operational) is 967 AFY, not 2,200 AFY. This is a significant reduction total volume of water. Additionally, the SRDF only operates from April to October therefore no backwash flows are generated from November to March as shown in the data tables provided by M1W. As stated above, MCWRA disagrees that this water is a potential source to meet new demands as it is process water that must be continually utilized to keep the facilities running. It is not available for purposes other than its original intended use as incidental for facilities operations. These backwash flows should be removed from the analysis. H-12

Chapter 2, Section 2.6.1.1, page 2-13

Text: Total water rights to these wastewater flows at the Regional Treatment Plant available to each, M1W and MCWRA would range from 1,700 to 1,900 AFY depending upon flows of these waters, in particular, regardless whether or not the SRDF is operating.

Comment:

M1W is unable to accurately calculate RTP inflows based on metered pumping of 10 booster stations collecting sewage in the RTP service area. The most accurate inflow calculation is at a Parshall flume. Parshall flume measurements cannot distinguish inflow origins/source. Inflow origins are critical for water rights and entitlement calculations. Importantly, without accurate data on the origins and amount of inflows total water rights to the wastewater flows cannot be accurately determined. With the revised backwash flows based on best available data it is closer to 1,200 AFY per party. Additionally, as described above, the estimated backwash flows should be removed from the analysis as they are not supported by the available data nor do they add additional inflow as they are critical process waters to keep the facilities H-13

running. Without the backwash flows for any of the facilities, MCWRA estimates the total wastewater flows located outside of the M1W 2001 Service Area to be closer to 250 AFY for each party. This is still based on estimates provided by M1W for those areas that are located outside of the M1W 2001 Service Area and may not be accurate. MCWRA recommends that better tracking of origin and flow volumes are determined prior to implementation of projects that rely on rights to wastewater flows, including the AWPF supporting the RUWAP and PWM. Accurate flowmeters and a maintenance and calibration schedule should be included as more customers come online to share this resource.

H-13 Cont.

Chapter 2, Section 2.6.1.1, Page 2-13

Text: Several flows that are treated at the Regional Treatment Plant are considered to be out of the 2001 M1W Service Area and thus, pursuant to the ARWRA section 4.01(2), rights to these wastewater flows would be evenly divided between M1W and MCWRA, including:

- Backwash flows from the Salinas River Diversion Facility screening process (totaling up to approximately 200 AFY, when the facility is operating and limited to April through September).
- Filter backwashing flows from the mixed media filters at the Salinas Valley Reclamation Plant (totaling approximately 2,000 AFY peaking in the summer months).

Comment: M1W is not entitled to half the backwash flows from the Salinas River Diversion Facility (SRDF), or from backwash flows from wastewater that originates within M1W's 2001 boundary. The ARWRA does not entitle M1W to any water from the SRDF, and MCWRA holds the water rights to divert the SRDF water from reservoir releases. Also, the ARWRA states that MCWRA is entitled to all wastewater within M1W's 2001 boundaries. Lastly, M1W is entitled to half the amount of backwash flows from outside the M1W 2001 boundary, but it is far less than 2,000 AFY. M1W has failed to properly meter and account for this water.

H-14

Chapter 2, Section 2.6.1.1, Page 2-14

Text: M1W assumes the following: 1) the conditions precedent (Items 4, 5, and 6) from the ARWRA would be met prior to commencement of operation of the Expanded PWM/GWR Project; 2) an amendment to the ARWRA will be approved, if needed, taking into consideration the proposed modifications and progress and results of completion of conditions precedent in ARWRA section 16.15; and 3) the Expanded PWM/GWR Project would be implemented in accordance with the existing, or if needed, an amended agreement.

Comment: There are no guarantees that any amendments to the ARWRA will be approved that considers the Proposed Modifications. Per Section 4.02 (2) of the ARWRA, MCWRA has allowed for the first priority use of up to 4,320 AF to M1W should any curtailments of the new source waters take place. That has resulted in a reduction of new source waters for agricultural irrigation of about 2,000 AFY. Such amendments would further reduce new source water rights to MCWRA for use in the Salinas Valley Basin which could result in additional groundwater pumping or the reduction in irrigated acres. There has been no discussion as to how the Project would provide any benefit to the Salinas Valley Basin.

H-15

Chapter 2, Section 2.6.1.1, Page 2-14

Text: A revised source water rights memorandum has been prepared (previously Appendix C – revised in the PWM/GWR Project Final EIR) and is included in this Supplemental EIR as Appendix B.

Comment: This Appendix should be updated to include better estimates of existing flows and it should remove the backwash flows that maintain the operations of the facilities as described above. MCWRA can provide additional data and analysis for that purpose.

H-16

Chapter 2, Section 2.6.2, Page 2-18

Text: Table 2-1 Expanded AWPF Typical Monthly Flow Volumes, shows an example of the proposed seasonality of flow and production. Although the data is presented here as a single set of flows by month, actual system operation would require daily or weekly management of the production rates to

H-17

address the variability in irrigation demands and supply availability.
Comment: This section highlights the uncertainty of source water availability as the important distinction is made that actual system operations will be variable depending on supply availability and irrigation demand. MCWRA's analysis shows that the Project will use 900-2,000AFY of wastewater for which MCWRA has first rights. There are reasonable and foreseeable projects identified in the *Salinas Valley Groundwater Basin 180/400-foot Aquifer Subbasin Groundwater Sustainability Plan* that contemplate the use of this water for the benefit of MCWRA projects such as expansion of CISP. This current unused wastewater cannot be relied on for this Project as it is not a guaranteed right that it will be available to M1W for use. This demonstrates that the expanded project has much less certainty in available waters than the base project. H-17 Cont.

Chapter 3, Page 3-1
Text: The purified water will be used to replenish the Seaside Groundwater Basin (Seaside Basin) by injecting this high-quality water into a series of shallow and deep injection wells.
Comment: This sentence contradicts the first sentence of the second paragraph on page 3-1, which states the primary purpose of the Project is to provide "replacement water to CalAm for delivery to its customers". The injected water will not be used to replenish the Seaside Groundwater Basin, as it will be later extracted for use. Even the additional 200 AFY injected to create the 1,000 AF Drought Reserve will be available for extraction during a drought. There is no definition of drought provided. H-18

Chapter 3, Page 3-1
Text: footnote [1] Salinas River water is stored and used for irrigation during the period April 1 to October 31.
Comment: Salinas River water is not stored at the RTP site. It is rediverted at the SRDF and used for agricultural irrigation. H-19

Chapter 3, Page 3-2
Text: Some modifications were assumed to be made to the water recycling facility…assumed a financial contribution from MCWRA for construction and implementation of the new source water projects.
Comment: MCWRA has not committed to a financial contribution for construction and implementation of the New Source Water projects. H-20

Chapter 3, Page 3-2
Text: The approved PWM/GWR Project will provide for an additional 200 AFY of purified water that will be produced by the Advanced Water Purification Facility and injected in the Seaside Basin in wet and normal years up to a total of 1,000 acre-feet (AF) of water.
Comment: No definition nor criteria is provided on how "wet" and "normal" year types will be determined. H-21

Chapter 3, Page 3-6
Text: Modeling indicates the PWM/GWR Project will not lower water levels below protective levels in the coastal wells…
Comment: Four of the six Coastal Monitoring Wells in Seaside Basin are already below protective elevations. Please see *Seaside Groundwater Basin 2019 Seawater Intrusion Analysis Report,* section 2.6.3 Protective Groundwater Elevations.
http://www.seasidebasinwatermaster.org/Other/2019%20Seawater%20Intrusion%20Analysis%20Report_Final_withAppendices.pdf H-22

Chapter 4, Table 4.1-2 Projects Considered for Cumulative Analysis, pages 4-1-11
Comment: This table does not include any of the projects listed in the *Salinas Valley Groundwater Basin 180/400-foot Aquifer Subbasin Groundwater Sustainability Plan.* Chapter 9 (which was released for public H-23

comment in July 2019) of this plan includes projects and management actions that are likely to be implemented in the foreseeable future and have a significant impact on the amount of water that could be available for the Proposed Modification. These projects should be included in the analysis The adopted plan is available at: https://svbgsa.org/wp-content/uploads/2020/01/SVBGSA-Combined-GSP-2020-0123-optimized.pdf. H-23 Cont.

Chapter 4 Section 4.10.2.2, Page 4.10-4

Text: Geochemical plotting of inorganic constituents…has been expanded to identify markers of purified recycled water flow paths and travel time as part of the tracer study that will commence in the winter of 2019.

Comment: The groundwater contour maps (Appendix H) show greater differences in groundwater elevations during the summer quarters than in the winter, which would indicate potentially faster travel times of inorganic constituents in the groundwater. This tracer study should also include summer months. H-24

Chapter 4, Section 4.10.3.2, page 4.10-4

Text: SGMA shifts planning and management of groundwater resources to newly formed Groundwater Sustainability Agencies (GSAs)…and requires development of Groundwater Sustainability Plans by 2020 for priority basins.

Comment: SGMA requires development of GSPs by January 31, 2020 in basins that are designated as Critically Overdrafted. In the Salinas Valley Groundwater Basin in Monterey County, this applies only to the 180/400 Foot Aquifer Subbasin. All other subbasins in the SVGB that have been designated as high or medium priority, must submit a GSP by January 31, 2022. H-25

Chapter 4, Section 4.10.3.3, Page 4.10-5

Text: In 2017, several local GSAs were formed in compliance with SGMA to meet the State's deadline.

Comment: Recommend revising the list of GSAs in this section to include the County of Monterey GSA. H-26

Chapter 4, Section 4.10.4.2, Page 4.10-8

Text: With the Proposed Modifications, the approved PWM/GWR Project would continue to supply additional tertiary recycled water to the CSIP area for irrigation which would be a beneficial impact on the SVGB due to the reduced need to use CSIP supplemental wells, and resulting benefits of reducing adverse seawater intrusion conditions. However, those benefits would be slightly reduced under the Proposed Modification because M1W would recycle more of the water that it is entitled to recycle under its water rights and contractual rights than it would have recycled without the Proposed Modifications

Comment: This contradicts itself by saying with the Proposed Modifications the project will continue to supply CSIP, but those benefits would also be reduced under the Proposed Modifications. H-27

Decreasing the benefits to CSIP would impact the SVGB by increasing pumping in CSIP supplemental wells region and potentially increase seawater intrusion. Therefore, the Impact on the Groundwater Quality in the Salinas Valley Groundwater Basin (as shown in Table 4.10-1) would not be a "Beneficial Impact".

CSIP pumping the supplemental wells would have the potential to impact groundwater levels and groundwater quality in CSIP region. Therefore, the Impact on Groundwater Depletion and Levels in the Salinas Valley Groundwater Basin would not be a "Beneficial Impact".

Chapter 4, Section 4.10.4.4, Page 4.10-13

Text: Operational Groundwater Depletion and Levels: Seaside Basin. Operation of the Project with the Proposed Modifications would not deplete groundwater supplies in the Seaside Basin nor interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater levels in the Seaside Basin. (Criterion a) (Less-than-Significant).

Comment: Seaside Watermaster TAC has determined that the current safe yield numbers are not sufficient to protect the Seaside Groundwater Basin and have discussed the need to develop a H-28

"Sustainable Yield Approach". They are planning to collaborate with the local Groundwater Sustainability Agencies once they have completed their GSPs. Please see the Seaside Groundwater Basin Watermaster TAC meeting minutes for February 13th, item 3A and 3B,http://www.seasidebasinwatermaster.org/TAC/TAC%20Agenda%20%203-13-19%20Reduced%20File%20Size.pdf and March 13th ,2019 http://www.seasidebasinwatermaster.org/TAC/TAC%20Agenda%20%205-8-19.pdf and *The Seaside Groundwater Basin 2018 Basin Management Action Plan* http://www.seasidebasinwatermaster.org/Other/BMAP%20Final_07192019.pdf

H-28 Cont.

Chapter 4, Section 4.18.3.4 Page 4.18-4

Text: In 2009, the MCWD and M1W entered into a Memorandum of Understanding relating to the Regional Urban Water Augmentation Agreement (RUWAP MOU)… M1W agreed to, among other things, provide 650 AFY of recycled waters during the months of May through August each year from M1W entitlements. MCWD agreed to commit 300 AFY of recycled water during the months of April through September from MCWD's entitlements.

Comment: According to the DSEIR text, M1W only has the rights to wastewater generated from outside of the 2001 Service Area and MCWD has the rights to M1W's wastewater flows generated within the 2001 Service Area. It is unclear in the DSEIR numerical analysis the differentiation between M1W and MCWD wastewater rights in the summer months. A clear explanation of what wastewater is proposed for the Project, RUWAP and base PWM projects would be helpful to differentiate the wastewater uses.

H-29

Chapter 4, Section 4.18.3.4 Page 4.18-5

Text: Under the amendment, therefore, M1W currently has the near-term rights to use the new source waters from the Blanco Drain, Reclamation Ditch, and the City of Salinas (produce wash water) discussed in greater detail below.

Comment: The Conditions Precedent outlined in Section 16.15 have not yet been completed and therefore, the ARWRA between M1W and MCWRA was amended in June 2019 to address the new diversion facilities on the Blanco Drain and Reclamation Ditch nearing completion and the ability to divert the water. Industrial Wastewater has been utilized periodically since 2014 and should be available for CSIP when requested regardless of the status of section 16.15. Amendment No. 1 to the ARWRA does not include Industrial Wastewater.

H-30

Chapter 4, Section 4.18.4.2 Page 4.18-7

Text: No modifications to source water facilities and no increase in peak (worst-case) use of source waters evaluated in the PWM/GWR Project Final EIR would be required to meet the anticipated demand associated with the Proposed Modifications.

Comment: Although the PWM FEIR contemplated the same sources of water as in this DSEIR, the demand numbers have increased to supply the additional 2,250 AFY under the Project. The Project increases the likelihood of utilizing all of the available source waters and therefore does increase peak demands even in the summer months when there are already peak irrigation demands and a reliance on groundwater wells to meet those demands.

H-31

Chapter 4, Section 4.18.4.4, Page 4.18-12

Text: Table 4.18-3 Status of Water Rights

Comment: This status table is looking at the immediate source water rights and does not look beyond June 2020 when the source waters will be divided up differently. This short-sightedness does not comply with the CEQA test of including reasonable and foreseeable projects and conditions. MCWRA recommends that this be updated to have a more reasonable synopsis of the water rights. Again, this Project relies on 900-2,200 AFY of wastewater generated within the 2001 Service Area boundary that M1W has a secondary right to after MCWRA. With the current momentum to develop and build projects that will use this water it cannot be guaranteed in the future.

H-32

Chapter 4, Section 4.18.4.4, Page 4.18-14

Text: The PWM/GWR Project Final EIR identified that approximately 8,225 AFY of secondary effluent was being discharged to the Monterey Bay through the Regional Treatment Plant outfall that is not treated at the tertiary level at the Salinas Valley Reclamation Plant for Castroville Seawater Intrusion Project irrigation water supplies.

Comment: MCWRA has always requested and expected that all wastewater flows that are available during the irrigation season. Data shows that on average small amounts of treated wastewater go out the outfall during those summer months. Since all the water was requested but not delivered, MCWRA believes there are operational reasons that this water cannot be delivered to the SVRP for treatment and use. The reasons behind this excess wastewater should be investigated prior to the thought that it is available for PWM. If this water is determined to be available for the AWPF it is likely to be highly unreliable and unpredictable, and considerations should be made as to how it would be scheduled and delivered for treatment to either the SVRP or AWPF. H-33

Appendix D

Text: Footnotes 1 and 4: Discusses the development and use of the "drought reserve".

Comment: Footnote 1 indicates that the "drought reserve" will be available to CalAm for use in the Monterey Service area. Footnote 4 indicates that the 1,000 AF drought reserve account will be for CSIP. H-34

MCWRA appreciates the opportunity to comment on the DSEIR for the Proposed Modifications to the PWM/GWR Project. If you have any questions regarding the enclosed comments, please contact me at 831-755-4860.

Sincerely,

Brent Buche
General Manager

Comment Document H: Monterey County Water Resources Agency

H-1 MCWRA recognizes its longstanding partnership with M1W and expresses support for the PWM/GWR Project. This comment is referred to decision-makers. No response is needed.

H-2 M1W provided MCWRA the Notice of Preparation and met with MCWRA staff multiple times during preparation of the Draft SEIR as detailed in response to comment YY-1. During preparation of the Final SEIR, M1W staff also met with MCWRA staff through participation in the meetings of the Monterey County Water Resources Agency Board of Directors and Board of Supervisors and Water Quality and Operations Committee. In addition, M1W staff presented information about the Proposed Modifications to the Monterey County Farm Bureau and Growers Shippers Association multiple times. The document referenced in this comment has been considered and added as a reference into this Final SEIR as shown in **Chapter 5, Changes to the Draft SEIR** on pages 2-14 and 7-19; however, the report is a financial analysis and reflects a different purpose than the Draft SEIR as its stated purpose is "to evaluate alternative source waters for use in the Castroville Seawater Intrusion Project (CSIP) and associated costs and impacts to existing agricultural users." Because the study evaluated only the cost of augmenting water for CSIP and did not provide additional information for analyzing environmental impacts of the Proposed Modifications, it did not result in any changes to the Draft SEIR impact analysis. In addition, it did not provide any alternatives that would reduce significant impacts of the Proposed Modifications. In fact, the project components described in the report were the same project components as were analyzed in the PWM/GWR Final EIR and no changes to those facilities were contemplated by the report, nor are any changes to those facilities (including physical changes or operational changes) contemplated by the Proposed Modifications evaluated by this Final SEIR.[4] See also Master Response #3: Comments on Water Supply and Source Water Availability.

H-3 See response to comment Y-3 and Master Response #3: Comments on Water Supply and Source Water Availability.

H-4 The *Salinas Valley Groundwater Basin 180/400-ft Subbasin Groundwater Sustainability Plan* (GSP) identifies a Preferred Project 3, Modify Monterey One Water Recycled Water Plant – Winter Modifications, which is a component of the approved PWM/GWR Project. This same project is referred to as "SVRP Winter Modifications" in the PWM/GWR Final EIR. This component of the approved PWM/GWR Project was assumed to be constructed and operational in the impact analysis in the Draft SEIR. The M1W Source Water Technical Memorandum in **Appendix M** also shows that the CSIP system would have adequate source water to meet demands (including MCWRA and M1W rights) during the months of October through March such that the benefits of the Salinas Valley Reclamation Plant winter modifications would still occur if the

[4] The word "environment" was not found in the report, and the phrase "quality" was only mentioned twice, once in reference to the quality of supplemental well water in the CSIP area (where it noted that the quality of the water was such that it didn't require treatment) and once in reference to the High Quality Water from the Salinas River Diversion Facility.

Proposed Modifications were implemented. None of the larger projects related to SVRP and CSIP, such as CSIP expansion or annexation, are considered reasonably foreseeable because:

1. They are among a number of alternatives presented in the plan for solving the Salinas Valley Groundwater Basin sustainability objectives,
2. They have not been subject to any environmental review, design, or permitting processes commenced to date,
3. There are currently no sources of funding secured for conducting environmental review, design or permitting. The timing for funding to be available is estimated at 1 to 2 years from now (Gary Peterson and Derrik Williams, personal communication, December 2019 and March 27, 2020),
4. The planning horizon schedule in the GSP shows that even if they were the selected projects, construction would not begin for more than 5 years from now, and
5. The potential future projects are currently not described to a level of detail necessary to permit a cumulative analysis of the combined environmental impacts with the Proposed Modifications.

See also response to comment Y-3 and Master Response #3: Comments on Water Supply and Source Water Availability.

H-5 M1W's analysis of source water, including third-party and publicly reviewed modeling, has been provided to MCWRA. This includes:

- for wastewater, recycled water, supplemental wells and Salinas River Diversion Facility flows, M1W used its own SCADA and historian data base,
- for the City of Salinas' stormwater and wastewater, M1W used flows in the RWQCB regulatory compliance reports for the MS4 storm water permit and for the City's WDR permit for the Industrial Wastewater Treatment Facility,
- for the Reclamation Ditch, M1W used USGS gaged flows with a factor adjusting to the relevant upstream flow based on additional inflow, percolation and evaporation, and
- for Blanco Drain surface water, a watershed modeling effort was completed.

The flow assumptions and calculations have been reviewed and confirmed by M1W, MPWMD, and MCWRA staff members and reviewed by the public during circulation of the PWM/GWR Final EIR, the 2017 Addendum No. 3 to the PWM/GWR Final EIR, and the water rights protest process. Then, during settlement agreement negotiations that followed the public review of the water rights permit application, the data and analyses were reviewed and vetted by the National Marine Fisheries Service, California Department of Fish and Wildlife, and the State Water Resources Control Board. See Master Response #3: Comments on Water Supply and Source Water Availability.

H-6 See response to comment H-5 and Master Response #3: Comments on Water Supply and Source Water Availability.

H-7 Despite the assertions in this letter, MCWRA has had much more time to provide input to the Proposed Modifications and to comment on the Draft SEIR than is typical for an interested stakeholder. The public review period for the Draft SEIR was extended from its original 49-day review period by an additional 39 days for a total of 88 days at the request of MCWRA, and others. See Master Response #1: Comments on Public Review Period Extension Requests. In addition, M1W staff met and presented the assumptions, data, analysis methodology and results to the MCWRA staff three times, starting in July of 2019 and including twice in October 2019, providing MCWRA staff more than six months to consider and provide input toward the development of the Draft SEIR, including the project description, source water data and assumptions and methodology. The project description in the Draft SEIR is stable, and MCWRA points to no defect in the project description. See Master Response #3: Comments on Water Supply and Source Water Availability.

H-8 See Master Response #6: Comments on Timing of the Proposed Modifications, and Master Response #3: Comments on Water Supply and Source Water Availability. See also **Chapter 5, Changes to the Draft SEIR,** detailing changes to page 4.18-13.

H-9 See Master Response #3: Comments on Water Supply and Source Water Availability for a discussion of future benefits to the CSIP area. The approved PWM/GWR Project would provide additional source waters that could increase future recycled water yields to the CSIP area. With implementation of the Proposed Modifications, additional source water would still be able to be used by CSIP to increase future recycled water yields, which would reduce use of supplemental wells and improve seawater intrusion conditions. As a result, the Proposed Modifications would not deplete groundwater levels compared to existing conditions nor compared to future conditions without the Proposed Modifications. The Draft SEIR acknowledges that a reduction in the future CSIP benefits that were anticipated under the approved PWM/GWR Project would potentially occur due to the Proposed Modifications compared to the amount of benefit modeled in the PWM/GWR Final EIR and in the 2017 Addendum No. 3 to the PWM/GWR Final EIR. This does not represent a new significant impact, nor a worsening in severity of a significant adverse impact. See also **Appendix M** to this SEIR, and Chapter 5, Changes to the Draft SEIR for revisions to pages 2-11, 2-12, and 4.18-13 of the Draft SEIR.

H-10 See response to comment H-2, **Appendix M** to this FEIR, and Master Response #3: Comments on Water Supply and Source Water Availability.

H-11 See Master Response #3: Comments on Water Supply and Source Water Availability.

H-12 The Draft SEIR does not contain the estimate of 2,200 AFY for average annual backwash. On page 2-13, the Draft SEIR does include an estimate of volumes of wastewater that flow into the RTP primary treatment process but that are not within the interceptors (on-site wastewater, landfill, filter and screen backwash and other waste flows from the AWPF, SVRP, and SRDF), plus an estimate of flows that enter the M1W collection system but originate from other geographic areas outside M1W's 2001 Service Area. The actual backwash flows estimated to be available are provided for 2018 for a normal or wet year (1,928 AF) and for 2015 for a dry year (1,709 AFY) in **Appendix M** to this Final SEIR, Attachments 1 and 2, respectively. The information on page 2-12 has been updated with this specific information in Chapter 5, Changes

to the Draft SEIR. The backwash flows at the RTP are sporadically metered and the total annual volumes fluctuate dramatically based on total SVRP throughput and the filter efficiency and total SRDF throughput. In fact, the analysis in the Draft SEIR in Appendix I and in Section 4.18, Water Supply and Wastewater ignores the M1W rights to use of the SRDF backwash flows for meeting recycling demands while the analysis in **Appendix M** to this Final SEIR considers the SVRP backwash to be available flow to which M1W has given rights to MCWRA (i.e., half the flows for M1W and half for MCWRA). See Master Response #3: Comments on Water Supply and Source Water Availability. Information has not been presented regarding why the backwash wastewater flows treated by M1W from the SVRP and SRDF are not considered flows that would be subject to ARWRA Section 4.01(2). The comment's suggestion that this process water must be continually utilized to keep the facilities running is not correct as the water used for backwash is M1W-treated, SVRP-produced water, and M1W-treated, SRDF diversion water. In fact, the water used by M1W to backwash the filters at SVRP and the screens for the SRDF diversions, more appropriately should be considered water that must be diverted in the ordinary course of operating and maintaining the treatment plant and thus would possibly fall under section 4.01(1)(b) of the ARWRA which states that MCWRA rights wastewater exclude those flows – or no rights to those flows are available to MCWRA.

H-13 The headworks influent parshall flume meets Regional Water Quality Control Board and U.S. Environmental Protection Agency standards for accuracy, calibration, and reliability. Numerous flows enter the primary treatment process after the parshall flume. See Master Response #3: Comments on Water Supply and Source Water Availability. The total available backwash flows from SVRP, SRDF, and the approved and constructed AWPF which are assumed to be available to use by M1W and MCWRA (50% for each) total between 2,000 and 2,400 AFY, resulting in up to 1,200 AFY for each M1W and MCWRA. The Proposed Modifications to the AWPF would add to this total by 303 AFY (or 151 AFY each). The request for more, and more accurate, flowmeters, and a maintenance and calibration schedule is referred to decision-makers for their consideration.

H-14 M1W appreciates the suggestion to meter flows that enter into M1W infrastructure and that is treated by M1W. Metering would enable M1W to charge the entity discharging those flows for the treatment costs so that the cost of treatment is borne by the beneficiary. M1W will be seeking ways to reduce the cost burden on its rate payers for treating backwash waters so M1W intends to accurately meter backwash flows and will implement charges for treatment. See Master Response #3: Comments on Water Supply and Source Water Availability. Please also see responses to comments H-12 and H-13.

H-15 See Master Response #3: Comments on Water Supply and Source Water Availability and **Appendix M** to this Final SEIR.

H-16 All available and relevant daily flow metering was provided to MCWRA during the public review period. See also response to H-14. See Master Response #3: Comments on Water Supply and Source Water Availability.

H-17 See Master Response #3: Comments on Water Supply and Source Water Availability.

H-18 See footnote 1 on page 1-1 of the PWM/GWR Final EIR (Volume I) on which the Draft SEIR relies regarding the use of the term replenishment in the PWM/GWR Final EIR, including this Final SEIR. The Drought Reserve is defined in the PWM/GWR Final EIR on pages 1-3 and 2-4, and in the Water Purchase Agreement for the approved PWM/GWR Project, and in the ARWRA. See also Master Response #3: Comments on Water Supply and Source Water Availability.

H-19 The comment is incorrect. After treatment (screening) at the RTP site, the SRDF diversions are pumped to the M1W Reclamation Pond for temporary storage before flowing with recycled water from the SVRP to the CSIP system for irrigation.

H-20 The approved PWM/GWR Project and the Proposed Modifications both assume that MCWRA would fund the new source waters; without that funding, M1W is not able to divert, treat, and use new source waters for the benefit of CSIP. See Master Response #3: Comments on Water Supply and Source Water Availability, explaining that even if MCWRA does not fund the new source waters, sufficient source water will be available for treatment at the AWPF to attain the yield anticipated by the approved PWM/GWR Project and Proposed Modifications.

H-21 See page 2-4 of the PWM/GWR Final EIR (Volume I). See also Master Response #3: Comments on Water Supply and Source Water Availability.

H-22 The statement on page 3-6 is a reference to change to the groundwater levels with and without the Proposed Modifications. The Proposed Modifications would not cause a lowering of groundwater levels on an average and long-term basis in the Seaside Groundwater Basin, in fact groundwater levels will be higher on average. See Appendix H of the Draft SEIR for the groundwater modeling results.

H-23 The referenced report was in draft form when the Draft SEIR was published. Its approval occurred in January 2020. See response to comments H-4 and Master Response #3: Comments on Water Supply and Source Water Availability.

H-24 The Tracer Study will include summer months. The reference to commencement of the Tracer Study in the winter does not mean that it would not continue through the summer. Additional information is available about the Tracer Study at www.purewatermonterey.org/reportsanddocs/.

H-25 See Master Response #3: Comments on Water Supply and Source Water Availability.

H-26 The text of the Draft SEIR on page 4.10-5 has been changed as requested in this comment. The formation of the Monterey County GSA occurred after the date of publication of the Draft SEIR. See **Chapter 5, Changes to the Draft SEIR**.

H-27 The Proposed Modifications would not result in a net increase in well use. There would continue to be an increase in the quantity of source waters to recycle to increase CSIP yields and to reduce supplemental well pumping every year with the Proposed Modifications. See response to comment H-9 and Master Response #3: Comments on Water Supply and Source Water Availability.

H-28 The information in this comment is hereby incorporated into the Draft SEIR. See **Chapter 5, Changes to the Draft SEIR,** detailing changes to page 4.10-8.

H-29 See Master Response #3: Comments on Water Supply and Source Water Availability.

H-30 See Master Response #3: Comments on Water Supply and Source Water Availability.

H-31 See Master Response #3: Comments on Water Supply and Source Water Availability.

H-32 See Master Response #3: Comments on Water Supply and Source Water Availability.

H-33 See Master Response #3: Comments on Water Supply and Source Water Availability.

H-34 Both footnotes are correct. Under the approved PWM/GWR Project, an additional 200 AFY of purified recycled water can be stored during winter months in the Seaside Groundwater Basin almost every year to create a drought reserve for the benefit of CSIP. The Proposed Modifications would not change the ability of the PWM/GWR Project to create this drought reserve. Depending upon how much has been previously stored, the AWPF will be able to reduce its production and deliveries during peak irrigation seasons in dry years (i.e., when the Salinas River Diversion Facility is not operational). The reduction in AWPF production will provide for more availability of the new source waters to the SVRP for the benefit of CSIP if conditions precedent in Section 16.15 of the ARWRA are complete or the agreement is amended such that the drought reserve is provided regardless of the completion of the conditions precedent. This drought reserve benefit would only be available to CSIP if the new source waters projects have been funded by MCWRA pursuant to the ARWRA. See Master Response #3: Comments on Water Supply and Source Water Availability.

CALIFORNIA Water Boards

GAVIN NEWSOM GOVERNOR

JARED BLUMENFELD SECRETARY FOR ENVIRONMENTAL PROTECTION

State Water Resources Control Board

January 31, 2020

ELECTRONIC MAIL

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COMMENTS ON THE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSED MODIFICATIONS TO THE PURE WATER MONTEREY GROUNDWATER REPLENISHMENT PROJECT

Dear Ms. Gaudoin:

Thank you for the opportunity to review the "Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project" (Draft SEIR). The Division of Water Rights (Division) of the State Water Resources Control Board (State Water Board) is providing the following comments and recommended revisions to the Draft SEIR.

1. Editorial Revision

    a. For consistency and clarity throughout the Draft SEIR, rather than using the shorthand reference "State Board" for "State Water Resources Control Board," please use the shorthand reference "State Water Board." (See also "List of Acronyms" on Draft SIER, p. xi.) I-1

2. Narrative Description of Water Rights Orders

    The following comments are to ensure the Draft SEIR accurately reflects the language and intent of the State Water Board's water rights orders to California American Water Company (CalAm). I-2

a. Amend section 2.2.1 of the Draft SEIR (p. 2-8) as follows:

In 1995, the State **Water** Board issued Order ~~No.~~ WR 95-10, which found that CalAm was diverting more water from the Carmel River Basin **(approx. 14,106 AFY)** than it was legally entitled to divert **(3,376 AFY)**. The State Board ordered CalAm to **"diligently** implement**"** actions to terminate its unlawful diversions from the Carmel River and to maximize use of the Seaside Groundwater Basin (to the extent feasible) to reduce diversions of Carmel River water. ~~**In addition**~~**In 2009, finding that CalAm's diversion reductions and development of new lawful water sources had "taken far too long" and were "too small to satisfy the requirement for diligence," the State Water Board issued** a subsequent Cease and Desist Order (~~**SWRCB** Order **Number** WR 2009-0060) **issued in 2009 required**~~**requiring** CalAm to ~~**secure replacement water supplies for its Monterey District service area by January 2017 and reduce**~~**terminate** its **unlawful** Carmel River diversions ~~**to 3,376 AFY**~~ no later than December 31, 2016.

Subsequent to certification of the PWM/GWR Project Final EIR, in July 2016, the ~~**SWRCB**~~**State Water Board** adopted Order **WR** 2016-0016, which amends Order~~**s 95-10 and WR** 2009-0060**. Order 2016-0016**~~ **and** extends the date by which CalAm must terminate all unlawful diversions from the Carmel River from December 31, 2016 to December 31, 2021. The revised Cease and Desist Order ~~**set**~~ **imposes additional conditions and a compliance schedule, including** an initial **"effective** diversion limit**"** of 8,310 AFY for Water Year 2015-2016 (October 1, 2015 – September 30, 2016)~~**and.**~~ **Order WR 2016-0016's compliance schedule also** establishes~~d~~ annual milestones that CalAm must meet in order to maintain the 8,310 AFY **effective** diversion limit through 2021. **The milestones, which CalAm has met to date, include specified construction progress on the MPWSP no later than September 30, 2020, additional specified construction progress on the MPWSP no later than September 30, 2021, and substantial completion of MPWSP to allow water deliveries no later than December 31, 2021. All volumes of GWR Project water delivered to CalAm result in an equivalent reduction of the effective diversion limit. After December 31, 2021, regardless of whether CalAm**

I-2 Cont.

has achieved the earlier specified interim milestones, CalAm will be in violation of the State Water Board's cease and desist order if CalAm diverts any Carmel River water in excess of its actual water rights.

b. Revise other discussions in the Draft SEIR of the State Water Board's water rights orders, including in footnote 4 (Draft SEIR, p. 2-3), for consistency with our suggested revision of section 2.2.1 above.

I-2 Cont.

c. Revise footnote 1 on page 2-1 of the Draft SEIR to reflect the final text of the referenced resolution by the Monterey One Water (M1W) Board of Directors, which correctly stated that the cease and desist order deadline is December 31, 20**21**. (See https://montereyonewater.civicclerk.com/Web/GenFile.aspx?ad=2951; see also Draft SEIR, p. 6-2, footnote 1.)

3. Analysis of Monterey Peninsula Water Supply Project (MPWSP) Alternative

The Draft SEIR states that the Groundwater Recharge Project (GWR Project) expansion, also referred to as the Pure Water Monterey (or PWM) expansion or the "Proposed Modifications" in the Draft SEIR, is proposed only as a "back-up plan" in case CalAm's 6.4-million-gallons-per-day (mgd) capacity desalination project, the MPWSP, "encounters obstacles that prevent its timely, feasible implementation to satisfy the requirements the State Water Board orders related to unauthorized diversion from the Carmel River system." (Draft SEIR, p. 1-3; see also Draft SEIR pp. 2-3, 3-1, 6-4.) As noted above, under State Water Board Order WR 2016-0016, CalAm is to cease all unauthorized diversions from Carmel River no later than December 31, 2021.

I-3

M1W has expressed that GWR Project expansion itself will not be timely or feasibly implemented by the end of 2021.[1] The California Public Utilities Commission (CPUC), which both regulates CalAm's water utility and is the lead agency for the MPWSP, ordered in 2018 that CalAm further explore GWR Project expansion specifically as a "potential additional or supplemental source water supply" for CalAm "in conjunction with the MPWSP." (CPUC Decision 18-09-017, pp. 42-44; p. 168, para. 20; p. 214, para. 37.) CPUC has not approved or entertained the notion of a scenario in which only GWR Project expansion, and not MPWSP, is implemented to serve CalAm's Monterey District. Setting aside the objective of providing a lawful "back-up" water supply for CalAm if MPWSP is not timely and feasibly implemented, the Draft SEIR states that the GWR Project expansion has

[1] During the December 19, 2019 special meeting of the M1W Board of Directors, General Manager Paul Sciuto stated, "[T]he schedule that we presented to everyone on the expansion is that if we worked continuously, we would be able to get this done by December 31, 2021–meaning producing water. I think we all know we're delayed from that regardless . . . so we will not be meeting that schedule. So we're not going to meet the CDO." (Audio recording of Item 5 of "December 19, 2019, Special Meeting," available at https://montereyonewater.org/about_meetings.php under "Listen to the Board Meetings.")

other stated objectives and potential benefits that appear to be independent, including reducing secondary effluent discharges into Monterey Bay, replenishing the Seaside Groundwater Basin, and supplying Marina Coast Water District with additional purified recycled water. (Draft SEIR, pp. S-1, 2-9, 2-17, & 6-2.) I-3 Cont.

Despite likely financial, engineering, or legal limitations and the breakdown of discussions to date between competing project proponents, it does not appear entirely infeasible or unforeseeable that both the MPWSP and the GWR Project expansion could be constructed and implemented. But the Draft SEIR does not currently fully explain the dependent circumstances or criteria for proceeding with the GWR Project expansion, and questions remain regarding how the MPWSP and GWR Project expansion could work in conjunction for their intended purposes. I-4

We have the following suggestions and questions:

a. Revise the Draft SEIR to describe the circumstances or criteria for proceeding with the GWR Project expansion as a "back-up plan" and to further explain what is intended by statements that GWR Project expansion "would not operate simultaneously with the MPWSP desalination" (Draft SEIR, p. 4.10-20). Do these statements mean: I-5

   i. The GWR Project expansion would not proceed if it encounters its own obstacles that prevent its timely, feasible implementation to cease unauthorized diversion from the Carmel River system by December 31, 2021;

   ii. the GWR Project expansion would not proceed if the MPWSP will foreseeably be constructed;

   iii. the GWR Project expansion would only proceed if MPWSP faced delays and would only operate during such delays; and/or

   iv. that both projects may be constructed and capable of operating, but only one of the projects would produce, treat, convey, or pump water in or out of the aquifer at a given time?

b. Add discussion in the Draft SEIR to clarify the potential for, and the cumulative impacts and growth-inducing effects of, a scenario in which both the GWR Project expansion and the MPWSP are ultimately developed and connected to the Seaside Groundwater Basin aquifer storage and recovery (ASR) system described in chapter 2 of the Draft SEIR. If M1W and its project partner, Monterey Peninsula Water Management District (MPWMD), determine that this scenario is not reasonably foreseeable, please explain why not. (We recognize that this request may be, but is not necessarily, interrelated with a better common understanding of the GWR Project I-6

expansion's status as only an intended "back-up plan," discussed in 3.a., above.) I-6 Cont.

4. Data, Reports, and Analyses Regarding Existing and Future Water Supply and Demand

A crucial question regarding GWR Project expansion, especially if it is to be a mutually exclusive alternative to MPWSP, is whether GWR Project expansion can adequately serve existing CalAm customers now, as well as the CalAm service area in the reasonably foreseeable future during normal, dry, and multiple dry years. The Draft SEIR states that it has substantially relied upon the "data and reports regarding existing and future water demands provided by the MPWMD staff." (Draft SEIR, p. 5-6, footnote 2.) At the same time, the Draft SEIR acknowledges that the MPWMD staff's data and reports on supply and demand are contradicted or disputed by CalAm, CPUC, and other stakeholders. (Draft SEIR, p. 2-8, footnote 13 & section 5.2.4 [beginning at p. 5-4].)[2] I-7

Water Supply

Section 4.18 of the Draft SEIR considers the somewhat narrower question of whether "identified source water supplies . . . are sufficient to accommodate the Proposed Modification . . . ." (Draft SEIR, p. 4.18-7.) The Draft SEIR concludes that "[a]dequate source water supplies are reasonably likely to be available" for GWR Project expansion during normal, dry, and multiple dry years, and that "rights to such source water would be fully secured prior to operation." (Draft SEIR, p. 4.18-13.)

State Water Board staff did not have the opportunity to fully analyze the water rights and related agreements discussed in section 2.6.1, section 4.18, Appendix B, and Appendix C of the Draft SEIR, but staff's impression from the Draft SEIR is that: I-8

- Despite some discussion of anticipated annual yield from some of the various source waters, the composition and volume specifically available annually for Advanced Water Purification Facility production and injection into the Seaside Groundwater Basin for CalAm's potable water service is unclear.

- M1W must still enter into agreements with the City of Salinas to secure certain identified sources, including stormwater and seasonally-stored agricultural wash water from the Salinas Stormwater Collection System. I-9

[2] Since the release of the Draft SEIR, MPWMD and its staff have further discussed and revised future supply and demand estimates and water demand forecasts. MPWMD staff finds that, with the addition of 2019 production data, current demand is slightly lower than its previous forecast. MPWMD staff also concludes that its prior analysis was consistent with the regional growth forecasted by the Association of Monterey Bay Area Governments. (See, e.g. MPWMD Water Demand Committee, Dec. 17, 2019 meeting, Discussion Item 2, https://www.mpwmd.net/asd/board/committees/waterdemandcommittee/2019/20191217/02/Item-2.htm.)

- The complex Amended and Restated Water Recycling Agreement (ARWRA) between M1W (then named Monterey Regional Water Pollution Control Agency) and Monterey County Water Resource Agency (MCWRA) potentially affects disposition of multiple GWR Project source waters, "*currently*" affords M1W rights to certain municipal wastewater flows and to the Blanco Drain and Reclamation Ditch agricultural wastewater diversions, but includes a number of dependent and uncertain conditions and may be subject to future events, disputes, or amendments that may result in MCWRA's or other entities' being entitled to significantly higher portions of several of the source waters described in the ARWRA, including but not limited to wastewaters outside of M1W's 2001 service area, Blanco Drain, Reclamation Ditch, and the City of Salinas's Agricultural Wash Water. I-10

Division staff also found that:

- The 1,300 AFY calculated as "Available Supply" from ASR in Table 5-1 (Draft SEIR, p. 5-5) exceeds actual historical annual supply. The Draft SEIR is correct that the "ability of ASR to fully achieve its stated available supply is contingent upon a variety of factors, including climatic conditions." (Draft SEIR, p. 5-5, note ***. This applies equally to CPUC's and MPWMD's analyses.) However, at least based on past results, both CPUC's Final Environmental Impact Report/Environmental Impact Statement for MPWSP (MPWSP FEIR/EIS) and the Draft SEIR may have overestimated the ASR's actual and long-term average annual yield. According to Division staff calculations, ASR injections from the Carmel River during the past ten years (2009-2019) equated to an average of 678 AFY, with an average 305 AFY during the most recent drought (2013-2016). On the other hand, Phase II of the ASR was reportedly not completed until 2013, and more recent average annual ASR injections (2016-2019) have exceeded 1,300 AFY, including 2,345 acre-feet in water year 2016-2017 alone. I-11

- Even under relatively low estimates of current and future system demand, the GWR Project expansion alone is uncertain to result in a predictable and consistent level of potable water production for CalAm in the event of reasonably foreseeable occurrences such as extended drought, the need for system repair or maintenance, or other similar events that may limit ASR, GWR Project, or other system operations for various periods of time. I-12

Water Demand

The State Water Board has not come to an independent conclusion regarding the competing estimates and projections of population, water demand, and water use on the Monterey Peninsula and Carmel Valley, but it remains very interested in the discussion and resolution. I-13

Table 5-1 (Draft SEIR, p. 5-5) shows that under the scenario in which the GWR Project expansion is implemented to the exclusion of MPWSP, total water supply would fall short of MPWMD's "High" (presumably indicating high-demand scenario) projections by 956 acre-feet per year (AFY). MPWMD's "High" estimate of current demand is approximately 1,000 AFY less than CPUC's estimate, and MPWMD's "High" projection of future demand is approximately 1,700 AFY less than CPUC's projection. The Draft SEIR argues that if actual demand exceeds MPWMD's estimates, the GWR Project expansion would result in "less potential indirect, adverse impacts of growth" than MPWMD and M1W apparently anticipate. (Draft SEIR, p. 5-6.) But, absent the development of additional water supply sources and depending upon a number of potential economic and governmental forces, development of GWR Project expansion could also simply result in even more significant gaps than M1W and MPWMD expect between realized potable water demand and available supply.

I-13 Cont.

Effect of Supply and Demand on "Growth"

Under any of the various competing estimates of water supply and demand, actual water supply capacity for CalAm's service area may not necessarily stifle development or growth in a highly desirable region such as the Carmel Valley and Monterey Peninsula. According to the MPWSP FEIR/EIS, local jurisdictions have projected additional future water supply needs of 3,526 AFY for buildout of their general plans. (See MPWSP FEIR/EIS, p. 2-28 - 2-30.) CalAm's Monterey District is currently subject to significant water supply limitations, including a reported accrued Seaside Groundwater Basin pumping deficit for which it has replenishment obligations, ramp-down restrictions on pumping to meet the Seaside Groundwater Basin's natural safe yield, the looming deadline to finally terminate substantial unauthorized diversions from Carmel River, and the related current moratorium both on new service connections and on increased water deliveries to existing service addresses that undergo significant changes in use. (*California American Water v. City of Seaside*, Monterey County Superior Court, Case Number M66343 [Seaside Groundwater Basin adjudication]; State Water Board Order WR 2016-0016, ordering paragraph 2 [p. 19]; State Water Board Order WR 2009-0060, ordering paragraph 2 [p. 57]. See also CPUC Decision 11-03-048.)

I-14

Despite these existing water supply limitations, new subdivisions and developments have been pursued in and around CalAm's existing service area, often accompanied with creative arguments as to why the water supply or water usage of the proposed project should not be considered to increase the system's potable water demands or to threaten violation of the aforementioned limitations. The Division is concerned that the GWR Project expansion could be used as further justification for new development, with corresponding increases in water consumption, even if the water system could fall short of the supply actually required to reliably and lawfully meet the growing water demand of its service area jurisdictions.

I-15

Based on past and present observations, State Water Board staff is specifically concerned about potentially significant impacts of indirect but reasonably foreseeable occurrences if only GWR Project expansion is implemented, including:

- New building developments' or subdivisions' seeking to form separate small water systems that may themselves lack reliable water supplies and necessary technical, managerial, and financial capacity. I-16

- CalAm's continued reliance on and use of water exceeding its authorization, such as from the native Seaside Groundwater Basin or Carmel River, during times of GWR Project's or other supply components' outage or water supply shortfall. I-17

We have the following suggestions for the Draft SEIR: I-18

a. Revise Table 5-1 to clarify what, if anything, was intended to be noted in correspondence with the four asterisks in "MPWMD****."

b. Delete the following text from Table 5-1, note ***, as follows: I-19

> ~~**Moreover, available supply also assumes that the ASR project would capable of delivering all of its stated supply. The ability of ASR to fully achieve its stated available supply is contingent upon a variety of factors, including climatic conditions. During periods of prolonged drought, ASR may not be able to fully realize its total supply.**~~

Add as separate note ("****" or "*****," depending upon resolution of comment above), applying to *all* estimates of Aquifer Storage & Recovery supply, both under "Future Supplies" and "Water Supply vs. Demand Summary":

> **Available supply assumes that the ASR project would be capable of delivering a long-term average annual yield of 1,300 AFY. The ability of ASR to fully achieve this stated available supply is contingent upon a variety of factors, including but not limited to climatic and hyrdologic conditions and the terms and conditions of associated water rights.**

c. Reexamine calculations of annual water supply from the ASR project in light of available reporting from CalAm regarding past operations. Consider how actual ASR operations' producing significantly less than an average of 1,300 AFY over several consecutive years (e.g., dry or drought conditions) affects the analyses and projections of supply and demand for CalAm's Monterey District service area. I-20

hyrdologic conditions and the terms and conditions of associated water rights.

c. Reexamine calculations of annual water supply from the ASR project in light of available reporting from CalAm regarding past operations. Consider how actual ASR operations' producing significantly less than an average of 1,300 AFY over several consecutive years (e.g., dry or drought conditions) affects the analyses and projections of supply and demand for CalAm's Monterey District service area.

d. Assuming, as MPWMD and M1W apparently have in at least some sections of the Draft SEIR such as section 5.2.4, that MPWSP will not be implemented if GWR Project expansion is, describe which other alternatives, supplemental projects, or system operations would be considered to meet the gap between the CalAm water system's projected water demand and its projected water supply. (See also following comments on "drought reserve" groundwater banking discussion.) I-20

5. Drought and "Drought Reserve"

CalAm's Urban Water Management Plan indicated that the GWR Project supply is "independent of hydrological conditions" and "100% reliable during normal, single dry, and multiple dry years." (See https://wuedata.water.ca.gov/public/uwmp_attachments/3042325675/2015%20UWMP_Monterey%20District_Final_Revised%20with%20Errata.pdf, at pp. 5-15 & 6-3.) The Draft SEIR suggests that the GWR Project's planned injection and banking of a "drought reserve" of an additional 200 AFY, "up to a total of 1,000 acre-feet," would allow CalAm to "extract the banked water to make up the difference to its supplies" if, during dry years, the GWR Project delivers less than 5,750 AFY to the Seaside Groundwater Basin for CalAm's use. (Draft SEIR, p. 2-3, footnote 3, and p. 3-2.) CalAm has more recently questioned the reliability of the additional 2,250 AFY proposed under GWR Project expansion, specifically the source volumes that would be supplied by Salinas-area agriculture. Determining the merit of these competing claims regarding the reliability of GWR Project expansion's purified water deliveries for CalAm will require better understanding the average and annual production that will be available from the various water sources, as well as further consideration of the various relevant future variables. I-21

Banking a "drought reserve" in Seaside Groundwater Basin via ASR is a desirable concept to prepare for periods in which the various sources of municipal water supply may not produce as much water as estimated. However, the Division still lacks understanding of the details of the scenarios regarding how much water will be available and authorized for banking in the aquifer from year to year, how severe the reductions in water production and groundwater injection for CalAm or other water suppliers may be during dry or drought periods, and how CalAm and other water suppliers' portfolio and uses would perform during such periods. These issues are

crucial to evaluating GWR Project expansion as a feasible and adequate alternative or "back-up" to MPWSP, and the State Water Board will be interested in better understanding parties' positions. I-21 Cont.

We have the following general questions:

a. During a dry year or multiple dry years (future drought), how much "less than" 5,750 acre-feet of purified water may be delivered to the Seaside Groundwater Basin? Would the expanded GWR Project's shortfall truly only be 200 AFY per year, up to 1,000 AFY? I-22

b. Are the source supplies for the additional 2,250 AFY of purified recycled water under GWR Project expansion reliable even during drought years? Why do some parties suggest such a strong distinction between the source water reliability of the original GWR Project and its expansion? I-23

Thank you for the opportunity to comment on this Draft SEIR. If you would like to discuss our comments further, please contact Steven Westhoff at steven.westhoff@waterboards.ca.gov or (916) 327-7295.

Sincerely,

Erik Ekdahl
Deputy Director, Division of Water Rights
State Water Resources Control Board

Comment Document I: State Water Resources Control Board

I-1 The text of the Draft SEIR has been modified throughout the document in response to this editorial comment, See **Chapter 5, Changes to the Draft SEIR**.

I-2 The text of the Draft SEIR has been modified throughout the document in response to this comment, See **Chapter 5, Changes to the Draft SEIR** for modifications to pages 2-3 and 2-8 of the Draft SEIR.

I-3 The comment notes that the "GWR Project expansion itself will not be timely or feasibly implemented by the end of 2021." See Master Response #6: Comments on Timing of the Proposed Modifications. Any increase in yield for CalAm would still be a benefit to the region in terms of reducing unauthorized Carmel Rivers diversions if the Proposed Modifications are completed prior to the CalAm MPWSP desalination project construction being completed or operating. The comment also states that the objectives for the Proposed Modifications include supplying Marina Coast Water District with additional purified water. That is not one of the project objectives. The project objectives are to reduce secondary effluent discharges into Monterey Bay and inject additional water into the Seaside Groundwater Basin for CalAm use to reduce unauthorized diversions as required by the CDO and to meet the Seaside Basin adjudication requirements.

I-4 If desired by the M1W Board, M1W staff will proceed with the next steps to implement the Proposed Modifications. Currently, staff assumes that the M1W Board will consider approval of the Proposed Modifications at their regularly scheduled meeting in April 2020. If funding becomes available for critical path next steps to implement one or more components of the Proposed Modifications (including planning, engineering design, inter-agency negotiations, permitting, and construction), staff would continue to pursue implementation of the Proposed Modifications. Because this work to implement the Proposed Modifications would potentially be pursued if approved by the Board and funded, the Draft SEIR assumes that these steps could occur in parallel with similar actions needed to implement the MPWSP. While the 2015 Final EIR for the approved PWM Project and the Draft SEIR both addressed cumulative construction and operational impacts of the two projects, the Draft SEIR followed the direction of the Board and analyzed impacts assuming that the PWM Expansion would only occur if the CalAm Desalination plant is delayed beyond the December 31, 2021 deadline in the Cease and Desist Order. The advanced treatment and delivery of the expanded quantities of water associated with operation of the Proposed Modifications to the PWM Project would not occur if CalAm's MPWSP Desalination Project operates to deliver the same amount or more water to the CalAm Monterey District service area. See Master Response #4: Comments on Adequacy of Scope and Range of Cumulative Impacts Disclosed and Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

I-5 Please see Master Response #4: Comments on Adequacy of Scope and Range of Cumulative Impacts Disclosed and Master Response #5: Comments on Adequacy of Scope and Range of Alternatives for detailed information about the relationship between the Proposed Modifications and the MPWSP, including the MPWSP desalination project.

The State Water Board asks for additional information as to the circumstances or criteria for proceeding with the GWR Project as a back-up plan, and to further explain what is intended by statements that the Proposed Modifications would not operate simultaneously with the MPWSP desalination project. In particular, the State Water Board asks whether these statements mean:

a.i: "*The GWR Project expansion would not proceed if it encounters its own obstacles that present its timely, feasible implementation to cease unauthorized diversions from the Carmel River system by December 31, 2021*." See Master Response #6: Comments on Timing of Proposed Modifications. The Proposed Modifications could proceed even if they would not be completed by December 31, 2021, but only if the PWM/GWR Project Expansion is needed to meet the Monterey District demands while still enabling CalAm to achieve the CDO [WR2016-0016] applicable effective diversion limits and the Seaside adjudication requirements without the MPWSP desalination project built or operating.

a.ii: "*The GWR Project expansion would not proceed if the MPWSP will foreseeably be constructed.*" As noted above, the Proposed Modifications only would move forward if they are needed to meet the Monterey District demands while still enabling CalAm to achieve the CDO [WR2016-0016] applicable effective diversion limits and the Seaside adjudication requirements without the CalAm MPWSP desalination project built and operating. The Proposed Modifications may proceed as described in response to comment I-4 even if the MPWSP desalination project will foreseeably be constructed, but the Proposed Modifications can increase water supplies substantially more quickly than the MPWSP desalination project.

a.iii: "*The GWR Project expansion would only proceed if MPWSP faced delays and would only operate during such delays.*" This statement is correct. The Proposed Modifications would only proceed if the CalAm desalination project faces delays and would only operate during such delays.

a.iv: "*Both projects may be constructed and capable of operating, but only one of the projects would produce, treat, convey or pump water in or out of the aquifer at a given time."* Both projects may be constructed and capable of operating. The approved PWM/GWR Project would operate at the same time as the CalAm desalination project and would be supplemental to the desalination project. By contrast, the expanded amount of water associated with the Proposed Modifications would not be treated and delivered at the same time as the CalAm MPWSP desalination project is operating to treat and deliver the same amount of water. The Proposed Modifications would be "supplemental" to the CalAm desalination project in that the Proposed Modifications would provide water during a period *before* the CalAm desalination project is built or operating.

I-6 See responses to comments I-3, I-4 and I-5 and Master Response #4: Comments on Adequacy of Scope and Range of Cumulative Impacts Disclosed.

I-7 The evidence in the record indicates that the PWM/GWR Project Expansion would be capable of serving CalAm customers now, as well as in the reasonably foreseeable future during normal, dry, and multiple dry years. See Master

Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, Letter from David J. Stoldt to Ian Crooks, RE: California American Water Peer Review of Supply and Demand for Water on the Monterey Peninsula (dated March 6, 2020) ("MPWMD Response to Hazen & Sawyer"), and **Appendix O**, the MPWMD Supply and Demand Report.

I-8 See Master Response #3: Comments on Water Supply and Source Water Availability for additional information to clarify the composition and volume of source waters that are available annually for AWPF production and injection into the Seaside Groundwater basin for CalAm's potable water service.

I-9 See Master Response #3: Comments on Water Supply and Source Water Availability for additional information as to the status of M1W's rights to treat Agricultural Wash Water and City of Salinas urban runoff/stormwater at the AWPF. M1W has determined that, even if neither of these sources of water is available for treatment at the AWPF, there would be plenty of remaining source waters available for treatment at the AWPF to attain the yield anticipated for the Proposed Modifications.

I-10 See Master Response #3: Comments on Water Supply and Source Water Availability and **Appendix M** for additional information about source water availability under the assumption that the conditions precedent in the ARWRA are not met. M1W has determined that, even if the conditions precedent are not met, there would be plenty of source waters available for treatment at the AWPF to attain the yield anticipated for the Proposed Modifications.

I-11 See Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, M1W Source Water Technical Memorandum, and **Appendix O** to this Final SEIR, MPWMD Supply and Demand Report. There are two water rights that support Aquifer Storage and Recovery (ASR). Permit 20808A allows maximum diversion of 2,426 AFA and Permit 20808C allows up to 2,900 AFA for a total of 5,326 AFA. However, these are maximums that may only be close to being achieved in the wettest of years. Based on long-term historical precipitation and streamflow data, ASR is designed to produce 1,920 AFA on average. The MPWSP EIS/EIR and CalAm's Urban Water Management Plan (UWMP) assumes a lesser amount of 1,300 AFA to be conservative. The Cal-Am estimate of yield of 1,300 AFY was developed during a period when ASR water was mandated to be recovered in the same year in which it is injected. That is not the case after a new water supply is developed and the Cease and Desist Order has been lifted. Once the CDO is lifted as a result of a new proposed water supply, ASR would function more like a reservoir, establishing a reserve that is carried over year-to-year. Thus, higher yield years can be stored and used in lower yield years.

MPWMD subsequently revised its memorandum with additional analysis, but found the same conclusion, namely that build-up of ASR storage would be sufficient to meet a 5-year drought. The build-up occurs based on historical data including wet, normal, and dry years. If the data is randomized, the same results will occur – ASR acts like a lake behind a dam, building up supplies for use later during a drought. To remove ASR from the resource planning mix as Hazen & Sawyer does on page 6 of its report would be akin to telling the Sonoma County Water Agency to remove Lake Mendocino from its supply planning, or any of the hundreds of urban water providers to discount one of

its reservoirs. This is inconsistent with industry practice for estimating water supply availability. Even the American Waterworks Association recognizes ASR in its reliability assessment: “ASR wells can improve water basin management by storing water underground from periods of excess supply…, and later allowing a portion of the stored water to be extracted during periods of demand or short supply.” Additional information on drought resiliency is found in Appendix C of **Appendix O** to this Final SEIR. (MPWMD, 2020)

I-12 See Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix M** to this Final SEIR, M1W Source Water Technical Memorandum, and **Appendix O** to this Final SEIR, MPWMD Supply and Demand Report. The evidence in the record indicates that the PWM/GWR Project Expansion would be capable of meeting current and future system demand during drought conditions. The need for system repair and maintenance has been considered in the analysis through assumptions that various facilities would not operate 100% of the time so that repair and maintenance activities can take place. Other events that may limit ASR or systems operations for various periods of time are unknown and such an analysis would be speculative. The assumed AWPF yield, for example, has always been based on an assumption that the AWPF would be down 10% of the time; and the capacity of the injection wells for the Proposed Modifications is based on the assumption that one well would be down at any given time.

I-13 See Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix M** to this Final SEIR, M1W Source Water Technical Memorandum, and **Appendix O** to this Final SEIR, MPWMD Supply and Demand Report. The MPWMD Supply and Demand Report has been updated. The Report calculates water demand under several scenarios and compares that demand to water supplies with the PWM/GWR Expansion in place. Under the demand scenarios that are based upon a 5-year average pre-CDO growth rate and the AMBAG 2018 regional growth forecast, water supplies with the PWM/GWR Expansion in place are estimated to accommodate demand through the year 2049. Under the highest demand scenario that is based on the five-year average water usage for current demand, plus an initial 5-year period of high absorption based on pent-up market demand, followed by demand based on the AMBAG 2018 regional growth forecast, water supplies with the PWM/GWR Expansion in place are estimated to accommodate demand through the year 2044.

See also Master Response #5: Comments on Adequacy of Scope and Range of Alternatives for additional information regarding the relationship between the Proposed Modifications and the MPWSP. The Proposed Modifications would serve as a backup to the MPWSP desalination project. The Proposed Modifications would not preclude future construction and operation of the MPWSP desalination project.

I-14 See Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix M** to this Final SEIR, M1W Source Water Technical Memorandum, and **Appendix O** to this Final SEIR, MPWMD Supply and Demand Report. The MPWMD Supply and Demand Report provides projections of future demand based upon the AMBAG 2018 regional forecast, which takes into account the general plans of the local jurisdictions and also takes into account current constraints on water availability.

I-15 The Draft SEIR recognizes that the PWM/GWR Expansion Project could induce growth; the analysis is based upon published AMBAG forecasts and data. The implementation of the Proposed Modifications would provide additional water to meet the needs of the Monterey Peninsula. If additional water becomes available for use to increase development, that development would be either consistent with approved land use plans, supported by certified Environmental Impact Reports or adopted Negative Declarations, or would be subject to additional review under CEQA that would be required to evaluate and mitigate for significant impacts and to include alternatives to reduce significant impacts, as required. Review of new development would include a requirement to assess the long-term availability of water supplies to accommodate demand from such new development. While it is theoretically possible that jurisdictions could approve new development without sufficient water available for that development, such an outcome would not be a consequence of M1W's approval of the Proposed Modifications.

I-16 See response to comment I-15. The Proposed Modifications to the PWM/GWR Project would provide water for distribution by CalAm and would not be used to supply water for separate small water systems, nor is there any indication that the Proposed Modifications would lead others to create small water systems.

I-17 See Master Response #3: Comments on Water Supply and Source Water Availability. M1W has determined that there would be plenty of source waters available for treatment at the AWPF to attain the yield anticipated for the Proposed Modifications. The PWM/GWR Project Expansion only would move forward if it is needed to meet the Monterey District demands while still enabling CalAm to achieve the CDO [WR2016-0016] applicable effective diversion limits and the Seaside adjudication requirements without the CalAm MPWSP desalination project built or operating. The Proposed Modifications are drought resilient, acting as a reservoir for CalAm to use as demand occurs. See also **Appendix O**, Note 15.

I-18 See Master Response #3: Comments on Water Supply and Source Water Availability. Also see **Chapter 5, Changes to the Draft SEIR** to address SWRCB-requested revisions to Table 5-1 for page 5-5 of the Draft SEIR. The **** was incorrectly placed in the Table and now is placed on the Aquifer Storage and Recovery Supply row. See also Response to comments I-11, I-19, and I-20.

I-19 See **Chapter 5, Changes to the Draft SEIR** for page 5-5 of the Draft SEIR. SWRCB additional text reads: Available supply assumes that the ASR project would be capable of delivering a long-term average annual yield of 1.300 AFY. The ability of ASR to fully achieve this stated available supply is contingent upon a variety of factors including climatic and hydrologic conditions and the terms and conditions of associated water rights. See response to comment I-11 and Appendices N and O (Notes 13 to 15) of this Final SEIR.

I-20 See Master Response #3: Comments on Water Supply and Source Water Availability. There would be no shortfall of yield to the CalAm water supply system below the 5,750 AFY if the Proposed Modifications are implemented. The drought reserve stored in the Seaside Groundwater Basin, was intended to allow reduced production from the AWPF (and increased production of the SVRP), while still enabling CalAm to continue to use 5,750 AFY (including 3,500 AFY of approved PWM/GWR Project yield plus

2,250 AFY of water if the Proposed Modifications are implemented). The reduction in injections to the Seaside Groundwater Basin of the approved (base) PWM/GWR Project supplies (decrease from 3,500 to 2,500 AFY) would with or without the Proposed Modifications and would only occur if the drought reserve is built up. If the drought reserve is built up, AWPF production and injections into the Seaside Groundwater Basin be reduced to provide additional water to the SVRP in drought years without reducing CalAm yield. No reduction to the yield of the Proposed Modifications (2,250 AFY) would occur. A clear picture of the lack of gap between supply and demand is provided in Appendix N and O.

I-21 There would be no reduction nor shortfall in PWM/GWR Project yield for CalAm from the Seaside Basin during dry or drought years in order for CSIP to benefit from the drought reserve. Previously banked water would be available to CalAm while the AWPF production rate is decreased to provide more recycled water to CSIP. In addition, M1W is required to build an operational reserve of 1,750 AFY in the Seaside Groundwater Basin to insure there is adequate yield in any unforeseen, severe circumstances. Note that the ASR Project will also be available to be banked during wet years for use in dry years. See also response to comment I-20.

I-22 See responses to comments I-12 through I-21.

I-23 Yes, the source supplies for the additional 2,250 AFY under the PWM Expansion are reliable even during drought years. M1W has rights to use wastewater that enters its infrastructure as it chooses, unless it is given to another entity through a contract per California Water Code 1210. Agreements are described in **Appendix B** of the Draft SEIR. See also Master Response #3: Comments on Water Supply and Source Water Availability.

Letter J

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Monterey Bay National Marine Sanctuary
99 Pacific Street, Bldg 455a
Monterey, CA 93940

January 30, 2020

Monterey One Water
5 Harris Ct., Bldg. D
Monterey, CA 93940
ATTN: Rachel Gaudoin

Subject: MBNMS Comments on the Draft Supplemental Environmental Impact Report for the proposed expansion of the Pure Water Monterey Ground Water Replenishment Project

Dear Ms. Gaudoin,

On behalf of Monterey Bay National Marine Sanctuary (MBNMS), I submit the following comments in regard to the draft Supplemental Environmental Impact Report (SEIR) for an expanded Pure Water Monterey Ground Water Replenishment Project (PWM).

Monterey One Water (M1W), in partnership with Monterey Peninsula Water Management District (MPWMD), is proposing modifications to the approved PWM that would increase the project yield. The expanded project would serve as a back-up to the California American Water Company (CalAm) Monterey Peninsula Water Supply Project desalination project (MPWSP) in the event that the CalAm desalination project is delayed beyond the Cease and Desist Order deadline of December 31, 2021. The draft SEIR evaluates the proposed modifications, which would increase the amount of purified recycled water produced by 2,250 AFY using the following new and modified facilities: (1) improvements at the approved Advanced Water Purification Facility (AWPF) to increase peak capacity; (2) new product water conveyance facilities; (3) new and relocated injection well facilities, including monitoring wells; and (4) new potable water facilities consisting of four new extraction wells, related pipelines and appurtenances, and treatment facilities. J-1

On March 29, 2019, MBNMS completed and approved an Environmental Assessment (EA) for the PWM project under the National Environmental Protection Act (NEPA) for MBMNS to authorize an NPDES permit for the discharge of AWPF effluent into MBNMS. For this reason, our comments are specifically focused on the discharge related to the proposed expanded project.

Most people think that because waste water effluent is being recycled by highly treating it at the AWPF and then injecting it into the Seaside Ground Water basin, there will be reduced or no discharge into Monterey Bay. However, this is not the case. As proposed, there will be a constant waste stream flowing to MBNMS as a result of the Reverse Osmosis (RO) concentrate from the AWPF. The clean, treated water will be injected into the Seaside ground water basin and up to 1.78 million gallons per day (MGD) of RO concentrate will flow to Monterey Bay. During different times of year, the AWPF RO concentrate will mix with varying amounts of waste water effluent ranging between 0 and 29.6 MGD per day. Currently, without the Pure Water Monterey project, there is almost no secondary treated waste water flowing to the J-2

Monterey Bay for almost half the year because it is diverted to the Castroville Seawater Intrusion Project (CSIP). J-2 Cont.

Our comments are as follows:

1. The Draft SEIR found that there would be no impact or less than significant impact to surface water quality and marine biological resources, relying, in part, on the Trussell Technical Memorandum dated September 2019 (Appendix J). We question some of the assumptions used to make these findings. We have the following comments:

   a. The current approved M1W NPDES Permit uses four different dilution minimums (Dm) in the formula to calculate compliance with the CA Ocean Plan. In the draft SEIR, compliance is calculated using 10 Dms, one for each of the scenarios. For purposes of evaluating impacts to water quality and ultimately marine biological resources, the current permit conditions should be applied to the analysis conducted by Trussell using 4 Dms. J-3

   b. The Trussell Tech Memo on page 11 stated that the worst-case concentrations of each constituent in the various source waters was selected for all constituents except for copper and ammonia. These two constituents came closest to exceeding the CA Ocean Plan objectives. For Ammonia, compliance with the CA Ocean Plan is based on a running 6 month median value. For copper, instead of using the highest value found in source water samples, the median was used. The Trussell Tech Memo stated that limited data was available so the median was used and not the six-month median. A footnote in the draft SEIR on page 4.11-15 states that the maximum values detected for copper appear to be "outliers" so the median was used. It is unclear as to why the samples were considered outliers and why there is sufficient samples for all of the other constituents and not for copper. Neither ammonia nor copper should be treated differently than the other constituents and the highest value found in the different source waters should be used in the analysis. J-4

   c. Also, on page 11 of the Trussell Tech memo, there is discussion of the upstream treatment processes to remove DDT and dieldrin from the waste stream. It is not clear how the results are represented in the compliance assessment. Are the values for DDT and dieldrin in Tables 1, 3, and 4 based on the estimated percent of treatment removal or are they based on the worst case assumptions used for all of the other constituents (except copper and ammonia described in b above)? J-5

   d. In general, the modeling and analysis for the Dms and compliance with the CA Ocean Plan should mirror the analysis for the current approved M1W NPDES permit (Order# R3-2018-0017 NPDES # CA00485512) and all constituents should be analyzed using the same assumptions. If there is sufficient justification why the analytical approach needed to adjusted, a comparison should be made for the four constituents identified above in our comment 1.b and 1.c using both approaches. J-6

2. Under the scenario of no waste water effluent, when only AWPF RO concentrate is being discharged, the PCB concentration is modeled at 70% of the CA Ocean Plan water quality objective. This effluent, high in PCBs, is being discharged into a waterbody that regularly J-7

exceeds CA Ocean Plan standards for PCBs and is being considered for impairment of beneficial uses. For this reason, special care should be taken to analyze the cumulative impacts on both surface water quality and marine resources regarding the additional contribution of PCBs to MBNMS. J-7 Cont.

3. On the bottom of page 4.11-10 there is reference to Impact HS-5 for marine water quality impacts due to ocean discharges from the AWPF. This should say HS-4. Impact HS-5 is for alteration to drainage patterns. J-8

4. On the top of page 4.13-6 it refers to Section 4.10 as Hydrology and Water Quality: Surface Waters. It should say 4.11. J-9

5. Section 4.13.3 Regulatory Framework; please delete the current narrative except for the last paragraph and insert the language below under National Marine Sanctuary Program Regulations.

> The National Marine Sanctuaries Act (NMSA) regulations identify activities that are prohibited in the sanctuaries and establish a system of permits and/or authorizations to allow the conduct of certain types of activities that are otherwise prohibited. Each sanctuary has unique regulatory prohibitions codified within a separate subpart of Title 15, Code of Federal Regulations, Part 922 (i.e., 15 CFR Part 922). Subpart M contains the regulations specific to MBNMS. Section 922.132 of the regulations lists activities that are prohibited or otherwise regulated within the Sanctuary. Among the listed prohibitions, the following prohibited activities relate to the proposed project and may qualify for an authorization, pursuant to Section 922.132(e): Discharging or depositing from within or into the sanctuary any material or other matter, except as specified in A – F of this section. (15 CFR § 922.132(a)(2)(i)). J-10
>
> The term "authorization" is a specific approval tool described in the NMSA regulations at 15 CFR Section 922.49, which provides, in part, that: A person may conduct an activity prohibited by subparts L through P, or subpart R, if such activity is specifically authorized by any valid Federal, State, or local lease, permit, license, approval, or other authorization issued after the effective date of MBNMS designation, provided that: 1) the applicant notifies the Director of the Office of Ocean and Coastal Resource Management, NOAA, or designee, in writing, of the application for such authorization; 2) the applicant complies with the provisions of Section 922.49; 3) the Director notifies the applicant and authorizing agency that he or she does not object to issuance of the authorization, and; 4) the applicant complies with any terms and conditions the Director deems reasonably necessary to protect sanctuary resources and qualities. Upon completion of the review of the application and information received with respect thereto, the Director shall notify both the agency and applicant, in writing, whether he or she has any objection to issuance and what terms and conditions he or she deems reasonably necessary to protect sanctuary resources and qualities (page 19 EA for MBNMS Authorization of M1W NPDES Permit).

Because an amended NPDES permit will be required for the expanded PWM operations, MBNMS will need to authorize that permit for the discharge to be a legal discharge into MBNMS. NEPA analysis will be necessary before any federal action can be taken. M1W must address the water quality analysis issues identified above in order for MBNMS to complete its NEPA obligations and consider granting an authorization for the NPDES permit for the proposed expansion. .

J-10 Cont.

Thank you for the opportunity to comment on the draft SEIR. Please contact Bridget Hoover at 831-647-4217 or Bridget.Hoover@noaa.gov for any questions regarding our comments.

Sincerely,

Paul Michel
Superintendent

Cc: Peter von Langen, CCRWQCB

Comment Document J: Monterey Bay National Marine Sanctuary/National Oceanic and Atmospheric Administration

J-1 The comment reiterates information in the Draft SEIR. No response is needed.

J-2 The Proposed Modifications would further reduce the volumes of secondary effluent discharged to the Monterey Bay via the M1W ocean outfall. Treatment processes at the RTP, including primary, secondary, tertiary and advanced treatment (purification) reduce the concentrations of constituents that are considered pollutants, including solids, organics, metals, constituents of emerging concern (CECs), pathogens, and viruses. Reducing discharges from the RTP will reduce total pollutant loads for every unit volume of secondary effluent recycled. Specifically, recycled backwash flows from the Salinas Valley Reclamation Plant and the AWPF both contain solids with organic matter and other pollutants adhered to it that would receive further treatment by being recycled back to the RTP primary treatment process. In addition, diversion and treatment of new source waters, such as surface flows in the Blanco Drain, Reclamation Ditch, urban storm water, and agricultural wash water that currently flow to the environment will also be used by the PWM/GWR Project resulting in further reduction of the untreated pollutant/constituent loads to the Tembladero Slough/Moss Landing Harbor (Reclamation Ditch) or to the Salinas River (other source waters) and then to the Monterey Bay.

The influent to the AWPF is secondary treated water and thus any additional purified recycled water produced by the AWPF would represent some reduction in secondary effluent to the Bay. The volume of reverse osmosis (RO) concentrate discharge from the AWPF is 19% or less of the volume of AWPF influent and prior to the reverse osmosis process, the secondary effluent is treated through ozonation and membrane filtration (MF), reducing pollutant concentrations before being concentrated in the RO treatment process.

The ozonation process at the AWPF is effective at the destruction of organic constituents and CECs[5] that may be present in the secondary effluent, which leads to a lower concentration of CECs in the RO permeate and in the RO concentrate that is discharged to the ocean (a reduction in pollutant load). In addition, ozonation is effective at inactivating pathogens, especially viruses. The MF system is effective at removing any remaining particulate matter prior to the water becoming influent to the RO system. That particulate matter contains bound or adhered pollutants. A majority of the particles that are captured by the MF system are backwashed during filter backwash cycles when the water is sent to the waste system which in turn, pumps this filter backwash back to the RTP headworks for further treatment.

[5] Constituents of emerging concern are generally chemicals for which there are no established water quality standards. These chemicals may be present in waters at very low concentrations and are now detected as the result of more sensitive analytical methods. CECs include several types of chemicals such as pesticides, pharmaceuticals and ingredients in personal care products, veterinary medicines, endocrine disruptors, and others.

The reductions of ocean discharge volumes in a typical dry and normal or wet year is shown in **Table 4-A**, below for both the Approved PWM/GWR Project and the Project with the Proposed Modifications. The net reductions in discharges are also shown (i.e., reduction would be less considering the reverse osmosis concentrate from the AWPF as an additional discharge).

Table 4-A: Ocean Discharge Volumes under the PWM/GWR Project

	Acre-Feet per year (AFY)	Annual average daily volumes (MGD)
Dry Year		
Reduction in Secondary Effluent (approved Project)	*2,897*	*2.6*
Reduction in Secondary Effluent (with Modifications)	*4,239*	*3.8*
Net Reduction in Volume (approved Project)	*2,191*	*2.0*
Net Reduction in Volume (with Modifications)	*3,007*	*2.7*
Normal/Wet Year while Building Drought Reserve		
Reduction in Secondary Effluent (approved Project)	*4,989*	*4.5*
Reduction in Secondary Effluent (with Modifications)	*6,975*	*6.2*
Net Reduction in Volume (approved Project)	*3,978*	*3.6*
Net Reduction in Volume (with Modifications)	*5,439*	*4.9*

NOTES:
1. Source: Schaaf & Wheeler (October 2017) and Bob Holden (M1W/DD&A, October 2017).
2. Source: Schaaf & Wheeler (November 2019) and Bob Holden (M1W/DD&A, November 2019).
3. RTP influent wastewater volumes have decreased slightly since the EIR baseline 2009-2013, including drought years. However, ocean discharge volumes are more influenced by the use of the Salinas River Diversion Facility for agricultural irrigation during wet and normal years. Therefore, use of EIR assumptions for baseline is considered appropriate for this analysis.

The approved PWM/GWR Project would also continue to reduce pollutant loads to the Bay from impaired surface waters.

J-3 The minimum probable initial dilution (Dm) is determined using models that consider ocean conditions, velocity and volume of discharge, the density of the discharge, *etc.* M1W's existing NPDES Permit uses Dm values that were determined based on the current Advanced Water Purification Facility's (AWPF's) discharge characteristics. Because the proposed expansion would change the velocity and volume of discharge and the density of the discharge, the Dm values for the expansion project are not equivalent to the current NPDES Permit Dm values. Therefore, it would not be appropriate to evaluate California Ocean Plan compliance using the Dm values in M1W's existing NPDES Permit. The 2015 PWM/GWR Final EIR's Ocean Plan analysis conducted for the approved PWM/GWR Project did not only consider the Dm value in M1W's previous NPDES permit (their discharge permit at the time), but instead considered the Dm values relevant to future projected discharge scenarios including the modeled characteristics of the project as proposed (and now constructed). This

same approach was used to evaluate the Proposed Modifications to the PWM/GWR Project.

J-4 It would be incorrect to consider just the highest copper and ammonia values measured in the different source waters. One sample of raw new source water had a high concentration of copper that would not be representative of final effluent because this result was measured before wastewater treatment. Prior to discharge, removal of copper through wastewater treatment will occur. In addition, a single high data point in the raw source water would be even less representative of a six-month median in the final effluent.

Under the previous NPDES permit, the secondary effluent copper concentration was monitored once every six months. This resulted in a limited ability to calculate a representative 6-month median, so all of the available data were used to determine the median value. The resulting concentration was compared to the California Ocean Plan six-month median objective for copper.

Nearly two decades of monthly secondary effluent ammonia monitoring results were evaluated (starting in January 2000). The maximum six-month median was determined to be most representative of future compliance requirements and was compared to the California Ocean Plan six-month median objective for ammonia. The maximum concentrations detected for copper and ammonia were within compliance with the California Ocean Plan daily maximum and instantaneous maximum objectives.

J-5 Per Footnote 14 of Table 1 on page 17 of Appendix J of the Draft SEIR: “The value presented represents a calculated value assuming 93% and 84% removal through primary and secondary treatment for DDT and dieldrin, respectively, 36% and 44% removal through ozone for DDT and dieldrin, respectively, 92% and 97% removal through MF for DDT and dieldrin, respectively, recycling of the MF backwash to the RTP, complete rejection through the RO membrane, and an 81% RO recovery. The assumed removals are based on results from ozone bench-scale testing of Blanco Drain water blended with secondary effluent and low detection sampling through the RTP.”

J-6 The modeling and analysis for the Dm values and compliance with the California Ocean Plan that was prepared for the Draft SEIR did mirror the analysis for the current approved M1W NPDES permit (Order# R3-2018-0017 NPDES # CA00485512). The analysis of the four constituents noted in comments 1.b and 1.c mirrored the approach used for the current approved NPDES permit.

J-7 The effluent concentrations of PCB’s were determined to be below the existing water quality standard as defined in the California Ocean Plan; therefore, discharges from M1W would not contribute to any exceedances of this standard. The water quality standards are established to protect water quality and marine resources. CCLEAN sampling and analysis also found that no exceedances of water quality standards result from M1W discharges. The vast majority of contributions to PCB load to the Monterey Bay are due to river loads and dredging (approximately 98% of the PCB load), with approximately 2% being contributed from all wastewater treatment plant

discharges (Cities of Santa Cruz and Watsonville, Carmel Area Wastewater District, and Monterey One Water). See Table 15 (page 59) of the draft Annual Report 2018-2019 (CCLEAN, January 31, 2020) found at http://www.cclean.org/knowledge-base/.

J-8 The text of page 4.11-10 of the Draft SEIR has been updated in response to this comment. See **Chapter 5, Changes to the Draft SEIR**.

J-9 The text of page 4.13-6 of the Draft SEIR on has been updated in response to this comment. See **Chapter 5, Changes to the Draft SEIR**.

J-10 The text of pages 4.13-3 to 4.13-4 and page 2-33 of the Draft SEIR have been updated in response to this comment. See **Chapter 5, Changes to the Draft SEIR**. If NEPA review is required for an amended NPDES permit, it could be completed expeditiously, similar to the environmental assessment (EA) that was completed for the approved PWM/GWR Project. Moreover, the NEPA review would not be needed before the start of construction.

Rachel Gaudoin

From: Stefania Castillo <Stefania@tamcmonterey.org>
Sent: Friday, January 31, 2020 2:46 PM
To: Pure Water Monterey Info
Cc: Todd Muck; Debbie Hale; Rich Deal; Madilyn Jacobsen
Subject: TAMC comments to DSEIR Pure Water Project
Attachments: 19_0927 FORTAG Segments Map.pdf; 19_0917 FORTAG Alignment.kmz

The Transportation Agency for Monterey County (TAMC) is the Regional Transportation Planning and Congestion Management Agency for Monterey County.

The Transportation Agency is the Lead Agency on the Fort Ord Regional Trail and Greenway (FORTAG) project. The project is a proposed 28-mile multi-use trail traversing the cities of Monterey, Seaside, Del Rey Oaks, and Marina. The Draft Environmental Impact Report was circulated for public comment between November 7, 2019 through January 3, 2020. More information on the FORTAG project is available here: https://www.tamcmonterey.org/measure-x/programs-projects/fort-ord-regional-trail-greenway/ K-1

The Transportation Agency has the following comments: K-2

- Please include the proposed FORTAG trail alignment in Section 4.17, Traffic and Circulation.
- Allow the FORTAG trail alignment through the proposed expanded injection well area, as shown in Figure 2-3. K-3
- The FORTAG trail could serve wildland fire vehicles through the project site. K-4

Attach is a map of the FORTAG alignment that is included in the FORTAG Draft EIR. A KMZ file is also included for your convenience.

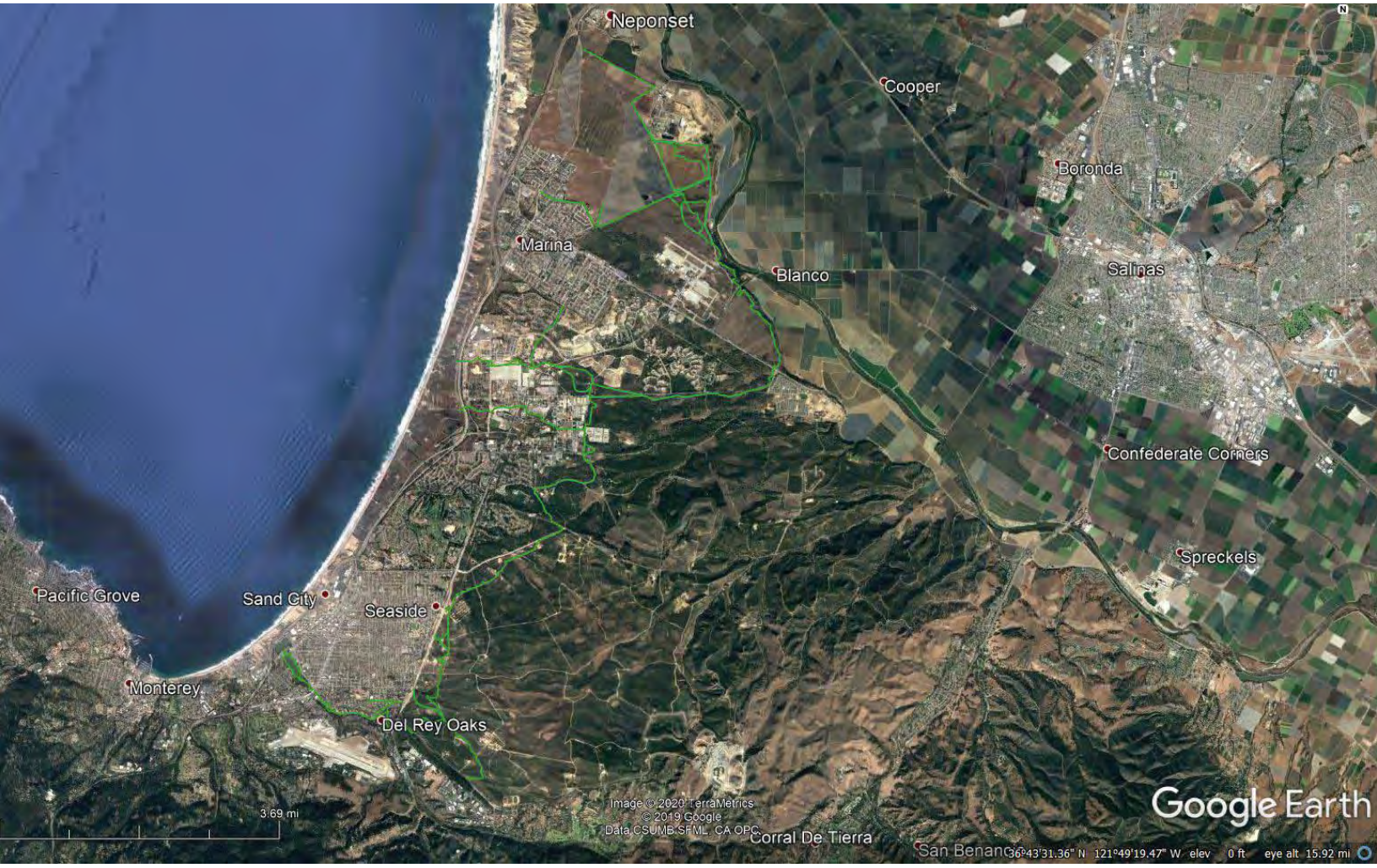
If you have any questions, please contact me at (831) 775-4412 or via email.

Best,

Stefania Castillo
Transportation Planner
Transportation Agency for Monterey County
831.775.4412
Stefania@tamcmonterey.org
www.tamcmonterey.org

Figure 2-7 Trail Segments

Imagery provided by ESRI and its licensors © 2019.
Additional data provided by Alta Planning + Design, 2019.


Neponset
Cooper
Boronda
Marina
Blanco
Salinas
Confederate Corners
Spreckels
Pacific Grove
Sand City
Seaside
Monterey
Del Rey Oaks
Corral De Tierra
San Benancio
3.69 mi
Image © 2020 TerraMetrics
© 2019 Google
Data CSUMB-SFML, CA OPC
Google Earth
36°43'31.36" N 121°49'19.47" W elev 0 ft eye alt 15.92 mi

Comment Document K: Transportation Agency for Monterey County

K-1 The comment notes the Transportation Agency is the Lead Agency on the Fort Ord Regional Trail and Greenway (FORTAG) project. No response is needed.

K-2 The Transportation Agency requests that the proposed FORTAG trail alignment be included in Section 4.17, Traffic and Circulation. See **Chapter 5, Changes to the Draft SEIR**; the requested mapping has been added to Section 4.17 to pages 4.17-4 and 4.17-5 of the Draft SEIR.

K-3 The Transportation Agency requests that M1W allow the FORTAG trail alignment through the proposed expanded injection well area, as shown in Figure 2-3. The comment is referred to M1W decisionmakers. M1W intends to work with the Transportation Agency to address this request. Also, see Responses to Comment Letter WW, FORTAG.

K-4 The Transportation Agency notes the FORTAG trail could serve wildland fire vehicles through the project site. This comment noted and referred to M1W decisionmakers.

Rachel Gaudoin

From: John Moore <jmoore052@gmail.com>
Sent: Tuesday, November 12, 2019 10:08 AM
To: Pure Water Monterey Info; WB-DDW-RecycledWater
Subject: Comment to Supplemental Environmental Impact Report for PWM/GWR
Attachments: Scan_0293.pdf; Scan_0295.pdf; Scan_0296.pdf

My name is John M. Moore. I am a licensed, but retired Ca. lawyer. I am not a scientific expert, but over forty plus years of practice. I have hired. fired and examined over a hundred experts about every scientific area of technology,construction etc.. I am an expert about scams, large and small. PWM is a large, dangerous scam. I hold a juris.dictum degree from Stanford Law School. I currently have a Martindale and Hubbell rating by judges and my peers of "Preeminent"
the highest possible rating. The PWM project and this proposed expansion are illegal on the facts and the law.

I did not participate in the EIR process for the Pure Water Monterey project because like many, I relied on the representation that it was like the Orange County Water District(OCWD)Recycle/GWR project. That project treats "municipal Waste" and is legal in all respects. The PWM project and this proposed expansion is unique and is illegal because it is not based on any legal authorization.|Unlike the OCWD project, these projects propose to treat a mix of municipal waste and agriculture waste waters through a recycle and Ground Water Replenishment process to create water for potable use. There is no like project in the world. There is no research on the health safety of water from such a project. The Ca. Dept. of Drinking Water(DDW) has never researched a like project. It has never held hearings under the Ca. Administrative Procedures Act in order to consider adopting Regulations that would authorize a GWR like the PWM project and the proposed expansion.

L-1

L-2

Importantly, DDW does have Regulations that prohibit the original PWM project and the proposed expansion.

Scan 293 attached is a true copy of the DDW "Recycled Water Policy"(I copied it this A.M.) It specifies that the only water eligible for legal recycle is from legal "Municipal waste water sources." It also
states: "Other types of water reuse include greywater, agriculture return water,industrial wastewater, and water produced from oil field operations. These types of water reuse are regulated through other programs.." (There is a legal program for treating agriculture return water for non-potable uses, but none for potable use).

L-3

PWM contends that its project and the expansion is based on its status as a Ground Water Replenishment project. The law is exactly opposite.
See Scan 295 attached. It is a copy of duly adopted Administrated Procedures Act Regulation 60301.390 Groundwater Replenishment Reuse Project or GRRP.. It authorizes a project involving the planned reuse of recycled "municipal wastewater'(emphasis mine) that is operated for the purpose of replenishing a groundwater basin...for use as a source of municipal and domestic water supply.

L-4

Put another way, if the PWM eliminated the agriculture waste water from the project, it would have some basis for legality.

The PWM project obtained a permit by the conduct of DDW, PWM and the Central Water Resources Board ignoring the fact that there was zero compliance with the Admin. Procedures Act, 11340 et seq. Every act taken to obtain the permit was/is illegal. That Act provides for notice and public hearings. The health safety of recycling and GWR of agriculture return water would have been vetted. True health safety scientists; toxicologists, Epidemiologists,Microbiologists, Chemists, and medically trained physicians would testify about the unique risks involved in attempting to treat toxic agriculture return water for potable uses.

L-5

I want to put the PWM project in proper scientific context. Since about 2010, the Ca. Water Resources Board has authorized scientific studies by independent scientists with the credentials I just described above. Their charter has been to advise the Board about the risks involved in the treatment and recycling of "municipal wastewaters." At this time, after several years of study from 2010 through 2016, they have concluded that further study is necessary before Direct Potable Reuse(DPR) is authorized by a Regulation. An example of DPR would be if PWM treated and recycled municipal waste water only and then injected it directly into the Seaside Basin(which is the repository of Cal Am's water supply). The reason that would be illegal now, even if it only treated and recycled municipal wastewater, without the Ag. return water, is because out of the tens of thousands of dissolved particles that get though the system, some are new, but toxic. The scientists describe them as the "unknown unknowns." The current research involves bioassaying the new particles, testing for toxicity, and then attempting to devise tests as an alert if such a particle appeared in the drinking water. L-6

The treatment and recycle of agriculture return waste water for potable use is not even a subject of discussion and/or research at the state Dept. of Water or DDW. I could not find a single scientific article where it is under discussion anywhere in the world. L-7

The reason PWM choose to include the treatment and recycle of toxic agriculture wastewater was/ is to save the county agriculture interests tens and tens of millions that it would cost to clean up the waste it has created since world war two. Two of the waste source sites, Blanco Drain and Reclamation Ditch are much more than ag.
return waters. They are EPA 303d sites: that means that the waters are so contaminated that aquatic life cannot survive there. L-8

According to section 2.1.2.1. of the Expansion EIR, the new facilities to be built to facilitate transfer of the toxic ag. waste waters for the expansion will be located at Blanco Drain and Reclamation Ditch.
Evidently agriculture return from 1946 to date qualifies as agriculture return. L-9

No, I can't describe the toxins that may be in the agriculture return waters. No one can. But I can explain the types of concerns that scientist have about the current legal projects that treat and recycle municipal waste for potable use. Scan 296 attached is a research paper that I received from a highly educated friend who does not wish to be identified. I have verified the authenticity of the cited expert opinions. Keep in mind the scientific opinions relate only to the treatment and recycle of municipal waste waters. There are No scientific comments about treating and recycling agriculture return waters; that topic is not on the map except for PWM. Imagine how much more dangerous the addition of ag. return water would make their opinions. L-10

The PWM water is to be injected into the Seaside Basin which is the sole repository of Cal Am's drinking water. Cal Am has several wells which it uses to extract the water. But why isn't there an EIR by the Watermaster of the Seaside Basin? L-11

The Seaside Basin is controlled by a Watermaster(not a person, but a group of local politicians, govt. bodies etc. See its web page) and is lightly supervised by a Monterey County superior court judge. It is not controlled by W1M or the Monterey Bay Water Management District.
It is inconceivable that it would allow illegal water into the basin without the benefit of an EIR. But it has done so as to the original PWM project. Again, the Administrative Procedures Act be damned. L-12

So what should be done? As a practical matter the original PWM is project is almost comple. But the health safety risks of that project are so high that any source waters except for legal municipal waste water must be eliminated. People may become very ill and may die.
Imagine the PWM water contaminating the Seaside Basin. Are we willing to risk our entire water supply? L-13

As to the expansion, because of the need for a diverse water supply, PWM should instead build a "deep water" desalinization project. The costs of such a project are comparable to the costs of water from the PWM project. L-14

There was no health safety evidence or expert opinion presented in the EIR for the PWM project. Instead, Margaret Nellor, a retired sewage engineer and part time consultant presented tables etc and gave the opinion that the PWM project was just like the Orange County Water District project. Her great fraud was that she did not report that the PWM project was unique and not legally authorized. The CPUC commented that it was relying on her opinion that the PWM project was based on old science. L-15

Of course, the :rub" is that if Nellor did not hide the revolutionary risks of the PWM project, she would not have been hired. (Her 2015 Dun and Bradstreet report was that Nellor and Assoc. had two employee's, Margaret and her mother. It is located in Austin Texas) L-16

I apologize for typing errors, formatting, etc. I do not type well and I an not a computer whiz(But I try). Respectfully submitted, John M.
Moore, ESQ.

Recycled Water Policy

The State Water Board supports and encourages the sustainable use of recycled water to promote conservation of water resources. The **Policy for Water Quality Control for Recycled Water** (Recycled Water Policy) is an important element of the overall effort to encourage the safe use of recycled water in a manner that is protective of public health and the environment. The purpose of the Recycled Water Policy is to increase the use of recycled water from municipal wastewater sources that meets the definition in Water Code section 13050(n), in a manner that implements state and federal water quality laws. For the purpose of this Policy, recycled water refers to the reuse of treated wastewater derived from municipal sources, i.e., water that is covered under California Code of Regulations Title 22, Water Recycling Criteria. Other types of water reuse include greywater, agricultural return water, industrial wastewater, and water produced from oil field operations. These types of water reuse are regulated through other programs.

The Recycled Water Policy provides goals for recycled water use in California, guidance for use of recycled water that considers protection of water quality, criteria for streamlined

(3) Adopt Section 60301.180 as follows:

§60301.180. Department.

"Department" means the California Department of Public Health or its successor with authority to regulate public water systems.

NOTE: Authority cited: Sections 13521, 13562 and 13562.5, Water Code; and Sections 131052 and 131200, Health and Safety Code. Reference: Sections 13520, 13522, 13522.5, 13523, 13523.1, 13524, 13560, 13561 and 13562.5, Water Code.

(4) Adopt Section 60301.190 as follows:

§60301.190. Diluent Water.

"Diluent Water" means water, meeting the diluent requirements of this Chapter, used for reducing the recycled municipal wastewater contribution over time.

NOTE: Authority cited: Sections 13521, 13562 and 13562.5, Water Code; and Sections 131052 and 131200, Health and Safety Code. Reference: Sections 13520, 13522, 13522.5, 13523, 13523.1, 13524, 13560, 13561 and 13562.5, Water Code.

(5) Adopt Section 60301.370 as follows:

§60301.370. Groundwater.

"Groundwater" means water below the land surface in a saturated zone.

NOTE: Authority cited: Sections 13521, 13562 and 13562.5, Water Code; and Sections 131052 and 131200, Health and Safety Code. Reference: Sections 13520, 13522, 13522.5, 13523, 13523.1, 13524, 13560, 13561 and 13562.5, Water Code.

(6) Adopt Section 60301.390 as follows:

§60301.390. Groundwater Replenishment Reuse Project or GRRP.

"Groundwater Replenishment Reuse Project" or "GRRP" means a project involving the planned use of recycled municipal wastewater that is operated for the purpose of replenishing a groundwater basin designated in the Water Quality Control Plan [as

NO Ag WASTEWATER

defined in Water Code section 13050(j)] for use as a source of municipal and domestic water supply. (SEASIDE BASIN)

NOTE: Authority cited: Sections 13521, 13562 and 13562.5, Water Code; and Sections 131052 and 131200, Health and Safety Code. Reference: Sections 13520, 13522, 13522.5, 13523, 13523.1, 13524, 13560, 13561 and 13562.5, Water Code.

(7) Adopt Section 60301.450 as follows:

§60301.450. Indicator Compound.

"Indicator Compound" means an individual chemical in a GRRP's municipal wastewater that represents the physical, chemical, and biodegradable characteristics of a specific family of trace organic chemicals; is present in concentrations that provide information relative to the environmental fate and transport of those chemicals; may be used to monitor the efficiency of trace organic compounds removal by treatment processes; and provides an indication of treatment process failure.

NOTE: Authority cited: Sections 13521, 13562 and 13562.5, Water Code; and Sections 131052 and 131200, Health and Safety Code. Reference: Sections 13520, 13522, 13522.5, 13523, 13523.1, 13524, 13560, 13561 and 13562.5, Water Code.

(8) Adopt Section 60301.455 as follows:

§60301.455. Intrinsic Tracer.

"Intrinsic Tracer" means a substance or attribute present in the recharge water at levels different from the receiving groundwater such that the substance in the water applied at the GRRP can be distinctly and sufficiently detected in the groundwater downgradient of the GRRP to determine the underground retention time of the water.

NOTE: Authority cited: Sections 13521, 13562 and 13562.5, Water Code; and Sections 131052 and 131200, Health and Safety Code. Reference: Sections 13520, 13522, 13522.5, 13523, 13523.1, 13524, 13560, 13561 and 13562.5, Water Code.

Dr. Collignon's concerns regarding health risks of sewage recycle for potable reuse: industry known flaws in advance treatment technology, insufficiencies of surrogates and indicators used, potential for human error, lag between notification monitoring test reports and approved responses to detected unregulated pathogens and/or chemicals that have already passed through the AT process directly into raw water sources like aquifers are shard by Dr. Ted Schettler, M.D., M.P.H., SEHN's Science Director, who was quoted in a 2017 article as follows:

"...How well reverse osmosis works to filter out other contaminants, like pharmaceuticals and pesticides, depends on the specific chemical and the amount of pollution in the water. The water reuse textbook states that reverse-osmosis membranes strain out 90 to 96 percent of the toxic pesticide atrazine, for example, and 85 to 95 percent of the poisonous element arsenic...Solvents and other industrial chemicals that can disrupt hormones in the body's endocrine system are particularly worrisome. With a litany of dreadful health effects like cancer, birth defects, and infertility, these endocrine-disrupting chemicals can be extremely toxic even at the very low levels that could potentially get through even the most advanced water treatment, including reverse osmosis and advanced oxidation."It's not reassuring to me to hear that chemicals are present "only" at parts per trillion levels," said Ted Schettler, a physician and the science director of the non-profit Science and Environmental Health Network. "There are many chemicals that you would worry about at parts per trillion."Parts per trillion is really tiny — like having one drop of poison spread throughout 20 Olympic-size pools. For some chemicals, we don't even have analytical methods that can accurately detect such low concentrations. Yet even such a minuscule amount can have an effect on our bodies. "Our bodies' hormone systems operate at low parts per trillion levels," Schettler explained. "The hormone receptors are exquisitely sensitive to even minor shifts in those concentrations." The Environmental Protection Agency counts about 85,000 industrial chemicals registered for current use, but requires additional toxicity testing for only about 200 of them. Pesticides in home and garden products, which are regulated by the EPA's Federal Insecticide, Fungicide, and Rodenticide Act, can also make their way down the drain, as can FDA-regulated pharmaceuticals, which people excrete naturally after use. This all means that tens of thousands of different chemicals may be present in sewage before treatment — and after treatment we still don't have a full idea of the range of chemicals that get through. "What you really need to do is figure out what's in the water, and at what levels," Schettler said.

Cancer researcher, Dr. Steven Oppenheimer, who President Obama honored at the WH and Dr. Edward McGowan, M.D. Ph.D. with 40 years experience in water related projects and Dr. John Ackerman, M.D., M.P.H. all echo afore-mentioned public health concerns. Advance treatment technology seems to be surging forward with no supportive medical research evidence regarding public health and safety.

Even within environmental engineering circles, there are doubts about ATP ensuring human health and safety. Two months ago Dr. Charles Gerba, respected U of Arizona environmental engineer professor, published a report concluding that current LRV's assigned to advance treatment processes are inadequate to protect the public from risks of ARB's.

Dr. David Edwards @ Virginia Tech (who assisted Flint and DC residents) reported that recent research showed that pathogens in biofilms in distribution pipelines can re-constitute themselves and pose serious health risks when they reach POU taps or shower heads. Dr. Edwards also worried that lowered flow rate regulations for plumbing fixtures contributed to a more concentrated pollutant load in sewage with diminished greywater diluent presenting a significant future challenge for potable reuse ATF's.

Dr. David Spath, former DDW Chief and a member of the Advisory Group, also expressed concerns about health risks posed by DPR in a recent interview:

"No one knows exactly what's in sewage at any given time — people and businesses don't dump things down the drain on a regular schedule. It's very hard for a water scientist or public health official to know

everything to look for. And since detecting tiny amounts of chemicals relies on identifying them by their unique characteristics, it's nearly impossible for them to recognize a chemical they weren't already looking for.

Of the contaminants that are detected in recycled water, many of them have unknown health effects. "There's a lot [of chemicals] out there, that show up in monitoring, but that we don't really know what the broad effects might be from them," said David Spath, the former chief of the Division of Drinking Water and Environmental Management for the State of California. Even more troubling is that a combination of chemicals can be more toxic than the sum of their parts. It could be a big problem, according to Spath, "if you get three or four chemicals that are all endocrine disruptors that disrupt the same endocrine process, or if you have two or three chemicals that are all carcinogens that result in the same carcinogenic endpoint."

Only one major epidemological study has documented the human health effects of drinking recycled water. Conducted by a private research corporation and commissioned by a water utility, the study is now 25 years old. ("The chemicals that they're now looking for weren't even in anybody's vocabulary at the time," Spath said.) The science was inconclusive: Because of confounding factors like smoking and alcohol consumption, researchers couldn't prove or disprove the notion that drinking recycled water caused cancer or heart disease. The fact that some chemicals could disrupt hormone functioning hadn't yet been discovered at the time the study was published. "It is a difficult situation," Spath added.

Sewage especially medical sewage from hospitals and nursing homes is loaded with viruses and pharmaceutical compounds specifically designed not to be easily degraded. Antibiotic resistant microbes and genes are recognized by WHO, the CDC, and the EU as the most significant health threat for both developed and developing nations today. ARB's and viable ARG's are so tiny that they can slip through advance treatment barriers and reconstitute themselves when they come in contact with trace contaminants like metal or other trace chemicals and plasmids. California, unlike 22 other states, only requires medical facilities to report a handful of narrowly defined superbug infectious cases and the reporting procedure is so onerous, it's questionable how consistently medical facilities follow through. The latest estimate from the CDPH was that superbug infections cost approx $3 Billion in medical costs annually. Superbug infections don't always kill patients. But long term health damages occur - e.g. some types of heart disease are now recognized to have a viral infection cause. It's been suggested that ARB's and ARG's be included in CEC lists so there's formal recognition by regulatory agencies outside of medical circles.

Currently most CA. county labs with only ELAP certification do not have the expertise, equipment, or budget to test for waterborne ARB's and ARG's, which are viable but not cultureable (VBNC). ELAP labs use MPN testing indicators but that does not give an accurate evaluation of the viability of microbes. The US Coast Guard refused to adopt MPN to test water in their ballasts for that reason. Furthermore, because regional wastewater treatment plants are recognized as "hot spots" reservoirs for ARB's and ARG's, it's worrisome to consider what antibiotic resistant microbes and protein gene matter RWTP's pass along in their secondary treated effluent feed to ATP's, which are capable of breaching membranes and RO processes.

I hope the SWB is cautious and does due diligence, by seeking input from physician specialists in academia (e.g.. infectious diseases specialists, endocrinologists, neonatal/pediatric specialists, oncologists), as well as funding medical research studies, before signing off on any regulations for DPR. To do otherwise is playing Russian Roulette with human lives, particularly vulnerable population groups like fetuses and children, the elderly, immune compromised groups like recovering cancer patients and HIV patients and organ/stem cell transplant patients.

Comment Document L: John Moore

L-1 See Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality for information regarding the legal authority for and regulation of the PWM/GWR Project.

L-2 See Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality for information regarding the health and safety of purified treated water associated with the PWM/GWR Project.

L-3 See Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality for information identifying the regulatory program that governs the PWM/GWR Project.

L-4 CCR Title 22, Division 4 and the groundwater replenishment regulations (Article 5.1, Article 5.2) regulate recycled water from sources that contain domestic waste, in whole or in part. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

L-5 DDW and the Central Coast Regional Water Quality Control Board have the authority to approve groundwater replenishment projects and issue operating permits. CCR Title 22, Division 4 (Section 60323) gives authority to DDW by specifying their approval of an Engineering Report prior to production and distribution of recycled water. CWC 13523 and Section 13263 give authority to the Regional Water Quality Control Boards to issue Water Recycling Requirements and Waste Discharge Requirements. The State of California utilized Science Advisory Panels to develop the groundwater replenishment regulations and associated monitoring requirements for operating permits. The Science Advisory Panels included experts in chemistry, biochemistry, toxicology, environmental microbiology, epidemiology, risk assessment, and engineering. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

L-6 The approved PWM/GWR Project and the Proposed Modifications are defined as indirect potable reuse projects because the purified recycled water is placed in a groundwater basin which qualifies as an environmental barrier. The environmental barrier provides additional safety measures by creating underground retention prior to extraction for drinking water purposes.

By contrast, direct potable reuse projects directly send recycled water into drinking water distribution systems or to Water Treatment Plants. The State of California is in the process of developing regulations for direct potable reuse. Regulations for indirect potable reuse (groundwater augmentation, surface water augmentation) have been approved and are imposed upon the approved PWM/GWR Project and would be further imposed if the Proposed Modifications are approved and permitted. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

The Project is required to conduct bioassay monitoring as specified in the Monitoring and Reporting Program (Order R3-2019-0116). The requirements are based on recommendations from the State Water Board's CEC Science Advisory Panel (with stakeholder input) and were added to Title 22 by the Recycled Water Policy. The purified recycled water produced at the AWPF must be monitored quarterly for the Estrogen receptor-α endpoint (screening for impacts related to estradiol, bisphenol A, nonylphenol) and Aryl hydrocarbon receptor endpoint (screening for impacts related to dioxin-like chemicals, polycyclic aromatic hydrocarbons, pesticides). Response actions would be triggered based on the results and relevant thresholds. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

L-7 Neither the approved PWM/GWR Project, nor the Proposed Modifications, would treat solely agricultural return or tail water for potable reuse. The Project includes a small amount of agricultural return water mixed with larger volumes of domestic wastewater, industrial wastewater from produce processing plants, and stormwater runoff for treatment. The water would be treated through the primary and secondary treatment processes at the RTP, followed by advanced purification through the AWPF then injection in the groundwater basin wherein it would mix with existing groundwater and remain in the ground for at least 10 months prior to extraction, treatment, and distribution by urban water purveyors. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

L-8 Blanco Drain is on the 303(d) list for exceedance of water quality objectives for chlorpyrifos, DDT, DDE, diazinon, and nitrate. The Reclamation Ditch is on the 303(d) list for exceedance of water quality objectives for ammonia, chlorpyrifos, diazinon, copper, malathion, nitrate, and bacteria. The Regional Board and DDW reviewed source water quality and water quality throughout treatment and purification steps, accepted the Title 22 Engineering Report, and approved the Project's operating permit. In 2019, M1W prepared a revised local limits report to support a new Wastewater Ordinance that establishes local limits for influent to the RTP. The local limits report assumed the new source waters as part of the RTP influent. The RTP and AWPF have been shown to be effective for treatment of the variety of influent waters during its pilot testing. Bench testing of the removal of constituents (DDx and Dieldrin) showed over 99.99% removal through only primary and secondary treatment. No regulated constituents exceeded their regulatory limit in the Reverse Osmosis permeate during the pilot test. Ultraviolet (UV)/Advanced Oxidation Process included in the to the AWPF treatment process but not the pilot program will provide further reduction of pesticides and CECs. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

L-9 See response to comment L-8. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

L-10 The Monitoring and Reporting Program (Order R3-2019-0116) requires extensive monitoring for CECs (including for hundreds of constituents identified by the State's Scientific Advisory Panel, NWRI Independent Advisory Panel, and DDW). The purified recycled water will undergo more treatment and will be monitored for more constituents than is required for potable water, and many potable water supply wells throughout the State are in proximity of and/or downgradient from discharges of municipal

wastewater and agricultural land drainage flows. Response actions are triggered based on the results and relevant thresholds. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

L-11 M1W is responsible for designing, funding, and constructing those project components that are owned by M1W (RTP site, AWPF and injection wells) and are located on M1W land. As such, the CEQA requirements apply to M1W. The Seaside Watermaster is a stakeholder and receives notifications of project plans, developments, and all groundwater quality data through the stakeholder advisory process. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

L-12 The approved PWM/GWR Project was reviewed in an EIR which was available for public review in spring of 2015 and certified in October 2015. Several Addenda to the PWM/GWR Final EIR have been prepared and adopted, including Addendum No. 1 in October 2016 by MPWMD, Appendix No. 2 in March 2017 by MPWMD, and Addendum No. 3 in October 2017 by M1W. CEQA review has thus occurred multiple times, and no lawsuits were filed questioning or challenging the adequacy of those CEQA documents nor the associated project approvals. In addition, multiple federal agencies have also conducted their own environmental review and permitting for all or parts of the project, including the U.S. Bureau of Reclamation, the U.S. EPA, State Water Resources Control Board, the National Oceanic and Atmospheric Administration, the U.S. Army, and the Army Corps of Engineers. The Proposed Modifications are now the subject of this Draft SEIR. The approved PWM/GWR Project has also received approval from the SWRCB – Divisions of Water Quality, Water Rights, and Drinking Water – the Central Coast RWQCB, the City of Seaside, and the Seaside Watermaster. In addition, the Watermaster, MPWMD, and M1W entered into a Storage Agreement (available at: http://www.seasidebasinwatermaster.org/Other/Storage%20and%20Recovery%20Agreement%20-%20Signed.pdf). See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

L-13 The Project was first developed with input from an Independent Advisory Panel, then accepted by DDW as consistent with recycled water regulations, and finally approved by the Central Coast Regional Water Quality Control Board. During this process, numerous public health, engineering, groundwater hydrology, chemistry, and risk assessments experts have conducted reviews and determined the PWM/GWR Project will not pose a risk to public and environmental health and safety. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

L-14 As a wastewater and water recycling agency, Monterey One Water is not in a position or the responsible entity to explore a potable water supply project like desalinization. See also Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

L-15 The PWM/GWR Project has been the subject of intense study and analysis by dozens of experts in the fields of drinking water safety, public health, hydrogeology, chemistry, environmental engineering, water recycling, and biology. The project also went through a vigorous public review and education process. The project team, local

agency staff and regulatory agency reviewers, includes dozens of Professional Engineers, certified Hydrogeologists, and scientists holding PhDs with experience working on multiple indirect potable reuse projects. These professionals, professors, and scientists have been consulted multiple times throughout the more than 10 years of project planning, design, and implementation. They have reviewed, commented, and approved the project while looking at it from a breadth of perspectives. The results of these reviews and approvals are available at www.purewatermonterey.org for all interested individuals. These include documents regarding this and other similar recycled water studies, projects, and regulatory requirements. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

L-16 Margaret Nellor is an expert on recycled water project development and regulatory compliance. She prepared sections of the PWM/GWR Final EIR based on her expertise and experience. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

Rachel Gaudoin

From: Bud Mcmurray <budmcmurray@gmail.com>
Sent: Tuesday, November 12, 2019 4:24 PM
To: Pure Water Monterey Info
Subject: John Moore email

I fully understand and agree with Mr. Moore and support his comments 100%. His comments should realize a review. M-1
Thank you.
Harry McMurray
Resident monterey

Sent from my iPhone

Rachel Gaudoin

From: Bud McMurray <budmcmurray@gmail.com>
Sent: Wednesday, November 13, 2019 4:51 PM
To: Pure Water Monterey Info
Subject: Fwd: Comment to Supplemental Environmental Impact Report for PWM/GWR

>
>>>>> I'm a local resident and support John Moore's views. We need this verified, PLEASE.
Thank you.
H.S. McMurray
1245 Aguajito rd.
93940
3727204
>>>>>
>>>>> My name is John M. Moore. I am a licensed, but retired Ca. lawyer.
>>>>> I am not a scientific expert, but over forty plus years of
>>>>> practice. I have hired. fired and examined over a hundred experts
>>>>> about every scientific area of technology,construction etc.. I am
>>>>> an expert about scams, large and small. PWM is a large, dangerous
>>>>> scam. I hold a juris.dictum degree from Stanford Law School. I
>>>>> currently have a Martindale and Hubbell rating by judges and my peers of "Preeminent"
>>>>> the highest possible rating. The PWM project and this proposed
>>>>> expansion are illegal on the facts and the law.
>>>>>
>>>>> I did not participate in the EIR process for the Pure Water
>>>>> Monterey project because like many, I relied on the representation
>>>>> that it was like the Orange County Water District(OCWD)Recycle/GWR
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>>>>> respects. The PWM project and this proposed expansion is unique
>>>>> and is illegal because it is not based on any legal authorization.
>>>>> Unlike the OCWD project, these projects propose to treat a mix of
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>>>>> use. There is no like project in the world. There is no research
>>>>> on the health safety of water from such a project. The Ca. Dept.
>>>>> of Drinking Water(DDW) has never researched a like project. It has
>>>>> never held hearings under the Ca. Administrative Procedures Act in
>>>>> order to consider adopting Regulations that would authorize a GWR
>>>>> like the PWM project and the proposed expansion.
>>>>>
>>>>> Importantly, DDW does have Regulations that prohibit the original
>>>>> PWM project and the proposed expansion.
>>>>>
>>>>> Scan 293 attached is a true copy of the DDW "Recycled Water
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>>>>> eligible for legal recycle is from legal "Municipal waste water
>>>>> sources." It also
>>>>> states: "Other types of water reuse include greywater, agriculture
>>>>> return water,industrial wastewater, and water produced from oil

>>>>> field operations. These types of water reuse are regulated through
>>>>> other programs.." (There is a legal program for treating
>>>>> agriculture return water for non-potable uses, but none for potable use).
>>>>>
>>>>> PWM contends that its project and the expansion is based on its
>>>>> status as a Ground Water Replenishment project. The law is exactly opposite.
>>>>> See Scan 295 attached. It is a copy of duly adopted Administrated
>>>>> Procedures Act Regulation 60301.390 Groundwater Replenishment
>>>>> Reuse Project or GRRP.. It authorizes a project involving the
>>>>> planned reuse of recycled "municipal wastewater'(emphasis mine)
>>>>> that is operated for the purpose of replenishing a groundwater
>>>>> basin...for use as a source of municipal and domestic water supply.
>>>>>
>>>>> Put another way, if the PWM eliminated the agriculture waste water
>>>>> from the project, it would have some basis for legality.
>>>>>
>>>>> The PWM project obtained a permit by the conduct of DDW, PWM and
>>>>> the Central Water Resources Board ignoring the fact that there was
>>>>> zero compliance with the Admin. Procedures Act, 11340 et seq.
>>>>> Every act taken to obtain the permit was/is illegal. That Act
>>>>> provides for notice and public hearings. The health safety of
>>>>> recycling and GWR of agriculture return water would have been
>>>>> vetted. True health safety scientists; toxicologists,
>>>>> Epidemiologists,Microbiologists, Chemists, and medically trained
>>>>> physicians would testify about the unique risks involved in
>>>>> attempting to treat toxic agriculture return water for potable uses.
>>>>>
>>>>> I want to put the PWM project in proper scientific context. Since
>>>>> about 2010, the Ca. Water Resources Board has authorized
>>>>> scientific studies by independent scientists with the credentials
>>>>> I just described above. Their charter has been to advise the Board
>>>>> about the risks involved in the treatment and recycling of
>>>>> "municipal wastewaters." At this time, after several years of
>>>>> study from 2010 through 2016, they have concluded that further
>>>>> study is necessary before Direct Potable Reuse(DPR) is authorized
>>>>> by a Regulation. An example of DPR would be if PWM treated and
>>>>> recycled municipal waste water only and then injected it directly
>>>>> into the Seaside Basin(which is the repository of Cal Am's water
>>>>> supply). The reason that would be illegal now, even if it only
>>>>> treated and recycled municipal wastewater, without the Ag. return
>>>>> water, is because out of the tens of thousands of dissolved
>>>>> particles that get though the system, some are new, but toxic. The
>>>>> scientists describe them as the "unknown unknowns." The current
>>>>> research involves bioassaying the new particles, testing for
>>>>> toxicity, and then attempting to devise tests as an alert if such a particle appeared in the drinking water.
>>>>>
>>>>> The treatment and recycle of agriculture return waste water for
>>>>> potable use is not even a subject of discussion and/or research at
>>>>> the state Dept. of Water or DDW. I could not find a single
>>>>> scientific article where it is under discussion anywhere in the world.
>>>>>
>>>>> The reason PWM choose to include the treatment and recycle of

>>>>> toxic agriculture wastewater was/ is to save the county
>>>>> agriculture interests tens and tens of millions that it would cost
>>>>> to clean up the waste it has created since world war two. Two of
>>>>> the waste source sites, Blanco Drain and Reclamation Ditch are much more than ag.
>>>>> return waters. They are EPA 303d sites: that means that the waters
>>>>> are so contaminated that aquatic life cannot survive there.
>>>>>
>>>>> According to section 2.1.2.1. of the Expansion EIR, the new
>>>>> facilities to be built to facilitate transfer of the toxic ag.
>>>>> waste waters for the expansion will be located at Blanco Drain and Reclamation Ditch.
>>>>> Evidently agriculture return from 1946 to date qualifies as
>>>>> agriculture return.
>>>>>
>>>>> No, I can't describe the toxins that may be in the agriculture
>>>>> return waters. No one can. But I can explain the types of concerns
>>>>> that scientist have about the current legal projects that treat
>>>>> and recycle municipal waste for potable use. Scan 296 attached is
>>>>> a research paper that I received from a highly educated friend who
>>>>> does not wish to be identified. I have verified the authenticity
>>>>> of the cited expert opinions. Keep in mind the scientific opinions
>>>>> relate only to the treatment and recycle of municipal waste
>>>>> waters. There are No scientific comments about treating and
>>>>> recycling agriculture return waters; that topic is not on the map
>>>>> except for PWM. Imagine how much more dangerous the addition of
>>>>> ag. return water would make their opinions.
>>>>>
>>>>> The PWM water is to be injected into the Seaside Basin which is
>>>>> the sole repository of Cal Am's drinking water. Cal Am has several
>>>>> wells which it uses to extract the water. But why isn't there an
>>>>> EIR by the Watermaster of the Seaside Basin?
>>>>>
>>>>> The Seaside Basin is controlled by a Watermaster(not a person, but
>>>>> a group of local politicians, govt. bodies etc. See its web page)
>>>>> and is lightly supervised by a Monterey County superior court
>>>>> judge. It is not controlled by W1M or the Monterey Bay Water Management District.
>>>>> It is inconceivable that it would allow illegal water into the
>>>>> basin without the benefit of an EIR. But it has done so as to the
>>>>> original PWM project. Again, the Administrative Procedures Act be damned.
>>>>>
>>>>> So what should be done? As a practical matter the original PWM is
>>>>> project is almost comple. But the health safety risks of that
>>>>> project are so high that any source waters except for legal
>>>>> municipal waste water must be eliminated. People may become very ill and may die.
>>>>> Imagine the PWM water contaminating the Seaside Basin. Are we
>>>>> willing to risk our entire water supply?
>>>>>
>>>>> As to the expansion, because of the need for a diverse water
>>>>> supply, PWM should instead build a "deep water" desalinization
>>>>> project. The costs of such a project are comparable to the costs
>>>>> of water from the PWM project.
>>>>>
>>>>> There was no health safety evidence or expert opinion presented in

>>>>> the EIR for the PWM project. Instead, Margaret Nellor, a retired
>>>>> sewage engineer and part time consultant presented tables etc and
>>>>> gave the opinion that the PWM project was just like the Orange
>>>>> County Water District project. Her great fraud was that she did
>>>>> not report that the PWM project was unique and not legally
>>>>> authorized. The CPUC commented that it was relying on her opinion
>>>>> that the PWM project was based on old science.
>>>>>
>>>>> Of course, the :rub" is that if Nellor did not hide the
>>>>> revolutionary risks of the PWM project, she would not have been
>>>>> hired. (Her 2015 Dun and Bradstreet report was that Nellor and
>>>>> Assoc. had two employee's, Margaret and her mother. It is located
>>>>> in Austin Texas)
>>>>>
>>>>> I apologize for typing errors, formatting, etc. I do not type well
>>>>> and I an not a computer whiz(But I try). Respectfully submitted, John M.
>>>>> Moore, ESQ.
>>>>> <Scan_0293.pdf>
>>>>> <Scan_0295.pdf>
>>>>> <Scan_0296.pdf>

Comment Document M: Harry McMurray

M-1 See response to comments L-1 through L-10 and Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

Rachel Gaudoin

From: Prof Nick <profnck@yahoo.com>
Sent: Thursday, November 14, 2019 4:36 PM
To: Pure Water Monterey Info
Subject: Comment about the PURE WATER project

Dear People: 11/14/19

I find it unacceptable and not in the best interest of the public, that industrial, agricultural waste water, and street runoff, is going to be recycled into our basin.

I have read many of John Moore's writings to you about the failure failure of technology to keep up with the ability to test and purify water of this type. Because of this I am opposed to this project and support John Moore's writings and efforts to curtail further progress with this so-called "PURE WATER" project. N-1

Vincent Tuminello, in Pacific Grove, California

Sent from my iPhone

Comment Document N: Vincent Tuminello

N-1 See response to comments L-1 through L-10 and Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

Rachel Gaudoin

From: Rachel Gaudoin
Sent: Tuesday, November 26, 2019 8:52 AM
To: Pure Water Monterey Info
Subject: FW: Public Comment, 11/25/19

Rachel Gaudoin
Public Outreach Coordinator
Monterey One Water (formerly MRWPCA)
P:831-645-4623
www.MontereyOneWater.org

STAY CONNECTED with Monterey One Water

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- Follow our Facebook page for the latest news

From: Paul Bruno <pbbmtry@aol.com>
Sent: Tuesday, November 26, 2019 8:34 AM
To: Rachel Gaudoin <rachel@my1water.org>
Subject: Public Comment, 11/25/19

Rachel,

As requested, below is the outline I used for Public Comment on 11/25/19.

Paul Bruno
831-277-6110

Mr. Chair and Members of the Board, Paul Bruno, Resident of Monterey

*** Thank Board for Watermaster's use of the room for meetings ***

I have a comment about the Draft EIR for the expansion of the Monterey Recycled water project.

Specifically, I wish to comment on its relation to the CSIP Agreement.

Section **4.18-13** on page **383** of the Draft EIR addresses an issue related to source water.

My understanding is that there is an agreement approved by this Board and the Water Resources Agency in 2016.

It is called the Amended and Restated Water Recycling Agreement (ARWRA)

O-1

It supersedes the Source Waters MOU and set forth certain contractual rights and obligations.

The expansion project as proposed would result in a **781 AFY** reduction in the benefits to the CSIP during normal and wet years.

The CSIP agreement is vital to the Salinas Basin in that it reduces groundwater pumping in the Salinas Valley.

781 AFY is significant to farmers, especially when we are dealing with an over drafted basin.

Adequate source water will continue to be the Achilles heel of the expansion. Short changing CSIP is not the answer.

O-1 Cont.

Thank you.

Comment Document O: Paul Bruno

O-1 See Master Response #3: Comments on Water Supply and Source Water Availability, and responses to comments B-2 and H-9.

.

Rachel Gaudoin

From: carolyn hill <carolynhill999@outlook.com>
Sent: Monday, December 02, 2019 7:09 PM
To: Pure Water Monterey Info
Subject: EIR pure water monterey expansion

I am opposed to this expansion and to the original project because it will attempt to purify, for potable reuse, agriculture waste waters as a water source. Such a source is unprecedented, without any supporting scientific research about the heath/safety of such water, without legal authority and can make users ill, disabled or even death. Please remove the agriculture waste water from the project. It is unnecessary. P-1

Sent from my iPad

Comment Document P: Carolyn Hill

P-1 See response to comments L-1 through L-10 and Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

Rachel Gaudoin

From: Christopher Turek <christopherturek@hotmail.com>
Sent: Monday, December 02, 2019 2:55 PM
To: Pure Water Monterey Info
Subject: EIR for the Pure Water Monterey expansion.

I am opposed to EIR for the Pure Water Monterey expansion and to the original project because it will attempt to purify, for potable reuse, agriculture waste waters as a water source. Such a source is unprecedented, without any supporting scientific research about the heath/safety of such water, without legal authority and can make users ill, disabled or even death. Remove the agriculture waste water from the project, it is unnecessary. Q-1

Do not my the health of my family at risk. There will be consequences and you will be held accountable.

Thank you,

Christopher Turek

Comment Document Q: Christopher Turek

Q-1 See response to comments L-1 through L-10 and Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

Rachel Gaudoin

From: Karen Oneal <monterey2u@sbcglobal.net>
Sent: Monday, December 02, 2019 8:59 PM
To: Pure Water Monterey Info
Subject: PURE WATER PROJECT

As a resident of the Peninsula for 40 years, I oppose this project and favor desalinization. After researching pros and cons I have come to the conclusion that the project was fast-tracked and and politicized. People hate their Cal Am water bills and have been told this will solve the problem. There is not enough medical research on using sewer, ag runoff, superfund debris as drinking water. If I had children on the peninsula—-I would move far away. R-1

Karen O'Neal
McNeal Business Solutions
831-915-0750

Rachel Gaudoin

From: Karen Oneal <monterey2u@sbcglobal.net>
Sent: Friday, December 06, 2019 9:18 PM
To: Pure Water Monterey Info
Subject: For EIR Report, public comment

I oppose this project until further study is done. To include agricultural runoff loaded with chemicals - and force peninsula residents to drink that stuff is gross negligence. We are not guinea pigs and refuse to wind up like Flint Michigan. There is no city that allows this particular kind of contamination.
We need more evaluation and MEDICAL research before the project proceeds.
Karen O'Neal
831-915-0750

R-1 Cont.

Comment Document R: Karen O'Neal

R-1 See response to comments L-1 through L-10 and Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

Rachel Gaudoin

From: PETER LE <peter381@sbcglobal.net>
Sent: Monday, December 02, 2019 2:43 PM
To: Pure Water Monterey Info
Subject: Comments on Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project

December 2, 2019

Monterey One Water

ATTN: Rachel Gaudoin

5 Harris Ct., Bldg. D

Monterey, CA 93940

send by email to purewatermontereyinfo@my1water.org

Comments on Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project (Draft Supplemental EIR)

Dear Ms. Gaudoin:

I have reviewed the Draft Supplemental EIR (DSEIR) for the above PWM/GWR project and have the following comments: 1. In Chapter 2, Project Description, of the DSEIR, it describes the new Cal Am Conveyance System as part of this expanded project as follows: " the addition of potable and raw water pipelines along General Jim Moore Boulevard and at the Seaside Middle School site (referred to as CalAm Conveyance Pipelines)".

The above description is not clear in that it does not describe where the additional potable pipeline begins and ends, where the additional raw water pipeline begins and ends, what the sizes of these pipes are, and where exactly on General Jim Moore Blvd they will be constructed (under the existing pavement, under the sidewalk, or adjacent to the sidewalk). Additionally, the DSEIR does not describe whether one of these new pipes will connect to the Cal Am desalinated pipeline that is part of the MPWS project. S-1

Additionally, this Chapter 2 referred to a shared pipeline on General Jim Moore Blvd. But it did not described this pipe is shared between what agencies or organizations or who owns this pipeline. S-2

It is very difficult, in fact not possible, to provide comments where the description of this project portion is very vague and not specific as described above. I request M1W revises the Section 2 to provide additional information as described above. S-3

2. While it is understood that Monterey One Water (M1W) owned 100 percent of the new advanced water purification plant, the DSEIR failed to acknowledge or indicate that Marina Coast Water District (MCWD) owned 100 percent of the existing transmission or conveyance pipeline and the existing Black Horse Reservoir that, currently being used for the current PWM/GWR, Phase 1, will also be used for this expanded PWM/GWR

project.

Previous agreements between M1W and MCWD allows MCWD to receive 600 AFY of purified water from the new M1W plant and also allows M1W to convey only 3,500 AF through MCWD's owned pipeline and used only a portion of the Black Horse Reservoir. S-4

3. Additionally, the DSEIR did not show any analysis whether the MCWD's owned pipeline can carry an additional 2,250 AF of this expanded project or ,if feasible, what are the impacts of the conveyance of the additional 2,250 AF to the MCWD's transmission and distribution systems. I request that M1W performs these impact analyses to the existing transmission or conveyance pipeline from the conveyance of additional 2,250 AF and propose appropriate mitigation, if any. The analyses must include the full use or 100 % of MCWD's recycled water rights in the future and not just 600 AFY. S-5

4. Similarly, the DSEIR did not show any analysis of the impacts of this expanded project to the existing MCWD's owned Black Horse Reservoir. The installation of new wells as part of this project definitely impacts the operation of the existing Black Horse Reservoir in addition to the conveyance of the additional 2,250 AF. I request that M1W performs the analyses of the impacts to the existing Black Horse Reservoir and propose appropriate mitigation. S-6

5. The DSEIR shows a new pipeline running along the existing dirt road and connects to the existing Black Horse Reservoir. But there was no discussion whether it is feasible to do so, the impacts to the operation of this reservoir, any required permit from the State Drinking Division for this new connection to the tank, or the alternative of connecting to the existing pipes instead of connecting to the existing tank. I request that M1W addresses these issues in the Final SEIR. S-7

6. Section 2.7, Permits and Approvals, failed to indicate that M1W needs to obtain approval from MCWD Board of Directors before it can convey an additional 2,250 AF on the MCWD's 100% owned pipeline and use the MCWD's 100% owned Black Horse Reservoir capacity for this expanded project. I request that M1W revises Section 2.7 to indicate approvals are required from MCWD. S-8

7. Additionally, Section 2.7. Permits and Approvals, did not indicate whether Cal Am will need to obtain approval from California Public Utilities Commission (CPUC) for its new facilities for this expanded project and for new and/or additional components or its approved MPSWP desal project. I request that M1W and/or Cal Am clarifies which components of this project will require approval from CPUC. S-9

8. Section 7.1, List of Preparers and Persons Consulted, did not indicate any consultation was made with Marina Coast Water District or its staff. If there was any S-10

consultation, please list in this Section 7.1. S-10 Cont.

9. Since MCWD owns 100 percent of the existing transmission or conveyance pipeline and 100% of the existing Black Horse Reservoir and MCWD only allows M1W to carry only 3,500 AF, and assuming that there is no adverse impacts to MCWD's transmission and distribution systems, M1W will need to pay MCWD additional capital costs, and operation and maintenance costs to convey an additional 2,250 AF as part of this expanded project. The above comments are my own comments and they do not represent comments from any other individuals or from any private or public organizations. S-11

Let me know if you have any questions. Please also notify me when M1W issues the Final Supplemental EIR for this expanded PWM/GWR project.

Please also acknowledge that you receive this email. Thanks,

Sincerely,

Peter Le P.E.

cc: Monterey One Water Board of Directors

Monterey Peninsula Water Management District Board of Directors

Marina Coast Water District Board of Directors

Comment Document S: Peter Le

S-1 The CalAm Conveyance Facilities pipelines are described in the Draft SEIR in Section 2.6.5 (starting on page 2-26), Table 2-6 on page 2-31, and shown schematically in Figures 2-7 and 2-8 (pages 2-27[6] and 2-30). An introductory paragraph to Section 2.6.5.1 on page 2-30 has been added to provide additional detail about the pipelines. See **Chapter 5, Changes to the Draft SEIR**.

S-2 The PWM/RUWAP shared pipeline referred to in Figure 2-2 (page 2-4) and the description of the existing PWM Project being shared between M1W and MCWD is provided in the final paragraph of Section 2.1.1 and in Addendum No. 3 to the PWM/GWR Final EIR. See also, the Pure Water Delivery and Supply Project Agreement Between M1W and MCWD dated April 8, 2016, and the related Amendment No. 1 dated December 18, 2017 (hereafter, the "Deliver and Supply Agreement"). The shared pipeline referred to in Figure 2-8 is shared between MCWD and CalAm under the Water Wheeling Agreement (Marina Coast Water District and California-American Water Company, 2009). This second pipe is described in detail in the text added to Section 2.6.5.1 on page 2-30. See **Chapter 5, Changes to the Draft SEIR**.

S-3 The Draft SEIR provided location and size information about the CalAm Conveyance Facilities pipelines for the Proposed Modifications in Section 2.6.5 (commencing on page 2-26), on Figure 2-7 on page 2-27, and in Table 2-6 on page 2-31. As requested, additional pipeline details were added to the Draft SEIR as an introductory paragraph in Section 2.6.5.1 on page 2-30; see **Chapter 5, Changes to the Draft SEIR**.

S-4 As stated in this comment, MCWD owns the conveyance pipeline and Blackhorse Reservoir, and under its current agreement with MCWD, M1W pays for capacity and can convey 3,700 AFY through the conveyance system plus additional volumes during November through March (See Delivery and Supply Agreement). MCWD's participation in the approved PWM/GWR Project is described in Sections 1.2, 1.5.2 and 2.1.1, as well as Addendum 3 to the PWM/GWR Final EIR. The agreement between M1W and MCWD allows for increased use of the conveyance pipeline by either party, and provides a mechanism for determining the associated cost. See **Chapter 5, Changes to the Draft SEIR,** detailing changes to page 4.18-5.

S-5 See response to comment G-15.

S-6 A discussion of the impact the operations of the Blackhorse Reservoir has been added to Section 2.6.3 on page 2-19. See **Chapter 5, Changes to the Draft SEIR**. The 2.0 MG reservoir was sized to provide operational storage for MCWD's RUWAP and the backwashing cycles of the deep injection wells. The proposed expansion would

[6] Draft SEIR page 2-27 was incorrectly labeled as page 2-28; therefore, the document contained two pages labeled 2-28. The first page 2-28 is referred to as page 2-27 herein; see **Chapter 5, Changes to the Draft SEIR**.

not require additional operational storage. See **Appendix Q to the Final SEIR**, which found that:

- It is feasible to increase injection flows to 7.57 mgd by expanding the well field
- Adequate well-head pressures can be maintained provided that at least one foot of water exists in the Black Horse tank
- A 24-inch transmission main (AWWA C905 PVC with a pressure rating of 80 psig) should be constructed to connect the Black Horse tank to the expanded well field.
- Existing pumps at the PWPS are compatible with the expanded duty conditions. A fifth pump (identical to the existing units) will be required to satisfy the proposed firm capacity of 7.57 mgd

The existing Black Horse tank has enough capacity to accommodate routine backwashing of all deep-injection wells assuming one well is backwashed per day for five days out of a week. This assumes that output from the PWPS matches the total demand for pure water over the course of a week.

S-7 The Product Water Conveyance Pipeline from the Blackhorse Reservoir site to the Expanded Injection Well facilities is proposed to connect into the pipeline feeding the Blackhorse Reservoir, most likely just outside the fenced tank yard. **Figure 2-5A** is added to better show the intended pipeline alignment. See **Chapter 5, Changes to the Draft SEIR.** The State Water Board Division of Drinking Water would consider this new system pipeline when they consider the Proposed Modifications in an amended Engineering Report which would precede approval of amendments the WDR/WRR by the RWQCB; the required approvals are listed on Table 2-8 in the Draft SEIR, page 2-33**.**

S-8 Under the current agreement between MCWD and M1W, MCWD must be alerted to any expanded use of the conveyance system; however, the action would simply be to reallocate costs between the entities as allowed by the Delivery and Supply Agreement.

S-9 CalAm may need approval from the CPUC before constructing additional facilities that would impact their ratepayers; however, that would not be needed prior to construction and operation of the M1W components of the Proposed Modifications, unless it is a precursor to receiving required funding. See **Chapter 5, Changes to the Draft SEIR** for updates to Table 2-8 on page 2-33 of the Draft SEIR.

S-10 MCWD staff was consulted in preparing this Draft SEIR, and these communications are now listed in Section 7.1 on page 7-2. See **Chapter 5, Changes to the Draft SEIR**. As a key stakeholder and potential responsible agency, MCWD was provided the Notice of Preparation for the Draft SEIR and was invited to participate in developing the final Project Description and hydraulic modeling assumptions. The Project would not adversely affect MCWD's Regional Urban Water Augmentation Project (the shared use of facilities).

S-11 Under the current agreement between MCWD and M1W, M1W would be required to pay for increased use of the Conveyance System. As pointed out in response S-4, the current agreement between M1W and MCWD allows for future increases in use and provides a mechanism for determining and allocating the cost for increased use.

Rachel Gaudoin

From: Sandy <skmoon@pacbell.net>
Sent: Monday, December 02, 2019 5:33 PM
To: Pure Water Monterey Info
Subject: Comment on EIR water use of agricultural drinking water

To whom it may concern:

I am opposed to this expansion and to the original project because it will attempt to purify, for potable reuse, agriculture waste waters as a water source. Such a source is unprecedented, where is the scientific research about the heath/safety of people drinking and bathing in this? T-1

I am concerned for my own health and others. This is very concerning to me .

Thank you,
Sandy M

Comment Document T: Sandy M.

T-1 See response to comments L-1 through L-10 and Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

Rachel Gaudoin

From: vatuminello@yahoo.com
Sent: Monday, December 02, 2019 12:01 PM
To: Pure Water Monterey Info
Subject: Don't use Any Ag Waste Water, please!

Dear Sirs:

I would like to make a comment about your ongoing recycled water project.

I am opposed to the use of agricultural waste water. I am under the impression that all forms of agriculture waste water, as a source for the water expansion, should be excluded from the project because I have been told that there is "NO precedent, research or authority that supports the health safety of the attempt to purify agriculture waste waters for potable reuse." If this is true, please, don't use any agricultural or even industrial waste water as part of our drinking water. U-1

Sincerely, Vince Tuminello, Pacific Grove California

Sent from my iPad

Comment Document U: Vince Turminello

U-1 See response to comments L-1 through L-10 and Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

Rachel Gaudoin

From: Lindley Rolle <linrolle@hotmail.com>
Sent: Wednesday, December 04, 2019 9:18 PM
To: Pure Water Monterey Info
Subject: Comment to the EIR for the Pure Water Monterey expansion.

I am opposed to this expansion and to the original project because it will attempt to purify, for potable reuse, agriculture waste waters as a water source. Such a source is unprecedented, without any supporting scientific research about the heath/safety of such water, without legal authority and can make users ill, disabled or even death. Remove the agriculture waste water from the project, it is unnecessary.

I did not ask for this water project. I wasn't given a choice I do not want recycled water. I do not believe that you can rid all the environmental impurities to make it safe to drink or use for humans or plants.

V-1

Lindley Rolle

Comment Document V: Lindley Rolle

V-1 See response to comments L-1 through L-10 and Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

CALIFORNIA AMERICAN WATER

Ian C. Crooks
Vice President, Engineering
655 West Broadway, Suite 1410
San Diego, CA 92101
P: 619-446-4786
E: ian.crooks@amwater.com
www.amwater.com

December 10, 2019

VIA E-MAIL AND FEDEX

Monterey One Water
Attn: Rachel Gaudoin
5 Harris Court, Building D
Monterey, CA 93940
Email: purewatermontereyinfo@my1water.org

Re: Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project (Draft Supplemental EIR), SCH No. 2013051094

Dear Ms. Gaudoin:

California-American Water Company ("Cal-Am") understands that last week the Monterey County Water Resources Agency ("MCWRA") requested that the Draft Supplemental EIR's comment period be extended until January 31, 2020 at 5:00 p.m. Cal-Am agrees that such an extension will benefit all of the parties that are examining the Draft Supplemental EIR closely given its significant implications for water supply issues affecting the Monterey Peninsula as well as the pending holidays. Accordingly, Cal-Am asks that you approve MCWRA's comment period extension request for all commenting parties.

W-1

Sincerely,

Ian Crooks
California American Water Company

cc: Kathryn Horning, California-American Water Company
DJ Moore, Latham & Watkins LLP

Comment Document W: Ian Crooks, California American Water Company

W-1 See Master Response #1: Comments on Public Review Period Extension.

Rachel Gaudoin

From: Wendi Newman <wendi.newman7@gmail.com>
Sent: Tuesday, December 10, 2019 7:55 PM
To: Pure Water Monterey Info
Subject: Use of ag water in our water supply

I am commenting to the EIR for the Pure Water Monterey expansion.

I am opposed to this expansion and to the original project because it will attempt to purify, for potable reuse, agriculture waste waters as a water source. Such a source is unprecedented, without any supporting scientific research about the heath/safety of such water, without legal authority and can make users ill, disabled or even lead to death. This is a public catastrophe. X-1

This project was rushed through with very little public input. Remove the agriculture waste water from the project, it is unnecessary.

Wendi Newman
Pacific Grove, Ca 93950

Comment Document X: Wendi Newman

X-1 See response to comments L-1 through L-10 and Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

Rachel Gaudoin

From: Dale Huss <daleh@OceanMist.com>
Sent: Thursday, December 12, 2019 11:05 AM
To: Pure Water Monterey Info
Cc: Joe Pezzini; Eric Tynan
Subject: Comments on the proposed expansion of the Pure 1 Monterey Project.

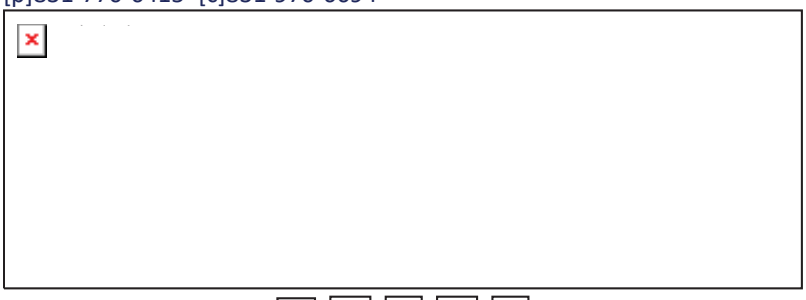
My name is Dale Huss. I am the VP of Artichoke Production for Ocean Mist Farms. I also chair the Water Quality and Operations Committee for the Monterey County Water Recycling Projects.

I write to express my concerns about the proposed expansion of the Pure 1 Monterey Project for the following reasons:

1. There have been no discussions with the growers in CSIP or the Water Resources Agency regarding this project and where the water will come from for it. Y-1
2. The water will have to come from the Salinas Valley. Y-2
3. With the discussed expansion of CSIP the water that would be used for the expansion of Pure 1 will go to the growers in the expanded CSIP area. In other words, there has been no accounting for the water that would be needed for this expansion, and the water isn't going to be there. Y-3
4. This is a rush job pushed by the interests on the Peninsula to avoid building the desal plant. Y-4

Sincerely,
Dale Huss
Ocean Mist Farms

Dale Huss | VP Artichoke Production | Oceanmist.com
[p]831-770-6415 [c]831-970-6694



Comment Document Y: Dale Huss

Y-1 M1W staff met with MCWRA staff many times prior to and during the public review of the Draft SEIR. The following **Table 4-B** summarizes those meetings.

Table 4-B:
Summary of Meetings Between M1W and MCWRA

Meeting Date	Invited or Attended	Subject *notes on meeting subjects, outcomes, etc.*
7/9/19	Sciuto and Buche	Discuss Water Supply for CSIP, Salinas Valley Reclamation
7/17/19	MCWRA: Buche, Krafft, Murray, Foxworthy; M1W: Sciuto, Holden, Imamura, McCullough, McNarie, Lindow, Gonzales	Wastewater & New Source Water Availability Meeting action items and follow-up prepared.
7/24/19	Murray, Foxworthy, Holden, Sterbenz (S&W), Sciuto, Stoldt, Imamura, Gonzales, Lindow	Source water flow analysis for the PWM Expansion Follow-up to 7/17/19 meeting. Shaunna Murray asked to "discuss the flow data in more detail" NOTE: Emails providing data and information requested from M1W followed on 7/25 and 7/30.
10/15/19	Murray, Foxworthy, Holden, Imamura, Sciuto, Stoldt, Gonzales, Lindow	EIR - Exp PWM Source Water Rights / Volumes Source water analyses for the Draft SEIR for the Expanded PWM/GWR Project
10/24/19	Murray, Foxworthy, Holden, Imamura	Follow-Up Meeting - Source Waters for Expanded PWM Project Final meeting notes prepared (after including comments on notes from MCWRA, Foxworthy)
10/25 to 30	Emails between. MCWRA and M1W staff and Sterbenz copied	Email correspondence between M1W and MCWRA occurred to finalize the Draft SEIR source water discussions; emails are available
12/2/19	Buche, Krafft, Murray, Foxworthy, Holden, Imamura	New Source Waters questions prior to WQ&Ops TOPICS: (1) Recap M1W/MCWRA 2019 meetings regarding Source Waters for Expanded PWM Project; (2) Update on M1W (non-CEQA) source water analysis; (3) Discuss public comments on Salinas IWW and other new source waters; (4) Status of MCWRA funding of New Source Waters and ARWRA section 16.15; (5) Communication/talking points with WQ&Ops, SVSGMA, and other stakeholders

See also Master Response #3: Comments on Source Water Supply and Source Water Availability.

Y-2 The majority of the water that comes to the RTP and that would be used for the PWM/GWR Project, including for the Proposed Modifications, is comprised of the municipal wastewater from M1W member entities that has been treated by the primary and secondary treatment process and that would otherwise be discharged to the ocean. See Master Response #3: Comments on Water Supply and Source Water Availability for relative contributions of municipal wastewater from M1W's geographic areas that enters the M1W headworks and is metered there. Note that 51% is from the Salinas urban area, 3% from Moss Landing and Castroville, 46% from the Monterey Peninsula, Marina, and Fort Ord areas (Source: M1W Sewer System Management Plan, April 2019). Historically, the SVRP has recycled a large portion of these flows including all of the flows during most peak irrigation months.

The Draft SEIR analysis of use of existing and new source waters, including those from the Salinas Valley and other geographic areas, is provided in Appendix I and is based on the assumption that the PWM/GWR Project continues to be a mutually-beneficial project of MCWRA and the Monterey Peninsula. If the MCWRA does not fund the PWM/GWR Project new source waters as provided in the ARWRA, the amount of new source waters that would be diverted into the collection system and would enter the RTP would be as described in **Appendix M** of this Final SEIR, M1W Source Water Technical Memorandum. See also Master Response #3: Comments on Source Water Supply and Source Water Availability.

Y-3 Although there have been discussions in meetings about CSIP Distribution System expansion and the "Salinas Valley Groundwater Basin 180/400-Foot Aquifer Subbasin Groundwater Sustainability Plan" includes CSIP Distribution System expansion as Priority Project #4,[7] there are currently no capital improvement plans, nor any funding sources/applications to carry out that project. No design nor environmental review documents have been commenced for this potential future CSIP expansion. The description provided in the plan is very general and does not provide any details on the locations of infrastructure, or land that would be added to the CSIP benefit area, or land or resources that would be directly or indirectly affected. The schedule in the SVSGMA Plan describes the expansion as potentially commencing construction in year 2024 or later. See current schedule in **Figure 4-A**, below (as published in the Salinas Valley Groundwater Basin 180/400-Foot Aquifer Subbasin Groundwater Sustainability Plan).

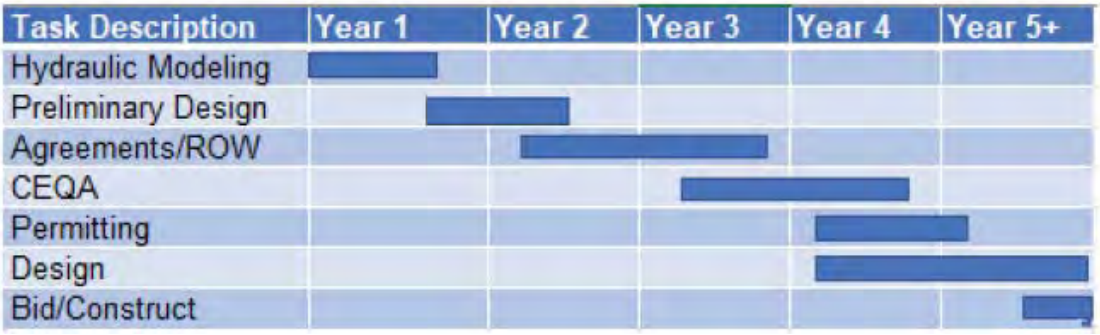


Figure 4-A: Implementation Schedule for SVGB GSP Priority Project #4. CSIP Distribution System Expansion (SVBGSA, January 2020)

If the expansion of CSIP is pursued, the parties' rights to source water would be as set out by the ARWRA unless the parties to the ARWRA agree upon amendments. The analysis of source water availability in **Appendix M** to this Final SEIR is based upon the current water rights of the parties and reasonable assumptions based upon those rights and the projects that have been approved or are undergoing environmental review. The comment is asking about water availability for a potential future project to expand recycled water produced for meeting the Salinas Valley water demands. In

[7] The Salinas Valley Groundwater Basin 180/400-Foot Aquifer Subbasin Groundwater Sustainability Plan, was approved by the Salinas Valley Basin Groundwater Sustainability Agency on January 9, 2020.

essence, it asks whether using M1W's water rights for the Proposed Modifications would prevent M1W from using those same water rights in the future for Salinas Valley water supply projects that were not included in the approved Pure Water Monterey project. Before any water purchase agreement involving the Expanded PWM Project is executed, the agreement would be brought to the M1W Board for its review and consideration. The agreement would specify business terms such as the length of time that M1W would be committing to provide water from the Expanded PWM Project, and the conditions under which M1W could terminate the agreement. This is a business/policy issue that will remain within the control of the M1W Board, even if the M1W Board elects to certify the Final SEIR for the Proposed Modifications and issue a project approval. See also Master Response #3: Comments on Water Supply and Source Water Availability.

Y-4 The comment is referred to decision-makers for their consideration. No response is required.

Coalition of Peninsula Businesses

A coalition to resolve the Peninsula water challenge to
comply with the CDO at a reasonable cost

Members Include: Monterey County Hospitality Association, Monterey Commercial Property Owners' Association, Monterey Peninsula Chamber of Commerce, Carmel Chamber of Commerce, Pacific Grove Chamber of Commerce, Monterey County Association of Realtors, Associated General Contractors-Monterey Division, Pebble Beach Co., Community Hospital of the Monterey Peninsula

December 12, 2019

Ron Stefani, Chair
Paul Sciuto, General Manager
Bob Holden, Principle Engineer
Monterey 1 Water
5 Harris Court, #D
Monterey, California 93942

Transmitted by fax to: 831-372-6178 and by e-mail to:purewatermontereyinfo@my1water.org

Dear Mssrs. Stefani, Sciuto and Holden:

The Coalition of Peninsula Businesses respectfully requests that you extend the review period for the draft Supplemental Environmental Impact Report on your Pure Water Monterey expansion project. The Coalition has not had time to complete its review or prepare its comments on the draft and with the holidays coming it will not be possible to complete this work by December 23, 2019. Z-1

Thank you for your attention to this request.

Sincerely,

Jeff Davi, Co-chair

John Tilley, Co-chair

Comment Document Z: Jeff Davi and John Tilley, Coalition of Peninsula Businesses

Z-1 See Master Response #1: Comments on Public Review Period Extension.

Pure Water Monterey
A Groundwater Replenishment Project

Public Meeting to Receive Comments on the
Draft Supplemental Environmental Impact Report for the
Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project

December 12, 2019
5:30 pm
Oldemeyer Center, 986 Hilby Avenue, Seaside CA

Hello, my name is Philip Branton, student from CSUMB. Here tonight on behalf of my Water Policy class this semester. I am from a small town in the Delta known as Rio Vista; we are a very hydrologically altered area and we have a lot of different water issues that that occur in my particular neck of the woods so I was very interested in taking a look at the Draft SEIR . I definitely like the idea of underwater underground water sequestration. I believe that it is an effective form of water storage for this region and I think that it minimizes a lot of environmental impacts that are currently being inflicted on the Carmel River, and I think that this storage facility would help increase Monterey County's water security in drought years and overall I am generally in favor of it. AA-1

Good evening, I am Tamara Voss, I am an Associate Hydrologist from Monterey County Water Resources Agency and I've been asked to read into the record here a couple of comments for this evening:

- Number one, we all recognize that there is a lot of information in the Draft SEIR. The Water Resources Agency is currently and actively reading and making comments on it internally, we're getting that together. We are requesting and extension until January 31st. Brent Buche, our General Manager, has submitted a letter to that effect as well. If the agency is able to submit comments by the 23rd, please recognize that they will be incomplete. AA-2

Susan Skivonie, City of Seaside and a member of Public Water Now. In December 2018 the State Water Resources Control Board, after several years of scientific and public review and extensive research, passed Resolution 2018-0057, amending the policy on the use of recycled water statewide. This amendment was voted into law April 2019. The amendment reflects the board's support of emphasizing recycled water to diversify community water supplies and mitigate the impacts of climate change. Among the goals listed in the amendment is the reuse of all dry weather direct discharges of all wastewater to enclosed bays, estuaries, and coastal lagoons and ocean waters that can be viably put to beneficial use. The amendment also emphasizes that in coastal areas it is more efficient to treat and use recycled water than to treat wastewater, discharge it into the ocean, and then desalinate seawater to meet water supply needs. The amendment includes a goal to maximize the use of recycled water in areas where groundwater supplies are in a state of overdraft and where there is seawater intrusion, as the groundwater replenishment source. The SWRCB amendment also directs other state agencies authorizing water projects, to adopt this policy including the CPUC, Coastal Commission, and regional water boards and agencies. The proposed Pure Water Monterey expansion fits completely into the categories addressed in the state policy and specifically this amendment. Therefore, language and an attachment of this amendment should be added to the SEIR, referencing and reinforcing the important criteria of the project that meet these goals as set forth by board to increase recycled water use throughout the state. Aligning with, and citing this policy, strengthens this project for approval under recently enacted directives. AA-3

Pure Water Monterey
A Groundwater Replenishment Project

My name is Mark Kelley, and I am a resident of Monterey. I'd like to address a couple of issues this evening, if I might: the first is in the Draft EIR in the section of 'water availability; 4.18.12', and secondly in '5.6'; now let me address that first please: It says, " as a result of the proposed modification could accommodate growth but as noted above in Table 5.1, which is a varying water supply project availability . It's difficult to state with any specificity the location and amount of new developed and associated impacts that could be accommodated. If the demand from existing demand from existing customers exceeds the Monterey Peninsula Water Management Districts estimates, the increased yield that proposed modifications would accommodate less growth and result in less potential indirect adverse impacts, growth, etc. AA-4

I'd like to address two points here:

- First, there was a report done by the director of the district as a staff report that was accepted by the board that was an informational item; there's lots of room for disagreement on everything here because it's so much at that's at stake, but it was a report that was administered and directed to the board. This Draft EIR has taken that report and now views it as the direct district estimates of future water supply; that is simply wrong. I'm not disagreeing with a director's right to give a staff report or the board's right to listen to it, I think that's exactly the way it happens. This EIR is flawed; it took that staff report as is now viewing it as a district document for demand, and that's incorrect. Further it states it should, and let me read this again, that it could be accommodated from existing customers if that exceeds the estimates for existing customers. This is a land use document, for heaven sake's, what we're saying here is that by all stretch of the imagination we don't even know if the water district supply staff report, not board directed report, even meets current customer needs. In my view that's this EIR trying to become a land-use document. Not only do I think that this needs to be extended, I think the board of Monterey One Water needs to take an extremely close look at whether they ever intended the Supplemental EIR to use a sound staff document, but not one that's peer-reviewed and not one that has ever been approved by its board. I would also say that I think there's some serious issues on the terms "water rights" in this document which in California is a strictly legal term, and I believe it's being used here to both accommodate what may be an occasional water right but more source-water for contracts and referring to it as water rights which is legally incorrect. Thank you, I appreciate the time. AA-5

Ian Crooks with California American Water. We would also support, and we did send a letter on December 10th requesting an extension of a comment period until the end of January. We joined with Monterey County Water Resource Agency we believe because this project does have lots of impacts to multitude of things in the Peninsula that warrants an extended period of comment so I just wanted to get that on the record, thank you. AA-6

Melodie Chrislock, Public Water Now. We ask you to move ahead with this SEIR as quickly as possible, no delay in the December 23rd deadline for comment is warranted. Delay is the current strategy of those who oppose this project. Delay of this SEIR has already been attempted by one of your board members. Please complete your SEIR as soon as possible; we need this back-up plan ready to go because CalAm can no longer meet the December 2021 deadline. AA-7

On page 2-8 there's a footnote 13 that needs revision. It reads, "CalAm and other members of the public have contended that additional water supplies would be necessary to address future water demand up to 14,400 acre feed per year per CPUC CPCN decision 1809017, and up to 12,948 acre feed a year in 2035 per CalAm's 2015 Urban Water Management Plan." This is misleading since these other members of the public are for the most part special interest groups of business and development that support CalAm. It could easily be demonstrated that the majority of the public comment has agreed with MPWMD's well documented estimate not CalAm's. So 'footnote 13' you would need to add a statement to that effect or simply leave out members of the public altogether and just say, "CalAm has contended that additional water supplies would be necessary to address future AA-8

water demand." On another issue, could you clarify the Source Water and CSIP numbers; they are still confusing, in one place it says, "the CSIP water in the Pure Monterey Groundwater Project was 4500-4750 acre-feet but will be reduced by 700-800 acre-feet", but then in another it says, " Pure Water Monterey Expansion uses about 800 acre feed of wastewater that was originally planned for CSIP which reduces the total new water to CSIP to between 2850-3600 acre-feet, and in another place it says, "municipal wastewater available is between 3400-3800 acre-feet." These are all close but they're not …um…I could not make them all mesh so maybe you could look at that. Did you address what happens to the 4500-4750 acre-feet allotted to the CSIP program if the farmers don't want to buy it they won't pay for it. Does that become available to the expansion, that's a lot of water and from what I've heard they're not interested in buying it. And last, on page 4.18-3 it reads, "adequate source water supplies are reasonably likely to be available to accomplish the yield objectives of the proposed modifications." Maybe you could state that with a little bit more confidence. Thank you.

AA-9

AA-10

My name is Dan Turner, and I'm a member of Public Water Now. I've seen a lot of supplemental EIR's in my time, but I've never seen a supplemental EIR as spectacular as this one; it's damn-near perfect. And, there's absolutely no need extend the period for comment. As someone else said, this is just a CalAm tactic. I do want to agree with one of the previous speakers, who I will not refer to as a CalAm shill who said, "there are important issues here," and there are important issues here and one of the most important issues …for them…is the sweetheart deal that CalAm gave the business community in what I believe it was in September of 2013 when they removed the tiered rates from the business community and gave them one low rate. That's what this is all about actually, so …by all about I mean the CalAm support is in the business community, we want to hold on to that. So, we need this water…there's no need to delay any further by extending the period people have all sorts of time. If this is so important to them, you know, put more men or women on the job, put your comments in. I want to compliment you, I think you've done a wonderful job, keep up the good work.

AA-11

Hi, I'm George Riley. I'm one of the Monterey Peninsula Board Manager's District Board of Directors, but I'm speaking as an individual because my side hobby seems to be a book-club called reading EIRs. Anyway, I only have two points to make:

- I think the advantage of reducing the waste-discharge into the bay is a key benefit of this project, but it's not quantified, at least what I can find. Several places in the document, whether it's in fisheries or ocean biology, or water supply, or impacts on I don't know, there are about five places where it's referenced as a reduced volume of discharge into the bay but it's not quantified and I just think if that point…you're quantifying so many other things….if you could quantify a number somehow put it in there. If it's 2 acre-feet say it, but if it's 200, 1000, or something, I think it ought to be in the report.
- Second, I think you site several documents in the narrative somewhere and I think Susan Skiovonie just mentioned about the State Water Board issue resolution they adopted a year ago is exactly the point of why this is an important project, and it's because it fits a state policy of giving preference to reclaim the water projects if there's a new water source under discussion. But the state water board has established the reclaimed projects in general across the state as the top priority for doing that and I don't think you mentioned that in the entire report either I just think it ought to be added that's all.

AA-12

AA-13

My name is Anna Thompson and I'm a member of Public Water Now and I agree with everything that Melodie and George and everybody else here that said, 'Let's proceed as soon as possible to go with the expansion of the recycling the water.' My own opinion is that water is so valuable that we should never

AA-14

use it just once and then discharge it into the ocean, plus if any other alternative is much more expensive and it's environmentally unsafe so why don't we go ahead and recycle all the water possible. This is what a lot of water districts have done successfully, and they don't need any desal plants to accomplish our water needs. Thank you very much.

AA-14
Cont.

Comment Document AA: Oral Comments - Public Meeting on December 12, 2019

AA-1 Speaker Philip Branton agrees with overall approach to project and expresses support. No response required.

AA-2 Speaker Tamara Voss represents the Monterey County Water Resources Agency and requests an extension of the public comment period for the Draft SEIR on behalf of the General Manager. Please see Master Response #1: Comments on Public Review Period Extension.

AA-3 Speaker Susan Skivonie provides information on the State Water Resources Control Resolution 2018-0057, amending the policy on the use of recycled water statewide, which was voted into law April 2019. The amendment reflects the State Water Board's support of emphasizing recycled water to diversify community water supplies and mitigate the impacts of climate change. Speaker Skivonie suggests this information be added to the Draft SEIR to note the proposed project complies with state policy and the 2019 State Water Board amendment. The comment is acknowledged. The policy information reflecting State Water Board's support for recycled water and diversification of water supplies is referred to decisionmakers. It is not considered necessary to attach the State Water Board's amendment to the Final SEIR.

AA-4 Speaker Mark Kelly summarizes the growth inducement discussion in Chapter 5 of the Draft SEIR. No response to this comment is required.

AA-5 Speaker Kelly questions reliance upon the September 2019 version of the MPWMD Supply and Demand Report. Please see Master Response #3: Comments on Water Supply and Source Water Availability for information regarding the MPWMD Report.

AA-6 Speaker Ian Crooks states that CalAm has requested an extension of the Draft SEIR comment period until the end of January. Please see Master Response #1: Comments on Public Review Period Extension.

AA-7 Speaker Melodie Chrislock expresses a need for the PWM Expansion Project and is opposed to the extension of the Draft SEIR comment period. Please see Master Response #1: Comments on Public Review Period Extension.

AA-8 Speaker Chrislock disagrees with language contained in Draft SEIR on page 2-8 that states that members of the public contend additional water would be needed to meet future water demand and requests that this language be revised. The comment is noted; the Draft SEIR recognizes that there is disagreement among members of the public and experts as to long-term water demand, therefore the revision is not necessary.

AA-9 Speaker Chrislock requests that additional information be provided to clarify the Source Water and CSIP numbers. Please see Master Response #3: Comments on Water Supply and Source Water Availability, and **Chapter 5 Changes to the Draft SEIR** to page 4.18-13 for updated information regarding source water availability.

AA-10 Speaker Chrislock requests that the document express greater confidence in source water availability. See Master Response #3: Comments on Water Supply and Source Water Availability, and **Chapter 5 Changes to the Draft SEIR** to page 4.18-13 for updated information regarding source water availability.

AA-11 Speaker Dan Turner expresses support for the Draft SEIR and the PWM Expansion Project. Speaker Turner is opposed to the extension of the Draft SEIR comment period. Please see Master Response #1: Comments on Public Review Period Extension.

AA-12 Speaker George Riley states that one of the benefits of the proposed project is reducing the waste-discharge into the bay and requests the Draft SEIR quantify the reduction of these discharges. See response to comment J-2 for quantification of secondary-treated wastewater effluent discharges and net discharges from the Regional Treatment Plant, including the AWPF, in normal and dry year scenarios from the flow modeling. The Proposed Modifications may decrease the volume of discharges by approximately 800 to 1,400 acre-feet per year more than the reductions enabled by the approved PWM/GWR Project.

AA-13 Speaker Riley expresses support for proposed project. See the response to comment AA-3, above regarding the State Water Board recycled water policy.

AA-14 Speaker Anna Thompson states support for the PWM Expansion Project. No response is required.

Rachel Gaudoin

From: Paul Bruno <pbbmtry@aol.com>
Sent: Friday, December 13, 2019 9:56 AM
To: Pure Water Monterey Info
Subject: PWM Expansion / DEIR Public Input

Attn: M1W Board

Mr. Chair and Board of Directors,

I am writing with regard to the DEIR public comment period. It is the holiday season and that has impacted people's schedule. Like many, I was unable to attend last night's public hearing due to a schedule conflict. Public participation is very important, especially when it involves something like this. With that in mind, I suggest that the Board consider extending the public comment period. This will allow for better public input. BB-1

Thank you for your consideration of this request.

Paul B. Bruno
Monterey
(831) 277-6110

Comment Document BB: Paul Bruno

BB-1 See Master Response #1: Comments on Public Review Period Extension.

Chayito Ibarra

From: Juul Vanderspek <juulvanderspek@yahoo.com>
Sent: Monday, December 16, 2019 11:53 AM
To: Chayito Ibarra
Subject: Please deny extension of the comment deadline for Pure Water Monterey Expansion

To Monterey One Water Board of Directors, Chair Stefani and Manager Paul Sciuto,

Please do not extend the comment deadline for the Pure Water Monterey Expansion DSEIR.

There is no reason for such extension because this SEIR is based on one already approved by the Monterey County Water Resources Agency for Pure Water Monterey Phase 1, and there have not been any problematic issues stated.

Rather, the extension request clearly is nothing more than a ploy instigated by CalAm to push certification of the SEIR beyond the March meeting of the California Coastal Commission, this to form yet another road block to alternatives to the desal plant that CalAm is trying to push into our area.

CC-1

Please act in the public interest, not in CalAm's

Regards,

Julius VanderSpek
Concerned citizen of Marina

Comment Document CC: Julius VanderSpek

CC-1 See Master Response #1: Comments on Public Review Period Extension.

December 16, 2019

Monterey One Water - in care of Chayito Ibarra chayito@my1water.org
5 Harris Court, Bldg D
Monterey, CA 93940

To: Chair Ron Stefani, Members of the Monterey One Water Board of Directors, and Manager Paul Sciuto,

Please keep the December 23rd deadline for submitting comments regarding the Draft Supplemental Environmental Impact Report for Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project. Please do not extend the deadline.

As your board members have indicated, the Pure Water Monterey Expansion is an important safeguard for all Monterey Peninsula water users and Cal Am itself. **Given Cal Am's long history of mis-steps during previous attempts to create new water supplies, it may not be able to provide enough water in time to meet the State Water Quality Control Board's deadline to cease over-pumping from the Carmel River**.

Therefore, it is vital that the Pure Water Monterey Expansion be developed in time to meet the December 31, 2021 deadline, so that all Monterey Peninsula Cal Am ratepayers, including businesses and residents, will have this important new water supply.

DD-1

A comment deadline extension is not needed. The DSEIR is based on the EIR that has already been approved for Pure Water Monterey Phase 1. Requests to extend the deadline, citing holiday concerns, appear designed to stall the project long enough so that the Coastal Commission will not be able to consider it as an alternative to Cal Am's desal project (MPWSP). This is not in the public interest.

I understand that the letters requesting an extension come from those who have ample time, staffing, knowledge of the DSSEIR, and resources to comply with the deadline, and that the letters do not cite any meaningful flaws or concerns with the DSEIR. It appears that the letter writers and their organizations simply stand to profit in various ways from the currently proposed Cal Am desal project.

It is puzzling that Cal Am supporters do not recognize that only with an on-time PWM Expansion now can we deliver the water needed to meet the CDO, lift the moratorium, and lift restrictions on building permits.

Some of your board members may be especially concerned about CSIP. The DSEIR shows that Castroville and CSIP will be benefit very substantially from the Pure Water Monterey Expansion, with an increased available SVRP yield of approximately 2,852 AFY in a drought year, and 3,600 AFY in normal and wet years! If Castroville organizations and representatives are disappointed that this might be 781 AF less than without the Expansion, they certainly have the knowledge,

DD-2

resources, staffing, and time to submit relevant DSEIR comments by December 23rd. Please note that they will also be able to write to and testify before the Coastal Commission.

Thank you for your commitment to the public interest, for recognizing the necessity of the PWM Expansion, and for issuing the Draft Supplemental EIR on November 7, 2019.

Now, your agency should not put itself in the position of serving Cal Am and a few private interests in an attempt to delay the SEIR and handicap the Coastal Commission. That is not in the public interest.

DD-2 Cont.

Please preserve the December 23, 2019 deadline and move ahead to assure the viability and readiness of a backup water supply to serve all of us.

We are very grateful for your board and staff's honorable work to benefit the public, and also very grateful to you for developing the PWM Expansion as an affordable, sustainable, and economically just source of water.

Sincerely,

Marli Melton

Marli Melton, Carmel Valley

Comment Document DD: Marli Melton

DD-1 See Master Response #1: Comments on Public Review Period Extension.

DD-2 See Master Response #1: Comments on Public Review Period Extension.

Chayito Ibarra

From: MWChrislock <mwchrislock@redshift.com>
Sent: Monday, December 16, 2019 8:11 AM
To: Chayito Ibarra
Cc: Rachel Gaudoin
Subject: Extension of Comment Period on DSEIR

PUBLIC WATER NOW

P.O. Box 1293
Monterey, CA 93942

Melodie Chrislock
Managing Director
mwchrislock@redshift.com
831 624-2282

December 16, 2019

Monterey One Water
5 Harris Court, Bldg D
Monterey, CA 93940

Chair Stefani, Monterey One Water Board of Directors and manager Paul Sciuto,

Please do not extend the comment deadline for the Pure Water Monterey Expansion DSEIR. An extension is unwarranted.

This SEIR is based on one already approved by the Monterey County Water Resources Agency for Pure Water Monterey Phase 1. What is their justification for needing more time? MCWRA has the staff resources and knowledge to respond within the deadline. The MCWRA supports Cal Am's desal plan because it has Peninsula ratepayers paying the cost of water to reduce Castroville's overdrafting of the Salinas Basin. It makes their request for an extension suspect. EE-1

Cal Am's letter asking for an extension should be discounted because Cal Am is an interested party, and a partial funder of the SEIR.

It's clear that every letter writer is a Cal Am supporter. All give the same reason, the holiday season, and not enough time. Cal Am has contracts with Paul Bruno's Peninsula Engineering and donates financially to local chambers and hospitality groups in the Business Coalition.

None of the four letters cite a single issue that needs more attention or a unique conflict or problem. No one cites a section in the DSEIR that is their concern or an area of high priority interest.

These requests appear to be no different than the last attempt to delay issuing the SEIR on Nov 7. This is a blatant display of power politics and financial influence, that should be rejected by a public agency serving the public interest. Please move ahead to assure the viability and readiness of a back up water supply. EE-1 Cont.

The point that seems to be lost on Cal Am supporters these days is that we need water and Cal Am is not going to deliver water from desal any time soon. The PWM Expansion could deliver the water we need to meet the CDO and lift the moratorium and restriction on building permits.

The Coastal Commission is interested in the Pure Water Monterey Expansion as a potential option. A delay means the Final SEIR would not be available for their consideration. Your agency should not put itself in the service of Cal Am in an attempt to delay the SEIR and handicap the Coastal Commission.

Sincerely,

Melodie Chrislock

Comment Document EE: Melodie Chrislock, Public Water Now

EE-1 See Master Response #1: Comments on Public Review Period Extension.

Chayito Ibarra

From: Michael DeLapa <execdir@landwatch.org>
Sent: Monday, December 16, 2019 12:29 PM
To: Paul Sciuto
Cc: Pure Water Monterey Info; Ron Stefani - Castroville Rep
Subject: Opposed to extending the comment deadline for Pure Water Monterey Expansion draft SEIR

December 16, 2019

Monterey One Water
5 Harris Court, Bldg D
Monterey, CA 93940

Dear Mr. Scuito,

LandWatch opposes the requests for an extension of the public review period for the Pure Water Monterey Expansion draft SEIR. The public review period Nov. 7–Dec. 23, 2019 is ample. This is **subsequent** EIR for a **previously approved** project that has already undergone a full EIR process.

The extension requests are without substantive foundation. The requests appear to be intended only to deny the California Coastal Commission the benefit of the final SEIR for the Pure Water Monterey Expansion because Coastal Commission staff have recommended it as an alternative to Cal-Am's desalination project.

CEQA provides that the public review period for a draft EIR not be longer than 60 days "except under unusual circumstances." (CEQA Guidelines, section 15105(a).) Cal-Am is requesting an extension to January 31, 2020 - 95 days after the November 7, 2019 commencement of the public review period.
None of the requests have identified "unusual circumstances" that would justify ignoring the legitimate interests of the public and of Monterey One Water in moving the expansion forward timely so that it can be considered as an alternative to the desalination project. FF-1

Some of the requests mention the "holidays," but holidays are not unusual circumstances. Every month contains holidays.

Other requests mention the "importance" of the project, but its importance was apparent when the public comment period opened on November 7. The Pure Water Monterey Expansion did not become more important just because its opponents now want to deny information to the Coastal Commission.

Your agency should not put itself in the service of Cal Am in an attempt to delay the SEIR and handicap the Coastal Commission. We note your mission and vision focuses on efficient, innovative utilization of wastewater and water recycling:

> *Monterey One Mission Statement* - Monterey One Water is dedicated to meeting the wastewater and water recycling needs of our member agencies while protecting the environment.
>
> *Monterey One Vision Statement* - Monterey One Water will be a model customer service provider for the efficient, innovative utilization of wastewater.

4-217
1

Efficient means timely. Unnecessary, politically motivated delay isn't efficient. Moreover, last I checked, Cal Am isn't a member agency. Favoring their request for delay is costly and in conflict with the public's interest for expeditious decision-making.

The public and the Coastal Commission are entitled to expeditious review of this important alternative to the desalination project. **The request for an extension should be denied.**

FF-1
Cont.

Regards,

Michael

Michael D. DeLapa
Executive Director
LandWatch Monterey County
execdir@landwatch.org
650.291.4991 m

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Comment Document FF: Michael DeLapa, LandWatch of Monterey County

FF-1 See Master Response #1: Comments on Public Review Period Extension.

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League of Women Voters Monterey County

Chair and Members, and Staff

Monterey One Water

5 Harris Court, Building D

Monterey CA 93940

RE: Comment deadline for the Pure Water Monterey Expansion DSEIR

December 16, 2019

The League of Women Voters of Monterey County (LWVMC) urges the Monterey One Water Board (MOWB) to deny the four requests for an extension of the comment period on the Pure Water Monterey Expansion DSEIR. The draft SEIR is based on one already approved by the Monterey County Water Resources Agency for Pure Water Monterey Phase 1. There are no conflicts or problems with any section of the DSEIR cited in the extension requests.

The LWVMC has studied local water issues numerous times over the past few decades. Among many positions, the League supports maximizing conservation and reclamation for all water uses. In 2009, we led the effort to increase the use of recycled water through the Groundwater Replenishment Program (GWR) and to downsize the desalination plant. Since that time, replenishing the Seaside Aquifer with reclaimed water has been refined and is now a viable alternative to the costly and environmentally damaging desalination plant.

GG-1

The intent of the requests for denial is to delay issuing the SEIR as scheduled. Monterey One Water is a public agency which is supposed to operate with transparency and in the public interest. The California Coastal Commission expects to have the SEIR when it considers the Pure Water Monterey Expansion as a potential option at its next meeting. Delaying the DSEIR serves the interests of Cal-Am, the private, for-profit corporation and its supporters. The California Public Utilities Commission also expects to receive the information on the Expansion.

The LWVMC supports desalination as a long range water planning option, but it must be pursued only after all efforts for a low impact project are exhausted. Time is of the essence in meeting the CDO and the Pure Water Monterey Expansion will produce water sooner and with much lower cost than the proposed desal. Please do not extend the deadline for public comments on the DSEIR.

GG-1
Cont.

Respectfully,

Howard Fosler, President
PO Box 1995
Monterey, CA 93942

Comment Document GG: Howard Fosler, League of Women Voters

GG-1 See Master Response #1: Comments on Public Review Period Extension.

Chayito Ibarra

From: jhparise@aol.com
Sent: Tuesday, December 17, 2019 3:41 PM
To: Chayito Ibarra
Subject: Extending the Dec 23rd date...

I strongly oppose such a decision. This has little to do with this being the holidays, but rather a Cal Am political move on all accounts. HH-1

Comment Document HH: jhparise@aol.com

HH-1 See Master Response #1: Comments on Public Review Period Extension.

Rachel Gaudoin

From: Chayito Ibarra
Sent: Tuesday, December 17, 2019 12:20 PM
To: Rachel Gaudoin; Mike McCullough
Cc: Paul Sciuto
Subject: FW: Oppose extension for SEIR

From: stefani@pronunciationinaction.com <stefani@pronunciationinaction.com>
Sent: Tuesday, December 17, 2019 12:15 PM
To: Paul Sciuto <Paul@my1water.org>
Subject: Oppose extension for SEIR

Dear Mr. Scuito,
As a resident of Seaside, I am writing to oppose the requests for an extension of the public review period for the Pure Water Monterey Expansion draft SEIR. The public review period Nov. 7–Dec. 23, 2019 is ample. This is subsequent EIR for a previously approved project that has already undergone a full EIR process. II-1

Thank you,
Stefani Mistretta
1287 Sonoma Ave
Seaside CA 93955

Comment Document II: Stefani Mistretta

II-1 See Master Response #1: Comments on Public Review Period Extension.

Rachel Gaudoin

From: Rachel Gaudoin
Sent: Monday, January 13, 2020 4:16 PM
To: Rachel Gaudoin
Subject: RE: re:DSEIR

From: tbharris146@aol.com <tbharris146@aol.com>
Sent: Tuesday, December 17, 2019 10:02 AM
To: Chayito Ibarra <Chayito@my1water.org>
Subject: re:DSEIR

Monterey One Water

Chair Stefani, Monterey One Water Board of Directors and Manager Paul Sciuto
I am requesting that the M1W Board NOT extend the deadline for comments on the Pure Water Monterey Expansion SEIR.

JJ-1

If Congress can go ahead with it's important work during a holiday season, then so can WRA andCal Am. The extension is unwarranted. The Final SEIR
must be ready for the Coastal Commission meeting in March.

Please don't let Cal Am maneuver you for their benefit.

Tamara Harris
10175 Sunstar Rd.
Monterey CA 93940

Comment Document JJ: Tamara Harris

JJ-1 See Master Response #1: Comments on Public Review Period Extension.

Chayito Ibarra

From: Timothy Sanders <tds@oxy.edu>
Sent: Tuesday, December 17, 2019 3:59 PM
To: Chayito Ibarra
Cc: Melodie Chrislock
Subject: Opposition to DSEIR review period postponement

Monterey One Water
5 Harris Court, Bld. D
Monterey, CA. 93940

December 17, 2019

Chair Stefani, Monterey One Water Board of Directors
Manager Paul Sciuto:

Re:
Opposition to extension of public review period for the *Draft Supplement EIR (DSEIR) for Monterey One Water (M1W) expansion project*

No extension of the public review period for the M1W DSEIR should be allowed.

No substantive basis exists for such a delay in the environmental review process for this project, which is an expansion of a previously approved project in the same and similar location locations. To extend the review period would **violate the public's entitlement in CEQA to a prompt review** (not more than 60 days) **and to freedom from unwarranted delay** (CEQA Guidelines 15105 (a), 15003 (j) respectively).

The expanded M1W project is **a critical part of the public's effort to secure sustainable potable water** for the Peninsula population as soon as possible, to meet pressing practical and legal deadlines. **Avoiding delay is especially important now** because of the Cease and Desist Order limiting availability to the Peninsula of Carmel River water, and more immediately because of the need to inform the Coastal Commission's upcoming decision on permitting, or not, the proposed Cal Am desalination project. KK-1

The general public has been under the same pressure for completing its reviews of the DSEIR as have been those requesting a delay; they have been faced with the same holiday schedules, yet have given the DSEIR review sufficiently high priority, and have accordingly adjusted their schedules, to meet the existing specified deadline. In the absence of any substantive grounds for delay, **their diligence and effort to meet priorities should not be penalized**; further delay would **risk missing critically important subsequent deadlines** in securing a sustainable water supply to meet the pressing needs the Peninsula.

Clearly granting the delay would violate CEQA Guidelines and would **jeopardize timely pursuit of necessary public resources**; no postponement of the end of the public review period is justified on any factual basis. **Please, therefore, do not allow any further delay in the relevant CEQA process.** Keep the previously published schedule for public review.

Thank you for attending to this request.

Respectfully,

Timothy D. Sanders
25075 Pine Hills Dr.
Carmel,CA 93923

Comment Document KK: Timothy Sanders

KK-1 See Master Response #1: Comments on Public Review Period Extension.

Chayito Ibarra

From: mcopperma@com <mcopperma@aol.com>
Sent: Wednesday, December 18, 2019 11:18 AM
To: Chayito Ibarra
Subject: Opposition to reshedule of DSEIR review/approval date of 23 Dec 2019

Dear Ms. Chayito,

Please transmit my opposition to any reschedule of the DSEIR review/approval/publication date of 23 Dec 2019 to the M1W chair, committee members and staff, with copy to the MPWMD chair, members and staff.

The reason for my opposition is that the public has a right to a timely, namely, 23 Dec 2019, approval and publication of the SEIR due to the critical nature of its importance to providing the back-up plan to the MPWSP desal portion that will ensure the State CDO will be met, and that a water supply will be available to meet the water needs of the public the M1W/PWM expansion can provide. It is unwise, and indeed perilous, to do otherwise.

There is no certainty that the CalAm desal project will proceed in a timely manner, if at all, due to the many obstacles it must overcome. By contrast, the PWM expansion can be ready to satisfy both the CDO and the public water supply demands. If you fail to publish the SEIR as scheduled, there is the risk that a future publication will not reach the California Coastal Commission in time to be part of its deliberations on the desal permit applications. The California Coastal Commission has a right and a requirement to review all pertinent information in its decision calculus. A failure to provide the SEIR could be perceived as sabotaging the PWM expansion as the backup to the desal project, which in turn, would cast a negative light on CalAm. LL-1

Any rescheduling of the SEIR publication date could cause another delay in that decision, thereby certainly making satisfying the CDO mandate deadline an impossibility because neither the desal project nor its back-up would be available in time.

This is a risk none of us can afford. I urge you to respect the plan in place and proceed with the 23 Dec 2019 SEIR scheduled publication date. It is clearly in the public interest and an issue that should not under any circumstances be politically weaponized against the public good.

Very respectfully,

Margaret-Anne Coppernoll, Ph.D.

Comment Document LL: Margaret-Anne Coppernoll

LL-1 See Master Response #1: Comments on Public Review Period Extension.

Chayito Ibarra

From: Mark Watson <marquis51@icloud.com>
Sent: Wednesday, December 18, 2019 10:56 AM
To: Chayito Ibarra
Subject: unwarranted extension of DSEIR

Chair 1 Stefani, and Monterey One Water Board of Director's and manager Paul Sciuto,

Please do not extend the comment deadline for the Pure Water Monterey Expansion DSIR. This SEIR is based on one Already approved by the Monterey County Water Resources Agency for Pure Water Monterey Phase 1 . MCWRA has the staff resources and knowledge to respond within the deadline. Favoring a request for delay is costly and in conflict with the public's interest for expeditious decision making.
The public and the Coastal Commission are entitled to timely review of this important alternative to the desalination project. THE REQUEST FOR AN EXTENSION SHOULD BE DENIED? Respectfully, Mark Watson and Katalin Markus
Residents of the city of Monterey (and rate payers)

MM-1

Sent from my iPad

Comment Document MM: Mark Watson and Katalin Markus

MM-1 See Master Response #1: Comments on Public Review Period Extension.

Chayito Ibarra

From: Tammy Jennings <4tlj1959@att.net>
Sent: Wednesday, December 18, 2019 11:43 AM
To: Chayito Ibarra
Subject: Please do not extend the comment deadline for the Pure Water Monterey Expansion DSEIR

Monterey One Water
5 Harris Court, Bldg. D
Monterey, CA 93940

Chair Stefani, Monterey One Water Board of Directors and manager Paul Sciuto,

Please do not extend the comment deadline for the Pure Water Monterey Expansion DSEIR. An extension is unwarranted. NN-1

I cannot make today's meeting, but wanted to make sure you were aware of my belief.

Thank you.

Sincerely,

Tammy Jennings
423 Dela Vina Avenue
Monterey, CA 93940

Comment Document NN: Tammy Jennings

NN-1 See Master Response #1: Comments on Public Review Period Extension.

Chayito Ibarra

From: bdmoore100@aol.com
Sent: Thursday, December 19, 2019 2:09 PM
To: Chayito Ibarra
Subject: opposition to extending comment period on DSEIR

Chairman Stefani and Board Members;

I urge you not to extend the comment period on the DSEIR. I am a Monterey homeowner, taxpayer and voter. I spoke in opposition at the meeting where the board considered delaying the publication of the report so it would not be available for the California Coastal Commission to review prior to its last meeting. I am also opposed to the current proposal to extend the comment period on the DSEIR. I have not heard any valid reason for doing so, and I think the CCC should have access to the report. OO-1

Thank you in advance for your consideration of my views. I again urge you not to approve this proposal.

Barbara Moore

Comment Document OO: Barbara Moore

OO-1 See Master Response #1: Comments on Public Review Period Extension.

The following people called in opposition of extending the public review period for the Draft SEIR. The could not attend the meeting and wanted their names to be read out loud at the meeting to state their opposition to extending the public review comment period.

Date	Name	City of Residence
December 17, 2019	Nancy Selfridge	
December 17, 2019	Kim Jennings	Monterey
December 17, 2019	Stephanie Mistretta	Seaside
December 17, 2019	Carol Erikson	Mid-Carmel Valley
December 18, 2019	Mark Watson	Monterey

PP-1

No calls were received in support of extending the public review period for the Draft SEIR.

Comment Document PP: Phone Calls Opposing Public Review Period Extension

PP-1 See Master Response #1: Comments on Public Review Period Extension.

Chayito Ibarra

From: Renee Franken <rbfranken@aol.com>
Sent: Thursday, December 19, 2019 2:15 PM
To: Chayito Ibarra
Subject: DSEIR proposal on your agenda

Chairman Stefani and Board Members;

I urge you not to extend the comment period on the DSEIR. I am a Monterey homeowner, taxpayer and voter. I came to speak in opposition at the meeting where the board considered delaying the publication of the report so it would not be available for the California Coastal Commission (CCC) to review prior to its last meeting. I am also opposed to the current proposal to extend the comment period on the DSEIR. I have not heard any valid reason for doing so, and I think the CCC should have access to the report.

QQ-1

I urge the board to avoid appearing to favor Cal-Am and its positions in all matters relating to public water and desal plant proposals. As individuals, you may hold whatever views you wish. But as board members, you have an official role that should serve the entire community's interest. It makes no sense to withhold information from the CCC and that is what the item on your agenda would do. Please don't.

Thank you in advance for your consideration of my views. I again urge you not to approve this proposal.

Comment Document QQ: Renee Franken

QQ-1 See Master Response #1: Comments on Public Review Period Extension.

Chayito Ibarra

From: Tina Walsh <tinainmarina@redshift.com>
Sent: Thursday, December 19, 2019 1:44 PM
To: Chayito Ibarra
Subject: Directors, please do not extend the comment period for the Pure Water Monterey Expansion DSEIR

Monterey One Water
5 Harris Court, Bldg D
Monterey, CA 93940
Email: Clerk of the Board Chayito@my1water.org

Chair Stefani, Monterey One Water Board of Directors and manager Paul Sciuto:

Please do not extend the comment deadline for the Pure Water Monterey Expansion DSEIR. An extension is unwarranted.

Three short months ago the Pure Water Monterey project was lauded at its ribbon-cutting ceremony as a regional and even national model by the multi levels of political representatives in attendance.

The US EPA praised the cooperation and partnership and the US Bureau of Reclaimation offered possibilities of access to millions of federal funding.

RR-1

So why now would the board of directors of Monterey One Water, the agency who strives to provide innovative utilization of waste water, (not ocean water) want to delay its own expansion?
No specific technical issues have been raised in the request to delay so it appears yet another attempt to thwart the CA. Coastal Commission's staff recommended denial of the Cal-Am request for a coastal development permit is being deployed.

The request for delay comes from the small subset of our community who stand to prosper from Cal-Am's plan to erect an uninvited well field on the environmentally sensitive habitats of Marina's beach.

Tina Walsh
Marina resident

Sent from Mail for Windows 10

Comment Document RR: Tina Walsh

RR-1 See Master Response #1: Comments on Public Review Period Extension.

December 23, 2019

Monterey One Water - in care of Chayito Ibarra chayito@my1water.org
5 Harris Court, Bldg. D
Monterey, CA 93940

To: Chair Ron Stefani, Members of the Monterey One Water Board of Directors, and Manager Paul Sciuto,

Thank you for your work on the Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project (DSEIR), also known as SEIR for the Pure Water Monterey Expansion (PWM Expansion).

Given Cal Am's long history of difficulties with previous projects, the PWM Expansion is very likely to be a vital source of water for the Monterey Peninsula. I hope it will be developed as quickly as possible in order to meet the December 31, 2021 deadline to stop over pumping the Carmel River. Monterey Peninsula water ratepayers need this important addition to our water supply. SS-1

It was good to see that the DSEIR examined all aspects of possible environmental impacts, and now shows that mitigations can be implemented so that there will be not be any significant environmental impacts from the PWM Expansion. SS-2

It would be helpful if there was additional clarification concerning matters discussed in section 2.6.1 and appendices B and C. In case there are efforts to delay or even derail the project by interfering with or denying source water to which Monterey One Water has legal rights, please work diligently to reach agreements and to establish and protect Monterey One Water's rights to adequate water for the PWM Expansion so that the project can proceed. SS-3

We need an on-time PWM Expansion to deliver the water needed to meet the CDO, lift the moratorium, and lift restrictions on building permits. SS-4

As board members and staff of Monterey One Water, you can be proud of your work on this careful DSEIR. You are doing very beneficial work to plan for the PWM Expansion as an affordable, sustainable, and economically just source of water for all members of the public. Please complete the full SEIR and proceed to build the project as soon as possible. SS-5

With sincere thanks and best wishes for the holidays,

Marli Melton

Marli Melton, Carmel Valley

Comment Document SS: Marli Melton

SS-1 This comment expressing support for the Proposed Modifications is referred to decision-makers for their consideration. No response is required.

SS-2 No response is required.

SS-3 See Master Response #3: Comments on Water Supply and Source Water Availability.

SS-4 This comment expressing support for the Proposed Modifications is referred to decision-makers for their consideration. No response is required.

SS-5 This comment expressing support for the Proposed Modifications is referred to decision-makers for their consideration. No response is required.

January 22, 2020

Rachel Gaudoin
Monterey One Water
5 Harris Ct., Bldg. D
Monterey, CA 93940

Subject: Comments regarding the Draft Supplemental EIR

To Whom it May Concern:

I appreciate the opportunity to be able to submit comments regarding the proposed Draft Supplemental Environmental Impact Report. As a rural well user and as someone whose livelihood depends on agriculture, I have a major concern with the Draft Supplemental EIR.

In the section regarding source waters it states that the modifications will result in 700-800 AFY less water to be available for agricultural irrigation. That is upsetting to see since that recycled water has helped reduce pumping in the northern part of our county and it helps us address the issue of sea-water intrusion in the Salinas Valley Basin. In addition, with the passage of California's Sustainable Groundwater Management Act, we are mandated to make our basin sustainable and currently one of the subbasins of the greater Salinas Valley Basin (180/400) is considered by the state as critically overdrafted. The thought of making less recycled water available for use in the Salinas Valley Basin seems absurd. TT-1

I know the Draft Supplemental EIR states that the increased water they propose to make available will only serve as backup IF CalAm's desalination project is further delayed, and that it's not meant to be a replacement water source, but in seeing the little support that the peninsula has for desalination, it seems as though it's guaranteed that the project continues to be delayed. I wonder if it is even appropriate to use your agency as a way to secure water for CalAm when really, they and their rate payers should be finding solutions for their water needs. I worry that opening up Salinas Valley water, even if it's recycled will result in less water being available for those of us who live in the valley and depend on our groundwater not just for our families but for our jobs as well. TT-2

Thank you for taking the time to review and consider my comments. If you have any questions regarding what I have outlined in this letter feel free to call me at 831-809-7077.

Respectfully,

Jazmin Lopez

Comment Document TT: Jazmin Lopez

TT-1 See responses to comments B-2, H-9 and AA-9 and Master Response #3: Comments on Water Supply and Source Water Availability. See also **Chapter 5, Changes to the Draft SEIR,** detailing changes to page 4.18-13.

TT-2 See Master Response #3: Comments on Water Supply and Source Water Availability.

January 22, 2020

Rachel Gaudoin
Monterey One Water
5 Harris Ct., Bldg. D
Monterey, CA 93940

Subject: Comments regarding the Draft Supplemental EIR

To Whom it May Concern:

First, I would like to express my gratitude to your agency for extending the Public Review Period as we were unaware of the first comment period that opened last November. We appreciate the opportunity to be able to submit comments regarding what is proposed in the Draft Supplemental Environmental Impact Report.

As currently proposed, I cannot support the Draft Supplemental EIR due to two major concerns.

1. Reducing available water for Agricultural Use
    a. It was very disappointing to see that these modifications would results in 700-800 AFY less water to be available for agricultural irrigation. Due to new regulatory pressures of California's Sustainable Groundwater Management Act, we in the Salinas Valley groundwater basin have been tasked with ensuring basin sustainability by 2040. With the 180/400 Foot Aquifer being identified as a critically overdrafted subbasin, the thought of reducing available recycled water for farmers in north county so that the Peninsula and CalAm can have back-up water if their Desalination project is delayed, is concerning and upsetting. That recycled water results in less pumping, helps prevent sea-water intrusion, and is very important to our basin. UU-1

2. Unclear on how source waters will increase.
    a. It is also stated in the proposed EIR that source waters will increase, yet it is unclear how exactly. I feel that it is important to know where the additional water is coming from. The proposed EIR states that purified recycled water will be increased by 2,250 AFY. But then in the source waters section it states that municipal wastewater flows have declined in recent years, so is the expectation that you will get more water from Salinas Agricultural Wash Water? Because the other listed sources, stormwater and surface water, are extremely variable depending on weather and irrigation practices. I would like to see this section clarified. I also find it concerning that water originating from the Salinas Valley Basin (regardless if it's recycled) is leaving our basin. Doesn't seem right for that to happen when we are currently creating a plan to achieve basin sustainability and well water users may be asked to reduce their pumping. UU-2

Thank you for taking the time to review and take my comments into consideration. If you have any questions regarding what I have outlined in this letter feel free to call our office at any time, 831-675-7500.

Respectfully,

Mark Pisoni
Farmer
Pisoni Farms

Comment Document UU: Mark Pisoni, Pisoni Farms

UU-1 See responses to comments B-2, H-9 and AA-9 and Master Response #3: Comments on Water Supply and Source Water Availability. See also **Chapter 5, Changes to the Draft SEIR,** detailing changes to page 4.18-13.

UU-2 See Master Response #3: Comments on Water Supply and Source Water Availability.

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LATHAM & WATKINS LLP

January 30, 2020

VIA EMAIL & HAND DELIVERY

Rachel Gaudoin, Public Outreach Coordinator
Monterey One Water
5 Harris Court, Building D
Monterey, CA 93940
purewatermontereyinfo@my1water.org

Re: Comments on the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project, Draft Supplemental Environmental Impact Report (Draft SEIR)

Dear Ms. Gaudoin:

On behalf of California-American Water Company ("Cal-Am"), we appreciate the opportunity to provide written comments on the Draft SEIR for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project ("PWM Expansion Project") prepared by Monterey One Water ("M1W"). As you know, Cal-Am has developed and is in the permitting process for the Monterey Peninsula Water Supply Project ("MPWSP"), and M1W and its Board of Directors previously have described the PWM Expansion Project as a "back-up" to the MPWSP. (See, e.g., Draft SEIR, p. S-1.) As such, the PWM Expansion Project is of particular interest to Cal-Am, given its potential implications for water supply issues affecting the Monterey Peninsula and Cal-Am's customers. VV-1

Unfortunately, the Draft SEIR released for public review on November 7, 2019, appears to be inadequate in several material respects and fails to cover thoroughly all the issues that M1W must consider and analyze under the California Environmental Quality Act. The Draft SEIR is missing crucial data and analysis for the impacts that may occur if the PWM Expansion Project and the MPWSP go forward together, as cumulative projects. The Draft SEIR also fails to analyze the PWM Expansion Project as an actual alternative to the MPWSP, as has been suggested by certain resource agencies and MPWSP project opponents, as well as by the General Manager of the Monterey Peninsula Water Management District ("MPWMD"), a partner agency with M1W on the PWM Expansion Project. Cal-Am is submitting the attached comments in an effort to resolve these significant gaps, along with other issues we have identified in the attachment.

Further, the Draft SEIR relies on "updated water demand estimates" prepared by Dave Stoldt, General Manager of the MPWMD ("Stoldt Memo"), which are based on inaccurate VV-2

assumptions about water supplies and demands. As described in the attached peer review of the Stoldt Memo conducted by Hazen and Sawyer, the Stoldt Memo fails to provide evidentiary support for its supply and demand conclusions and is flawed for several reasons.

- MPWMD staff's methodology does not meet Health and Safety Code requirements for water supply reliability or Code of Regulations requirements for estimating water demand based on the highest 10-year maximum daily demand.
- MPWMD staff identifies a projected 2020 demand based on a 5-year average, rather than the required 10-year maximum daily demand, thereby underestimating demand.
- MPWMD staff assume continued implementation of tiered water rates, conservation restrictions, and water use reductions to justify lower demand projections. These measures, if continued, could harm the regional economy and quality of life on the Monterey Peninsula.
- MPWMD staff's supply projection assumes that each water supply source included in its analysis is available at all times at maximum capacity. Staff does not account for potential shortfall that would occur if one or more sources are reduced or off-line for extended periods of time.

VV-2 Cont.

The Draft SEIR's reliance on Mr. Stoldt's flawed memorandum cannot constitute substantial evidence in support of the Draft SEIR's conclusions. Thus, the Draft SEIR must be revised and recirculated so that it does not rely on the flawed Stoldt Memo and its analysis of water supply and demand on the Peninsula.

Cal-Am appreciates M1W's careful consideration of this comment letter and the issues we have raised. Water supply is one of the most critical issues facing the Monterey Peninsula, and it is therefore essential that M1W thoroughly analyze all potential environmental issues that are implicated by the PWM Expansion Project so that a safe, reliable and drought-proof water supply can be developed for the Peninsula. We would be pleased to respond to questions and engage further with M1W staff regarding the PWM Expansion Project.

Very truly yours,

Duncan Joseph Moore
of LATHAM & WATKINS LLP

Attachments

cc: Rich Svindland, California-American Water Company
Ian Crooks, California-American Water Company
Kathryn Horning, Esq., California-American Water Company
Tony Lombardo, Esq., Lombardo & Associates

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CALIFORNIA-AMERICAN WATER COMPANY
COMMENTS ON THE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT FOR THE PWM EXPANSION PROJECT

I. FAILURE TO ANALYZE THE MPWSP AS A CUMULATIVE PROJECT OR ALTERNATIVE

The Draft Supplemental Environmental Impact Report ("SEIR") repeatedly describes the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project ("PWM Expansion Project") as "a backup to California American Water (CalAm's) Monterey Peninsula Water Supply Project (MPWSP)." (See, e.g., Draft SEIR, pp. S-1, 2-1.) However, the SEIR does not consider the cumulative impacts of both the PWM Expansion Project and the MPWSP being implemented either concurrently or in short succession. In contrast, if it is not Monterey One Water's ("M1W") intent to develop the PWM Expansion Project as an additional back-up supply to the MPWSP, then the SEIR should analyze the MPWSP as an alternative to the PWM Expansion Project, which it does not currently do. Therefore, and in order to provide a conservative analysis of all potential environmental implications of the PWM Expansion Project, the MPWSP should be analyzed as both a cumulative project and as an alternative throughout the SEIR.

VV-3

The CEQA Guidelines define cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (Cal. Code Regs., tit. 14 ("CEQA Guidelines"), § 15355.) Cumulative impacts may result from individually minor but collectively significant projects taking place over a period of time. (*Id*., § 15355, subd. (b).) An EIR's evaluation of cumulative impacts may be based on a list of past, present, and probable future projects producing related impacts. (*Id*., § 15130, subd. (b)(1)(A).)

Here, the Draft SEIR acknowledges that Cal-Am is processing approvals for the MPWSP and intends to move forward with its construction and operation. Therefore, the MPWSP constitutes a probable future project that should be assessed in the Draft SEIR's cumulative impact analyses. This would be consistent with the approach utilized in the Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project ("PWM Project"), which analyzed the MPWSP as a cumulative project. (See Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project ("PWM Project Final EIR"), p. 4.1-10.) As written, the SEIR is inconsistent with the prior environmental analysis and must be updated to treat the MPWSP consistently as a cumulative project.

In addition, the Draft SEIR should have analyzed the MPWSP as an alternative to the PWM Expansion Project. As described in detail in the technical memorandum from Dudek ("Dudek Memo"), attached hereto as **Exhibit A**, despite statements in the Draft SEIR indicating that the PWM Expansion Project would be implemented only if the MPWSP "encounters obstacles that prevent its timely, feasible implementation to satisfy the requirements [State Water Resources Control Board ("SWRCB")] orders [sic] related to unauthorized diversions from the Carmel River system" (Draft SEIR, p. 1-3; see also M1W Board Resolution 2019-19), those statements are not consistent with the analytic approach taken in several areas of the Draft SEIR.

VV-4

Specifically, substantial evidence in the Draft SEIR reveals that the PWM Expansion Project's sponsors intend that it serve as an alternative to or a replacement of the MPWSP and not as a true back-up to the MPWSP in the event the MPWSP is delayed. For example, as noted in the Dudek Memo, Table 5-1 of the Draft SEIR compares available water supplies under ***either*** the PWM Expansion Project or the MPWSP, effectively treating the two projects as alternatives to each other. As such, the Draft SEIR should have analyzed the MPWSP as an alternative to achieve Peninsula water demands. (See CEQA Guidelines, § 15126.6, subd. (a) [EIR should describe a range of alternatives to meet basic project objectives]; see also *Habitat & Watershed Caretakers v. City of Santa Cruz* (2012) 211 Cal.App.4th 429, 451 [finding that EIR's omission of a project purpose from the statement of project objectives created an inadequate alternatives analysis].) In doing so, the Draft SEIR should have studied in detail both the PWM Expansion Project's and the MPWSP's ability to meet projected demand and satisfy the SWRCB's Cease and Desist Order ("CDO"). (See Section IV.B *infra*.) VV-4 Cont.

By taking an inconsistent approach in describing the relationship between the PWM Expansion Project and the MPWSP, the Draft SEIR has failed to provide a consistent project description, and thus has failed to provide the necessary environmental analysis throughout. Accordingly, the Draft SEIR fails as an information document under CEQA. (See, e.g., *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376 [EIR failed to describe or analyze project accurately, resulting in inadequate impact analyses].)

II. PROJECT DESCRIPTION

A. Introduction

The Draft SEIR states that the PWM Expansion Project is intended to be a "stop-gap" to provide new water supplies in the event that the MPWSP becomes delayed. (Draft SEIR, p. 1-3.) But subsequent to the release of the Draft SEIR, M1W announced further delays in the completion and operation of the already approved PWM Project.[1] The Final SEIR should assess the impacts that those delays may have on the PWM Expansion Project, and evaluate how those delays affect the PWM Expansion Project's ability to meet stated Project Objectives. VV-5

In addition, the Draft SEIR states that certain components of the PWM Project, such as the brine mixing structure and modifications to the Salinas Valley Reclamation Plant to improve delivery of recycled water to agricultural users have not been funded to date. (Draft SEIR, p. 2-7.) The SEIR should be revised to explain how these components affect or are affected by the PWM Expansion Project, and whether they are necessary for successful Project implementation. In addition, the SEIR should assess the potential agricultural impacts that would occur if these components remain unfunded. VV-6

[1] See Monterey Herald, "Pure Water Monterey finishes key water tests, delivery date delayed again" (Jan. 10, 2020), available at https://www.montereyherald.com/2020/01/10/pure-water-monterey-finishes-key-water-tests-delivery-date-delayed-again/, attached hereto as **Exhibit G**.

B. Project Background

1. The Draft SEIR Improperly Relies on a Flawed Water Supply and Demand Memorandum

The SEIR states that the PWM Expansion Project is "designed to provide the replacement water CalAm needs to comply with the Cease and Desist Order and with the Seaside Groundwater Basin Adjudication." (Draft SEIR, p. 2-8.) In doing so, the SEIR relies on "updated water demand estimates" prepared by Dave Stoldt, General Manager of the Monterey Peninsula Water Management District ("MPWMD") ("Stoldt Memo"), which are based on inaccurate assumptions about water supplies and demands. (See **Exhibits B-D** [Letters from Cal-Am, Coalition of Peninsula Businesses, and Pebble Beach Company pointing out flaws in the Stoldt Memo].) VV-7

Relying on the Stoldt Memo is wholly insufficient and improper, and renders the Draft SEIR inadequate as an informational document. As described in detail in Exhibits B through D, and in the attached peer review of the Stoldt Memo conducted by Hazen and Sawyer ("Hazen Memo"), attached hereto as **Exhibit E**, the Stoldt Memo fails to provide any evidentiary support for its conclusions regarding supply and demand. Specifically:

- The Stoldt Memo uses water supply and demand estimates that have been rejected by the California Public Utilities Commission ("CPUC"), the regulatory agency with exclusive jurisdiction to determine such issues for regulated utilities like Cal-Am. (See Pub. Util. Code, §§ 761, 1001; see also *Citizens Utilities Co. of Cal. v. Super. Ct.* (1976) 56 Cal.App.3d 399, 409 ["Questions of public convenience and necessity, and matters directly relating thereto, in connection with the operation of public utility franchises, are the concern of the commission."].) The CPUC determined that the Monterey Peninsula's future water demand will be approximately 14,000 acre-feet per year ("afy"), that current projected water supplies without the MPWSP are inadequate to meet that demand, and that public convenience and necessity require the MPWSP.[2] VV-7a

- The Stoldt Memo's methodology does not meet California Health and Safety Code requirements for water supply reliability or California Code of Regulations requirements for estimating water demand based on the highest 10-year maximum daily demand (Cal. Code Regs., tit. 22, § 64554). In addition, the Stoldt Memo's demand estimates fail to comply with CPUC General Order 103-A, which mandate how a public water utility's system demand must be calculated. VV-7b

[2] CPUC Decision ("D.") 18-09-017, p. 171, available at: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M229/K424/229424336.PDF.

- The projected 2020 demand identified in the Stoldt Memo is based on a 5-year average, rather than the required 10-year maximum daily demand. As a result, projected demand is underestimated. VV-7c

- The Stoldt Memo assumes continued implementation of tiered water rates, conservation restrictions, and water use reductions to justify lower demand projections. The Draft SEIR fails to identify this significant issue to the public and decisionmakers. This is a substantial omission, since continued water use restrictions on the Peninsula will keep area residents and businesses in water poverty, harming the regional economy and quality of life. VV-7d

- The Stoldt Memo's supply projection assumes that each water supply source included in its analysis is available at all times at maximum capacity. The Stoldt Memo does not account for potential shortfall that would occur if one or more sources are reduced or off-line for extended periods of time, which could create a significant supply deficit and result in the need for additional water diversions from the Carmel River. VV-7e

As a result, the Stoldt Memo is an unsubstantiated and unacceptable assessment of the demands of Cal-Am's Monterey District water system, and should be given no weight in the Draft SEIR. Instead, the Draft SEIR should have relied on the demand for Cal-Am's system as determined by the CPUC in Decision No. 18-09-017, which was based on evidence submitted under oath by multiple parties that was fully vetted by the CPUC in accordance with State law and CPUC policies.[3] As such, the Draft SEIR must be revised so that it does not rely on the flawed Stoldt Memo, particularly any analysis of supply and demand for water on the Monterey Peninsula that conflicts with the controlling CPUC-determined supply and demand. (*Citizens Utilities Company*, *supra*, 56 Cal.App.3d at p. 590 ["the jurisdiction to determine the adequacy of service actually being rendered by a public utility under its franchise is vested exclusively in the Commission when it has elected to determine whether the service is inadequate."]; see also VV-7f

[3] M1W participated in the CPUC's proceeding and was a Real Party in Interest in the Marina Coast Water District's and the City of Marina's petitions for writs of review to the California Supreme Court, both of which challenged the CPUC's supply and demand determinations. The California Supreme Court rejected the petitions for writ of review, and the CPUC's decision is now final. (See *PG&E Corp. v. Pub. Utilities Com.* (2004) 118 Cal.App.4th 1174, 1192 ["[A] denial of a petition for writ of review from a CPUC order acts as law of the case, precluding further litigation between the parties of the challenged CPUC order."]; *S. Cal. Edison Co. v. Pub. Utilities Com.* (2005) 128 Cal.App.4th 1, 7; *People v. W. Air Lines* (1954) 42 Cal.2d 621, 631.) As M1W participated in the CPUC proceedings and the writ proceedings before the California Supreme Court, it is now collaterally estopped from asserting arguments regarding supply and demand that were considered, and rejected, by both the CPUC and the California Supreme Court. (See *Pacific Lumber Co. v. State Water Resources Control Bd.* (2006) 37 Cal.4th 921, 944 ["We have recognized that '[c]ollateral estoppel may be applied to decisions made by administrative agencies.'"]; *Castillo v. City of Los Angeles* (2001) 92 Cal.App.4th 477, 481 ["Issue preclusion is not limited to barring relitigation of court findings. It also bars the relitigating of issues which were previously resolved in an administrative hearing by an agency acting in a judicial capacity."].)

City of Oakland v. Key System (1944) 64 Cal.App.2d 427, 435 [exclusive jurisdiction vested in CPUC to determine adequacy of service rendered by public utility].) VV-7f Cont.

Further, if the Draft SEIR continues to rely on the Stoldt Memo in any respect—which it should not—the SEIR must be revised to reflect that Mr. Stoldt has made substantive revisions subsequent to the release of the Draft SEIR to reflect additional water needed for regional growth and housing needs. (See December 17, 2019, MPWMD Water Demand Committee Agenda, attached hereto as **Exhibit F**.) As described in Exhibit E, Mr. Stoldt appears to have selectively utilized growth projections that are intended to achieve his desired outcome, and has ignored the higher growth and future water supply projections from individual cities in the MPWSP area. Further, the revisions to the Stoldt Memo's future demand projections underscore that Mr. Stoldt lacked evidentiary basis for his original "calculations," and instead relied on conjecture and speculation, which cannot constitute substantial evidence. (See CEQA Guidelines, § 15384, subd. (a) ["Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate . . . does not constitute substantial evidence."].) VV-7g

2. The Draft SEIR Does Not Fully Assess the PWM Expansion Project's Ability to Meet the Stated Project Objective of Satisfying the CDO

The Draft SEIR provides that a primary objective of the PWM Expansion Project is to "be capable of commencing operation, or of being substantially complete, by the end of 2021 or as necessary to meet CalAm's replacement water needs." (Draft SEIR, p. 2-9.) However, the Draft SEIR does not assess several issues that affect the PWM Expansion Project's ability to meet this stated objective. VV-8

First, as described in detail in Exhibit B and above, the CPUC, which is the State agency vested with the authority to make utility system sizing determinations (Pub. Util. Code, §§ 761, 1001), has determined that Cal-Am's replacement water needs are 14,000 acre-feet per year. (See D.18-09-017, p. 171.) The Draft SEIR does not assess the PWM Expansion Project's ability to meet this identified need. Accordingly, the SEIR should be revised to address the CPUC's evaluation of supply and demand. VV-8a

Second, delays in the implementation of the PWM Project call into question the ability of PWM Expansion Project to meet the CDO's deadlines. (See Ex. G.) The SEIR should be revised to address the recent delays of implementation of the PWM Project, and how those delays affect the ability of the PWM Expansion Project to meet projected demand and comply with the SWRCB's CDO. VV-8b

Third, the Draft SEIR discloses that some federal permits will be required for the PWM Expansion Project. (Draft SEIR, p. 2-33.) Issuance of these permits will require review under the National Environmental Policy Act. The timeline for federal permitting should be addressed in the SEIR's assessment of the PWM Expansion Project's ability to meet the CDO's deadlines.[4] VV-8c

[4] For example, the Draft SEIR does not fully assess the Proposed Modifications' potential impacts to the Fort Ord National Monument or whether any approvals would be required from the National Parks

C. The PWM Expansion Project

The Draft SEIR's description of the PWM Expansion Project is unclear in several respects. Specific areas where further detail and analysis are necessary are identified below.

Availability of Water for Agricultural Irrigation. The SEIR explains that, under the PWM Expansion Project, there would be 700 to 800 afy less water available for agricultural irrigation than under the approved PWM Project. (Draft SEIR, pp. 2-11 to 2-12.) The SEIR should be revised to address the potential impacts of this more than 16% reduction in available agricultural irrigation water. For example, would more dust be generated because less areas would be irrigated, or would be irrigated less frequently? Would fields lay fallow more frequently, or be taken out of agricultural use due to the reduction of available water? All potential impacts to agricultural resources should be assessed in light of these changed assumptions. As described in Exhibit A, at a minimum, the SEIR should analyze the reduction in agricultural water supplies and explain why reducing those supplies by more than 16% are not significant. VV-9

Reduction in Wastewater Discharge. The Draft SEIR explains that, under the PWM Expansion Project, less municipal wastewater would be discharged through the ocean outfall. (Draft SEIR, p. 2-11.) The SEIR should be updated to assess how this reduction in wastewater discharge would affect operations of the MPWSP in a cumulative project scenario, particularly in the context of ocean water quality. VV-10

Amended and Restated Water Recycling Agreement Conditions Precedent. The Draft SEIR assumes that certain conditions precedent in the Amended and Restated Water Recycling Agreement ("ARWRA") would be met prior to commencement of operation of the PWM Expansion Project. (Draft SEIR, p. 2-14.) One of the objectives of the Project is to "be capable of commencing operation, or of being substantially complete, by the end of 2021 or as necessary to meet CalAm's replacement water needs." (*Id*. at p. 2-9). However, as discussed in the Dudek Memo, there is no analysis of impacts related to the Project's ability to achieve this objective or the Project objective of complying with the CDO by December 31, 2021. (Ex. A, pp. 9-10.) This lack of analysis is particularly problematic because the PWM Expansion Project is being considered by government agencies as an alternative to the MPWSP. (*Ibid.*) There is a further concern that the conditions identified in the ARWRA, "some of which are outside of the control of the parties to the Agreement, may not be met in a timely fashion." (*Id*. at p. 9.) The Draft SEIR acknowledges that certain conditions must be met in order for full rights to the various water sources to be secured. (*Ibid.*) In light of this uncertainty, the Draft SEIR must consider project alternatives that can reasonably achieve the PWM Expansion Project's primary VV-11

Service. The Draft SEIR states that "the monument area is currently not open to the public for recreational use due to the presence of military munitions and clean-up activities occurring on an ongoing basis." (Draft SEIR, p. 4.2-10.) To the contrary, while a portion of the Monument is closed to the public, a large portion of the Monument is actually open and accessible to the public. (See Fort Ord National Monument Trail Map, available at https://www.blm.gov/documents/california/public-room/map/fort-ord-national-monument-trail-map.) The SEIR should be revised to fully assess potential impacts to the Fort Ord National Monument, including visual impacts, and to disclose any required federal approvals. VV-8c Cont.

objectives, including the MPWSP. (*Ibid.*) Accordingly, the Draft SEIR should assess the likely time period that would be required to meet the conditions precedent and evaluate the reliability the Project's source water if the conditions precedent are not met. (*Id*. at pp. 9-10.)

VV-11 Cont.

VV-12

III. ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

A. Air Quality and Greenhouse Gas

The Draft SEIR materially underestimates air quality emissions due to both flawed air modeling and mistaken assumptions. Further, the air quality analysis contains numerous internal discrepancies that undermine the Draft SEIR's determinations of less than significant impacts. Due to these flaws, the Draft SEIR does not adequately assess or disclose the PWM Expansion Project's potential air quality impacts for the public and decisionmakers. (See also Ex. A, pp. 11-13 [identifying deficiencies in the Draft SEIR's air quality analysis].)

VV-13

1. Failure to Use CalEEMod Conceals Analysis from Public

The Draft SEIR fails to utilize the California Emissions Estimator Model ("CalEEMod"). Instead, the Draft SEIR uses a "spreadsheet analysis" based on the flawed opinion of an air quality consultant (Illingworth and Rodkin) that use of CalEEMod "was inappropriate since the model does not predict fugitive emissions from trenching/pipeline construction and well drilling." (Draft SEIR, p. 4.3-4.) In contrast to the consultant's claims, use of CalEEMod is appropriate since CalEEMod inputs can be modified by the user to accommodate unique projects; moreover, emissions calculations for sources not covered by CalEEMod can be performed outside CalEEMod and later combined with CalEEMod outputs. Declining to utilize CalEEMod to perform the CEQA air quality analysis is a peculiar choice for a large development project, and it essentially precludes the public from cross-checking the analysis that is presented. The Draft SEIR's failure to utilize CalEEMod results in an opaque air quality analysis with the assumptions underlying the "spreadsheet analysis" hidden from both the public and decisionmakers.

VV-14

Use of CalEEMod to evaluate air quality impacts for a development like the PWM Expansion Project is critical given the Project's regional importance and the need for its impacts to be assessed by numerous government agencies and stakeholders. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas ("GHG") emissions associated with both construction and operations from a variety of land use projects. The model quantifies direct emissions from project construction and operation (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Further, the model identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user.

VV-15

CalEEMod was developed for the California Air Pollution Officers Association in collaboration with the California Air Districts. Default data (e.g., emission factors, trip lengths, meteorology, source inventory) have been provided by the various California Air Districts to

account for local requirements and conditions. The model is free of charge and is periodically updated when modifications are warranted. CalEEMod is a comprehensive tool for quantifying air quality impacts from land use projects located throughout California and expressly is intended for use in preparing CEQA documents.[5] Indeed, the Monterey Bay Air Resources District ("MBARD"), which has jurisdiction over the PWM Expansion Project, expressly recommends the use of CalEEMod for CEQA projects: "MBARD recommends using the CalEEMod software program to calculate project emissions."[6] Therefore, to correct the deficiency caused by use of a "spreadsheet analysis," the PWM Expansion Project's air pollution emissions must be recalculated and reported using the latest version of CalEEMod, as would be expected for such an infrastructure project with regional implications.

VV-15 Cont.

VV-16

2. Utilization of Outdated Emissions Model Underestimates Emissions

The Draft SEIR's air quality emissions estimates are based on the California Air Resources Board's Emission Factors Model ("EMFAC") 2014, which is an outdated on-road vehicle emissions model. The current version of the model, EMFAC2017, was officially released to the public on March 1, 2018, and approved by USEPA on August 15, 2019. Accordingly, EMFAC2017 was available during the development of both the air quality analysis in the Draft SEIR and Appendix F thereto (*Air Quality and Greenhouse Gas Emissions Impacts Technical Memorandum*, dated October 23, 2019).

VV-17

The Draft SEIR's utilization of an outdated model is important because EMFAC2017 contains numerous updates over EMFAC2014, in particular for heavy-duty ("HD") vehicle emission rates and idling emission factors, that results in higher particulate matter ("PM") emissions as compared to EMFAC2014.[7] Even though the latest version of CalEEMod uses mobile emission factors from EMFAC2014, California Air Resources Board ("CARB") staff routinely recommends in CEQA comment letters that projects' mobile air pollutant emissions be estimated using the latest version of EMFAC—here, EMFAC2017.[8] Since EMFAC2017 shows higher air pollutant emissions from HD vehicles than EMFAC2014, the PWM Expansion Project's mobile source nitrogen oxides ("NOx") and diesel PM ("DPM") emissions are underestimated as currently presented in the Draft SEIR. Indeed, the utilization of EMFAC2017 could lead to 2 to 2.5 times increase in PM and DPM emissions, a known carcinogen, and up to a

VV-18

[5] See generally California Air Pollution Control Officers Association, 2016. California Emissions Estimator Model (available at http://www.caleemod.com/).

[6] See https://www.mbard.org/ceqa (last visited Jan. 16, 2020).

[7] See California Air Resources Board, *EMFAC2017 – An Update to California On-Road Mobile Source Emission Inventory*, November 9, 2017 (available at https://ww3.arb.ca.gov/msei/downloads/emfac2017_workshop_11_09_2017_final.pdf).

[8] See Letter from CARB, Richard Boyd, Chief, Risk Reduction Branch, Transportation and Toxics Division to Carlos Rojas, Planner, Kern County Planning Department, dated December 20, 2019 (available at https://ww2.arb.ca.gov/resources/documents/california-environmental-quality-act-letters-freight-facilities).

70% increase in NOx emissions. The air pollution emissions disclosed in the Draft SEIR therefore must be recalculated and reported using EMFAC2017. VV-18 Cont.

3. Mistaken Assumptions Underestimate Emissions

The Draft SEIR contains mistaken assumptions about construction techniques, equipment, and vehicle usage that underestimate the PWM Expansion Project's emissions. The air pollution emissions disclosed in the Draft SEIR must be recalculated and reported using correct assumptions. VV-19

The Draft SEIR estimated fugitive dust, NOx, and DPM emissions (associated with equipment used to dig and refill trenches) on an assumed trench width of 6 feet. (Draft SEIR, p. 4.3-6.) However, the Draft SEIR elsewhere states that "trench widths may be up to 12 feet wide." (*Id*. at p. 2-21.) A 12-foot trench width must be used to provide worst-case daily emissions to properly assess the PWM Expansion Project against pertinent thresholds of significance, which are calibrated for worst-case scenarios. VV-20

Despite failing to use CalEEMod to calculate the PWM Expansion Project's emissions, the Draft SEIR nonetheless borrows default trip lengths from CalEEMod for all on-road vehicles. While CalEEMod's default trip lengths are intended to account for local requirements and conditions, they should not be used blindly and without verification. For example, the Draft SEIR uses the CalEEMod default 20-mile one-way trip distance for HD trucks. The trip distances in the Draft SEIR should be substantiated and the associated emissions should be recalculated. VV-21

4. Failure to Perform Health Risk Assessment Obscures Project Impacts on Public Health

The Draft SEIR failed to perform a Health Risk Assessment ("HRA") on the additions of extraction well ("EW") 1 and EW-2 to the PWM Expansion Project. Rather, the Draft SEIR improperly relies on the HRA previously completed by Cal-Am as part of the MPWSP Environmental Impact Report/Environmental Impact Statement ("EIR/EIS"). The Draft SEIR attempts to extrapolate the results of Cal-Am's HRA on EW-3 and EW-4 to EW-1 and EW-2, despite the latter pair's different location and proximity to sensitive receptors. (Draft SEIR, p. 4.3-13.) The Draft SEIR attempts to justify its conditional inference ("Therefore, those same conclusions from the CalAm Project could be applied to support the findings of a less-than-significant impact in terms of effects to sensitive receptors.") by asserting that EW-1 and EW-2 will be farther away from sensitive receptors than EW-3 and EW-4. (*Ibid.*) However, that assertion proves untrue upon closer inspection of the proposed locations of EW-1 and EW-2. VV-22

A HRA requires specific inputs in order to be a reliable estimate and disclosure of health impacts, such as: (1) accurate emissions estimates; (2) use of site-specific meteorological conditions to account for emissions dispersal that can differ substantially even over short distances (due to terrain, structures, etc.); and (3) precise locations of emissions sources and sensitive receptors. (See Ex. A, pp. 12-13 [discussing requirements for HRAs].) The air quality analysis in the Draft SEIR fails with regard to each of these inputs. VV-23

First, due to flaws in the Draft SEIR's emissions estimates detailed above, accurate emissions estimates do not yet exist for the PWM Expansion Project that could be used as inputs to a project-specific HRA. Notably, the flaws detailed above result in an underestimate of DPM, a known carcinogen, the impacts of which the Draft SEIR purports to find less-than-significant despite failing to conduct a HRA. (Draft SEIR, p. 4.3-13.) Second, the Draft SEIR makes an unsubstantiated assumption that the meteorological conditions in the vicinity of EW-1 and EW-2 will be identical to the meteorological conditions in the vicinity of EW-3 and EW-4. Third, and most importantly, the location of EW-1 and EW-2 are mischaracterized as being farther away from sensitive receptors than they actually would be. VV-24

Specifically, EW-1 and EW-2 would be located north of Seaside Middle School (a sensitive receptor). The Draft SEIR characterizes these new wells as "slightly over 500 feet from the nearest classrooms." (*Ibid.*) It continues by stating that "EW-1 and EW-2 would be much farther from Seaside Middle School receptors than EW-3 and EW-4 are from residential receptors where predictions of lifetime cancer risk were made." (*Ibid.*) However, EW-1 and EW-2 are immediately adjacent to Seaside Middle School's track and soccer field. The Draft SEIR's focus on distances to classrooms is disingenuous, especially considering the increased respiration of students when they use the track/soccer field. VV-25

As a result, a new HRA that is specific to the PWM Expansion Project and EW-1 and EW-2 must be conducted to inform the public and decisionmakers of potential health impacts. VV-26

5. Discrepancies Undermine Credibility of Air Quality Analysis

The Air Quality and Greenhouse Gas Section of the Draft SEIR is inconsistent with Appendix F (*Air Quality and Greenhouse Gas Emissions Impacts Technical Memorandum*, dated October 23, 2019), calling into question the reliability of the analysis. For example:

- The Section states that Max Daily PM10 emissions are 57.3 pounds per day. (Draft SEIR, p. 4.3-11.) The Technical Report states that Max Daily PM10 emissions are 64 pounds per day. (*Id*., Appx. F, p. 12.)

- The Section states that EW-3 and EW-4 would be 50 feet from residences. (Draft SEIR, p. 4.3-13.) The Technical Report states that EW-3 and EW-4 would be <100 feet from residences. (*Id*., Appx. F, p. 12, Table 4.) But the Technical Report also states in the main text that EW-3 and EW-4 "would be about 25 feet from residences…." (*Id*. at p. 12.)

- The Section states that the Cal-Am Conveyance Pipeline would be 100 feet from residences and 300 feet from schools. (Draft SEIR, p. 4.3-12, Table 4.3-7.) The Technical Report states that "CalAm Pipelines" are 50-100 feet from residences and schools. (*Id*., Appx. F, p. 12, Table 4.) VV-27

The Draft SEIR's air quality analysis fails to provide an adequate level of detail and explanatory text necessary for the public and decisionmakers to understand the assumptions underlying the VV-28

analysis, the accuracy of the emissions estimates, and the real world health impacts of those emissions. For example:

- Table 4.3-5 depicts the "Maximum Daily Construction Emissions by Proposed Modification" and Table 4.3-6 depicts the "Daily PM10 Pollutant Emissions." It would be logical for the daily PM10 emissions (on which the significance determinations are based) to equal the sum of the PM10 values in Table 4.3-5. However, these figures are not equal. Accordingly, it is unclear how these two tables are related in the Draft SEIR.

- It appears that the values in Table 4.3-6 were based on the values from the "Daily Air Pollutant Emissions" on the last page of Attachment 1 to Appendix F. However, this last page seems to be mislabeled because the values appear to be cover fugitive dust only. If the values indeed are limited to fugitive dust, then Table 4.3-6 excludes PM exhaust and hence underestimates "Daily PM10 Pollutant Emissions." VV-28 Cont.

- It is unclear why a trip length of 0.10 miles was assumed for on-road vehicles for the worst-case daily analysis in the "Daily Air Pollutant Emissions" page of Attachment 1 of Appendix F. Appendix F states that 0.10 miles related to unpaved roads, but it is unknown whether the much greater distance of on-road vehicle travel on paved roads and additional dust re-entrainment was properly considered.

The discrepancies identified herein should be remedied, emissions calculations corrected as necessary, and determinations of significance altered as appropriate and warranted. In the absence of addressing these details, the Draft SEIR fails to adequately analyze and disclose the PWM Expansion Project's air quality impacts. VV-29

B. Biological Resources: Fisheries

1. The SEIR Fails to Assess Impacts Associated With Continued Carmel River Withdrawals

Impact BF-3 states that the PWM Expansion Project "will result in reduction of diversions of water from the Carmel River which would have a beneficial impact on river flows and fishery habitat." (Draft SEIR, p. 4.4-6.) However, this statement assumes that the PWM Expansion Project will provide sufficient supply to allow Cal-Am to cease Carmel River diversions. As noted in Section II.B, the SEIR improperly relies on "updated water demand estimates" prepared by MPWMD staff, which have been shown to be based on inaccurate assumptions about water supplies and demands and conflict with the CPUC's supply and demand estimates that were upheld by the California Supreme Court and are final and binding. VV-30

In fact, as explained in the Hazen Memo, ASR water is not sufficiently reliable to be considered a water supply source, and without ASR, the PWM Expansion Project cannot achieve the future water demand based on the Stoldt Memo's 10-year average, or even the 5-year average VV-31

when considering growth projections for the Monterey Peninsula. (See Ex. E, p. 8.) The Stoldt Memo presents a 10-year average annual water demand of 10,863 afy, and a 5-year average of 9,825 afy, neither of which appropriately account for projected growth in Cal-Am's Monterey District service area. (*Id*. at pp. 6-10.) Mr. Stoldt assumes that, with the PWM Expansion Project, these average demands can be satisfied, but Mr. Stoldt's assumptions depend upon the availability and reliability of ASR water. (See *id*. at p. 8.) Although the average yield of ASR water is 1,300 afy, the availability of ASR water is highly variable. ASR water availability is reduced to 63% in a single dry year, and even further reduced to 4% following three dry years. (See *id*. at pp. 6-7.) During drought conditions, ASR water is essentially unavailable, and thus, water supply shortfalls are reasonably foreseeable. (*Id*. at p. 8.) Thus, without ASR, the PWM Expansion Project would yield only 9,994 afy of reliable supplies—below both the Stoldt Memo's 10-year annual average and 5-year annual average (when growth is considered). VV-31 Cont. VV-32

Therefore, the SEIR should be revised to address the impacts associated with a reasonably foreseeable scenario where water demands exceed supply, and Carmel River withdrawals would be necessary for regional health and safety. VV-33

2. The SEIR Fails to Address Reductions in Irrigation Water and Increased Stormwater Capture Impacts on Fisheries

The Draft SEIR explains that the PWM Expansion Project would result in less water for irrigation and would increase stormwater capture. However, the Draft SEIR fails to address how a reduction in irrigation water and increase in stormwater capture could affect fish habitat or populations (e.g., through a reduction in runoff). The SEIR should address these potential impacts. VV-34

C. Biological Resources: Terrestrial

The Draft SEIR incorporates various mitigation measures to protect terrestrial biological resources. However, a number of the mitigation measures should be clarified or enhanced to ensure proper implementation and species protection. VV-35

Mitigation Measure ("MM") BT-1a: MM BT-1a provides: "The project proponents and/or their contractors shall coordinate with the City of Seaside on the location of well facilities within the Expanded Injection Well Area and the removal of sensitive biotic material." This statement is extremely vague – what coordination is required and what discretion is being granted to Seaside to move the location of well facilities? What sensitive biotic material is being removed? The SEIR should be revised to include these necessary details. VV-36

MM BT-1d: MM BT-1d provides for surveys, monitoring, salvage, and relocation of California legless lizard. However, the measure does not require any restoration of California legless lizard habitat. Restoration requirements should be added to a revised mitigation measure. VV-37

MM BT-1f: MM BT-1f requires pre-construction surveys, but does not specify how long before construction the surveys are required to occur. Additional detail about survey timing should be included in a revised mitigation measure. VV-38

MMs BT-1i, BT-1j, and BT-1k: MMs BT-1j, BT-1j, and BT-1k require pre-construction surveys for Monterey dusky-footed woodrat, American badger, and protected avian species, respectively. However, a comparison of MMs BT-1j, BT-1j, and BT-1k and the corresponding species-specific mitigation measures in the MPWSP Final EIR/EIS[9] (MMs 4.6-1k, 4.6-1j, and 4.6-1i) show that additional mitigation is feasible. Accordingly, these measures should be revised to be as stringent as the corresponding measures for the MPWSP. VV-39

D. Cultural and Paleontological Resources

1. The Draft SEIR Improperly Defers Mitigation of Cultural Resources Impacts

CEQA requires that mitigation measures provide specific performance standards if not implemented immediately, otherwise, the mitigation is improperly deferred mitigation. (See, e.g., *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 944 [holding that measures are required to "satisfy specific performance criteria articulated at the time of project approval"]; *Sundstrom v. Cty. of Mendocino* (1988) 202 Cal.App.3d 296, 306 [same].) The Draft SEIR's cultural resources mitigation measures fall short of this standard.

The Draft SEIR identifies three recorded cultural sites within the area of potential effect VV-40 ("APE"). (Draft SEIR, p. 4.6-3.) This includes a reported prehistoric archaeological site, CA-MNT-280/P-27-00385. Mitigation Measure CR-2b states that "[i]f the find is determined to be significant, appropriate mitigation measures shall be formulated and implemented, with the concurrence of the Lead Agency (M1W)." (*Id.*, p. 4.6-9.) This is unlawful deferred mitigation. Mitigation Measure CR-2b should set specific guidelines for M1W's actions should archaeological resources or human remains be unexpectedly discovered during construction. Indeed, Native American Heritage Commission's letter on the Notice of Preparation states that M1W should include "provisions for the identification and evaluation of inadvertently discovered archaeological resource . . . [and] the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans[.]" (See *id.*, Appx. A, p. 38.) Currently, Mitigation Measure CR-2b falls short of these requirements by providing only general guidance.

The measure must be revised to include more specificity. For example, the mitigation measure should require notifying a qualified archaeologist within 24 hours of discovery and set specific recommendations for mitigating impacts such as planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. In the event that avoidance is not VV-41 feasible, the measure should recommend the preparation and implementation of an Archaeological Research Design and Treatment Plan ("ARDTP") and other appropriate actions such as sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portions of the

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[9] The MPWSP Final EIR/EIS is available online at https://www.cpuc.ca.gov/Environment/info/esa/mpwsp/feir-eis_toc.html.

significant resource to be impacted by the PWM Expansion Project. The ARDTP should also include provisions for analysis of data in a regional context, reporting of results within a timely manner and be subject to review and comments by appropriate Native American representatives before finalization, among other specific performance standards. This is particularly important because the APE includes reported cultural sites, making discovery of unknown resources more probable. (Draft SEIR, p. 4.6-3 to 4.6-4.)

VV-41 Cont.

E. Energy

1. The Draft SEIR's Statements About Fossil Fuel Consumption Is Not Based on Substantial Evidence

Page 4.7-6 of the Draft SEIR states that the PWM Expansion Project "would use additional fossil fuel; however, the additional amount of fossil fuel would be less than 10% more than the amount assumed for the approved PWM." The conclusion that the PWM Expansion Project would consume less than 10 percent of the fossil fuel assumed for the PWM Project is conclusory and unsupported by substantial evidence. The Draft SEIR must provide justification for this assumption and its conclusion that "the amount of transportation fuel and potential electricity use required for the Proposed Modifications is not considered an inefficient or wasteful use of energy." (Draft SEIR, p. 4.7-7.)

VV-42

2. Mitigation Measure EN-1 Is Deferred Mitigation

MM EN-1, Construction Equipment Efficiency Plan, impermissibly defers analysis and mitigation of construction impacts to be prepared at a later time. MM EN-1 requires M1W or Cal-Am to "contract with a qualified professional (i.e., construction manager, planner or energy efficiency consultant) **to prepare** a Construction Equipment Efficiency Plan that identifies the specific measures that M1W or CalAm (and its construction contractors) **will implement** as part of project construction to increase the efficient use of construction equipment." (Draft SEIR p. 4.7-7 [emphasis added].) This constitutes improper deferred mitigation under CEQA. (See *Sundstrom v. Cty. of Mendocino* (1988) 202 Cal.App.3d 296, 306.) Because the Draft SEIR anticipates increased energy consumption due to project modifications, the mitigation measure should be revised to include specific performance standards that the PWM Expansion Project would be required to achieve to address any potential adverse impacts pertaining to energy use during construction.

VV-43

F. Geology, Soils, and Seismicity

A properly prepared EIR serves the vital function of informing government officials and the public about the environmental consequences of approving a project. (See *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449; see also *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515–516 [an EIR must "enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project"].) The geology, soils and seismicity chapter contains several information deficiencies that must be remedied before the SEIR may be considered adequate.

VV-44

First, the figures and maps do not label any of the PWM Expansion Project's components other than the Advanced Water Purification Facility. (Draft SEIR, pp. 4.8-3 to 4.8-5, 4.8-7, Figures 4.8-1 to 4.8-4.) Instead, all features are portrayed as unlabeled blobs, indecipherable to persons not already familiar with the project. (*Ibid.*) To properly inform the public and decisionmakers the figures must be revised to depict all other expansion components, including but not limited to, the product water conveyance pipeline, injection well facilities, and the Cal-Am distribution system improvements. VV-45

Second, the Draft SEIR describes the Advanced Water Purification Facility and Injection Well Facilities, but lacks important information about the soil characteristics where they are sited. (Draft SEIR, p. 4.8-6.) Figure 4.8-4 shows that these components must be located within a moderate soil erosion hazard area. As written, the information may be interpreted as confusing and conflicting. The SEIR must be revised so that these component descriptions are consistent with Figure 4.8-4. VV-46

Third, the Draft SEIR acknowledges that PWM Expansion Project construction activities could result in temporary erosion impacts due to ground disturbance, including site preparation, grading, and/or trenching for installation of utilities. (Draft SEIR, p. 4.8-12.) However, the Draft SEIR states without any analysis or specific performance standards that these potential impacts will be reduced to less than significant by relying on construction Best Management Practices ("BMPs") and compliance with state and federal law, including requirements associated with a National Pollutant Discharge Elimination System ("NPDES") permit. (*Id.*, pp. 4.8-12 to 4.8-14.) VV-47 Although some of these requirements are incorporated into the Project for purposes of impact determination, the Draft SEIR must be revised to include specific descriptions of the BMPs and other state and federal laws as well as a mitigation measure or BMP project design feature to ensure that all laws and regulations are followed. If the Draft SEIR intends to rely on descriptions included in the PWM Project Final EIR, those pages should be specifically cited. (See, e.g., PWM Project Final EIR, pp. 4.11-31 to 4.11-35 [describing NPDES requirements including BMPs].) VV-48

G. Hazards, Hazardous Materials, and Wildlife

1. The Draft SEIR Fails to Fully Analyze the PWM Expansion Project's Impacts Related to Hazards and Hazardous Substances

The Draft SEIR's analysis of the PWM Expansion Project's potential impacts related to hazards and hazardous materials provides only a cursory analysis of certain Project impacts and must be revised to provide a complete analysis of these impacts. VV-49

First, CEQA Guidelines Appendix G suggests that an agency analyze a project's potential to impair emergency response access. The Draft SEIR concludes that this criteria is not applicable to PWM Expansion Project construction, but does so without any further analysis. (Draft SEIR, p. 4.9-11.) Instead, the Draft SEIR simply refers to the Monterey County Emergency Operations Plan and concludes that "Project construction would not interfere with the designated agency responsibilities and reporting in the event of an emergency . . ." (*Ibid.*) VV-50

The conclusion is not supported by substantial evidence. The SEIR should be revised to thoroughly analyze this potential impact. VV-50 Cont.

Second, the Draft SEIR acknowledges that construction activities related to the Product Water Conveyance Pipeline, Injection Well Facilities, or the Cal-Am Conveyance Pipelines have the potential to encounter unexploded ordinance within the Fort Ord Military Reservation. (Draft SEIR, p. 4.9-17.) However, the Draft SEIR states, without any additional analysis, that these potential impacts associated with unexploded ordinance will be addressed by compliance with federal and local regulations. (*Ibid.*) The SEIR should include a mitigation measure requiring compliance with these regulations, including monitoring and reporting related to discovery of unexploded ordinance during construction of these Project facilities, and requiring that M1W obtain the required permitting under City of Seaside Ordinance 924 (Seaside Municipal Code Chapter 15.34). VV-51

Third, the Draft SEIR states that the CEQA Guidelines were updated in 2018 to address potential wildfire hazards—as a result, the base PWM Project Final EIR "generally considered wildland fire hazards but did not devote a separate significant criterion to this topic." (Draft SEIR, p. 4.9-19.) As such, the Draft SEIR recognizes that wildfire impacts related to the entire PWM Project have never been adequately analyzed, but then goes on only to analyze wildfire impacts related to the PWM Expansion Project, concluding that wildlife impacts would be less than significant. (*Ibid.*) As a result, M1W has never conducted a complete review of the potential wildfire impacts related to the PWM Project as a whole. The change in applicable regulations is the type of new information recognized in CEQA Guidelines Section 15162 that should be addressed when a Supplemental EIR is prepared. The SEIR therefore should be revised to analyze wildfire-related impacts for the entire PWM Project, including both the approved PWM Project and the proposed PWM Expansion Project. This assessment should include an analysis of potential impacts to firefighting efforts on the Peninsula due to potential water shortages that could occur if the proposed MPWSP is not implemented. VV-52 VV-53

H. Hydrology and Water Quality: Groundwater

1. The Groundwater Sustainability Agency ("GSA") Description Is Inaccurate and Incomplete

In identifying the local regulatory framework governing the PWM Expansion Project, the Draft SEIR states that "the Marina Coast Water District and the City of Marina formed their own GSA within a portion of their service area." (Draft SEIR, p. 4.10-5.) This description oversimplifies and incorrectly identifies the GSAs that cover the Salinas Valley. VV-54

Two GSAs have been approved by the California Department of Water Resources ("DWR") and have exclusive coverage of groundwater basins within Monterey County. The Salinas Valley Basin GSA ("SVBGSA") covers the 180/400-Foot Aquifer Subbasin, and Marina

Coast Water District's GSA covers the Monterey Subbasin.[10] The City of Marina attempted to form a GSA that would partially overlap with the SVBGSA's boundaries at the CEMEX sand mining property along the coast in the City of Marina. (See map of proposed City of Marina GSA, attached hereto as **Exhibit H**.) However, by doing so, the City created a conflict in basin management. Because of this conflict, the County of Monterey recently approved its own GSA to cover the CEMEX site pursuant to its rights under Water Code section 10724.[11] (Proposed Monterey County Resolution approving the formation of a GSA pursuant to Water Code section 10724, attached hereto as **Exhibit I**; Letter from DWR, Sustainable Groundwater Management Office, to County of Monterey (Nov. 5, 2019), **Exhibit J**.) VV-54 Cont.

The SEIR should clarify and accurately describe the existing and proposed GSAs that provide the local regulatory framework for groundwater management in the PWM Expansion Project area. VV-55

2. The Draft SEIR Does Not Address Seawater Intrusion that Could Result if the MPWSP Is Not Developed

The Draft SEIR evaluates the PWM Expansion Project's impacts to groundwater resources without considering the impact the Project would have if the MPWSP is not built. The MPWSP would benefit the Salinas Valley Groundwater Basin ("SVGB") aquifers by reducing existing and preventing additional seawater intrusion. If the PWM Expansion Project is seen as a replacement for the MPWSP—and the MPWSP is not built—then the MPWSP's benefits to the SVGB will not occur and further seawater intrusion of the coastal aquifers can be expected. VV-56

As explained in the MPWSP Final EIR/EIS, which was upheld in full by the California Supreme Court in August 2019, groundwater extraction in the SVGB "has outpaced groundwater recharge of fresh water, resulting in overdraft and seawater intrusion conditions." (MPWSP Final EIR/EIS, p. 4.4-19.) The MPWSP would withdraw water that has been degraded by seawater intrusion and is unusable for potable water supply without treatment. (*Id.*, p. 4.4-70.) When desalinated water is returned to the SVGB as part of the MPWSP's return water component, groundwater conditions in the 400-Foot Aquifer would improve as water levels increase from in-lieu groundwater recharge. (*Ibid.*) "The return water component of the MPWSP would benefit each of the aquifers by either reducing the area of influence or by increasing groundwater levels in other areas. . . . If the [MPWSP] did not return any water, localized depressed groundwater levels would likely persist in the three affected aquifers." (*Ibid.*) Further, because the MPWSP involves the extraction of seawater-intruded groundwater from the coast, the MPWSP is "expected to retard future inland migration of the seawater VV-57

[10] See Salinas Valley Basin GSA – 180/400 Foot Aquifer, available at: https://sgma.water.ca.gov/portal/gsa/print/461; Marina Coast Water District GSA – Monterey, available at: https://sgma.water.ca.gov/portal/gsa/print/50.

[11] If two or more GSAs attempt to form over the same area of a groundwater basin, DWR may find that overlap exists and that such unresolved overlap creates an "unmanaged" area. Water Code section 10724 authorizes the county within which the unmanaged area lies to become the GSA for that area.

intrusion front. The [MPWSP] would facilitate the reduction of seawater intrusion in the long term." (*Id*., p. 4.4-92.)

Because the Draft SEIR actually attempts to analyze the PWM Expansion Project as a replacement in the event the MPWSP is never built, which runs counter to the many statements in the SEIR that the Project is a "back-up" to the MPWSP in the event the MPWSP is delayed, the Final SEIR should evaluate the reasonably foreseeable environmental impacts that would result from no MPWSP construction and operation—including the continuation of existing seawater intrusion into the SVGB's coastal aquifers. VV-57 Cont.

I. Hydrology and Water Quality: Surface Water

The Draft SEIR claims that implementation of the PWM Expansion Project would reduce the amount of water currently being diverted from the Carmel River. (Draft SEIR, p. 4.11-23.) As such, the Draft SEIR concludes that the PWM Expansion Project would have a beneficial impact on the environment. (*Ibid.*) However, this conclusion assumes that the PWM Expansion Project will generate sufficient supply to meet demand on the Monterey Peninsula. There are significant questions as to the accuracy of this conclusion. (See, e.g., Section I.B *supra*; Section III.N *infra*.) Indeed, as discussed in the Hazen Memo, the PWM Expansion alone, without the MPWSP, will be unable to meet the Peninsula's current annual water demand as determined by the CPUC. (Ex. E, pp. 10, 12.) In the expected event that the PWM Expansion Project fails to meet demand, any beneficial impact is illusory since significant diversions from the Carmel River will continue or possibly increase to meet the shortfall. The SEIR must be revised to evaluate that possibility. (See, e.g., *Vineyard Area Citizens for Responsible Growth*, *supra*, 40 Cal.4th at 430 [an EIR must evaluate "reasonably foreseeable impacts"]; *Cal. Unions for Reliable Energy v. Mojave Desert Air Quality Mgmt. Dist.* (2009) 178 Cal.App.4th 1225, 1231 [CEQA "requires public agencies to consider the reasonably foreseeable environmental effects of their actions."].) VV-58

J. Land Use, Agriculture, and Forest Resources

In accordance with Appendix G of the CEQA Guidelines, the PWM Expansion Project would have a significant land use impact if it would cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.| Due to the faulty water supply and demand analyses and water rights assessments underpinning the Draft SEIR, the PWM Expansion Project fails to demonstrate that it would meet future water demand projections necessary to serve residents and businesses on the Monterey Peninsula. As a result, the PWM Expansion Project would contravene basic jurisdictional planning objectives—particularly those intended to provide adequate water supply and support development—resulting in significant environmental impacts under CEQA. The Draft SEIR must disclose such impacts and offer feasible mitigation to reduce those impacts to a less than significant level. (CEQA Guidelines, §§ 15151, 15121, subd. (a), 15126.4, subd. (a); see also *In re Bay-Delta Programmatic Envt'l Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1175 [Sufficient information should be provided to allow decision-makers and the public to understand the environmental consequences of the project].) These issues are discussed in further detail below. VV-59 VV-60

The water supply and demand analyses contained in the Draft SEIR are based upon the findings of the Stoldt Memo. As described in the attached peer review of the Stoldt Memo (see Ex. E), the Stoldt Memo lacks evidentiary support for its conclusions regarding water supply and demand, calling into question the ability of the PWM Expansion Project to meet jurisdictional demand projections. (See Section II.B.1.) Even using the revised growth assumptions in the Stoldt Memo, the PWM Expansion Project could not meet demand under either the 10-year maximum daily demand required by CCR Title 22, Section 64554, or the Stoldt Memo's calculated 10-year average daily demand. (Ex. E, pp. 11-12.) The PWM Expansion Project would only meet the Stoldt Memo's reduced five-year demand projection for approximately three years before falling out of compliance. (*Ibid.*) Additionally, the Stoldt Memo fails to consider the reliability of the sources of water supply to the PWM Expansion Project during reduced usage or drought years, raising serious concerns regarding the PWM Expansion Project's ability to achieve the stated output of 2,250 afy. (*Id.* at p. 9.) As discussed in Section III.N *infra*, the Draft SEIR similarly fails to demonstrate that the PWM Expansion Project has obtained or will obtain sufficient water rights to meet projected regional demand or support future development and population growth. VV-61

Section 2.5.3.4 of the MPWSP Final EIR/EIS provides the projections of future water demand from local jurisdictions within Cal-Am's Monterey Peninsula service territory. (MPWSP Final EIR/EIS, pp. 2-28 to 2-29.) According to Table 2-5 of the Final EIR/EIS, "[a] total of 3,526 afy [is] needed to accommodate the projected growth at buildout that each [c]ity determined." (MPWSP Final EIR/EIS, p. 2-29.) In contrast, the water demands calculated by Mr. Stoldt suggest that 1,469 afy would be needed to accommodate regional growth through 2049. (Ex. E, p. 4.) Therefore, the gap in necessary water for the Peninsula is much larger than the Draft SEIR either discloses or analyses. VV-62

Cal-Am's Monterey Peninsula service area comprises the following jurisdictions: Monterey County (unincorporated), City of Carmel, City of Del Ray Oaks, City of Monterey, City of Pacific Grove, City of Sand City, City of Seaside, and Monterey Peninsula Airport District. (MPWSP Final EIR/EIS, p. 2-29.) Failing to meet water demand within these jurisdictions would conflict with, at a minimum, the following local planning objectives, resulting in significant environmental effects that the Draft SEIR neither discloses nor mitigates: VV-63

Monterey County General Plan:

Goal LU-1: "Promote appropriate and orderly growth and development while protecting desirable existing land uses."

Policy LU-1.4: "Growth areas shall be designated only where an adequate level of services and facilities such as water, sewerage, fire and police protection, transportation, and schools exists or can be assured concurrent with growth and development."

Policy H-2.9: "Support the development of housing affordable to the general workforce of Monterey County and encourage employers and other organizations to assist with the production of housing units needed for their employees."

Policy H-2.13: "Assist in infrastructure and public facility improvements that support existing and new affordable housing."

Policy H-3.1: "Ensure that there is sufficient developable land at appropriate densities with adequate infrastructure to accommodate the remaining RHNA of 174 new lower and moderate income units in the period 2009-2014."

Policy AG-5.2: "Policies and programs to protect and enhance surface water and groundwater resources shall be promoted, but shall not be inconsistent with State and federal regulations."

Goal PS-2: "Assure an adequate and safe water supply to meet the County's current and long-term needs."

Goal PS-3: "Ensure that new development is assured a long-term sustainable water supply."

City of Carmel General Plan:

Policy P3-5.4: "Encourage the private sector to produce affordable housing."

Policy P3-3.2: "Continue to monitor and work cooperatively with regional agencies to augment infrastructure in a manner that provides adequate capacity for existing and new housing needs while preserving and improving the unique visual character of the City."

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City of Del Ray Oaks General Plan:

Public Services Goal 3: "Assure new development can be served by adequate public services and facilities."

Public Services Goal 5: "Provide water and maintain a water management policy that will provide a sufficient quantity of appropriate water to meet the needs of the existing and planned community."

City of Monterey General Plan:

Housing Goal a.: "Promote construction of new ownership housing units and conservation of existing ownership housing units to maintain and/or improve the existing balance between owner and rental units in Monterey."

Housing Policy a.1.: "Encourage the production of new ownership housing units."

Housing Policy b.1.: "Provide the opportunity to construct new multi-family housing units in pockets of opportunity."

Housing Policy f.1.: "Encourage construction of housing units that provide for special needs."

Public Facilities Goal m.: "Develop long-term water supplies and conservation methods so that there is sufficient water to implement General Plan goals."

City of Pacific Grove General Plan:

Housing Policy 2.3: "Encourage affordable housing development by providing incentives, working with developers to identify appropriate locations, and helping to offset the cost of affordable housing development."

Housing Goal 3: "Reduce governmental and infrastructure constraints to the improvement and development of housing for people of all income levels."

Housing Policy 3.1: "Provide public facilities and services in support of new housing construction and the revitalization of older neighborhoods and continue to work aggressively with the water district and other Monterey Peninsula cities to find long-term solutions to the water problem, to increase the water available for residential uses, and to provide for drought protection."

Housing Policy 4.1: "Facilitate the development and rehabilitation of housing for seniors and persons with physical, developmental, or mental disabilities."

City of Seaside General Plan:

Policy H-2.3: "Encourage the construction of high-density, well designed housing and residential-commercial mixed use projects."

Policy LU-5.1: "Review development proposals to ensure that adequate water supply, treatment, and distribution capacity is available to meet the needs of the proposed development without negatively impacting the existing community."

Policy LU-5.2: "Work cooperatively with local and regional water suppliers to ensure adequate water reserves."

Goal COS-2: "Provide a safe and adequate water supply to meet the needs of the community."

Implementation Plan COS-2.1.2: "Condition approval of all development plans on verification of an assured long-term water supply."

VV-63 Cont.

Each of the above-listed jurisdictions would be directly served by PWM Expansion Project water, and if production and delivery of that water results in precluding the additional water that would be provided by the MPWSP, then conflicts with applicable land use policies in those jurisdictions would result. Therefore, the Draft SEIR must disclose conflicts that would result with applicable General Plan policies and regulations if the PWM Expansion Project is developed in lieu of the MPWSP. Similarly, as demonstrated in Section III.M herein, the PWM Expansion Project would fail to supply adequate water to support the requirements of the Regional Housing Needs Allocation ("RHNA") plan for the Monterey Bay Area in the absence

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of the MPWSP. The inability of the PWM Expansion Project to support the RHNA needs and comply with applicable RHNA policies also would result in a conflict with an important land use policy designed to ensure adequate housing at all income levels in the region. VV-64 Cont.

If the above-referenced land use planning conflicts cannot be resolved through feasible mitigation, then a significant land use impact would result. The Draft SEIR's failure to address these substantial conflicts and the potential for significant land use impacts resulting from the PWM Expansion Project's implementation is noteworthy. The Draft SEIR therefore must be revised to disclose and analyze the important issues. VV-65

K. Marine Biological Resources

The Draft SEIR's marine biological resources analysis should be updated to reflect additional monitoring and sampling, as described below. VV-66

Specifically, SEIR Appendix J explains that the "water quality of the secondary effluent is dependent on the quality of the wastewater coming into the RTP as well as the treatment efficacy of the RTP" and, in turn, the "quality of the RO concentrate is directly related to the quality of the secondary effluent." (Draft SEIR, Appx. J, p. 7.) However, it appears that the latest source water monitoring campaign was conducted between July 2013 and June 2014. More current source water monitoring should be utilized in order to provide an accurate assessment of potential impacts to ocean water quality and marine biological resources from the PWM Expansion Project's ocean discharge. VV-67

In addition, Appendix J states: "Limited data sources were available for several of the new source waters (i.e., Farmworker Housing and Salinas River Diversion Facility backwash)." (Draft SEIR, Appx. J, p. 12.) Additional source water quality data should be obtained from these source waters through additional sampling in order to demonstrate whether the PWM Expansion Project's ocean discharge would continue to meet California Ocean Plan standards with the addition of these new source waters. VV-68

Further, as described in Exhibit A, although the Draft SEIR provides an assessment of the Proposed Modifications' compliance with Ocean Plan standards, the Draft SEIR's marine biological impacts analysis fails to provide a quantification of pollutant discharges or their impacts on marine species within the Zone of Initial Dilution. (Ex. A, pp. 10-11.) Therefore, the Draft SEIR fails to analyze the actual marine biological effects of changes in the ocean discharge due to the Proposed Modifications, and must be revised to disclose such impacts. VV-69

L. Noise and Vibration

1. <u>The Draft SEIR Fails to Adequately Describe the PWM Expansion Project's Noise and Vibration Setting</u>

As written, the Draft SEIR's description of the environmental setting for the PWM Expansion Project with respect to existing noise and vibration conditions does not provide a description of the nearest sensitive receptors or ambient noise measurements for the new Cal-Am VV-70

extraction wells. (Draft SEIR, p. 4.14-3.) The SEIR should be revised to incorporate such a description. VV-70 Cont.

2. The Draft SEIR's Analysis of Noise and Vibration Impacts Is Deficient

The Draft SEIR's discussion of potential PWM Expansion Project impacts related to noise and vibration is deficient in a number of aspects. VV-71

First, the Draft SEIR's assessment of construction noise impacts related to construction of the extraction wells states that: "Daytime well drilling would produce noise levels up to 85 dBA Leq at 50 feet, resulting in noise levels about 4 dBA lower at the Seaside Middle School and Hatten Road residences. Daytime construction activities would not exceed the daytime threshold of 70 dBA Leq." (Draft SEIR, p. 4.14-9.) It appears that this discussion refers back to the noise levels for trenching and pipeline construction, which are estimated at 89 dBA Leq. (*Ibid.*) However, if noise levels are at 85 dBA Leq at the identified sensitive receptors, then they would exceed the applicable noise threshold and result in a significant impact that has not been disclosed. Accordingly, the SEIR needs to be clarified to disclose whether daytime construction activities actually would exceed noise level thresholds at Hatten Road and the Seaside Middle School. VV-72

Second, the Draft SEIR's analysis of construction noise impacts related to the conveyance pipelines states that construction of the pipelines would result in noise levels above the 70 dBA Leq threshold, but that this impact would be less than significant because it would last for fewer than two weeks. (Draft SEIR, p. 4.14-9.) The SEIR should explain the origin of this two week timeline so as to provide clarity as to why these noise levels that exceed acceptable thresholds are not considered a significant impact. This conclusion appears to be based upon the unjustified assertion in Appendix K that daytime exposure to construction noise levels above the speech interference level would be less than significant so long as the noise level increases lasted for fewer than two weeks. (See *id*, Appx. K, p. 2.) However, throughout the remainder of the Draft SEIR and Appendix K, a peak noise threshold of 70 dBA Leq is used to assess PWM Expansion Project noise impacts. (See, e.g., *id*. at p. 4.14-7.) VV-73 The SEIR should be revised to provide support and justification for any deviation from standard noise impact analysis with respect to daytime pipeline construction noise. Based on the 70 dBA Leq peak threshold otherwise applied in the Draft SEIR, construction noise impacts related to the conveyance pipeline appear to be a significant undisclosed impact that would require recirculation of the Draft SEIR under CEQA. (CEQA Guidelines, § 15088.5, subd. (a).) VV-74

Third, the Draft SEIR states that implementation of MM NV-1a will reduce nighttime noise levels resulting from construction of the extraction wells to less than 60 dBA Leq at the nearest residence. (Draft SEIR, p. 4.14-10.) This statement is contradicted by the Draft SEIR's conclusion on page 4.14-9, which states that: "Accounting for the attenuation provided by the temporary barrier, the resultant daytime and nighttime construction noise levels at the nearest sensitive receptors could be as high as 80 dBA Leq." The Final SEIR must address this internal inconsistency and provide a revised discussion of impacts related to construction noise for the impact wells. VV-75 If construction of the extraction wells will in fact result in nighttime noise levels exceeding 80 dBA Leq at the nearest sensitive receptors, as is stated on page 4.14-9, then the VV-76

Draft SEIR must be recirculated to disclose this significant noise impact. (CEQA Guidelines, § 15088.5, subd. (a).)

VV-76 Cont.

3. Draft SEIR Appendix K Must Be Revised to Properly Analyze PWM Expansion Project Noise Impacts

There are also a number of issues with respect to Appendix K, which the Draft SEIR heavily relies upon in assessing noise and vibration impacts. Notably, Appendix K does not provide a description of any applicable regulations or ordinances that establish the thresholds at which PWM Expansion Project noise impacts would be considered significant, but rather relies on quantitative thresholds that are not based on any particular local ordinance or regulation. (Draft SEIR, Appx. K, p. 2.) Moreover, Appendix K does not provide existing ambient noise levels in the vicinity of the four proposed extraction wells sites. (*Id.* at p. 6.) Finally, Appendix K states that monitoring wells could be located "within 850 feet of one or more residences in the Fitch Park neighborhood for the proposed modifications," but only provides an analysis of construction well impacts related to wells located 850 feet or more from the nearest sensitive receptors. (*Id.* at p. 10.) Appendix K, and any related discussions in the SEIR, must be revised to address these issues and disclose any significant noise impacts that were not appropriately disclosed in the Draft SEIR.

VV-77

M. Population and Housing

The Draft SEIR's analysis of possible PWM Expansion Project population and housing impacts appears to rely in part on outdated and incomplete data. Table 4.15-3 on page 4.15-2 displays housing and population data in Monterey County as 2010 and 2014. However, the table does not provide any more recent data, despite the availability of 2019 data from the California Department of Finance.[12] Table 4.15-3, and the associated PWM Expansion Project impacts, should be updated to reflect the most recent available data.

VV-78

Moreover, the Draft SEIR's analysis of population and housing impacts fails to account for any potential impacts related to the inability of the PWM Expansion Project to meet the Monterey Peninsula's water demand without implementation of the MPWSP. As explained herein, there is a significant likelihood that the PWM Expansion Project will not be able to provide a reliable, drought-proof water supply to the Monterey Peninsula that would achieve regional water demand. As discussed in the Hazen Memo, the Peninsula water supply with the PWM Expansion Project, but without the MPWSP, would be insufficient to meet the CPUC-approved demand projection for existing customers of 12,000 afy. (Ex. E, pp. 10-11.) Further, the PWM Expansion Project would only satisfy the reduced five-year demand average promoted by the Stoldt Memo (but unsupported by any applicable regulatory requirements) for three years before falling out of compliance. (*Ibid.*) Beyond that period, there would not be a reliable water supply to meet any reasonable estimate of projected economic growth on the Peninsula and associated water demand. (*Ibid.*) Therefore, the Draft SEIR must be revised to analyze any

VV-79

[12] 2019 population and housing data from the California Department of Finance is available here: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.

potential population and housing impacts related to the inability of the PWM Expansion Project to meet current and future water demand on the Monterey Peninsula. VV-79 Cont.

Failure to accommodate increased demand and Peninsula growth may also depress buildout of necessary housing on the Peninsula, as dictated by the RHNA plan for the Monterey Bay Area.[13] At the December 17, 2019 meeting of the MPWMD Water Demand Committee, Mr. Stoldt provided a memorandum quantifying the RHNA goals for each jurisdiction on the Monterey Peninsula, and estimating the water supply required to meet these goals.[14] Mr. Stoldt estimates that a water supply of 190 afy will be needed to meet the Peninsula's RHNA goals. (See Ex. K.) However, as explained in the Hazen Memo, Peninsula water supply with the PWM Expansion Project but without the MPWSP will only be able to meet Peninsula demand, even assuming Mr. Stoldt's depressed demand figures, for a maximum of three years. (Ex. E, pp. 10-11.) Based on Mr. Stoldt's projections, by 2024, demand for water will exceed the 10,000 afy supply that will be available with the PWM Expansion Project, leaving the Peninsula without any excess water supply to accommodate development of legal lots of record and regional housing growth. (*Ibid.*) As such, the PWM Expansion Project will not supply sufficient water to meet even the RHNA needs set forth in Mr. Stoldt's December 17 memo. A corresponding failure to meet the RHNA goals regarding affordable housing allocation would be a significant impact to population and housing—an impact that the Draft SEIR fails to disclose or analyze. VV-80 VV-81 VV-82

Therefore, the SEIR should be revised to analyze the potential for the PWM Expansion Project to fail to meet Peninsula water demands without the MPWSP, and any corresponding impacts on housing and population.

N. Water Supply and Wastewater Systems

1. The Draft SEIR Does not Evaluate Changed Circumstances and New Information Affecting Water Supply

The Draft SEIR asserts that "[t]he existing environmental setting information contained in the PWM/GWR Project Final EIR has generally remained unchanged since the certification of the PWM/GWR Project Final EIR." (Draft SEIR p. 4.18-3.) However, the Draft SEIR does not demonstrate that changes in climate conditions and agricultural and municipal water conservation have not impacted the quantity or reliability of the water sources available for the PWM Expansion Project. VV-83

The assertion that existing environmental setting information contained in the PWM Project Final EIR has generally remained unchanged is inaccurate with regard to the availability of source waters analyzed to supply the PWM Project. A comparison of Draft SEIR Appendix I (Schaaf & Wheeler 2019 memorandum evaluating source water availability, yield and use for the VV-84

[13] The 2014-2023 RHNA Plan for the Monterey Bay area is available here: https://ambag.org/sites/default/files/documents/RHNP%202014-2023_Final_revised_PDFA.pdf.

[14] A copy of Stoldt's memorandum regarding Monterey Peninsula RHNA goals and estimated water required to meet such goals is attached hereto as **Exhibit K**.

PWM Expansion Project ("2019 S&W Memo")) with the Schaaf & Wheeler's 2015 analysis for the PWM Project ("2015 S&W Memo," attached hereto as **Exhibit L**) shows that total water supplies have declined in some scenarios since 2015. VV-84 Cont.

For instance, Table 7 in the 2015 S&W Memo ("Full Surface Water Yields, Normal Water Year, Building a Drought Reserve") reports that the total projected water supply for the PWM Project is 29,707 afy. However, Table 8 in the 2019 S&W Memo ("Full Surface Water Yields, Normal Water Year, Building a Drought Reserve") reports that the total projected water supply for the original PWM Project and the PWM Expansion Project is 28,145 afy. A comparison between these two reports shows that in the 2019 S&W Memo, source waters from Tembladero Slough at Castroville have been reduced to zero while source waters from Reclamation Ditch at Davis Road have become less available. The 2019 S&W Memo explains that "[t]he Tembladero Slough diversion was removed during the permitting process, and the yield of the Reclamation Ditch diversion declined by 270 AFY due to the final water right permit conditions." (Draft SEIR, Appx. I, p. 11.) However, the availability, or lack thereof, of water from the Tembladero Slough at Castroville and the Reclamation Ditch at Davis Road is not disclosed in the Draft SEIR itself, except for a minor footnote on page 2-6. The availability and reliability of all water sources for the PWM Expansion Project should have been evaluated in the Draft SEIR and the changed environmental setting information contained in the PWM Project Final EIR should be updated to reflect existing conditions. VV-85 VV-86

2. The Draft SEIR Overstates the Security of Amended and Restated Water Recycling Agreement ("ARWRA") Source Water

The Draft SEIR explains that M1W and Monterey County Water Resources Agency ("MCWRA") have executed an ARWRA that provides for the responsibilities for construction, operation and financing of new source waters from the Blanco Drain, Reclamation Ditch, and the City of Salinas (produce wash water) for the CSIP and the PWM Project. (Draft SEIR, p. 4.18-5.) The Draft SEIR explains that four of the six conditions necessary for the ARWRA to become effective have not been completed, including the following conditions:

- Written findings are made by the Regional Water Quality Control Board that utilization of the Blanco Drain dry weather flows as new source water meets all treatment requirements for the aforesaid dry weather flows;

- An independent third-party review of proposed capital and operating costs and preparation of an Engineer's Report is approved by the MCWRA Board of Directors and Board of Supervisors. The costs of the aforesaid third-party review shall be shared equally between MCWRA and M1W; VV-87

- A successful assessment of Proposition 218 process for rates and charges related to the operation and maintenance of the new source water facilities and proportional primary and secondary treatment charges; and,

- A separate agreement between the Parties addresses inclusion of Salinas Pond Water Return Facilities as new source water facilities.

As a result, the Draft SEIR reports that M1W and MCWRA amended the agreement in June 2019 to allow additional time to address the conditions while allowing M1W to use the new source waters for the PWM Project until the conditions are met. However, the Draft SEIR does not discuss the status of these conditions and the likelihood that each condition is met. Nor does the Draft SEIR provide alternatives analysis concerning what may happen if these conditions are not met or the impact that alternative with have on source water reliability. VV-88

Moreover, Table 4.18-3 asserts that the "Municipal Wastewater Collection and Treatment System" is a "Secured" source of water and that "[t]he ARWRA is now in effect to address and resolve competing water rights of M1W, MCWD, and MCWRA." However, Draft SEIR page 4.18-5 explains that the ARWRA is not fully in effect because there are four precedent conditions that must be met. Page 4.18-5 states "After the conditions precedent have been met, M1W and MCWRA will share the long-term rights to these new source waters as outlined in the ARWRA, as amended." Likewise, footnote 5 on Draft SEIR page 4.18-12 concludes that between 3,400 and 3,800 afy will be available to M1W through the ARWRA. As stated above, the Draft SEIR does not explain if this water supply would be available if the conditions to the ARWRA are not met. Further, as described in the Dudek Memo (Ex. A), in light of the uncertainty surrounding implementation of the ARWRA, the PWM Expansion Project may be incapable of meeting its own stated project objectives or complying with the CDO by December 31, 2021. Therefore, the Draft SEIR must be revised to include analysis and a timeline of how ARWRA conditions will be completed and an analysis of water supply reliability in the event that completion of the ARWRA conditions is delayed or not completed – which is a reasonably foreseeable scenario. (See Ex. A, pp. 9-10.) VV-89 VV-90 VV-91

3. The Draft SEIR Overstates the Availability and Reliability of Source Waters

As explained in further detail in the attached technical memorandum from Dudek, multiple sources of water relied upon in the Draft SEIR are not adequately secured or documented. The Draft SEIR's conclusion that the PWM Expansion Project would have a less than significant impact on Operational Water Supply—that "[s]ufficient water supplies are available for operation of the Proposed Modifications"—is not supported by substantial evidence because the following water supplies have not been fully evaluated and may not be available to serve the PWM Expansion Project. (Draft SEIR, pp. 4.18-11 to 4.18-14; see also CEQA Guidelines, Appx. G, § XIX(b).) Therefore, the Draft SEIR has not demonstrated, consistent with CEQA Guidelines, Appendix G, § XIX(b), that there is sufficient water available for the operation of the PWM Expansion Project and for reasonably foreseeable future development in normal, dry and multiple dry years. VV-92

Agriculture Produce Wash Water. Agriculture Produce Wash Water is an important component of the source water for the PWM Expansion Project. However, the PWM Expansion Project does not have sufficient agreements in place to ensure that this source water can be acquired and used as contemplated. The October 27, 2015 Agreement for Conveyance and Treatment of Agricultural Produce Wash Water by and between the City of Salinas and M1W (formerly the Monterey Regional Water Pollution Control Agency) allows agricultural produce wash water to be used for the approved PWM Project, but does not provide for that water to be VV-93

used for other purposes—including the proposed 2,250 afy for the PWM Expansion Project.[15] Indeed, Salinas has the exclusive right to its wash water, and in the absence of an agreement that M1W can use that water for the PWM Expansion Project, Salinas has the right to use that water for itself and its farmers.[16] Similarly, the November 3, 2015 ARWRA also does not provide for agricultural produce wash water to be used by the PWM Expansion Project.[17] Without agreements in place to allow agricultural produce wash water to be used, the PWM Expansion Project's source water remains speculative, and undermines the Draft SEIR's claim that the PWM Expansion Project can produce an additional 2,250 afy of potable water to meet regional demand. VV-93 Cont. VV-94

Municipal Wastewater Flows. Dudek has determined that amount of municipal wastewater flows available to the PWM Expansion Project may be overestimated because the Draft SEIR analysis of municipal wastewater flows does not account for evidence that municipal wastewater flows were predicted to decrease until 2030. (Ex. A, pp. 6-7.) VV-95

Lake El Estero Source Water. The Draft SEIR confirms that the Lake El Estero source water diversion system necessary for the PWM Expansion Project to obtain 87 afy of urban runoff has not been constructed or even funded. (Draft SEIR, p. 2-6 n. 10.) Therefore, the Draft SEIR should not rely on this source of water for its determination that sufficient water supplies are available for the operation of the PWM Expansion Project. (Ex. A, p. 7.) VV-96

The Salinas Storm Water Collection System. Draft SEIR Table 4.18-3 identifies the status of water rights from the Salinas Storm Water Collection System as "pending." This is likely based on the analysis provided in Revised Source Water Rights Memorandum, Draft SEIR Appendix B, which states that "[w]e understand that there are currently no contractual arrangements or permits for diversion of stormwater or urban/agricultural runoff to the M1W wastewater collection and conveyance system." (Draft SEIR, Appx. B, p. 7.) Based upon the understanding that "the City of Salinas has been working cooperatively with M1W," Appendix B concludes that "agreement is reasonably likely" and thus, that there is a "reasonable likelihood that this source of water can be obtained." These conclusory statements regarding the status of ongoing negotiations and the potential for M1W to obtain water rights, alone, are insufficient to support the a reasonable likelihood that water from the Salinas Storm Water Collection System is likely to be available for the PWM Expansion Project. Moreover, this conclusion is speculative, and the Draft SEIR should take a more conservative approach and assess a scenario where an VV-97

[15] Only two permitted uses of the agricultural produce wash water are covered in the October 27, 2015 Agreement: (1) to serve the PWM Project as approved in 2015; and (2) augment the existing Castroville Seawater Intrusion Project's crop irrigation supply. (October 27, 2015 Agreement, §1.a-b.)

[16] Salinas has made clear that it wants the water for its own uses and does not want to send that water to the Peninsula. (See Letter from City of Salinas to M1W, Re: Use of Agriculture Produce Wash Water for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project, Draft Supplemental Environmental Impact Report (Draft SEIR), dated Jan. 29, 2020.)

[17] The ARWRA "relates to and implements certain portions of the [PWM Project] that the MRWPCA Board approved on October 8, 2015," and is "based on the EIR as certified" in 2015 for the PWM Project. (ARWRA, p. 6-7 [Recitals].)

agreement with the City of Salinas is not reached. Under this foreseeable scenario, the Draft SEIR must assume that this source water is unavailable and analyze potential reliability of remaining source water in order to achieve the PWM Expansion Project's maximum output of 2,250 afy. VV-97 Cont. VV-98

Further, if any analysis in the Draft SEIR continues to rely on the Salinas Storm Water Collection System as a water source, the Draft SEIR should provide a clear list of steps required to secure water rights from the Salinas Storm Water Collection System and explain if/how the PWM Expansion Project will secure rights to additional water if the storm water is not obtained in order to achieve the projected output. VV-99

Insufficient Analysis of Water Supplies During Drought Years. The CEQA Guidelines require the Draft SEIR to evaluate if there is sufficient water available for reasonably foreseeable future development in normal, dry and multiple dry years. (CEQA Guidelines, Appx. G, § XIX(b).) However, the Draft SEIR did not consider multi-drought years and overall effects of climate change. For instance, the 2019 S&W Memo (Draft SEIR, Appx. I) evaluated treated municipal wastewater sources for the PWM Expansion Project based on the average of years 2008-2013, a range that only includes a single year of drought. California is prone to prolonged multi-year droughts, the frequency of which is increasing.[18] Therefore, the Draft SEIR must base its analysis of water supply availability on data that assumes the presence of multiple dry years. (Ex. A, p. 7.) VV-100 VV-101

4. Total Available Source Water Is Unclear

The Draft SEIR fails as an informational document because it omits an accessible summary of the quantity of water expected to be generated from each analyzed source. Table 4.18-3 lists the various sources of water to be used for the PWM Expansion Project and the status of associated water rights. The table does not, however, identify the quantity of water expected to be obtained from each source or where such information can be found. Appendix I, and the technical tables, appear to provide this information but the data is not presented in a form readily understandable to the public. The Draft SEIR should provide the expected quantity of water to be generated by each source of water in Table 4.18-3 and demonstrate how the PWM Expansion Project will be able to achieve its stated output of 2,250 afy. More specifically, the Draft SEIR must demonstrate how the available source water will be sufficient for the approved PWM Project to produce its maximum output of 3,500 afy plus the additional output of 2,250 afy that the PWM Expansion Project proposes. These maximum outputs are necessary in order to achieve the demand scenarios provided in the Stoldt Memo, which are discussed in Exhibit E. (Ex. E, pp. 9, 12.) Further, the Draft EIR for the original PWM Project itself concluded that "[d]uring dry years, the [PWM] Project could provide less than 3,500 acre feet of water..." (PWM Project Draft EIR, p. S-3.) It remains unknown if the PWM Project will produce 3,500 VV-102 VV-103

[18] Public Policy Institute of California, California's Latest Drought, https://www.ppic.org/publication/californias-latest-drought/.

afy at all, as that project has failed to meet its July 1, 2019 delivery start date.[19] If the maximum output of the PWM Project is unattainable, then this calls into question the ability of the Expansion Project to achieve its claimed 2,250 afy of production, and means that the maximum combined production of the two projects – 5,750 afy – cannot be achieved. Therefore, the Draft SEIR has not demonstrated, consistent with CEQA Guidelines, Appendix G, § XIX(b), that there is sufficient water available for reasonably foreseeable future development in normal, dry and multiple dry years. VV-103 Cont.

Further, to demonstrate that there are adequate source waters for the PWM Expansion Project, the SEIR must reconcile how Table 4.18-3 concludes that the ARWRA represents a "Secured" water right. As discussed in Section II.C, above, the Draft SEIR acknowledges that the certain conditions set forth in the ARWRA must be met in order for full rights to the various water sources to be secured. In light of the concern that "some of [the conditions identified in the ARWRA] are outside of the control of the parties to the Agreement, [and thus,] may not be met in a timely fashion," there is a reasonable likelihood that the full rights to the various sources of water identified for the PWM Expansion Project will not be secured. (Ex. A, p. 9.) This uncertainty necessitates that the Draft SEIR to provide an alternative analysis explaining impacts to water supply reliability if the ARWRA conditions are not met. VV-104 VV-105

IV. OTHER CONSIDERATIONS

A. Growth Inducement

1. The Draft SEIR Improperly Relies Upon the Flawed Stoldt Memo

In assessing the PWM Expansion Project's potential for inducing significant population growth on the Monterey Peninsula, the Draft SEIR includes revised water demand estimates for the Peninsula based the flawed analysis of supply and demand in the Stoldt Memo. (See Draft SEIR, p. 5-4.) The Draft SEIR states: "This Draft Supplemental EIR's analyses of water supply, growth inducement, and groundwater impacts rely upon data and reports regarding existing and future water demands provided by the MPWMD staff. In public meetings, members of the public have expressed disagreement with this published data." (*Ibid.*) As explained in Section II.B and in Cal-Am's submissions to the California Coastal Commission and to MPWMD, the Stoldt Memo's demand estimates are wholly unsupported and should not be relied upon in the SEIR in any way. (See Exs. B-D.) Rather, the Stoldt Memo: (1) uses water and supply demand estimates that were rejected by the CPUC; (2) improperly relies upon vulnerable and unreliable water sources that are likely to be unavailable during drought conditions; (3) utilizes methodology that does not meet the requirements of the California Code of Regulations, the California Health and Safety Code, and CPUC General Order 103-A; (4) underestimates demand by projecting demand based on a 5-year average, rather than the required 10-year maximum daily demand; (5) makes unsupported assumptions regarding tiered water rates, conservation restrictions, and water use VV-106

[19] Pure Water Monterey in default on agreement after missing Monday deadline, https://www.montereyherald.com/2019/07/03/pure-water-monterey-in-default-on-agreement-after-missing-monday-deadline/.

reductions; and (6) fails to account for potential shortfalls in any of the water supplies analyzed therein. (See Ex. E; see also Section II.B.1 *supra*.) VV-106 Cont.

The Draft SEIR severely understates the level of opposition to the Stoldt Memo, completely accepts the analysis in the Stoldt Memo without any critique, and does not acknowledge the substantial evidence presenting the Memo's numerous flaws and lack of evidentiary support, as raised by Cal-Am and others. Moreover, as explained in the Dudek Memo, the Draft SEIR fails to justify its reliance upon the "updated water demand estimates" in the Stoldt Memo. (Ex. A, pp. 3, 5-6.) The Draft SEIR does not explain the authority that Stoldt had to deviate from the CPUC's determination of water demand in the Monterey District Service area, nor is the Stoldt Memo supported by any evidence that is either provided in or cited by the Draft SEIR. (*Ibid.*) As such, the Stoldt Memo cannot constitute substantial evidence upon which the Draft SEIR may rely in analyzing the PWM Expansion Project's potential for inducing significant population growth. Accordingly, the SEIR's growth inducement analysis must be revised to remove any reliance on the Stoldt Memo. VV-107

2. The Draft SEIR's Analysis of Cumulative Growth Inducement Impacts Is Deficient

The Draft SEIR states throughout that the PWM Expansion Project is to be considered as a "back-up" to the MPWSP, rather than as an alternative water supply. If such is the case, the SEIR must analyze the growth inducing effects of the PWM Expansion Project, ***in addition to*** any potential growth impacts disclosed in the Final EIR/EIS prepared for the MPWSP. (See, e.g., Draft SEIR, p. 5-4.) VV-108

"Assessment of a project's cumulative impact on the environment is a critical aspect of the EIR." (*Los Angeles Unified School Dist. v. City of Los Angeles* (1997) 58 Cal.App.4th 1019, 1025.) In analyzing the cumulative impacts associated with a proposed project, an EIR must assess the "individually limited but cumulatively considerable" impacts of the proposed project when viewed in connection with the effects of past projects, other current projects, and probable future projects. (See *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214 [citing CEQA Guidelines, § 15355, subd. (b)].) In carrying out a cumulative impacts assessment, an EIR "must reflect a conscientious effort to provide public agencies and the general public with adequate and relevant detailed information about them." (*Ultramar, Inc. v. South Coast Air Quality Management Dist.* (1993) 17 Cal.App.4th 689, 703 [citations omitted].) Indeed, "[a] cumulative impact analysis which understates information concerning the severity and significance of cumulative impacts impedes meaningful public discussion and skews the decisionmaker's perspective concerning the environmental consequences of the project, the necessity for mitigation measures, and the appropriateness of project approval." (*Ibid.*) VV-109

Here, if the PWM Expansion Project constitutes a "back-up" to the MPWSP, as stated in the Draft SEIR, meaning that the two projects would be implemented simultaneously, then the Draft SEIR must be revised to assess the potentially "cumulatively considerable" impacts of the PWM Expansion Project in connection with MPWSP. (*Bakersfield Citizens for Local Control, supra*, 124 Cal.App.4th at p. 1214.) The PWM Expansion Project must either be assessed as an

alternative to the MPWSP, or it must be assessed a cumulative project to be analyzed in addition to the MPWSP. (See Section I *supra*.) VV-109 Cont.

B. Alternatives

The Draft SEIR does not identify alternative *projects* to the PWM Expansion Project, but rather an alternative configuration of the proposed PWM Expansion Project. (See Draft SEIR, pp. 6-4 to 6-6 [identifying a No Project/No Modifications Alternative and an Elimination of Extraction Wells EW-3 and EW-4 Alternative].) However, other public agencies responsible for permitting the MPWSP—such as the California Coastal Commission in its October 28, 2019, staff report analyzing the MPWSP—consider the PWM Expansion Project as a water supply project alternative to the MPWSP. (See Section I *supra*.) Therefore, it is reasonably foreseeable that the PWM Expansion Project could be pursued as an alternative to the MPWSP. As such, the Draft SEIR should evaluate the MPWSP as a Project alternative and consider water supply reliability as a Project Objective, as the MPWSP Final EIR/EIS considered. VV-110

"An EIR must describe all reasonable alternatives to the project." (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 200.) Here, at least to some, one such alternative to the PWM Expansion Project is the MPWSP. If the PWM Expansion Project is a true alternative to or replacement for the MPWSP, the SEIR must analyze the MPWSP as an alternative project as CEQA requires. (See CEQA Guidelines, § 15126.6.) But instead of analyzing the MPWSP as an alternative, the Draft SEIR incorporates the MPWSP into the "No Project/No Modifications Alternative." (Draft SEIR, p. 6-4.) VV-111

The Draft SEIR states that, as part of the No Project/No Modifications Alternative, "it remains reasonably likely that the MPWSP desalination project would be constructed; however, should the MPWSP be delayed and not able to meet the Cease and Desist Order deadline . . . there would be no back-up plan. As a result, under the No Project Alternative, the MPWSP may be constructed and operated by others." (*Ibid*.) This analysis, however, conflates the typical "No Project" alternatives analysis with analysis of the MPWSP as an alternative. "CEQA requires that the EIR's no-project alternative address *existing conditions* as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved." (*Berkeley Keep Jets Over the Bay Com. v. Bd. of Port Commissioners of the City of Oakland* (2001) 91 Cal.App.4th 1344, 1361; CEQA Guidelines, § 15126.6, subd. (e)(2).) A "no project" description "provides decision makers and the public with specific information about the environment if the project is not approved. It is a factually based forecast of the environmental impacts of preserving the status quo." (*Planning & Conservation League v. Dept. of Water Resources* (2000) 83 Cal.App.4th 892, 917.) Because agencies consider the PWM Expansion Project as an actual alternative to the MPWSP, and because the MPWSP has not been built yet, the SEIR cannot assume that the MPWSP will be built as part of its No Project/No Modifications Alternative.[20] The SEIR should separately evaluate a true No Project alternative in which neither VV-112 VV-113

[20] Similarly, the Draft SEIR's alternatives analysis raises baseline concerns by assuming that the MPWSP will be built. (See Draft SEIR, p. 6-4.) The SEIR must evaluate environmental impacts of the PWM Expansion Project on the actual, existing environment, rather than hypothetical situations. (See

the PWM Expansion Project nor the MPWSP are constructed, and evaluate the MPWSP as a true alternative to the PWM Expansion Project. VV-113 Cont.

Similarly, given that certain regulatory agencies view the PWM Expansion Project as a water supply project alternative to the MPWSP,[21] the SEIR should include water supply reliability as a Project Objective. For instance, the MPWSP Project Objectives include: "Develop water supplies for the CalAm Monterey District service area to replace existing Carmel River diversions in excess of CalAm's legal entitlement"; "Develop water supplies to enable CalAm to reduce pumping from the Seaside Groundwater Basin"; and "Develop a reliable water supply for the CalAm Monterey District service area, accounting for the peak month demand of existing customers." (MPWSP Final EIR/EIS, pp. 1-5 to 1-6.) These or similar objectives are wholly absent from the Draft SEIR. Instead, the Draft SEIR identifies three Project Objectives: (1) be capable of commencing operation, or of being substantially complete, by the end of 2021 or as necessary to meet Cal-Am's replacement water needs; (2) be cost-effective such that the PWM Expansion Project would be capable of supplying reasonably-priced water; and (3) be capable of complying with applicable water quality regulations intended to protect public health. (Draft SEIR, p. S-1.) These Project Objectives are insufficient to address water supply reliability concerns if the PWM Expansion Project proceeds without the MPWSP. (See Section I *supra*.) VV-114

Given that the PWM Expansion Project is being considered by some to be a replacement for the MPWSP, the PWM Expansion Project Objectives should be revised to include water supply and water reliability-related objectives and the PWM Expansion Project should be properly analyzed in relation to those objectives. (CEQA Guidelines, § 15126.6, subds. (a), (c).) VV-115

V. RECIRCULATION OF THE DRAFT SEIR IS REQUIRED

The CEQA Guidelines require a lead agency to recirculate an EIR when significant new information is added prior to certification of the final EIR. (CEQA Guidelines, § 15088.5, subd. (a).) "Information" includes "changes in the project or environmental setting as well as additional data or other information." (*Ibid.*) Under CEQA Guidelines Section 15088.5, subdivision (a), information is "significant" if the "EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement." CEQA Guidelines Section 15088.5, subdivisions (a)(1)-(4), provide examples of "significant new information" requiring recirculation, which include: VV-116

Communities for a Better Environment v. S. Coast Air Quality Mgmt. Dist. (2010) 48 Cal.4th 310, 322; *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 658.) Thus, the SEIR cannot assume the MPWSP will be built as part of its environmental analysis.

[21] As explained herein, the Draft SEIR is inconsistent in its treatment of the PWM Expansion. For certain analyses, the Draft SEIR treats the PWM Expansion Project as an alternative to the MPWSP, and for others, the Draft SEIR views the PWM Expansion Project as a "back-up" to the MPWSP. (See Section I *supra*.)

> (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
>
> (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
>
> (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
>
> (4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded."

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The purpose of recirculation is to give the public and other agencies an opportunity to evaluate the new data and the validity of conclusions drawn from it. (*Spring Valley Lake Ass'n v. City of Victorville* (2016) 248 Cal.App.4th 91, 108; *Silverado Modjeska Recreation & Park Dist. v. County of Orange* (2011) 197 Cal.App.4th 282, 305; *Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 131; *Sutter Sensible Planning, Inc. v. Board of Supervisors* (1981) 122 Cal.App.3d 813, 822.) The failure to adequately inform decision makers and the public of the environmental impacts of a project and comply with the basic disclosure requirements of CEQA is a fatal flaw in an EIR that requires revision and recirculation. (See *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1198 ["Failure to comply with the information disclosure requirements constitutes a prejudicial abuse of discretion when the omission of relevant information has precluded informed decisionmaking and informed public participation"]; see also *Save Our Peninsula Comm. v. Board of Supervisors* (2001) 87 Cal.App.4th 99, 131 [EIR changed to allow transfer of water credits as mitigation late in process, depriving public of the meaningful opportunity to comment].)

As described above, the Draft SEIR is missing critical data and analysis of the PWM Expansion Project's potential impacts as a standalone project, as well as impacts that may occur if the PWM Expansion Project and the MPWSP are developed cumulatively. This includes impacts to air quality and greenhouse gas emissions; biological resources (terrestrial and marine); cultural and paleontological resources; energy; geology, soils, and seismicity; hydrology and water quality (groundwater and surface water); land use, agriculture, and forest resources; noise and vibration; population and housing; water supply and wastewater systems; and growth inducement. In addition, the Draft SEIR's alternatives analysis is flawed and must be revised to identify alternative projects to the PWM Expansion Project. Further, the Draft SEIR relies on "updated water demand estimates" prepared by Mr. Stoldt that are based on inaccurate assumptions about water supplies and demands, and thus, the Draft SEIR's reliance on Mr. Stoldt's flawed memorandum cannot constitute substantial evidence in support of the

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Draft SEIR's conclusions. Given these numerous and substantial deficiencies, the Draft SEIR must be revised and recirculated. VV-118 Cont.

EXHIBIT A

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MEMORANDUM

To:	DJ Moore, Latham and Watkins
From:	Joe Monaco, Stephanie Strelow, Matt Morales
Subject:	Technical Comments on the Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project, dated November 2019
Date:	January 27, 2020

As requested, Dudek provides the following technical comments on the Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project, prepared by Monterey One Water, dated November 2019:

The Use of a Supplemental EIR is improper, because the Proposed Project is analyzed as an alternative to the MPWSP and Thus the Proposed Modifications are Significant, which therefore require that a Subsequent EIR be prepared (CEQA Guidelines Sec. 15162):

Despite statements throughout the Draft Supplemental Environmental Impact Report ("DSEIR") that the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment project ("Proposed Project") is being considered by Monterey One Water ("M1W") to be a "back-up" to California American Water Company's ("CalAm") Monterey Peninsula Water Supply Project ("MPWSP"), the DSEIR is misleading and fails to comply with the California Environmental Quality Act's ("CEQA") informational disclosure requirements because it does not truly treat the Proposed Project in that way. The DSEIR states that the Proposed Project "would be implemented if the MPWSP encounters obstacles that prevent its timely, feasible implementation to satisfy the requirements SWRCB [State Water Resources Control Board] orders related to unauthorized diversions from the Carmel River system" (DSEIR Section 1.2, p. 1-3). Similarly, the DSEIR states that the Proposed Project is considered as "a back-up to the MPWSP, not as an option or alternative to the MPWSP," and would be implemented in the event CalAm "is unable to feasibly implement the MPWSP in a timely fashion, in accordance with the State Board's Cease and Desist Order milestones, specifically, operation of the MPWSP desalination plant by December 31, 2021" (DSEIR Section 2.2.2, p. 2-8, emphasis added). This is consistent with M1W Board Resolution 2019-19, adopted on October 28, 2019, "stating that M1W's previous approval to proceed with the potential expansion of the Pure Water Monterey Project was done 'only as a back-up plan for, and not as an alternative to, CalAm's desalination project'" (DSEIR Section 2.1, p. 2-1, fn. 1). These statements, as well as many others throughout the DSEIR, appear contradicted by the approach under which the DSEIR analyzes the Proposed Project, and the project description is therefore unclear. Courts have often recognized that inadequate project descriptions yield inadequate impact analyses and they mislead the public and decision makers. "An accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR" (County of Inyo v. City of Los Angeles, 71 Cal. App. 3d 185, 193 [1977]). Those qualities are crucial for "an intelligent evaluation of the potential environmental effects of a proposed activity," as well as providing decision makers and the public enough information to "ascertain the project's environmentally significant effects,

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assess ways of mitigating them, and consider project alternatives" (San Joaquin Raptor/Wildlife Rescue Ctr. v County of Stanislaus, 27 Cal. App. 4th 713, 730 [1994]; Sierra Club v City of Orange, 163 Cal.App. 4th 523, 533 [2008]). This is particularly important in how the DSEIR defines the project objectives. VV-120 Cont.

Without a clear definition of the term "back up" in the DSEIR, the reader must rely on a conventional definition. The Merriam-Webster Dictionary defines "back up" as "one that serves as a substitute or support" (merriam-webster.com/dictionary, accessed 12/17/19). With that context, as a "back up," the Proposed Project must be analyzed consistently in one of three ways with respect to the MPWSP:

1) as a substitute, or alternative to the MPWSP;

2) as support to, or part of the MPWSP; or

3) as support, in addition to the MPWSP. VV-121

Unfortunately, the DSEIR does not consistently analyze the Proposed Project in one of these three ways. Instead, the analysis conflates and confuses these three possible scenarios, resulting in a puzzling and inconsistent analysis that does not comply with CEQA. Given the uncertainties associated with the analysis presented in the DSEIR, the analysis must be revised either to eliminate one or more of these scenarios if they are not reasonably foreseeable, or updated to include an analysis under each scenario and disclose the resulting environmental impacts from each scenario for consideration by the public and decision makers. The following outlines CEQA compliance issues in each of these three scenarios based on the current analysis in the DSEIR:

Scenario 1 – Proposed Project as an Alternative to the MPWSP

Substantial evidence in the DSEIR reveals that the Proposed Project's sponsors—namely the Monterey Peninsula Water Management District (MPWMD), as well as M1W—actually intend the Proposed Project to serve as an alternative to or a replacement of the MPWSP, and not as a true back-up to the MPWSP in the event the MPWSP is delayed. The changes to the approved Pure Water Monterey Groundwater Replenishment ("PWM/GWR") Project ("Approved Project") are significant and require major revisions to the previous EIR for the Approved Project because they dramatically change the objectives of the project and trigger the obligation to examine a much broader scope of project alternatives. As such, the preparation of a Subsequent EIR is required. (14 CCR 15162(a).) A supplemental EIR is only appropriate if "minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation." (City of Irvine v. County of Orange, 238 Cal. App. 4th 526, 539 [2015].) VV-122

The following is one example of how the DSEIR appears to characterize the Proposed Project as an alternative to the MPWSP:

In analyzing the growth inducing impacts of the Proposed Project, the DSEIR makes a significant change in its findings as compared to the Approved Project. The Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project ("Final EIR") concluded that the Approved Project would not foster economic growth or remove an obstacle to growth because it would replace existing municipal water supplies (i.e., purified water generated by the approved PWM/GWR Project would replace existing supplies that were previously diverted from the Carmel River system) (Final EIR Section 5.1, pp. 5-1 through 5-3). VV-123

In contrast, the DSEIR summarizes the growth inducement analysis and findings from the MPWSP Final Environmental Impact Report/Environmental Impact Statement ("MPWSP EIR/EIS") and restates that the Proposed Project is intended to serve as a "back-up" to the MPWSP (DSEIR Section 5.2.3, p. 5-2). It then goes on to state that, "As a backup to the approved MPWSP, the Proposed Modifications could induce growth in a manner that is comparable to that identified in the MPWSP Final EIR/EIS." (DSEIR Section 5.2.4, p. 5-4, emphasis added). Table 5-1 of the DSEIR summarizes and compares available water supplies in two scenarios: one with the MPWSP and without the Proposed Project, and the other with the Proposed Project and without the MPWSP, which sets up a comparison of the two projects as alternatives to one another. Moreover, the DSEIR measures the available supply alternatives against the water demand projections developed by the staff of the MPWMD, referenced as a report dated September 16, 2019.

Section 5.2.4 of the DSEIR (p. 5-6) states:

"The principal conclusions of MPWMD's report were:

- either the desalination plant or the Proposed Modifications can meet the long-term needs of the Monterey Peninsula;
- either supply option would be sufficient to lift the State Water Resources Control Board Cease and Desist Order;
- the long-term needs of the Monterey Peninsula may be less than previously thought; and,
- several factors will contribute to pressure on the region's residents and businesses to decrease per capita water use."

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The DSEIR then relies on the "updated demand estimates" from the MPWMD report to demonstrate that the Proposed Project can indeed serve to replace the MPWSP. (See also DSEIR Section 2.2.2, p. 2-8 ["The MPWSP and the [Proposed] Project are both designed to provide the replacement water CalAm needs to comply with the Cease and Desist Order and with the Seaside Groundwater Basin Adjudication."].)

In making these comparisons, the DSEIR is treating the Proposed Project and the MPWSP as alternatives.

When presenting and analyzing alternatives under CEQA, an EIR must "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project" (14 CCR 15126.6(a)). "Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." (14 CCR 15126.6(b).) Moreover, "[t]he EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." (14 CCR 15126.6(d).)

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The DSEIR fails to meet these requirements in three important ways:

1) No distinct analysis/comparison of the MPWSP as a CEQA alternative is provided. Despite making explicit comparisons between the two projects in certain contexts, such as supply and demand, there is no direct analysis/comparison of the MPWSP as an alternative to the Proposed Project (14 CCR 15126.6). This is a major deficiency of the DSEIR—while the document clearly and significantly modifies the growth inducing impact analysis and conclusions set forth in the Approved Project's Final EIR, and explains that the conclusions of the MPWSP EIR/EIS now apply because the Proposed Project serves the same purpose, it fails to directly assess the MPWSP as a project alternative. VV-126

2) Failure to demonstrate that the Proposed Project can achieve the basic objectives of a regional water supply project, such as those articulated in the MPWSP EIR/EIS. While the DSEIR adopts the MPWSP EIR/EIS' growth inducing analysis, it fails to address how the Proposed Project could achieve critical project objectives from the MPWSP EIR/EIS. Specifically, the objectives related to water supply reliability stated in the objectives discussion of the MPWSP EIR/EIS should be included and discussed. It is reasonably foreseeable that in the absence of the MPWSP, the Proposed Project would need to provide a similar degree of water supply reliability. In the absence of such reliability, the Proposed Project could fail to provide sufficient water supplies to account for reasonably foreseeable future development during normal, dry, and multiple dry years, resulting in a significant water supply impact. VV-127

3) Inability to satisfy the water demand projections adopted by the California Public Utilities Commission ("CPUC"), who, as discussed further below, has the appropriate authority as the regulator of CalAm, the current water service purveyor, and who is vested with the authority to determine the need and location for a utility. The DSEIR draws conclusions on the Proposed Project's ability to meet demand projections, but uses a series of projections that are inconsistent with those adopted by the CPUC. In evaluating the MPWSP and alternative water supply sources, the CPUC determined the anticipated water demand of the Monterey Peninsula and conditioned the MPWSP to be consistent with the Peninsula's water needs, and that alternative supply sources would not be viable. (See CPUC Decision D.18-09-017, p. 70 ["We determine that a 6.4 mgd desalination plant that will produce approximately 6,250 afy of desalinated water in non-drought years (and approximately 7,167 afy in drought years) that would be delivered to Cal-Am customers is the best option to ensure Cal-Am is able to meet its maximum day demand and peak hour demand requirements."]; p. 172 ["The MPWSP is the most reasonable approach to solving the long-term problem of water supply in the District and is the best option to ensure Cal-Am customers have a sufficient water source going forward"].) Because the Proposed Project does not satisfy the CPUC's determined water needs for the Peninsula, the Proposed Project creates a material inconsistency with the CPUC's decision, resulting in significant water supply and land use impacts. VV-128

<u>Scenario 2 – Proposed Project as Support to, or a Part of the MPWSP</u>

This scenario is addressed in these comments because in certain instances, the DSEIR states that the Proposed Project would not operate simultaneously with the MPWSP. Such statements are made in the discussion of cumulative impacts to justify the lack of analysis of cumulative effects from the two projects operating together in an additive fashion (DSEIR Section 4.10.4.5, p. 4.10-20, and Section 4.13.4.5, p. 4.13-11). The suggestion is that the additional capacity provided by the Proposed Project would be forgone at the point in time when the MPWSP VV-129

comes online. In this case, the Proposed Project (meaning the additional capacity provided by the proposed modifications to the PWM/GWR) would end its useful life when the MPWSP begins production. This inference is reached based on the DSEIR's cumulative impact analysis, but is never clearly explained in the DSEIR, and in fact, as noted above, the DSEIR contradicts the statements in the cumulative impact discussions by saying that the Approved Project cannot meet projected water demand requirements on its own, while the Proposed Project can. If the Lead Agency's intent is for the Proposed Project to stop producing its additional water supply capacity if and when the MPWSP becomes operational, then the DSEIR must explain this in the project description and in the impact analysis, otherwise the DSEIR fails as an informational document. Or if the Lead Agency's intent is for the Proposed Project to operate as a replacement for the MPWSP, or in addition to the MPWSP, then the DSEIR must accurately reflect the Lead Agency's intended approach. At present, the DSEIR does not clearly convey the Lead Agency's intent to proceed under any of these three scenarios, and it is therefore unclear if the Proposed Project could be appropriately considered to be a subset of the MPWSP and that the additional capacity would be foregone if the MPWSP commences operations.

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Scenario 3 – Proposed Project as Support, in Addition to the MPWSP

If the Proposed Project is not intended to serve as an alternative to the MPWSP, and is not intended to merely complement the supplies estimated for the MPWSP, then the additional water provided by the proposed modification to the Approved Project would be additive to the supplies projected for the MPWSP—even if the Proposed Project is intended as a temporal stop gap.

In this instance, the DSEIR fails to address the cumulative impacts of developing both the Proposed Project and the MPWSP together. Instead the growth inducement discussion in the DSEIR calculates water supply as an "either/or" option between the MPWSP and the Proposed Project. If the Proposed Project is not an alternative to the MPWSP, it must evaluate the potential for both projects to ultimately be developed, and the resulting cumulative environmental effects from such a scenario.

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As demonstrated here, the DSEIR fails to meet CEQA requirements in any of these three possible development scenarios for the Proposed Project, which has significant implications for the Monterey Peninsula's water supply. As a result, the DSEIR fails to provide an accurate, stable, and finite project description, and in doing so, deprives the public and decision makers of a clear definition and analysis of the Proposed Project and its environmental consequences.

The DSEIR relies on Inapplicable Water Demand Projections

The DSEIR identifies the expanded Proposed Project as a "back-up to the MPWSP, not as an option or alternative to the MPWSP" for purposes of assisting in compliance with the Cease and Desist Order issued by the SWRCB to reduce Carmel River diversions (DSEIR Section 2.2.2, p. 2-8). Yet the footnote on that same page references "updated water demand estimates" performed by MPWMD staff. The footnote further states that "CalAm and other members of the public have contended that additional water supplies would be necessary to address future water demand" (emphasis added). In fact, the CPUC is the authority in determining water demand and supply issues in this instance, because the CPUC regulates the municipal water purveyor, and has the responsibility and authority

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to determine demand within its regulatory service area[1]. As noted in the DSEIR, the CPUC, in the context of that authority, has issued a Certificate of Public Convenience and Necessity, which determined the future need for 14,000 acre-feet per year (AFY) to address future water demand. VV-131 Cont.

The DSEIR does not explain what authority MPWMD staff has to deviate from the CPUC determination of demand for CalAm's Monterey District service area. In addition, MPWMD staff's "updated water demand estimates" do not appear to be supported by any evidence that is either provided in or cited by the DSEIR. Therefore, MPWMD staff's demand estimates appear to be only the opinions of MPWMD staff, which the CPUC rejected, and expressly contradict the CPUC's determination. As such, these estimates do not constitute substantial evidence under CEQA. (Pub. Resources Code 21080(d)(2) ["Substantial evidence is not argument, speculation, unsubstantiated opinion or narrative, [or] evidence that is clearly inaccurate or erroneous."]) VV-132 VV-133

The Availability and Reliability of Source Water is not Adequately Secured or Documented

The DSEIR Project Description (p. 2-11) indicates that the Proposed Project would use the same water sources identified for the Approved Project and "would not change the maximum operations to divert, meter/monitor, and convey" the approved source waters to the Regional Treatment Plant. It is unclear whether the "maximum operations" means the maximum use of source water flows identified in the Approved Project's Final EIR (Final EIR Table 2-12, p. 2-41). This should be clarified, and information from Table 2-12 in the Final EIR should be updated as needed and included in the DSEIR to document maximum source water flow amounts and demonstrate that they do not change from the amounts analyzed in the Approved Project's Final EIR. VV-134

The availability of source water as addressed in the DSEIR Appendix I[2] should be verified with regard to the municipal wastewater and Monterey stormwater components, which may be overestimated. Although the DSEIR states no change in source water volumes from what was previously analyzed, there are questions regarding the actual availability of at least these two sources; specific comments are presented below. In addition, availability of source water and produced water during multi-year dry periods are not addressed, and the "banked reserve" established as part of the Approved Project may not be adequate with the proposed expansion. If results of re-evaluation show any changes to source water amounts, the analysis regarding availability of sufficient source waters for operation of the Proposed Project (DSEIR Impact WW-3, pp. 4.18-11 to 4.18-14) also would require revision. This is particularly important if the Proposed Project is considered as an alternative to replace the MPWSP. VV-135

a) Municipal Wastewater Flows. DSEIR page 2-12 indicates municipal wastewater flows have been decreasing over time, while DSEIR page 2-11 indicates that Proposed Project modifications would enable more municipal wastewater to be used. Specifically, DSEIR Appendix I uses an available wastewater volume of 21,764 AFY based on the average inflows to the Regional Treatment Plant from 2009 to 2013, which is the same timeframe used in the original analyses of the Approved Project (FEIR Appendix B, revised). However, the Appendix I memorandum also indicates in footnote 11 that this volume is 9% greater than the latest 3-year average of 19,869 AFY for 2016–2018. Additionally, municipal wastewater flows were VV-136

[1] Decision Approving A Modified Monterey Peninsula Water Supply Project, Adopting Settlement Agreements, Issuing Certificate Of Public Convenience And Necessity And Certifying Combined Environmental Report, CPUC, 9/20/2018. In the Decision, the CPUC rejected similar arguments that MPWMD staff is making now.
[2] Schaaf & Wheeler. November 2019. "Source Water Availability, Yield and Use Technical Memorandum"

predicted to decrease until 2030 and potentially increase after 2030 depending on the actual level of growth that occurs (Final EIR, p. 4.18-11). Therefore, it is suggested that the availability of treated municipal wastewater be updated to at least include data for years since 2013 that are now available since certification of the Approved Project Final EIR. Based on this information, the actual amount of this source water that is available to the Proposed Project may be overestimated. VV-136 Cont.

b) Lake El Estero Source Water. DSEIR page 2-6 indicates in footnote 10 that source water diversion structures and pipelines have not been funded or constructed for Lake El Estero urban runoff. While Lake El Estero urban runoff (87 AFY) accounts for a relatively small amount of the Proposed Project's total source water components, its availability is not reasonably certain. Accordingly, Lake El Estero urban runoff should not be considered an available source water for achieving the 2,250 AFY of additional recycled water projected for the Proposed Project. VV-137

c) Consideration of Multi-Year Dry Periods. Furthermore, it appears that the DSEIR's source water availability/adequacy assessment does not consider multi-year droughts and overall effects of climate change. In the Impact WW-3 discussion (DSEIR, pp. 4.18-11 to 4.18-14), the DSEIR indicates that for the Appendix I technical memorandum, Schaaf & Wheeler modeled the monthly volumes of each source water (surface water diversions, agricultural wash water, urban stormwater runoff, and municipal wastewater) "under a variety of climatic conditions, or water year types – specifically, under typical (or normal/wet) and drought conditions." Although the DSEIR indicates that the assessment modeled each source water under "a variety of climatic conditions," the data provided does not appear to support this claim. The assessment utilizes an average for years 2008–2013 for treated municipal wastewater, which is noted to have included one drought year (DSEIR Appendix I, p. 6). However, no rainfall year is provided for the estimates for urban stormwater runoff, surface water diversions, or agricultural wash water. Nor is it clear what year was used as the basis for a drought year in the summary provided in Table 11 of Appendix I, which is assumed to reflect only a single-year drought. VV-138

Review of source water availability during multiple dry years must be conducted to accurately assess the availability of supply and overall reliability during a multi-year drought, especially in light of California Water Code requirements for urban water management planning.[3] Although the Proposed Project is defined as a back-up and the DSEIR claims the Proposed Project is not an alternative to the MPWSP, the DSEIR analyzes the Proposed Project as a standalone Project and assumes that the MPWSP is not developed. This is demonstrated by the fact that the DSEIR does not contain a cumulative impacts analysis that evaluates the MPWSP as a reasonably foreseeable cumulative project. In the absence of such an analysis, the DSEIR actually assumes that the MPWSP will not be developed. Therefore, as the DSEIR appears to treat the Proposed Project as a replacement to the MPWSP, the Proposed Project's overall reliability in the context of state water management planning requirements must be addressed in VV-139

[3] California Water Code sections 10610-10656 and section 10608 establish requirements for preparation of urban water management plans by every urban water suppliers that either provides over 3,000 acre-feet of water annually or serves more than 3,000 urban connections. The plans must be updated every five years. The contents of the plan are specified in California Water Code section 10631. Section 10631(b)(1) requires a "detailed discussion of anticipated supply availability under a normal water year, single dry year and droughts lasting at least five years, as well as more frequent and severe periods of drought, as described in the drought risk assessment." Section 10635(a) also indicates that the urban water management plan shall include "an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years."

order to determine whether the Proposed Project is feasible. Specifically, state law governing urban water management plans require an assessment of supply availability during average normal, single-dry-year, and multiple-dry-year periods. This is also included in the DSEIR as impact significance criterion b for Water Supply and Wastewater Systems (section 4.18.4.1) as to whether the Proposed Project would "have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years." VV-139 Cont.

The DSEIR on page 4.18-13 concludes that that "adequate water supplies are reasonably likely to be available to accomplish the yield objectives of the Proposed Modifications during normal, dry and multiple dry years." However, there is no supporting analysis for the conclusion for source availability during a multiple-year drought. Therefore, the conclusion of a less-than-significant impact is not supported by evidence that demonstrates availability of source waters to produce the Proposed Project water supply during a multi-year dry period. VV-140

Water Supply Availability During Drought is not Sufficiently Analyzed

Groundwater for extraction from the Proposed Project (as well as from the Approved Project) may not be fully available during multiple-dry-year periods or prolonged droughts. The DSEIR indicates that the ability of the existing Aquifer Storage and Recovery (ASR) to fully achieve its stated available supply is contingent on a variety of factors, including climatic conditions, and during periods of prolonged droughts, ASR may not be able to fully realize its total supply (DSEIR, p. 5-5, notes to Table 5-1). Despite this acknowledgement, the DSEIR fails to consider the 2015 Urban Water Management Plan for the CalAm Monterey District service area, which predicts reliability of the existing ASR as 63%–75% during a single dry year and decreasing to 4% in the third year of a multiple-dry-year period. Such factors and conditions similarly could affect the water supply from the Proposed Project (2015 UWMP, p. 6-3).[4] As with availability of source waters during a multiple-dry-year period, overall water supply availability during a multiple-dry-year period requires assessment to demonstrate availability of water to enable the Proposed Project to produce its projected water supply and to support the conclusions of the Impact WW-3 analysis. This is needed to demonstrate the availability of water to meet the Proposed Project's objective to serve as a back-up supply to the MPWSP, and therefore meet the Project objectives. VV-141

The Approved Project included a drought reserve component in which 200 AFY of purified recycled water would be injected in the Seaside Groundwater Basin during normal and wet years, up to a total of 1,000 acre-feet over a 5-year period, to create a "banked reserve." During drought years, the amount of water injected into the Seaside Groundwater Basin would be reduced in order to increase production of recycled water for crop irrigation through the Castroville Seawater Intrusion Project ("CSIP"). As indicated on page 2-3, footnote 3, of the DSEIR, CalAm would be able to extract the banked water to make up the difference to its supplies, such that its extractions and deliveries would not fall below 3,500 AFY of available water provided in the Approved Project. The Proposed Project does not include a similar or expanded drought reserve or evaluation of whether the approved reserve is adequate as a reserve to achieve Proposed Project's expanded supply of an additional 2,250 AFY. The DSEIR therefore must evaluate whether the amount of drought reserve that would be created under the Approved Project would be VV-142

[4] June 30, 2016. "Final 2015 Urban Water Management Plan for the Central Division – Monterey County District." Prepared for California American Water. Prepared by WSC, Water Services Consulting, Inc. https://wuedata.water.ca.gov/public/uwmp_attachments/4253019034/2015%20UWMP_Monterey%20District_Final.pdf.

adequate during a multi-year drought with the Proposed Project. If additional reserve banking is needed to cover the additional 2,250 AFY that the Proposed Project is intended to supply, the DSEIR and supporting technical analyses in Appendices D and I must be revised to assess both whether there would be available source waters and sufficient banked supplies to provide adequate water supply over a multi-year-dry period. The revisions should include consideration of reduced groundwater injections during drought years (as part of the approved banked reserve to serve CSIP) on the overall effects on water supply availability during dry years. The results of those analyses would need to be reported under DSEIR Impact WW-3 (pp. 4.18-11 to 4.18-14). If the Proposed Project cannot achieve the projected supply, the severity of Impact WW-3 may not have been adequately assessed or disclosed. VV-142 Cont. VV-143

Amended and Restated Water Recycling Agreement Conditions Must be Ensured, not Assumed

Section 2.6.1.1 of the DSEIR describes the Amended and Restated Water Recycling Agreement (ARWRA), and explains that the ARWRA addresses the rights to use source waters from the Blanco Drain, Reclamation Ditch, and the City of Salinas (produce wash water) for CSIP and the Proposed Project. The DSEIR acknowledges that certain conditions need to be met in order for full rights to the various water sources to be secured, but makes assumptions for purposes of the analysis that the conditions will indeed be met. Specifically, the following conditions were identified as not having been met at the time that the DSEIR was published:

- Written finding by the Regional Water Quality Control Board that utilization of the Blanco Drain dry weather flows as New Source Water meets all treatment requirements for the aforesaid dry weather flows
- An independent third-party review of proposed capital and operating costs and preparation of an Engineer's Report is approved by the Water Resources Agency Board of Directors and Board of Supervisors. The costs of the aforesaid third-party review shall be shared equally between Water Resources Agency and Monterey One Water (formerly Monterey Regional Water Pollution Control Agency)
- A successful assessment or Proposition 218 process for rates and charges related to the operation and maintenance of the New Source Water Facilities and proportional primary and secondary treatment charges
- Inclusion of Salinas Pond Water Return Facilities as New Source Water Facilities requires execution of a separate agreement between the Parties

VV-144

However, one of the primary objectives of the Project is to "be capable of commencing operation, or of being substantially complete, by the end of 2021 or as necessary to meet CalAm's replacement water needs" (DSEIR Section 2.4, p. 2-9). In fact, this is a critically important objective, as it relates to the overall purpose of the project as a "back-up" to the MPWSP. The DSEIR states that "the Proposed Modifications would be implemented if the MPWSP encounters obstacles that prevent its timely, feasible implementation to satisfy the requirements SWRCB orders related to unauthorized diversions from the Carmel River system" (Section 1.2, p. 1-3). The conditions identified in the ARWRA, some of which are outside of the control of the parties to the Agreement, may not be met in a timely fashion. If the primary objectives of the Project cannot be met by the Proposed Project, the DSEIR must evaluate project alternatives that can feasibly achieve those objectives, including the MPWSP. VV-145

In light of these uncertainties, there is no discussion or analysis of impacts related to the Proposed Project's ability to achieve the stated objective of complying with the State Water Board Cease and Desist Order 2016-0016 by VV-146

December 31, 2021. This is particularly important because the Project is being considered by some government agencies like the California Coastal Commission as an alternative to the MPWSP, and therefore may actually be an impediment to implementation of the MPWSP. Specifically, the October 28, 2019, Staff Report[5] prepared by the California Coastal Commission pertaining to the appeal of CalAm's Coastal Development Permit necessary for the implementation of the MPWSP recommends denial of the permit, primarily on the basis that the Proposed Project presents a feasible alternative to the MPWSP. Under CEQA as well as the California Coastal Act, "Feasible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors" (CEQA Section 21061.1 and Coastal Act Section 30108, emphasis added). VV-146 Cont.

The DSEIR should be revised and recirculated to include a timeline for and analysis of how ARWRA conditions can be completed, in order to inform the CEQA Lead Agency and Responsible Agencies on the reasonableness of the timeframe within which the Project will deliver water to satisfy the objective of feasibly assisting in compliance with the time frames established in Order 2016-0016. VV-147

Agriculture Water Supplies will be Reduced

The Approved Project's Final EIR states that additional agricultural water supplies are a significant benefit of the Approved Project. However, the Proposed Project would decrease agricultural water deliveries by 700–800 AFY from a total of 4,500-4,700 AFY as proposed by the Approved Project. This represents a reduction of 16%–17%. While the DSEIR acknowledges reductions in agricultural supplies from the Final EIR, it concludes that the Proposed Project overall would increase CSIP deliveries (DSEIR Impact WW-3, pp. 4.18-13 and 4.18-14). VV-148

One of the stated purposes of the DSEIR is to analyze the changes in the Project and assess the level of impact resulting from those changes.[6] The DSEIR makes no attempt to assess the proposed changes in agricultural water deliveries, and instead defaults to a "no project" baseline to draw conclusions on the significance of impacts. Therefore, the impacts resulting from the change in agricultural water deliveries have not been addressed. At a minimum, the DSEIR should analyze the reduction in agricultural water supplies and explain why changes in the Project resulting in a reduction of 16%–17% would not result in significant impacts on agriculture. VV-149

Marine Biological Impacts are not Adequately Addressed

The analysis of impacts on marine resources relies entirely upon compliance with standards established in the California Ocean Plan, which provide guidance to the Regional Boards for issuing National Pollutant Discharge Elimination System permits for ocean discharges. As outlined in Appendix U1 to the Final EIR for the Approved Project, the California Ocean Plan standards apply at the edge of the Zone of Initial Dilution (ZID). Under this regulatory scheme, there is an allowable impact within the ZID. While the Final EIR, and by reference, the DSEIR, summarizes the conclusions of Appendix U1 with respect to California Ocean Plan compliance, neither document provides any actual analysis of impacts on marine species or environments. In particular, related to the Proposed Project analyzed in the DSEIR, no quantification of pollutant concentrations, nor assessment of their impacts on VV-150

[5] Staff Report: Recommendation On Appeal Substantial Issue & De Novo Hearing And Consolidated Coastal Development Permit, California Coastal Commission, October 28, 2019.
[6] CEQA Guidelines, Sections 15162, and 15163.

marine species within the ZID, is provided. This is especially important because the Proposed Project would further concentrate pollutants in the discharge beyond the levels anticipated with the Approved Project. The DSEIR therefore fails to analyze the potential effects of changes in the ocean discharge resulting from the Proposed Project on marine habitats and species. Regardless of whether impacts may ultimately be allowable under a regulatory scheme, the lead agency is obligated to analyze and disclose such impacts. VV-150 Cont. VV-151

Air Pollutant Emissions are Underestimated

The analysis of impacts on air quality includes the following assumptions that resulted in underestimated emissions in the DSEIR:

a. The air quality emissions estimates are based on the California Air Resources Board's EMFAC2014, which is an older version of the on-road vehicle emissions model. The latest version of the model, EMFAC2017, was officially released to the public on March 1, 2018, and approved by the EPA on August 15, 2019.[7] As such, EMFAC2017 was available during the development of the *Technical Memo – Air Quality and GHG* (Appendix F of the DSEIR), which was published on October 23, 2019. This is particularly important since the EMFAC2017 model results in an overall increase in particulate matter (PM) emissions estimates generated by heavy-duty (HD) vehicles as compared to EMFAC2014, based on the following:[8] VV-152

    - the Truck and Bus Rule (for years 2012–2022 due to non-compliant trucks and buses)
    - updated HD PM deterioration
    - HD emission rate updates
    - HD idling emission factors and activity profiles

b. The air quality analysis based fugitive dust emissions estimates on a trench width of 6 feet. However, as described in the DSEIR, "trench widths may be up to 12 feet wide" (DSEIR, p. 2-21). Since the construction threshold applied is based on pounds per day of PM_{10}, the 12-foot trench width should have been assessed in order to provide the worst-case daily emissions of PM. VV-153

c. Default trip distances were assumed for all on-road vehicles in the DSEIR, including a 20-mile one-way trip distance for HD trucks. These trip distances should be substantiated. VV-154

[7] EPA 2019. Official Release of EMFAC2017 Motor Vehicle Vehicle Emission Factor Model for Use in the State of California. August 2019. https://www.federalregister.gov/documents/2019/08/15/2019-17476/official-release-of-emfac2017-motor-vehicle-emission-factor-model-for-use-in-the-state-of-california

[8] CARB (California Air Resources Board). 2017. EMFAC2017 – An Update to California On-Road Mobile Source Emission Inventory. Workshop presentation located here: https://ww3.arb.ca.gov/msei/downloads/emfac2017_workshop_11_09_2017_final.pdf.

Based on the above considerations, the air quality impacts in the DSEIR are not adequately addressed. The analysis should be revised to either (1) remodel emissions, or (2) substantiate and explain to the reader why the emission factors, trench width, and on-road vehicle trip distances are appropriate for the project. VV-154 Cont.

The Air Quality Assessment does not Provide Necessary Detail

As an informational document for the public, the air quality analysis does not provide necessary detail or clarity in order for the public to understand the assumptions that were made and the results provided. The DSEIR does not connect the dots for the reader to appropriately comprehend what the impact conclusions are based on. A few key examples include the following: VV-155

a. Table 4.3-5 depicts the "Maximum Daily Construction Emissions by Proposed Modification" and Table 4.3-6 depicts the "Daily PM_{10} Pollutant Emissions." It would be anticipated that the daily PM_{10} emissions (which the conclusions are based on) would equate to the summation of the PM_{10} values in Table 4.3-5; however, this is not the case. It is unclear how these two tables are connected in the DSEIR. VV-156

b. Based on a review of DSEIR Appendix F, it appears that the values in Table 4.3-6 were based on the values from the "Daily Air Pollutant Emissions" on the last page of Attachment 1 to Appendix F. However, this page also seems to be mislabeled, since the values appear to be for fugitive dust only. If that is the case, then Table 4.3-6 excludes PM exhaust and underestimates the "Daily PM_{10} Pollutant Emissions." VV-157

c. It is also unclear why a trip length of 0.10 miles was assumed for on-road vehicles for the worst-case daily analysis in the "Daily Air Pollutant Emissions" page of Attachment 1 of Appendix F. Appendix F states that 0.10 miles was for unpaved roads, but was the much greater distance of on-road vehicle travel on paved roads and additional dust re-entrainment accounted for? VV-158

These are examples of the disconnections and discrepancies between the results presented in the DSEIR and the data in Appendix F, which are confusing overall and leave the reader wondering whether the emissions on which the impact conclusions are based are appropriate or not. As an alternative to the spreadsheet model, the California Emissions Estimator Model (CalEEMod) should be considered to rerun the analysis for greater clarity of assumptions and results. VV-159

Additionally, the DSEIR analysis does not provide enough detail to appropriately substantiate the extrapolation of the health risk assessment (HRA) impact conclusions from the CalAm Monterey Peninsula Water Supply Project (MPWSP) EIR/EIS. The DSEIR relies on distance alone to make the determination that the risk associated with EW-1 and EW-2 would be less than significant. However, the DSEIR erroneously used the distance from the wells to the school itself, rather than the distance from the wells to Seaside Middle School's track and soccer field, which would be much closer to the construction sites. In addition, other factors besides distance also determine health risk, such as the emissions inventory, source parameters, terrain, meteorological data, and breathing rates, as specified in the Office of Environmental Health Hazard Assessment's *Air Toxics Hot Spots Program Risk Assessment* VV-160

Guidelines – Guidance Manual for Preparation of Health Risk Assessments.[9] The following factors, which affect toxic air contaminant (TAC) exposure and health risk, should be discussed in the DSEIR in order to provide substantiation of the use of health risk results from the MPWSP EIR/EIS: VV-161

- "The HRA must include emission estimates for all substances that are required to be quantified in the facility's emission inventory report."[10] How does the emissions inventory (type and quantity of TACs) of the DSEIR compare to the MPWSP EIR/EIS?

- "Pollutants are released into the atmosphere in many different ways. The release conditions need to be properly identified and characterized to appropriately use the air dispersion models."[11] Are the source types and parameters identified in the DSEIR similar to the sources in the MPWSP EIR/EIS? For instance, source release heights can affect the dispersion of TAC emissions.

- "Surface conditions and topographic features generate turbulence, modify vertical and horizontal winds, and change the temperature and humidity distributions in the boundary layer of the atmosphere. These in turn affect pollutant dispersion…" [12] How does the terrain at the DSEIR sources and sensitive receptors compare to the MPWSP EIR/EIS? VV-162

- "The atmospheric dispersion characteristics at an emission source need to be evaluated to determine if the collected meteorological data can be used to adequately represent atmospheric dispersion for the project."[13] Is the meteorological data used in the MPWSP EIR/EIS representative of the DSEIR component locations, or is more representative meteorological data available?

- "Breathing rates that occur over an 8-hour period vary depending on the intensity of the activity… and are used to estimate the inhalation dose. The 8-hour breathing rates may also be useful for cancer risk assessment of children and teachers exposed at schools during school hours."[14] Did the MPWSP EIR/EIS incorporate breathing rates to appropriately estimate risk at the school receptors in close proximity to EW-1 and EW-2 under the DSEIR?

[9] OEHHA. 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments*. February 2015. Available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf
[10] Ibid p. 4-6.
[11] Ibid p. 4-9.
[12] Ibid p. 4-14.
[13] Ibid p. 4-31.
[14] Ibid p. 5-26.

EXHIBIT B

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October 15, 2019

VIA EMAIL

Chair Evans and Board of Directors
Monterey Peninsula Water Management District
P.O. Box 85
Monterey, California 93942-0085

Re: California-American Water Company's Response to Monterey Peninsula Water Management District's September 2019 Supply and Demand Analysis

Dear Chair Evans and Directors:

On behalf of California-American Water Company ("Cal-Am"), this letter provides a response to the September 2019 Monterey Peninsula Water Management District ("MPWMD") General Manager's report purporting to "update" the water supply and demand estimates approved by the California Public Utilities Commission ("CPUC") in September 2018, and affirmed by the California Supreme Court in August 2019, in connection with the Monterey Peninsula Water Supply Project ("MPWSP").

Now that the MPWSP has been approved, the report claims "it is an opportune time to examine available supplies and their ability to meet current and long-term demand." (See Memorandum re: "Supply and Demand for Water on the Monterey Peninsula," prepared by David J. Stoldt, General Manager, MPWMD (Sept. 2019) ("Stoldt Memo").) Unfortunately, the Stoldt Memo merely repackages arguments MPWMD previously made that the CPUC rejected, incorrectly assesses the Peninsula's need, ignores existing water supply constraints, and places the Peninsula's future water supply in jeopardy. For example, among other things, the Stoldt Memo:

- Uses system demand estimates that have been rejected by the CPUC, the regulatory agency with exclusive jurisdiction to determine such issues. The Stoldt Memo's demand estimates fail to comply with California Waterworks Standards (Cal. Code Regs., tit. 22, § 64554) or CPUC General Order 103-A, which mandate how a public water utility's system demand must be calculated;

- Inexplicably argues that its prior demand estimate of 1,181 acre-feet per year ("afy") for legal lots of record should be reduced to between 864 and 1,104 afy, which represents a reversal from MPWMD's position in the CPUC proceedings when MPWMD claimed that all legal lots of record must be taken into account;

- Claims that demand from economic recovery and tourism bounce-back should be greatly reduced, even though the CPUC rejected the very same argument only a year ago and the Coalition of Peninsula Businesses has shown that the Memo's assumptions are inaccurate;

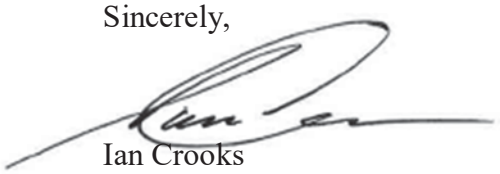
- Alleges that a demand estimate for buildout of Pebble Beach should be between 103 and 160 afy, which is a marked reversal from MPWPD's prior position, and ignores the fact that the Pebble Beach Company has a legal entitlement to 325 afy;

- Advances a supply estimate that is overly optimistic, and does not account for drought conditions when ASR water and additional Carmel River withdrawals (e.g., Table 13 water) historically have been unavailable; and

- Risks the Peninsula's water future with dependence on PWM expansion, which drastically reduces supply portfolio diversity, does not satisfy demand (especially in drought years), and whose source waters may be limited by future conditions, such as drought, agricultural industry trends, higher levels of water efficiency, and increased conservation.

Each of the flaws in the Stoldt Memo's assessment of Peninsula water supply and demand are addressed in further detail in **Attachment 1** to this letter. Further, a detailed chart comparing the new positions on supply and demand taken in the Stoldt Memo to MPWMD's positions in the CPUC proceedings is provided in **Attachment 2** to this letter. In light of the serious flaws in the Stoldt Memo's analysis summarized above and detailed in this letter's attachments, the Stoldt Memo has no relevance in determining the facilities needed to provide a long-term drought-proof adequate water supply to Cal-Am's customers, and cannot be relied upon to support any water planning on the Peninsula.

Sincerely,



Ian Crooks
California American Water Company

Enclosures

cc: Tom Luster, California Coastal Commission
Drew Simpkin, California State Lands Commission
Ron Stefani, Monterey One Water/Castroville Community Services District
Paul Sciuto, Monterey One Water

ATTACHMENT 1

I. INTRODUCTION AND BACKGROUND

The controlling determination of the need for the Monterey Peninsula Water Supply Project ("MPWSP") was made on September 13, 2018, when the California Public Utilities Commission ("CPUC") issued a Certificate of Public Convenience and Necessity for the MPWSP and found that a 6.4 million gallons per day ("mgd") desalination plant was needed to provide adequate service to Cal-Am customers. Among other things, the CPUC determined that the Monterey Peninsula's future water demand will be approximately 14,000 acre-feet per year ("afy"), that current projected water supplies without the MPWSP are inadequate to meet that demand, and that public convenience and necessity require the MPWSP.[1] In so doing, the CPUC rejected arguments by Monterey Peninsula Water Management District ("MPWMD") and others that demand estimates should be lower and that a desalination plant was not needed.[2]

MPWMD also actively participated in challenging the CPUC's decision by supporting Marina Coast Water District's and the City of Marina's petitions for writs of review to the California Supreme Court, both of which challenged the CPUC's supply and demand determinations.[3] In its Supreme Court Answer, MPWMD again argued that a desalination plant was not needed and that an expansion of the Pure Water Monterey ("PWM") project provided sufficient additional supply to satisfy Cal-Am's customers' needs.[4] The California Supreme Court rejected the petitions for writ of review, and the CPUC's decision is now final.[5] (See also *PG&E Corp. v. Pub. Utilities Com.* (2004) 118 Cal.App.4th 1174, 1192 ["[A] denial of a petition for writ of review from a CPUC order acts as law of the case, precluding further litigation between the parties of the challenged CPUC order."]; *S. Cal. Edison Co. v. Pub. Utilities Com.* (2005) 128 Cal.App.4th 1, 7; *People v. W. Air Lines* (1954) 42 Cal.2d 621, 631.)

The summary chart below compares MPWMD's positions during the 2017-2018 CPUC proceedings with those MPWMD asserts now, and confirms that MPWMD either simply disagrees with the CPUC, or has inexplicably changed positions only a year after the CPUC's approval of the MPWSP. A more detailed chart comparing MPWMD's current positions regarding supply and demand to its positions taken during proceedings before the CPUC is provided as **Attachment 2**.

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[1] CPUC Decision ("D.") 18-09-017, p. 171 [excerpts attached hereto as **Exhibit A**].

[2] *Id.*, pp. 57-60.

[3] See City of Marina Amended Petition for Writ of Review, pp. 152-157 [excerpts attached hereto as **Exhibit B**]; see also Marina Coast Water District Amended Petition for Writ of Review, pp. 121-124, 147-150 [excerpts attached hereto as **Exhibit C**].

[4] See Answer of Real Party in Interest Monterey Peninsula Water Management District to Amended Petitions for Writs of Review, pp. 21, 54, 61 [excerpts attached hereto as **Exhibit D**].

[5] See Order Denying Amended Petitions for Writ of Review [attached hereto as **Exhibit E**].

Issue	MPWMD Prior 2017-18 Positions	CPUC Determinations on MPWMD 2017-18 Positions	MPWMD New 2019 Positions
Overall Demand	13,142 afy	**Rejected** by CPUC Appropriate demand is 14,000 afy	10,855-12,656 afy
Existing Customers	10,400 afy	**Rejected** by CPUC Appropriate existing demand is 12,000 afy	9,788-11,232 afy
Legal Lots of Record	1,181 afy	CPUC agreed and rejected arguments of lesser demand	864-1,104 afy
Tourism Bounce-back	250 afy	**Rejected** by CPUC Appropriate demand for economic recovery is 500 afy	100 - 250 afy
Pebble Beach Buildout	325 afy	CPUC agreed and rejected arguments of lesser demand	103-160 afy
Overall Supply	9,044 afy	CPUC agreed and rejected arguments of greater supply, including Table 13 water availability	11,700 afy
Seaside Basin	774 afy	CPUC agreed and rejected arguments of greater supply	Additional "unused capacity" in Seaside Basin
Sand City Desalination Plant	94 afy	CPUC agreed and rejected argument that additional supplies were available	94-200 afy
Pure Water Monterey Expansion	Not a feasible alternative to desalination	CPUC agreed, PWM expansion too uncertain to be a feasible alternative and would not bridge the gap between supply and demand	Feasible alternative to desalination

In sum, the analysis in the Stoldt Memo is not only significantly flawed, it is also irrelevant; the CPUC holds exclusive jurisdiction to determine what is needed for adequate service by the public utilities it regulates, and the CPUC already has determined that the MPWSP—as approved as a 6.4 mgd desalination facility—is needed. (See Pub. Util. Code, §

1001; *Citizens Utilities Company of California v. Superior Court* (1976) 56 Cal.App.3d 399, 409.) Therefore, whatever the motivation behind the Stoldt Memo, it does not affect the CPUC's determination that the MPWSP is needed to meet the Peninsula's water needs, nor does it excuse compliance with the State Water Resources Control Board's Cease and Desist Order milestones, which require that the MPWSP be operational and delivering water to Cal-Am's customers by December 31, 2021.

II. THE CPUC HAS EXCLUSIVE JURISDICTION TO DETERMINE ADEQUACY OF A REGULATED UTILITY'S SERVICE

The CPUC is an agency created by the California Constitution to regulate privately owned utilities such as Cal-Am. (Cal. Const., art. XII.) The California Constitution confers broad authority on the CPUC to regulate utilities, including the power to fix rates, establish rules, hold hearings, and establish its own procedures. (*San Diego Gas & Electric v. Superior Court* (1996) 13 Cal.4th 893, 915.) Moreover, the Legislature, which has plenary power to confer additional authority and jurisdiction upon the CPUC, enacted the Public Utilities Act (sections 201 et seq.), which vests the CPUC with broad authority to supervise and regulate public utilities, and grants numerous specific powers to the CPUC for that purpose. As set forth in Public Utilities Code section 1001, one of those powers is to determine whether construction or extension of a system or plant is required by the present or future public convenience and necessity.

One of the most basic determination to be made by the CPUC in granting a Certificate of Public Convenience and Necessity is that the project is needed for the utility to provide service, and this determination is within the *exclusive jurisdiction* of the CPUC. "Questions of public convenience and necessity, and matters directly relating thereto, in connection with the operation of public utility franchises, are the concern of the commission." (*Citizens Utilities Company of California*, *supra*, 56 Cal.App.3d at p. 409.) Public Utilities Code section 761 provides that "[w]henever the commission, after a hearing, finds that the rules, practices, equipment, appliances, facilities, or service of any public utility, or the methods of manufacture, distribution, transmission, storage, or supply employed by it, are . . . inadequate or insufficient, the commission shall determine and, by order or rule, fix the rules, practices, equipment, appliances, facilities, service, or methods to be observed, furnished, constructed, enforced, or employed." And in so doing, "the jurisdiction to determine the adequacy of service actually being rendered by a public utility under its franchise is vested exclusively in the Commission when it has elected to determine whether the service is inadequate." (*Citizens Utilities Company of California*, *supra*, 56 Cal.App.3d at p. 590; *see also City of Oakland v. Key System* (1944) 64 Cal.App.2d 427, 435 [exclusive jurisdiction vested in CPUC to determine adequacy of service rendered by public utility].)

III. 2018 DEMAND ANALYSIS BEFORE THE CPUC

Public water suppliers in California are required by statute to develop supplies capable of meeting long term demand in normal water years, a single dry water year, and during droughts lasting at least five years (Water Code, § 10635), and to assess whether their systems are capable of adequate service by determining the maximum daily demand (MDD) ***over the past ten years*** of operation. (California Waterworks Standards, Cal. Code Regs., tit. 22, § 64554.) The water

system must ***at all times*** have sufficient capacity to meet that maximum demand. (*Ibid.*) Moreover, each separate water source supplying a water system must be assessed individually for reliability under a variety of water shortage conditions and, for a surface water source, the source capacity must be considered to be the lowest anticipated daily yield. (*Ibid.*)

Section 64554(b) of the California Waterworks Standards specifies how maximum day demand is to be determined:

> A system shall estimate MDD and PHD [peak hourly demand] for the water system as a whole (total source capacity and number of service connections) and for each pressure zone within the system (total water supply available from the water sources and interzonal transfers directly supplying the zone and number of service connections within the zone), as follows:
>
> (1) If daily water usage data are available, identify the day with the highest usage during the past ten years to obtain MDD; determine the average hourly flow during MDD and multiply by a peaking factor of at least 1.5 to obtain PHD.
>
> (2) If no daily water usage data are available and monthly water usage are available:[6]
>
> (A) Identify the month with the highest water usage (maximum month) during at least the most recent ten years of operation or, if the system has been operating for less than ten years, during its period of operation;
>
> (B) To calculate average daily usage during maximum month, divide the total water usage during the maximum month by the number of days in that month; and
>
> (C) To calculate the MDD, multiply the average daily usage by a peaking factor that is a minimum of 1.5; and
>
> (D) To calculate the PHD, determine the average hourly flow during MDD and multiply by a peaking factor that is a minimum of 1.5.

Water utilities regulated by the CPUC are also governed by CPUC General Order 103-A, which requires that a potable water system's facilities shall have the capacity to meet the source capacity requirements as defined in Section 64554, and that the MDD be determined in accordance with that regulation.

[6] Cal-Am designed the MPWSP based on maximum month demands, rather than simply based on a single maximum daily demand, so as to ensure delivery of an adequate water supply during dry years over several maximum months of demands. (See Direct Testimony of Ian Crooks, Errata Version, before the CPUC ("Crooks Direct Testimony"), pp. 6, 15-16 [excerpts attached hereto as **Exhibit F**].)

Cal-Am analyzed its historic system demand consistent with these standards.[7] Cal-Am's maximum month of demand between 2012 and 2021, when the MPWSP is expected to be operational, is June 2012; total demand in 2012 was 11,549 afy.[8] The CPUC found that "Cal-Am appropriately considers the maximum demand year, 2012, within ten years of the anticipated in-service date, 2021." (*Id.*, p. 48.)

In addition to determining historic system demand for existing customers based on maximum month demand over the past ten years, Cal-Am also estimated the demand for future growth, including growth in lots of record and Pebble Beach development and future rebound of the hospitality sector. The CPUC determined that Cal-Am's estimates were reasonable, based on the evidence presented.[9]

Multiple parties to the CPUC proceedings presented projections of supply and demand for the Monterey Peninsula, including expected demand from existing customers, legal lots of record, Pebble Beach build-out, and economic recovery of the hospitality industry (tourism rebound). The table below is from the CPUC's Decision 18-09-017 Appendix B, and presents the parties' respective positions on supply and demand.

[7] See Exhibit A, p. 48 [Cal-Am's estimates "reasonably project demand amounts that are compliant with the California Waterworks Standards, 22 C.C.R. § 64554, requirements that the system's water sources have capacity to meet maximum day demand and peak hour demand."].

[8] See Exhibit A, p. 22 ["[Section 64554(b)(2)(A) requires us to examine "the month with the highest water usage (maximum month) during at least the most recent 10 years of operation" to determine the MDD."].) See also Exhibit F, pp. 9-13 [calculating annual system demand and noting that "[w]ith the plant projected to be in-service by 2021 and following § 64554, the highest 10-year (2012-2021) maximum demand year is anticipated to [be] the year 2012 at 11,549 AFY."].)

[9] Exhibit A, pp. 50-51.

Based on Evidence Submitted and Summarized in Briefs submitted Dec. 2017 and Jan. 2018

Demand and Supply Acre-Feet per Year (AFY)	Existing Customers	Lots of Record	Pebble Beach	Toursim Rebound	Other	DEMAND Total	Carmel River	Groundwater Recharge (GWR)*	Aquifer Storage and Recovery (ASR)	Seaside Basin	Sand City Desal	Other	SUPPLY Total
California-American Water Company (CA)	12,350	1,180	325	500	0	14,355	3,376	3,500	1,300	774	94	-	9,044
City of Marina (MNA)	9,300	974	325	0	0	10,599	3,376	3,500	1,300	774	200	-	9,150
Marina Coast Water District (MCD)	9,375	300-925				9,675 - 10,300	3,376	3,500	1,300	1,474	200	500	10,350
Monterey Peninsula Regional Water Authority (RWA)	12,000	2,000				14,000	3,376	3,500	1,300	774	94	-	9,044
Monterey Peninsula Water Management District (WD)	10,400	1,180	325	250	987	13,142	3,376	3,500	1,300	774	94	-	9,044
Planning and Conservation League Foundation (PCL), Sierra Club, & LandWatch Monterey County	9,398	300				9,698	3,376	3,500	1,300	774	94	-	9,044
Surfrider Foundation (SF)	10,085	0	200	0	350	10,635	3,376	3,500	1,300	774	94	-	9,044
Coalition of Peninsula Businesses (CPB)	13,000	2,000				15,000							n/a
Water Plus (WP)	8,000 - 11,000					9,800	3,376	3,500	1,300	774	94	-	9,044

Demand figures derived from:
Exhibit CA-51 at 10-14, Exhibit MNA-2 at 11-12, Marina Coast Water District's Opening Brief and Request for Oral Argument, Dec. 15, 2017, at 12, Exhibit RWA-27 at 6-8, Exhibit WD-15 at 15,
Opening Brief of Planning and Conservation League Foundation, Sierra Club & LandWatch Monterey County at 3-5, Surfrider Foundation's Phase 1 Opening Brief at 21, Exhibit CPB-1A at 4-6, Opening Brief of Water Plus at 4-7 and Appendix 1.

Supply figures derived from:
Exhibit CA-51 at 14, Exhibit MNA-2 at 14, Exhibit MCD-36A at 9-10, Exhibit RWA-27 at 6-7, Exhibit WD-15 at 16, Opening Brief of Planning and Conservation League Foundation, Sierra Club and LandWatch Monterey County at 6,
Exhibit SF-12 at 6, Exhibit WP-9 at 18, Opening Brief of City of Marina on Certificate of Public Convenience and Necessity issues at 22.

Comprehensive supply and demand figures for parties not included in the table above could not be identified in testimony or briefs.

The CPUC found credible and persuasive the demand analyses presented by Cal-Am (14,355 afy), the Monterey Peninsula Regional Water Authority (14,000 afy), and the Coalition of Peninsula Businesses (15,000 afy), and concluded that an estimated demand projection of 14,000 afy was reasonable and supported by statutory and regulatory requirements.[10] Based on this figure, the CPUC concluded that the reduced capacity desalination plant alternative of 6.4 mgd (which is expected to deliver approximately 6,250 afy in non-drought years and approximately 7,167 afy in drought years, combined with 3,500 afy of water purchased from the PWM project, was necessary to meet reasonable projected demand.[11] The CPUC found that this alternative was necessary to provide a reliable and secure supply, provide a reasonable buffer against uncertainties, satisfy all other reasonable needs, and ensure that Cal-Am remains within its legal rights to water from the Carmel River and the Seaside Basin.

Certain parties presented lower demand projections and argued that a much smaller water source was needed. The CPUC analyzed each of these lower demand projections, and rejected those figures as unreasonable or based on insufficient analysis.

- **City of Marina** (10,599 afy): The City of Marina argued that total forecasted demand should be reduced to 10,599 afy based on declining demand trends. The CPUC concluded that the City's forecast deviated from the requirements set forth in the California Waterworks Standards and the CPUC's General Order, relied on a continued downward trend in water use and minimal growth after 2021, and failed to provide an adequate buffer for unknowns.[12]
- **Marina Coast Water District** (9,675-10,300 afy): Marina Coast Water District (MCWD) argued that Cal-Am's current daily and annual water use will continue at current levels and that additional use would be between 300 to 925 afy at most, accounting only for development of lots of record and Pebble Beach entitlements, with no growth for the economic recovery of the tourism industry.[13] MCWD's estimates also relied only on the last three years of Cal-Am's demand data.[14] The CPUC concluded that MCWD's reliance on only the most recent three years of demand data was insufficient to predict demand over the next ten-plus years, deviated from the requirements set forth in statute and the CPUC's General Order, and was not based on factual support.[15]
- **Monterey Peninsula Water Management District** (13,142 afy): MPWMD argued for a forecasted demand of 13,142 afy, based on: (1) a claim that existing customer demand should be considered 10,400 based on the most recent 5-year average demand for existing customers; and (2) an additional 2,742 afy for future demand for lots of record, Pebble Beach entitlements, tourism rebound, system loss, and Salinas

[10] *Id.*, pp. 68, 195.

[11] *Id.*, pp. 68, 70, 178, 195.

[12] *Id.*, pp. 52-53.

[13] *Id.*, pp. 53-55.

[14] *Ibid.*

[15] *Id.*, pp. 53-55.

Valley Return Flow. The CPUC concluded that while considering only the most recent five-year average demand could be justified in normal circumstances, given the reasons for fluctuations in monthly and annual demand levels over the past decade, limiting demand analysis to the most recent five years without justifying the selection was not persuasive in this circumstance.[16]

- **Planning and Conservation League, Sierra Club, LandWatch Monterey County** (9,698 afy): Planning and Conservation League (PCL), Sierra Club, and LandWatch Monterey County used only the most recent three-year average demand for existing customers (9,398 afy) and a small amount of future growth (300 afy) to arrive at a demand estimate of 9,698 afy.[17] The CPUC concluded that PCL, Sierra Club and LandWatch's reliance on only the most recent three years of demand data was insufficient to predict demand over the next ten-plus years, deviated from the requirements set forth in statute and the CPUC's General Order, and failed to account for peak demand obligations, seasonal supply sources, or supply constraints in a multi-year drought.[18] The CPUC also concluded that there was no presentation of facts or evidence supporting the groups' estimate of only 300 afy for future growth.[19]
- **Surfrider Foundation** (10,635 afy): Surfrider estimated a demand of 10,635 afy based on the most recent five-year average demand (10,085 afy), plus 200 afy for Pebble Beach entitlements and 350 afy for growth and long-term development in the remainder of Cal- Am's service territory.[20] The CPUC concluded that while considering only the most recent five-year average demand could be justified in normal circumstances, given the reasons for fluctuations in monthly and annual demand levels over the past decade, limiting demand analysis to the most recent five years without justifying the selection was not persuasive in this circumstance. The CPUC also concluded that Surfrider failed to support its lower projections for future development in Cal-Am's service territory.[21]
- **Water Plus** (8,000-11,000 afy): Water Plus presented a range of demand figures based on its interpretation of the effects of potential water costs.[22] The CPUC concluded that "Water Plus's proposed range between 8,000 and 11,000 afy is both overly broad and lacks analysis of the standards and requirements needed for the system to be considered reliable for our purposes."[23] Additionally, the CPUC found

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[16] *Id.*, pp. 57- 58.

[17] *Id.*, pp. 59-61.

[18] *Id.*, pp. 59-60.

[19] *Ibid.*

[20] *Id.*, pp. 61-63.

[21] *Id.*, pp. 62-63.

[22] *Id.*, pp. 32-33.

[23] *Id.*, pp. 46-47.

that Water Plus's economic analysis did not comply with regulatory requirements for forecasting system capacity.[24]

IV. MPWMD 2019 ANALYSIS OF SUPPLY AND DEMAND

Approximately one year after the CPUC made its determinations about demand in the Cal-Am service area and the need for the MPWSP, MPWMD states that "it is an opportune time to examine available supplies and their ability to meet current and long-term demand." But MPWMD asserts the same flawed analysis rejected by the CPUC, which has exclusive jurisdiction over public utilities in these matters. (See Pub. Util. Code, § 761, 1001; *Citizens Utilities Company of California, supra*, 56 Cal.App.3d at p. 590; *City of Oakland, supra,* 64 Cal.App.2d at p. 435.)

A. MPWMD 2019 Analysis of Supply

MPWMD asserts the same analysis of existing supplies that it presented to the CPUC:

- 3,376 afy from the Carmel River;
- 3,500 afy purchased from Pure Water Monterey;
- 1,300 from winter Carmel River flows (i.e., Aquifer Storage and Recovery);
- 774 afy from the Seaside Groundwater Basin; and
- 94 afy from the Sand City desalination plant.

However, MPWMD now claims that an additional 406 afy of supplies, in the form of 300 afy of Table 13 diversions from the Carmel River under State Water Resources Control Board Permit 21330 and 106 afy of additional water from Sand City based on "new intakes," are available.

MPWMD's supply assumptions are overly optimistic and do not comply with the legal requirement that a water system's supply must be assessed in dry and multiple dry water years, and must include the source's lowest anticipated daily yield. (See Water Code, § 10635(a); Cal. Code Regs., tit. 22, § 64554(k).) Therefore, MPWMD's supply estimates cannot be used for water planning by any regulated water utility, including Cal-Am.

Specifically, the following MPWMD supply estimates must be revised:

1. Aquifer Storage and Recovery

MPWMD asserts that 1,300 afy of additional supply is available to Cal-Am from Aquifer Storage & Recovery ("ASR").[25] The ASR project entails diverting and conveying Carmel River water during periods of high flow that occur between December and May of each year to the Seaside Groundwater Basin, where it is injected into the aquifer for storage and subsequently

[24] *Id.*, pp. 46-47, 64-65.

[25] Stoldt Memo, p. 1.

recovered for delivery to customers.[26] The ASR project Carmel River withdrawals are limited by permit conditions imposed by the State Water Resources Control Board, including a requirement that minimum mean daily instream flows in the Carmel River be maintained for the protection of fisheries, wildlife, and other instream uses.[27] Because such diversions are contingent on maintaining minimum daily instream flows, and precipitation and streamflow can vary substantially from year to year, ASR project supplies may fluctuate year to year.[28] Indeed, as shown in Table 4.4-2 of the Final EIR/EIS, ASR injection volumes have ranged from 0 afy in 2014 to 1,117 afy in 2011—all below the 1,300 afy asserted by MPWMD:

TABLE 4.4-2
SUMMARY OF ASR INJECTION VOLUMES (AF)

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
2	175	168	160	351	411	12	60	182	1,111	1,117	131	295	0	215

MPWMD itself admits that the availability of ASR supplies is highly variable based on precipitation and streamflow.[29] Even at 1,300 afy, ASR supplies may be unavailable during drought years when there are insufficient Carmel River winter flows to reserve in the aquifer.[30] Therefore, assuming constant ASR water availability is inconsistent with the requirement that supply must be based on an assessment of available supply in dry and multiple dry water years, and must include the source's lowest anticipated daily yield. (See Water Code, § 10635(a); Cal. Code Regs., tit. 22, § 64554(k).) Because ASR water may not be available, it is not appropriately included in determining adequacy of available water supplies without the MPWSP.

Cal-Am did include 1,300 afy of ASR supply in its estimates to the CPUC. However, Cal-Am also sized the desalination plant to cover the anticipated shortfall in dry years when ASR is unavailable.[31]

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[26] See Final Environmental Impact Statement/Environmental Impact Report for the Monterey Peninsula Water Supply Project (March 2018), pp. 2-19 to 2-20, available at https://www.cpuc.ca.gov/environment/info/esa/mpwsp/feir-eis_toc.html.

[27] *Ibid.*

[28] *Ibid.*

[29] Stoldt Memo, p. 2.

[30] See Exhibit F, pp. 14-15.

[31] *Id.*, p. 15.

2. Table 13 Diversions

"Table 13" water rights are rights to divert Carmel River water under certain circumstances. Cal-Am's Table 13 water rights under Permit 21330 provide a potential right to divert up to 1,488 afy from the Carmel River, but this right is only available between December and May and is subject to instream flow requirements, such that in times of drought Table 13 water may not be available. MPWMD acknowledges these limitations, but nevertheless assumes that 300 afy will be available, despite the fact that diversions were only 42.2 acre-feet in 2015 and 164.2 acre-feet in 2016. However, in accordance with California law, a water system's supply must be assessed in dry and multiple dry water years, and must include the source's lowest anticipated daily yield. (See Water Code, § 10635(a); Cal. Code Regs., tit. 22, § 64554(k).) Because of the uncertainty of availability of Table 13, inclusion of any permitted amounts from this source in determining adequacy of supplies is not appropriate.

3. Sand City Desalination Plant

The CPUC considered whether any additional supply was available from the Sand City desalination plant, and specifically whether an additional 106 afy was available to Cal-Am. The CPUC concluded that arguments about any additional allocation above the 94 afy already allocated to Cal-Am confused the Sand City plant's total expected production of 200 afy with Cal-Am's allocation, and that no credible evidence supported the claim that Cal-Am would be able to rely on receiving more than the 94 afy to which it is currently entitled.[32] MPWMD provides no additional evidence to support its assertion.

B. MPWMD 2019 Demand Analysis

MPWMD focuses much of its historical demand analysis on average customer demand projections presented to the CPUC in 2012 and 2013. It is not clear why MPWMD relies on 2012 projections, as it is well aware that on August 28, 2017 the CPUC ordered further evidentiary hearings, submission of supporting documents, and testimony on updated estimates of demand. Parties to the CPUC proceedings, including Cal-Am and MPWMD, submitted extensive testimony and briefs in late 2017 and early 2018.[33] As part of these updated projections, Cal-Am projected that demand would be approximately 14,355 afy, including demand from existing customers, lots of record, Pebble Beach entitlements, and economic recovery.[34] MPWMD appears to ignore this extensive, updated analysis, as well as its own testimony on these issues.

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[32] Exhibit A, p. 36.

[33] See, e.g., MPWMD Opening Brief on Certificate of Public Convenience and Necessity Issues (Dec. 15, 2017) ("MPWMD Opening Brief"), pp. 4-7, 10 [excerpts attached hereto as **Exhibit G**]; Direct Testimony of David J. Stoldt before the CPUC ("Stoldt Direct Testimony") (Sept. 28, 2017), pp. 9, 11, 13-14, 16-18 [excerpts attached hereto as **Exhibit H**].

[34] See Exhibit F, pp. 15-16.

1. Existing Customer Demand

Ignoring statutory and regulatory requirements, Table 3 of MPWMD's memo presents the average customer demand for the past 10 years (11,232 afy), 5 years (10,109 afy), and 3 years (9,788 afy). MPWMD then concludes – without any justification or legal support – that system sizing for existing demand should be between the 3- and 10-year averages. As noted above, the CPUC has already rejected projections based on 3 years or 5 years of historical use, and a projected demand based on *any* annual averages ignores the requirement that a system be sized to handle maximum demands.[35]

MPWMD also attempts to present a maximum month demand, but does so incorrectly. Instead of basing projected annual needs on a maximum month, MPWMD *averages* the maximum months over the ten-year period between 2009 and 2018.[36] MPWMD's method finds no support in any statutory or regulatory authority, and defeats the California Waterworks Standard's purpose to identify and meet the maximum month demand in a 10-year period.

Further, MPWMD attempts to justify its downward revisions in its estimates of existing customer demand by arguing that average customer demand in Cal-Am's Monterey District has been in decline in recent years.[37] However, the CPUC expressly rejected any projection of existing customer demand that assumed the continuance of downward trends in water usage on the Monterey Peninsula. The CPUC specifically stated that:

> The assertions by some parties that the downward trend in water use in the District will continue and that only minimal growth will occur in demand after 2021 are not convincing because those assertions fail to consider that maximum month usage increased in 2017 compared to 2016, conservation funding is projected to go down, and the conservation and moratorium measures implemented during the drought will end.[38]

2. Legal Lots of Record

MPWMD argued to the CPUC that 1,180 afy was a reasonable estimate of the future water demand by legal lots of record.[39] Now, MPWMD claims that this number should be reduced to between 864 afy and 1,014 afy.[40] MPWMD claims that (1) its conservation programs should reduce demand by 167.1 acre feet, and (2) the possibility that some lots may have already been built, others may be unbuildable, some remodels may have occurred, general plans may have been rewritten and housing elements may have been recalculated, should reduce demand by an additional 150 acre feet. (*Ibid.*) MPWMD provides no evidence for its assumptions, which

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[35] See Exhibit A, p. 58.

[36] Stoldt Memo, p. 7.

[37] Stoldt Memo, pp. 5-6.

[38] Exhibit A, pp. 169-170.

[39] See Exhibit H, p. 11-13.

[40] Stoldt Memo, p. 8.

seem to have no foundation beyond sheer speculation, and fails to provide any reason for its change of position or why it failed to present any such evidence regarding legal lots of record just one year ago in the CPUC proceedings.

On the other hand, the CPUC accepted Cal-Am's projection for demand from legal lots of record at 1,180 afy as "reasonable because growth will occur" and "development is halted pending adequate water."[41]

3. Economic Recovery

MPWMD asserts that additional demand based on tourism bounce-back should be between 100-250 afy.[42] In the CPUC proceedings, it also argued that such demand should only be 250 afy, and made virtually identical arguments in support of that figure as it does now.[43] The CPUC rejected MPWMD's number and instead found the testimony of the Coalition of Peninsula Businesses credible in supporting a demand for economic recovery of 500 afy.[44]

MPWMD selectively presents commercial sector water demand for the years 2001, 2012 and 2018, and then concludes that, due to permanent demand reductions a bounce back of 500 afy is not likely.[45] But the Coalition of Peninsula Businesses provided evidence that some water reductions are not permanent, hotel occupancy has not returned to pre-2008 levels, and additional water will be needed to provide service for that growth.[46]

The Coalition of Peninsula Businesses has also provided a response to the Stoldt Memo, which notes that MPWMD improperly utilizes County-wide occupancy statistics, which are not specific to the Monterey Peninsula.[47] As the Coalition of Peninsula Businesses points out, Peninsula hotel occupancy rates continue to struggle to achieve occupancy rates in the high 70s and low 80s, and has not recovered to pre-recession levels.[48]

4. Pebble Beach Entitlements

In late 2017 and early 2018, MPWMD testified, and both Cal-Am and the CPUC agreed, that 325 afy remained a reasonable estimate of water needed to serve remaining Pebble Beach entitlements, and acknowledged that this amount represented a legal entitlement of the Pebble

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[41] Exhibit A, p. 50.

[42] Stoldt Memo, p. 9.

[43] See Exhibit A, pp. 58-59.

[44] *Id.*, p. 64.

[45] Stoldt Memo, p. 9.

[46] See Exhibit A, pp. 63-64 ["Coalition of Peninsula Businesses has shown that there is a need to include additional water to account for the tourism rebound category and the Commission supports the addition of 500 afy in the projection of demand offered by Cal-Am."].

[47] See Coalition of Peninsula Businesses September 24, 2019, Letter [attached hereto as **Exhibit I**].

[48] *Ibid.*

Beach Company.[49] MPWMD has now reversed its position, claiming that 154 afy of this entitlement, called "other entitlement demand" will go away when a new water supply goes online.[50] This "other entitlement demand" is a portion of the total Pebble Beach entitlement that Pebble Beach is authorized under MPWMD's Ordinance 109 to sell to specified properties within the Del Monte Forest for residential use. But, as recognized by Ordinance 109, any amount of this "other entitlement" that is not sold and conveyed by Pebble Beach Company may be used by Pebble Beach for any lawful use.[51] Pebble Beach's right to that water does not "go away."

MPWMD also claims that the estimated demand for build out of the Pebble Beach project may be overstated, based on increased conservation, part-time use of proposed homes, and uncertainty over timing of the Spyglass Hotel.[52] But certain conservation measures may not be permanent, and part time homes need full-time landscape irrigation. And although MPWMD stated in the CPUC proceedings that construction of the Spyglass Hotel may be a decade or more away, if built at all, it still acknowledged that for purposes of planning a water supply for long-term purposes, the total 325 afy should be considered.[53] MPWMD's dramatic change in position in just one year is not justified.

5. Market Absorption

Table 8 of the Stoldt Memo purports to compare demand for the current MPWSP with revised high and low demand projections. This comparison is incorrect and misleading for three reasons.

First, Tables 2 and 8 of the Stoldt Memo incorrectly use an outdated number of 13,290 afy for Cal-Am's current customer demand component, resulting in a total demand of 15,296 afy. This 13,290 afy estimate was updated and replaced with 12,350 afy in the 2018 CPUC proceedings with a total projected demand of 14,355.[54]

Second, as noted above, MPWMD's revised high and low demand projects based on 3-year and 10-year average annual demands are not supportable.

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[49] Exhibit A, p. 29 ["Monterey Peninsula Water Management District also states that the 325 afy for Pebble Beach remains a reasonable estimate and that it is a legal entitlement to the Pebble Beach Company."].

[50] Stoldt Memo, p. 9.

[51] See MPWMD Ordinance No. 109, p. 12, available at https://www.mpwmd.net/ordinances/final/ord109/pdf_web/Ordinance%20109.pdf.

[52] Stoldt Memo, p. 10.

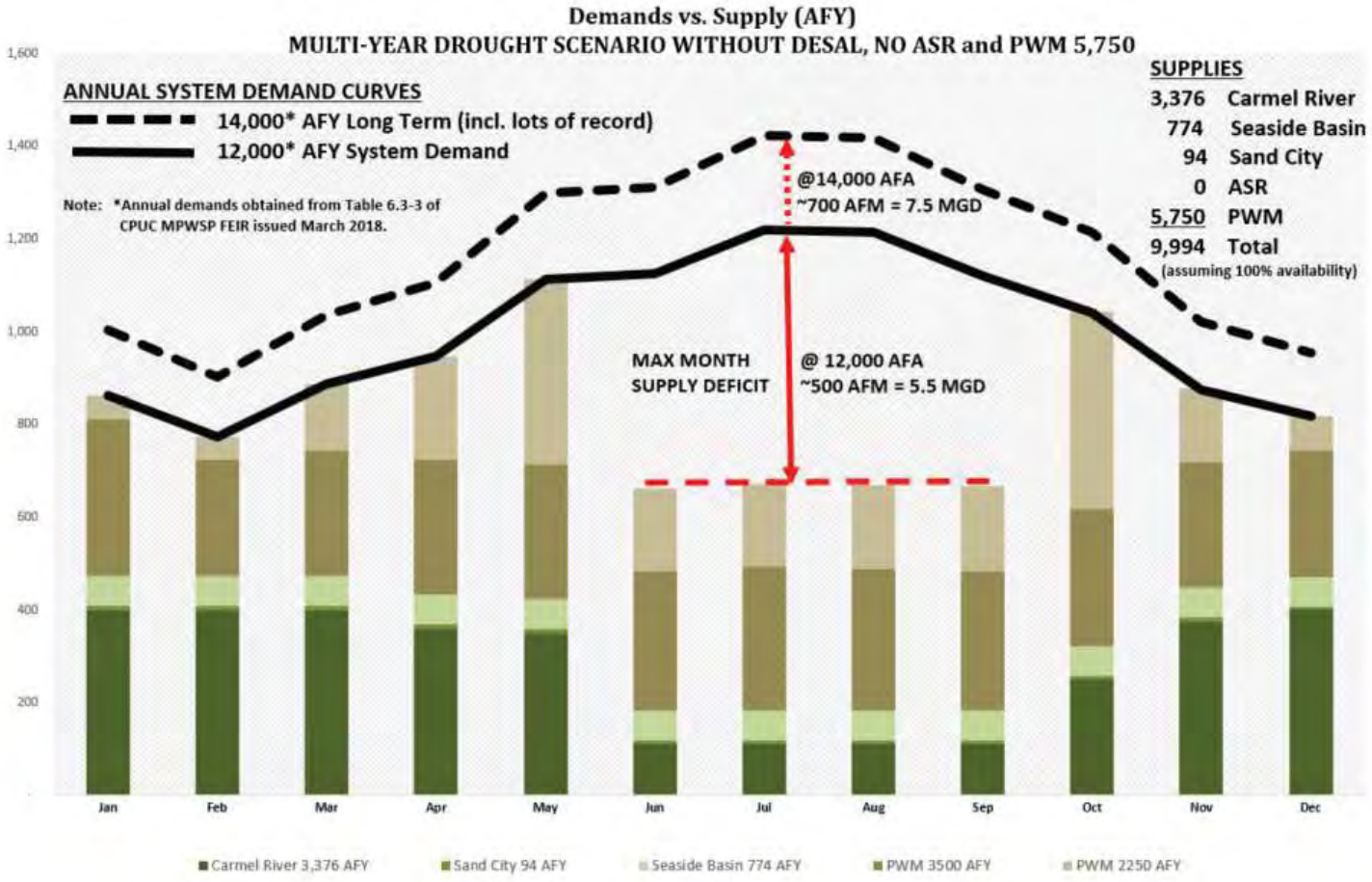
[53] See, e.g., Exhibit H, p. 14 ["From a planning perspective, if planning a water supply for long-term purposes, the total 325 AFY use for Pebble Beach build-out should be considered."].

[54] See Exhibit A, p. 25.

Third, MPWMD presents a graph purporting to show when additional water supplies might be needed, and whether expansion of PWM would satisfy that need.[55] Each graph, however, starts with a demand in 2020 based on the most recent 5-year average (10,109 afy). As stated above, future demand based on a historical five-year average is inconsistent with statutory and regulatory requirements, and was explicitly rejected by the CPUC. Indeed, if the graphs used the maximum demand year over the ten-year period between 2012 and 2021—11,549 afy—the Monterey Peninsula water supply in 2020 without desalination but with hypothetical PWM expansion would already be at a deficit of more than 200 afy according to Table 1 of MPWMD's own memorandum.

The graph below more accurately shows the deficit situation the Monterey Peninsula would face with only expanded PWM, using the projected annual demand of 14,000 afy adopted by the CPUC (existing customer use, legal lots of record, tourism bounce-back, and Pebble Beach entitlements), as well as a projected demand of 12,000 based maximum month demand (existing customer use only). Additionally, considering a multi-year drought with no ASR available, removing the improperly assumed "Other Supplies" in the Stoldt Memo, and unrealistically assuming 100% availability of supplies, the total water supply available is 9,994 afy, which leaves the Monterey Peninsula at the razor's edge of meeting even today's demands.

[55] Stoldt Memo, pp. 12-13.


Demands vs. Supply (AFY)
MULTI-YEAR DROUGHT SCENARIO WITHOUT DESAL, NO ASR and PWM 5,750
ANNUAL SYSTEM DEMAND CURVES
14,000* AFY Long Term (incl. lots of record)
12,000* AFY System Demand
Note: *Annual demands obtained from Table 6.3-3 of CPUC MPWSP FEIR issued March 2018.
@14,000 AFA
~700 AFM = 7.5 MGD
MAX MONTH SUPPLY DEFICIT
@ 12,000 AFA
~500 AFM = 5.5 MGD
SUPPLIES
3,376 Carmel River
774 Seaside Basin
94 Sand City
0 ASR
5,750 PWM
9,994 Total
(assuming 100% availability)
1,600
1,400
1,200
1,000
800
600
400
200
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Carmel River 3,376 AFY
Sand City 94 AFY
Seaside Basin 774 AFY
PWM 3500 AFY
PWM 2250 AFY

MPWMD also argues that the impact of desalination on customer's water rates will dampen demand, and future conservation requirements will make increases in use by existing customers less likely. Water Plus made a similar argument concerning the impact of rates before the CPUC, but the CPUC rejected Water Plus's analysis, finding that water was not a traditional consumable that fits neatly into economic theories of supply and demand.[56] MPWMD similarly fails to provide any additional basis to support its theory that increased costs will necessarily result in a reduction to water demand. Contrary to MPWMD's unreasonably low market absorption rate assumption, recent evidence demonstrates pent-up demand for water on the Monterey Peninsula. Specifically, in February 2016, 80 acre-feet of new water entitlements for use only in the Carmel River watershed and the City of Carmel became available for property owners to purchase at a cost of $240,000 *per acre-foot* or increments thereof.[57] Despite the high price and availability limited to properties in the Carmel River watershed, the water rights were completely sold out by the end of 2018. This correlates to a pent-up new water demand of about 30 acre-feet per year, which is two to three times the absorption rate MPWMD assumes.

C. Pure Water Monterey Expansion Feasibility

MPWMD now asserts that an expansion of the Pure Water Monterey (PWM) system is sufficient to meet the water supply demands on the Monterey Peninsula.[58] However, throughout the CPUC's proceeding on the MPWSP, MPWMD argued that even with PWM expansion, additional water supply from the MPWSP would be necessary to meet demand in Cal-Am's Monterey District—even with the reduced demand that MPWMD projected at the time, which was less than Cal-Am's demand estimate.[59] MPWMD also argued, in multiple submissions to the CPUC, that PWM expansion should be considered, but only as a "Plan B" to Cal-Am's desalination project.[60] In its decision on the MPWSP, the CPUC specifically rejected the implementation of PWM expansion as an alternative to the MPWSP, stating that even if an additional 2,250 afy were to be added from expanded PWM, there would still be a supply deficit of at least 2,706 afy between available supply and the estimated demand of 14,000 afy as determined by the CPUC.[61] The CPUC further concluded that implementation of PWM

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[56] Exhibit A, p. 65 ["Water is not a traditional consumable that fits neatly into the economic theories of supply and demand. There is no easy or perfect substitutable product for water."]; see also *id.*, p. 64 ["Water Plus fails to show how its economic analysis complies with our General Order and statutory requirements that the capacity of the system will meet the system's maximum demand."].

[57] See MPWMD Rule 23.7 (addressing the Malpaso Water Company's ability to sell up to 80 afy to certain properties); see also Mary Schiley, Malpaso Water Allocation Is Almost Gone, THE CARMEL PINE CONE (April 13-19, 2018), available at http://pineconearchive.com/180413PCA.pdf.

[58] Stoldt Memo, p. 12.

[59] See Exhibit G, p. 10; see also Exhibit H, p. 16.

[60] See Exhibit G, p. V; see also MPWMD Reply Comments on CPUC Proposed Decision Approving a Modified MPWSP ("MPWMD Reply Comments"), p. 3 [attached hereto as **Exhibit J**].

[61] Exhibit A, p. 40.

expansion alone increases the risk that sufficient supply would not be available to meet peak demands, particularly during drought years.[62]

[62] *Id.*, pp. 41-42.

ATTACHMENT 2

	Issue	Prior MPWMD Positions During 2017/2018 CPUC Proceedings and CPUC Responses	Current MPWMD Positions in 2019 Memo and Cal-Am Responses
1.	**Overall Demand**	**Prior MPWMD Position**: MPWMD argued that overall demand on the Peninsula should be assessed at 13,142 afy.[1] **CPUC Response**: The CPUC declined to adopt MPWMD's estimate and found that an overall demand estimate of 14,000 afy was justified. "[P]rojecting any amount less than approximately 14,000 [afy] presents unreasonable risk without commensurate public benefit."[2]	**Current MPWMD Position**: MPWMD now argues that demand on the Monterey Peninsula is projected to be between 10,855 and 12,656 afy.[3] **Cal-Am Response**: MPWMD's estimate is inapplicable to the MPWSP because it does not comply with California Waterworks Standards (Cal. Code Regs., tit. 22, § 64554) or CPUC General Order 103-A, which mandate how a water utility's system demand must be calculated.
2.	**Existing Cal-Am Customer Demand**	**Prior MPWMD Position**: MPWMD argued that average existing customer demand should be assessed at 10,400 afy, based on a 5-year average.[4] **CPUC Response**: The CPUC rejected MPWMD's use of a 5-year average, and explained that the California Waterworks Standards and CPUC General Order 103-A require that a potable water system's facilities have capacity to meet maximum monthly demand, considering the most recent 10 years of operations, and a projected 10-year growth period, taking into account the potential for multiple dry water years.[5] The CPUC explained that "[i]n normal circumstances, using the most recent 5-year average to forecast existing customer demand could be justified. However, in this case, limiting the selection to the most recent five years without justifying the selection of that period of	**Current MPWMD Position**: MPWMD now argues that customer demand has been in decline for the previous 20 years, and that average customer demand can be assessed at 11,232 afy (based on a 10-year average), 10,109 afy (based on a 5-year average) or 9,788 afy (based on a 3-year average).[7] **Cal-Am Response**: The CPUC has already rejected the use of 5-year or 3-year averages.[8] While use of a 10-year average also does not comply with California Waterworks Standards, MPWMD's 10-year average of 11,232 afy is somewhat similar to Cal-Am's maximum demand year over the ten-year period between 2012 and 2021, which was 11,549 afy.

	Issue	Prior MPWMD Positions During 2017/2018 CPUC Proceedings and CPUC Responses	Current MPWMD Positions in 2019 Memo and Cal-Am Responses
		time is nor persuasive, especially given the reasons for the fluctuations in monthly and annual demand levels over the past decade."[6]	
3.	**Legal Lots of Record**	**Prior MPWMD Position**: MPWMD argued that long-term demand for legal lots of record should be assessed at 1,181 afy, though short term needs may be met by a smaller increment of supply.[9] **CPUC Response**: The CPUC adopted a projection of 1,180 afy for legal lots of record, finding that the assumptions behind that number "are reasonable because growth will occur [and] development is halted pending adequate water."[10]	**Current MPWMD Position**: MPWMD now inexplicably argues that its prior demand estimate of 1,181 afy for legal lots of record should be reduced to between 864 and 1,104 afy, which represents a notable change in position from the CPUC proceedings when it claimed that all legal lots of record must be taken into account.[11] **Cal-Am Response**: There is no justification for reducing the demand for legal lots of record since nothing has changed about those lots since the CPUC approved the MPWSP.
4.	**Tourism Bounce-Back**	**Prior MPWMD Position**: MPWMD argued that demand to accommodate tourism bounce-back on the Monterey Peninsula should be estimated at 250 afy, instead of the 500 afy projected by Cal-Am.[12] **CPUC Response**: The CPUC rejected MPWMD's argument. "Monterey Peninsula Water Management District does provide reasons why it thinks additional demand due to tourism rebound will be 250 afy instead of the 500 afy projected by Cal-Am. Monterey Peninsula Water Management District claims that some permanent demand reductions have occurred in that sector due to targeted rebates, mandated conservation standards,	**Current MPWMD Position**: MPWMD now argues that estimated demand to accommodate for tourism bounce-back should be assessed at between 100 and 250 afy, repeating an argument the CPUC rejected.[14] **Cal-Am Response**: There is no evidence that the allocation for tourism determined by the CPUC only one year ago has changed in any meaningful way. Indeed, as the Coalition of Peninsula Businesses points out, Peninsula hotel occupancy rates continue to struggle to achieve occupancy rates in the high 70s and low 80s, and tourism has not recovered to pre-recession levels.[15]

	Issue	Prior MPWMD Positions During 2017/2018 CPUC Proceedings and CPUC Responses	Current MPWMD Positions in 2019 Memo and Cal-Am Responses
		and non-residential inspections and enforcement by Monterey Peninsula Water Management District, but it is not convincing to explain why the 250 afy tourism rebound figure should be adopted."[13]	
5.	**Pebble Beach Buildout**	**Prior MPWMD Position**: MPWMD argued that demand required for the Pebble Beach buildout should be estimated at 325 afy.[16] Specifically, MPWMD argued that "the 325 afy for Pebble Beach remains a reasonable estimate and that it is a legal entitlement to the Pebble Beach Company."[17] **CPUC Response**: The CPUC agreed with this demand estimate.[18]	**Current MPWMD Position**: MPWMD now argues that a demand estimate for buildout of Pebble Beach should be between 103 and 160 afy, which is a marked reversal from its prior position that a 325 afy represents a legal entitlement that the Pebble Beach Company will claim.[19] **Cal-Am Response**: Pebble Beach Company has not relinquished any of its legally entitled right to 325 afy.
6.	**Overall Supply**	**Prior MPWMD Position**: MPWMD agreed with Cal-Am that overall supply should be estimated at 9,044 afy.[20] **CPUC Response**: The CPUC agreed with this supply estimate.[21]	**Current MPWMD Position**: MPWMD now argues that total available supplies without desalination are 11,700 afy, adding in a potential expansion of the PWM project and "Other Available Supplies."[22] **Cal-Am Response**: MPWMD's estimate is overly optimistic and does not account for drought conditions, when ASR water and additional Carmel River withdrawals may be unavailable. MPWMD's estimate also assumes without evidence or support that additional water from the Sand City Desalination Plant and the Seaside Basin are somehow available beyond Cal-Am's existing allocations.

	Issue	Prior MPWMD Positions During 2017/2018 CPUC Proceedings and CPUC Responses	Current MPWMD Positions in 2019 Memo and Cal-Am Responses
7.	**Seaside Basin Supplies**	**Prior MPWMD Position**: MPWMD agreed with Cal-Am that Seaside Basin supplies should be estimated at 774 afy. **CPUC Response**: The CPUC agreed with this supply estimate.[23]	**Current MPWMD Position**: MPWMD now argues that there is "available unused capacity in the Seaside Basin" that is available to Cal-Am.[24] **Cal-Am Response:** MPWMD's new position conflicts with the CPUC's determination that only 774 afy is available from the Seaside Basin: "Cal-Am's has an adjudicated right to 1,474 afy from the Seaside Groundwater Basin. *See, Cal-Am v. City of Seaside et al.*, Super. Ct. Monterey County, 2006, No. M66343. However, Cal-Am must also repay the Seaside Basin for overdrafts and has therefore assumed a reduction of supply of 700 afy over 25 years, resulting in a net supply available to Cal-Am of 774 afy from the Seaside Groundwater Basin."[25] MPWMD's position does not account for the overdrafts that Cal-Am must repay.
8.	**Sand City Desalination Plant Supplies**	**Prior MPWMD Position**: MPWMD agreed with Cal-Am that Sand City Desalination Plant supplies should be estimated at 94 afy. **CPUC Response**: The CPUC agreed with this supply estimate.[26]	**Current MPWMD Position**: MPWMD now argues that Cal-Am may purchase water from the Sand City Desalination Plant in excess of 94 afy.[27] **Cal-Am Response**: MPWMD's position conflicts with the CPUC's determination that no credible evidence supports the claim that Cal-Am would be able to rely on receiving more than the 94 afy to which it is currently entitled.[28]
9.	**PWM Expansion**	**Prior MPWMD Position**: MPWMD argued that additional water supply will be needed to meet demand, even with PWM expansion.[29] MPWMD also argued in briefing to the CPUC that PWM	**Current MPWMD Position**: MPWMD now argues that expanded PWM is sufficient to meet water supply needs on the Peninsula, based on demand projections that fail to comply with the California Waterworks

	Issue	Prior MPWMD Positions During 2017/2018 CPUC Proceedings and CPUC Responses	Current MPWMD Positions in 2019 Memo and Cal-Am Responses
		expansion should be considered, but only as a Plan B.[30] **CPUC Response**: The CPUC agreed that PWM expansion was speculative and "would not satisfy the estimated water supply required by Cal-Am customers, provide water supply reliability, provide supply to allow for replenishment of water that Cal-Am previously pumped from the Seaside Basin in excess of Cal-Am's adjudicated right, would not contribute to diversity in the portfolio of projects that produce water supply, nor provide supply for future development or economic expansion."[31]	Standards or GO 103-A, and overly-optimistic supply projections that do not adequately account for drought conditions or existing supply constraints.[32] **Cal-Am Position**: Even an expanded PWM would not meet the demand determined by the CPUC. Nothing MPWMD has provided in the 2019 Memo changes or undercuts those demand conclusions.

[1] Exhibits H, p. 16; I, p. 15.
[2] Exhibit A, p. 56.
[3] Stoldt Memo, p. 10.
[4] Exhibits I, p. 11; H, p. 4.
[5] Exhibit A, pp. 21-23.
[6] *Id*., p. 58.
[7] Stoldt Memo, p. 6.
[8] *Id*., pp. 58-59.
[9] Exhibits H, p. 5; I, p. 13 ["long-term water supply planning should incorporate the full 1,181 [afy]. Failure to provide water for legal lots of record infringes on property rights and would perpetuate a state of 'water poverty' in our communities, hence should be avoided by planning for sufficient water"].
[10] Exhibit A, p. 50.
[11] Stoldt Memo, p. 8.
[12] Exhibits H, p. 7; I, p. 14.
[13] Exhibit A, p. 58.
[14] Stoldt Memo, p. 9.
[15] See Exhibit I.
[16] Exhibits H, p. 6; I, pp. 13-14.
[17] Exhibit A, p. 29.
[18] *Id*., p. 50.
[19] Stoldt Memo, p. 10.
[20] Exhibit H, p. 16.
[21] Exhibit A, pp. 67-68, 167.
[22] Stoldt Memo, p. 1.
[23] Exhibit A, pp. 122, 167.
[24] Stoldt Memo, p. 3.
[25] Exhibit A, p. 33.
[26] *Id*., pp. 33, 167.
[27] Stoldt Memo, p. 3.
[28] Exhibit A, p. 36.
[29] Exhibit H, p. 17.
[30] Exhibits H, p. V; K, p. 3.
[31] Exhibit A, pp. 39-42.
[32] Stoldt Memo, pp. 2, 12-13.

EXHIBIT A

Decision 18-09-017 September 13, 2018

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of California-American Water Company (U210W) for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates.	Application 12-04-019

DECISION APPROVING A MODIFIED MONTEREY PENINSULA WATER SUPPLY PROJECT, ADOPTING SETTLEMENT AGREEMENTS, ISSUING CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND CERTIFYING COMBINED ENVIRONMENTAL REPORT

the greater probability of truth'."[33] In short, Cal-Am must present more evidence that supports the requested result than there exists in the record that would support an alternative outcome.

Intervenors do not have the burden of proving the unreasonableness of Cal-Am's showing but may challenge Cal-Am's evidence and conclusions through the presentation of additional evidence and alternative conclusions. Once the parties have completed their presentations of evidence and made their arguments, our role is to weigh the evidence presented and approve, modify, or deny the application in whole or in part.

In this case Cal-Am has more than met its burden to prove that the long-term water supply available to Cal-Am in Monterey is not sufficient to meet the system's projected demand absent new supply. Intervenors have convinced us that a demand figure slightly lower than that presented by Cal-Am is the most reasonable figure to adopt in this proceeding. Intervenors did not identify alternative supply sources sufficient to meet any of their demand figures. Thus, without the additional supply proposed in this application, the available supply is insufficient to meet the required demand for the system.

4.2. Monterey District Water Demand

The Commission's General Order (GO) 103-A[34] requires that a potable water system's facilities shall have the capacity to meet the source capacity

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[33] D.12-12-030 at 42, *aff'd* D.15-07-044 at 28-30.

[34] California Public Utilities Commission General Order (GO) 103-A, Section II.2.B.3 states:

> (a) A system's facilities shall have the capacity to meet the source capacity requirements as defined in the Waterworks Standards, [California Code of Regulations] CCR Title 22, Section 64554, or its successor. If, at any time, the system does not have this capacity, the utility shall request a service connection

Footnote continued on next page

requirements as defined in the Waterworks Standards, CCR Title 22, Section 64554, or its successor, and that the system's maximum day demand (MDD) shall be determined in accordance with that regulation. CCR Title 22, Section 64554(a) requires that "a public water system's water source(s) shall have the capacity to meet the system's maximum day demand." CCR Title 22, Section 64554(b) sets forth how that maximum day demand is determined depending on the usage data available for the most recent 10 years of operation. For our purposes, Section 64554(b)(2)(A) requires us to examine "the month with the highest water usage (maximum month) during at least the most recent 10 years of operation" to determine the MDD.[35]

> moratorium until such time as it can demonstrate the source capacity has been increased to meet system requirements.
>
> (b) If a system provides potable water for fire protection service, new portions of the system shall have supply and storage facilities that are designed to meet [maximum day demand] MDD plus the required fire flow at the time of design. (See, Section VI of this General Order for fire flow guidelines.)
>
> (c) The system's MDD and [Peak Hour Demand] PHD shall be determined in accordance with Waterworks Standards, CCR Title 22, Section 64554, or its successor.

[35] *C.f.*, CCR Title 22 Section 64554(b)(1), which would examine "the day with the highest usage during the past 10 years, …determine the average hourly flow" during that day, and "multiply by a peaking factor of at least 1.5 to obtain the PHD [peak hourly demand]." Parties did not present their conclusions using this method, *see*, *e.g.,* Exhibit CA-52 at 7-9, Exhibit WD-15 at 5, and Exhibit MNA-2 at 12, but did present their demand projections in monthly and annual figures. This is consistent with Cal-Am's assertion that peak month demand is a more critical consideration for its operations than peak day demand. This appears undisputed, as all of the parties presented their demand projections in a similar method (*see, e.g.*, Exhibit SF-12 Attachment A) and we use monthly and annual figures throughout in our consideration of the standard.

CCR, Title 22, Section 64554 addresses requirements for a public water system's water capacity and sets forth with specificity how the water system must meet the MDD and how to calculate the maximum month demand during at least the most recent ten years of operation. In order to calculate the demand to be served, Cal-Am must consider and balance the requirements of the CDO, this Commission's requirements, and the State Water Resources Control Board's requirements.[36]

In addition, other sections of the Waterworks Standards provide guidance to our analysis. CCR Title 22, Section 64558(a)(2) directs that when planning and permitting a water system capacity expansion, the Commission should also look at the MDD going forward over a "10-year growth period." In evaluating the projected 10-year growth period, 22 CCR Title 22 Section 10635 provides guidance as to evaluating projected water supply and use "for a normal water year, a single dry water year, and multiple dry water years." While our rules do not bind our analysis to these requirements, the Commission does find them useful and instructive in determining the projected demand for Cal-Am in its Monterey District. For example, if the Commission strictly follows the methodologies set forth in Section 64544, the result would be a projected demand that is significantly higher than is needed given the changes in water use in this system on a month by month basis. There is no requirement in Section 64554 that the Commission only looks at the MDD, PHD, or maximum month in the historical period for water systems such as Cal-Am's. Our goal, and the goal of Section 64554, is to ensure a public water system can meet the MDD and for a

[36] *See,* Cal. Health & Saf. Code § 116271 (The State Water Board assumed the drinking water regulatory functions of the Department of Public Health as of July 1, 2014.).

system of Cal-Am's size can meet PHD for 4 hours in a day with source capacity, storage capacity, and/or emergency connections.[37]

Nothing in recent legislation signed by the Governor on May 31, 2018 changes our analysis as the new mandates are well within our estimates for residential water use and demand growth,[38] and in fact reinforce our consideration of using the driest years in forecasting available supply and demand.

4.2.1. Forecasts of Demand for the Monterey District

The Commission has a considerable record in this case of the parties' projections of demand for the Cal-Am system in Monterey. The assigned Commissioner and Administrative Law Judges recognized in 2017 that given the passage of time, positions of parties on issues of material fact may have changed during the course of this proceeding, and in 2017 asked parties to identify issues for further hearing.[39] When seeking input on the issues to consider within the scope of the most recent phase of this proceeding, the first issue identified was an update to estimates and analysis of demand.[40] Parties' initial demand projection

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[37] *See*, WD-15 at 4-5.

[38] SB 606 (Stats. 2018; ch. 14); AB 1668 (Stats. 2018; ch. 15). *See also*, Exhibit MNA-2, at 6, 8-9, and Attachments 1 and 2. The legislation establishes guidelines for statewide water efficiency standards to be in place by 2022. The guidelines include indoor water use goals, incentives for water suppliers to recycle water, and requiring water suppliers to set water budgets and prepare for drought. The Monterey District is already a leader in using water efficiently, minimizing both indoor and outdoor water use, using recycled water, setting water budgets, and preparing for drought. *See,* Exhibit CA-55 at 8-13.

[39] Administrative Law Judge's Ruling Requesting Parties to Identify Issues for Further Evidentiary Hearings, June 9, 2017.

[40] *See*, August 7, 2017 Assigned Commissioner and Administrative Law Judge's Ruling Setting Prehearing Conference and Identifying Issues for Further Hearings, August 7, 2017.

positions were widely divergent, and while their demand projection positions did narrow over the four years between hearings, they remain significantly apart.[41] The estimates of demand as of December 2017 range from 9,675 to 15,000 afy. No party estimated demand at a level that was equal to or less than the available supply (9,044 afy).[42]

Cal-Am averages the results of two methods to forecast annual system water demand in 2021 when the desalination plant is expected to be operational. First, Cal-Am uses an averaging process to arrive at a historical figure of 11,745 afy. Second, Cal-Am forecasts the system water demand based on population growth and a return to 2010-2013 per customer usage amounts attributing the per customer declines to conservation measures implemented during the drought from 2011-2015. That second method results in a forecasted demand figure of 12,971 afy in 2021. Cal-Am then averages the results of these two methods to arrive at its recommended 12,350 afy (rounded up) as normalized system demand. Finally, Cal-Am adds additional demand to account for new connections (lots of record) (1,180 afy), Pebble Beach (325 afy), and tourism bounce back (500 afy) to arrive at a total forecasted demand of 14,355 afy.[43]

City of Marina argues that the high prices paid by Cal-Am customers along with continuation of water conservation efforts will result in a total

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[41] *See, e.g.*, Exhibits CA-6, CA-51, MCD-1A, MCD-36A, PCL-1, SF-12, WD-5, WD-15. For other parties we could not identify recent, comprehensive projected demand figures, though some did provide comment on other parties' projections. *See, e.g.*, Opening Brief of the Office of Ratepayer Advocates, Dec. 15, 2017, at 3-7, Opening Brief of Monterey Regional Water Pollution Control Agency at 3, PTA-2A at 3-4, Opening Brief of Public Water Now, Dec. 15, 2017, at 2.

[42] Appendix B contains a chart summarizing the parties' position on available supply and projected demand.

[43] Exhibit CA-51 at 10-14.

provide and that reducing the project size because a lower demand was used would not result in a large savings to customers. "In other words, small adjustments in project sizing are likely neither feasible nor economically merited."[60] Thus, projecting demand at any amount less than approximately 14,000 afy "presents unreasonable risk without commensurate public benefit."[61]

Monterey Peninsula Water Management District calls 10,400 afy "a reasonable estimate" of use by existing customers based on the most recent 5-year average demand for those customers.[62] Monterey Peninsula Water Management District states that while the near-term market absorption of housing stock will not be immediate, over the long term it believes the 1,181 afy estimate for legal lots of record is reasonable.[63] Monterey Peninsula Water Management District also states that the 325 afy for Pebble Beach remains a reasonable estimate and that it is a legal entitlement to the Pebble Beach Company.[64] Monterey Peninsula Water Management District argues to reduce the hospitality industry economic recovery addition to 250 afy as the conservation efforts have led to permanent demand reductions.[65] Monterey Peninsula Water Management District then adds an additional 303 afy to account for non-revenue water that is the result of system loss. It uses a 2.5% loss factor, excluding return flows, which is a factor lower than national averages.[66]

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[60] Exhibit RWA-27 at 7-8.

[61] Exhibit RWA-27 at 8.

[62] Exhibit WD-15 at 10-11.

[63] Exhibit WD-15 at 11-13.

[64] Exhibit WD-15 at 13-14.

[65] Exhibit WD-15 at 14.

[66] Exhibit WD-15 at 15.

remainder comes from Coalition of Peninsula Businesses' belief that it is simply a matter of fulfilling a legal obligation to the owners of the legal lots of record and Pebble Beach as the basis for its estimate for those figures.[82]

Water Plus "agrees with the long-term estimation" of 14,355 afy put forth by Cal-Am,[83] but disagrees with Cal-Am's 12,350 "short-term" demand estimate.[84] Water Plus argues that the short-term demand estimate fails to recognize the "marked[]" increase in costs that ratepayers have seen over the past decade and the impact that cost has had on demand.[85] Water Plus criticizes using the California Waterworks Standards found in 22 C.C.R. as "it applies to a steady state of water usage" when the Monterey District is in an environment of declining usage.[86] Water Plus attempts to chart the supply and demand of water with its analysis of cost "to determine the cost where supply and demand are equal."[87] Water Plus presents a range of figures based on its interpretation of potential costs to argue that the demand for water will be between 8,000 afy[88] and 11,000 afy.[89] Water Plus argues that if Cal-Am is required to pay for some of the hypothetical Pure Water Monterey (PWM) project expansion at its estimated cost, and purchase some water from Marina Coast Water District, the cost would

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[82] Exhibit CPB-1A at 5-6.

[83] Opening Brief of Water Plus, Dec. 15, 2017, at 3, 5 ("Water Plus has no quarrel with long-terms estimates of around 14,000 [afy]").

[84] Opening Brief of Water Plus at 3.

[85] Opening Brief of Water Plus at 3.

[86] Opening Brief of Water Plus at 3.

[87] Opening Brief of Water Plus at 4.

[88] Opening Brief of Water Plus at 4, Reply Brief of Water Plus at 6.

[89] Opening Brief of Water Plus at 6.

be $5,348 per acre-foot, which would correspond to a demand of 9,800 afy "at the point where the curves cross."[90]

4.3. Supply Available to the Monterey District

There is general agreement among the parties as to the basic elements of supply available to Cal-Am. Cal-Am's existing water supply consists of 3,376 afy from the Carmel River, 774 afy from the Seaside Groundwater Basin,[91] an average of 1,300 afy from the Aquifer Storage and Recovery, 94 afy from the Sand City Coastal Desalination Project, and 3,500 afy that will be provided from the PWM project.[92] This provides a total water supply of 9,044 afy.[93]

To reach a supply level higher than 9,044 afy, some parties have asserted that Cal-Am has rights to water that it has not accounted for in its supply calculations. These include offers of new sources of water, and the potential expansion of the PWM project.[94] The Commission has considered these claims, as discussed more below, and is not persuaded that Cal-Am has rights to additional sources of supply. The Commission encourages Cal-Am and all the

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[90] Opening Brief of Water Plus at 4-7 and Appendix 1.

[91] Cal-Am's has an adjudicated right to 1,474 afy from the Seaside Groundwater Basin. *See, Cal-Am v. City of Seaside et al.*, Super. Ct. Monterey County, 2006, No. M66343. However, Cal-Am must also repay the Seaside Basin for overdrafts and has therefore assumed a reduction of supply of 700 afy over 25 years, resulting in a net supply available to Cal-Am of 774 afy from the Seaside Groundwater Basin.

[92] While we include 3,500 afy from the PWM project in our supply projection, that project is currently under construction and water supply delivery has not yet begun; the promised reliability of the supply remains to be seen. *See*, Opening Comments of Monterey Regional Water Pollution Control Agency at 1-2; *see also,* D.16-09-021.

[93] *See, e.g.*, Exhibit CA-51 at 14, Exhibit MNA-2 at 14, Exhibit MCD-36A at 9-10, Exhibit RWA-27 at 6-7, Exhibit WD-15 at 16, Opening Brief of Planning and Conservation League Foundation, Sierra Club and LandWatch Monterey County at 6, Exhibit SF-12 at 6, Exhibit WP-9 at 18.

[94] *E.g.*, Exhibit MNA-2 at 14, Exhibit MCD-36A at 9-10,

acre-feet in total.[99] Such a limited and specific source of water cannot be relied upon as a permanent source of water. The additional Sand City allocation confuses the total expected production of the plant, 200 afy, with the amount allocated to Cal-Am, 94 afy.[100] The claim that Cal-Am can rely on more than 94 afy from the Sand City plant is not supported with credible evidence. Marina Coast Water District has not presented any evidence that persuades us otherwise. Finally, Marina Coast Water District presents two Watermaster agenda items that list the "conceptual" expansion of the Seaside Basin ASR on an average annualized basis. Marina Coast Water District presented no evidence that Cal-Am would receive any of the additional withdrawals. The Commission cannot rely on the concept of ASR expansion being listed on an agenda for the Watermaster to find that additional supply is available to Cal-Am. Accordingly, the Commission is not persuaded to make any additions to a total water supply of 9,044 afy identified above, and we find the 9,044 afy water supply figure to be the best and most reasonable figure to use in this proceeding.

Finally, the August 28, 2017, Ruling sought additional testimony from parties on any plans to expand the PWM project. While many parties referenced the potential expansion of the PWM project,[101] Monterey Regional Water Pollution Control Agency put forward the most detailed response.[102] Monterey Regional Water Pollution Control Agency stated it was considering and

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[99] *See*, D.16-09-021, Appendix C at 2.

[100] *See*, Exhibit CA-51 at 7, Exhibit MCD-42. *See also*, Opening Brief of City of Marina on Certificate of Public Convenience and Necessity Issues at 22.

[101] *See, e.g.*, Exhibit CA-51 at 8, Exhibit CPB-1A at 8-9, Exhibit RWA-27 at 9-10, Exhibit PTA-2A at 5, Exhibit SF-12 at 12-15, Exhibit WP-9 at 13.

[102] Exhibit PCA-7.

In furtherance of having the Commission consider PWM expansion in this case, on May 11, 2018, several parties submitted a motion asking the Commission to Open a Phase 3 in This Proceeding (Phase 3 Motion).[112] In the Phase 3 Motion, the parties request that the Commission open a third phase in this proceeding before it issues a decision on Cal-Am's request for a CPCN for the MPWSP. The Phase 3 Motion proposed consideration of an additional incremental supply from the PWM project of between 650 afy and 2,250 afy within the timeframe required by the State Water Resources Control Board's 2016 amended Cease and Desist Order (WR 2016-0016).[113]

The Commission supports the parties' efforts to explore expanding the PWM project.[114] There are, however, many fundamental and threshold details[115] that would need to be presented before the Commission could consider if PWM expansion could provide an affordable, specific, concrete, reliable, and permanent source of water for Cal-Am ratepayers. Further consideration of such efforts, if any, is not appropriate in this proceeding. This proceeding has been pending for over six years and it is timely to reach a decision on the instant application now. The CDO deadline is fast approaching.[116] There is difficulty in

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[112] Phase 3 Motion.

[113] The Phase 3 Motion does not include the third hypothetical "Scenario C" that was discussed in Exhibit PCA-7 and provides no explanation as to why that conceptual expansion is omitted from the motion.

[114] D.16-09-021.

[115] *E.g.*, Details might include sources of supply, development costs, prices for sales of the developed water, contractual details, environmental effects, potential to obtain necessary permits, water quality, sources of funding, and possible related facilities (*e.g.*, additional pipelines or pump stations). *See*, D.16-09-021 for consideration of several such details.

[116] The SWRCB has already extended the CDO deadline for Cal-Am to reduce pumping from the Carmel River, and the effective diversion limit would be immediately reduced without

Footnote continued on next page

developing any new supplies for the Monterey District given the wide range of often competing interests represented by the many parties, and various local, state, and federal agencies involved. The environmental effects and alternatives to the MPWSP have been thoroughly examined. While PWM expansion may appear promising, upon further review there may be other options that require examination. Cal-Am, its customers, and the Monterey region deserve a decision on the specific proposal in this application without additional delay.

Further, even if we were to include an amount between 650 afy and 2,250 afy from PWM expansion as part of the supply available to Cal-Am, it is insufficient to satisfy an estimated demand of 14,000 afy, as it would still result in a supply deficit of between 2,706 and 4,306 afy. The proposed PWM expansion would not satisfy the estimated water supply required by Cal-Am customers, provide water supply reliability, provide supply to allow for replenishment of water that Cal-Am previously pumped from the Seaside Basin in excess of Cal-Am's adjudicated right, would not contribute to diversity in the portfolio of projects that produce water supply, nor provide supply for future development or economic expansion.

Even if PWM expansion could provide the maximum under Scenario C of an additional 3,570 afy of water to Cal-Am,[117] it would be insufficient to satisfy an estimated demand of 14,000 afy. No alternative presented would replenish the water that Cal-Am previously pumped from the Seaside Basin in excess of

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Commission action by September 30, 2018. *See,* SWRCB Order WR 2016-0016 at 21. The extensive and exhaustive record in this proceeding provides a basis for a decision on the MPWSP today. We are not convinced that extending this proceeding further would benefit Cal-Am ratepayers or the region as a whole.

[117] PCA-7 at 12.

Cal-Am's adjudicated right, none would establish water supply reliability and enable the development of vacant legal lots of record or provide supply to meet demand resulting from economic recovery and rebound of the hospitality industry. The alternatives would not provide the same diversity in the sources of supply as would the desalination plant. The alternatives would not contribute to providing a portfolio of supply options in the same way as would the desalination plant. The alternatives would not provide the same drought-resistant or drought-proof supply source as would the desalination plant.

Moreover, construction has not been completed on the initial PWM project of 3,500 afy (see D.16-09-021), and thus operation has not begun. There may be additional construction, operation, cost, and other issues with the initial expansion that must be considered before adequate and reasonable consideration may be given to expansion.[118] Thus, we are disinclined to count additional PWM expansion as a concrete, specific, reliable supply resource that can be a viable alternative to the MPWSP until the first expansion has been constructed and operated successfully. As discussed below, we may give additional consideration to further expansion of PWM, but not in this decision as an alternative to the MPWSP.

Consistent with our previous findings, PWM expansion alone fails to provide sufficient supply to meet the average demands assumed in MPWSP planning, and would not provide sufficient supply flexibility to meet most peak demands. In addition, PWM expansion alone increases the risk that sufficient supply would not be available to meet peak hour, day, and month demands,

[118] *See,* RT 4712:20-26.

particularly during drought years. The originally approved PWM project is not yet finished, and it is untested as to its reliability to provide the 3,500 afy approved in D.16-09-021. Parties did not address, in any of the many ways they have provided input on the application, and in particular with record evidence the risk associated with the reliability of the supply mix if we were to adopt a PWM expansion alone solution.[119] As many fundamental and threshold details have not been addressed,[120] the Commission is not persuaded by parties' arguments that PWM expansion will provide an affordable, specific, concrete, reliable, and permanent source of water for Cal-Am ratepayers. The evidence in the record in this proceeding is not sufficient to convince us that PWM expansion is a viable alternative at this point.[121] Accordingly there is no reason to consider further PWM expansion in this proceeding.[122]

However, we would like to determine if, in conjunction with the MPWSP approved in this decision, PWM expansion could provide an affordable, specific, concrete, safe, and reliable additional or supplemental source water supply for

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[119] Comments on Proposed Decision for Monterey Peninsula Water Supply Project of Monterey County Farm Bureau at 8 (reliance on a single water source for the majority of the Monterey Peninsula's water supply is a short-sighted approach to solving a long-term water supply challenge).

[120] Phase 3 Motion, Attachment A at 2 ("Importantly, this report does not suggest that the PWM Expansion currently meets the nine criteria [used by the Commission to evaluate the initial PWM project].").

[121] *Cf.*, Comments of Planning and Conservation League Foundation on Proposed Decision at 2-3.

[122] This proceeding began over six year ago. Last year we added an additional set of hearings expressly scoped to address additional alternatives, including PWM expansion. Parties failed to provide convincing evidence during hearings, despite knowing that there is an imminent CDO deadline that will reduce water supply available to Monterey District customers.

customers, lots of record, Pebble Beach, tourism rebound), provide a reliable and secure supply, include a reasonable "buffer" against uncertainties, satisfy all other reasonable needs, and ensure that Cal-Am remains within its legal water rights as to its diversions from the Carmel River in response to the CDO issued by the State Water Resources Control Board as well as other constrained water supply sources such as the Seaside Basin. The Commission evaluated all of the evidence presented along with the arguments of the parties and determines that Cal-Am's water supply portfolio will not provide sufficient water to its customers after December 31, 2021, absent a new source of supply,[130] and the MPWSP is the most reasonable solution to provide that supply. Based on the evidence presented in support of the project, when weighed with that opposed to it, the supporting evidence has more convincing force and the greater probability of truth.

None of the intervenors present demand forecasts that are equal to or less than the supply (9,044 afy) that will be available to Cal-Am at the end of 2021. Marina Coast Water District, City of Marina, and Surfrider all present demand projections around 10,300-10-700 afy, and Planning and Conservation League Foundation provides the lowest projection of 9,698 afy (Marina Coast Water District's lower bound uses Planning and Conservation League Foundation's growth forecast to arrive at a similar figure).[131] Water Plus's proposed range between 8,000 and 11,000 afy is both overly broad and lacks analysis of the

[130] RT Vol. 22 at 3794 ("Cal-Am has an explicit legal right to 3,376 acre-feet per year. They are currently drawing about 8,500 acre-feet per year. And it means we need to get about 5,000 acre-feet from another source to get off the Carmel River. It's just that simple.")

[131] *See,* Appendix B; Marina Coast Water District's Opening Brief and Request for Oral Argument at 11.

standards and requirements needed for the system to be considered reliable for our purposes. Water Plus's selection of 9,800 afy as the intersection of supply and demand relies on assumptions of supply and costs that fail to reasonably include all necessary elements (e.g., variations in population growth or economic growth, and the need for a reasonable "buffer" or reserve margin against unknowns). Monterey Peninsula Water Management District's projection of 13,142 afy and Monterey Peninsula Regional Water Authority's projection of 14,000 afy are persuasive in their analysis (as discussed more below). What they all share is to show that additional water source(s) are needed to allow Cal-Am to continue to provide service to customers after Cal-Am reduces its draw from the Carmel River to allowable levels.

In January 2013, Cal-Am forecast a system demand of 15,296 afy.[132] Cal-Am revised that figure to 14,355 afy in 2017. In revising its forecast Cal-Am took into consideration how water demand has declined over the last ten years, and considered the many factors contributing to the decline, including economic factors, multi-year drought conditions, aggressive conservation efforts, and a moratorium on new service connections that began in 2010.[133] While the averaging of the two methods used by Cal-Am to project demand for existing customers is somewhat complicated, the Commission finds that both methods provide reasonable results and that the average is a reasonable figure to use for forecasting demand for existing customers. Cal-Am has met its burden of proof in that its forecast of demand, when weighed with those opposed to it, has more

[132] Exhibit CA-12.

[133] Exhibit CA-51 at 8-9. *See also*, D.07-05-062, Attachment A, page A-23 (forecasts for class-A water utility general rate cases should remove historical data when drought related rationing or authorized drought memorandum accounts are in place).

convincing force and the greater probability of truth. Cal-Am appropriately considers the maximum demand year, 2012, within ten years of the anticipated in-service date, 2021. It also considered the Urban Water Management Plan projection methods to forecast water use reduction targets. Both methods have merit given how water use fluctuates over the course of a day, month, season, and year.[134] Both methods used by Cal-Am are designed to reasonably project demand amounts that are compliant with the California Waterworks Standards, 22 C.C.R. § 64554, requirements that the system's water sources have capacity to meet maximum day demand and peak hour demand. Cal-Am presented the last ten years of demand by month that shows the demand in July 2011 of 1,250 acre-feet, that July and August have the highest demand for each of the last ten years and that high demand months begin in May and end in October.[135] The Commission agrees with Cal-Am that the system must provide enough water to be used in those high demand months. In 2016, what is characterized as a low demand year,[136] the six high demand months used over 5,000 acre-feet of water.[137] Given that annual water demand characterizes the overall system demand expected to occur within a service area, actual water use fluctuates over the course of a day, month, season and year. For example, people use less water at night, more during warmer and drier months, and less in wet years. The fluctuations in Cal-Am's Monterey District over the past decade make it easy for us to understand the temptation to understate annual forecasts of demand. But

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134 *See*, Exhibit MCD-59.

135 Exhibits CA-51 at 9, 15, MCD-59.

136 *See e.g.*, Exhibits CA-51 at 10, RWA-27 at 6, MNA-2 at 2.

137 Exhibits CA-51 at 9, MCD-59.

we are convinced that 12,350 afy represents an appropriate estimate of annual demand to use in assessing the adequacy of Cal-Am's water supply to meet peak demands and regulatory supply capacity requirements. While the methodologies put forward by Cal-Am may not be perfect, that is not the standard they are required to meet. The methodologies are persuasive in providing a reasonable estimate of annual demand in the district going forward.

As noted above, a strict application of the maximum day demand guidelines would justify total system sources exceeding 22,000 afy (based on 60.48 acre-feet maximum day demand).[138] However, we are persuaded that Cal-Am's projection of demand is reasonable based on the evidence it has provided regarding the seasonal nature of demand and the ten-year historic period in the record.

Conservation has been extraordinary but may not continue when the tourism industry in the area returns to pre-2008 levels and with the expected growth in the region. All parties that made projections included a figure representing growth from the demand they projected for existing customers.[139] While some parties projected minimal growth,[140] over half projected more than

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[138] Exhibit MNA-2 at 12-13. In addition, a reasonable ten percent buffer for contingencies could justify a system source requirement exceeding 24,000 afy. We discuss below that based on seasonality and the maximum demand year within ten years of the anticipated MPWSP in-service date, that a lower demand figure is more appropriate in this case.

[139] *See e.g.*, Exhibit CA-12, Exhibit CA-51 at 10-14, Exhibit MNA-2 at 11-12, Marina Coast Water District's Opening Brief and Request for Oral Argument, Dec. 15, 2017, at 12, Exhibit RWA-27 at 6-8, Exhibit WD-15 at 15, Opening Brief of Planning and Conservation League Foundation, Sierra Club & LandWatch Monterey County at 3-5, Surfrider Foundation's Phase 1 Opening Brief at 21, Exhibit CPB-1A at 4-6, Opening Brief of Water Plus at 4-7 and Appendix 1.

[140] *See e.g.*, Marina Coast Water District's Opening Brief and Request for Oral Argument, Dec. 15, 2017, at 12, Opening Brief of Planning and Conservation League Foundation,

Footnote continued on next page

1,299 afy in total.[141] With all of the fluctuations in demand, where only five years ago 11,356 afy was delivered,[142] we are convinced that a larger growth figure provides the best solution to ensure Cal-Am ratepayers continue to have adequate supplies of water.

Over the course of this proceeding Cal-Am maintained its projections for legal lots of record (1,180 afy), Pebble Beach entitlements (325 afy), and economic recovery of the tourism industry (500 afy).[143] After considering all of the testimony in the record,[144] the Commission is persuaded by Cal-Am that these projections of future demand are reasonable based on growth of population, development, and tourism. In projecting water demand for the next 10-20 years, the assumptions Cal-Am has made for development of the lots of record and for Pebble Beach are reasonable because growth will occur, development is halted pending adequate water, and Pebble Beach has a reasonable claim on more water.[145] We are convinced that system expansion will occur and the projections put forth by Cal-Am are persuasive in quantifying that growth, when weighed

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Sierra Club & LandWatch Monterey County at 3-5, Surfrider Foundation's Phase 1 Opening Brief at 21, Opening Brief of Water Plus at 4-7 and Appendix 1.

141 *See e.g.*, Exhibit CA-51 at 10-14, Exhibit MNA-2 at 11-12, Exhibit RWA-27 at 6-8, Exhibit WD-15 at 15, Exhibit CPB-1A at 4-6.

142 Exhibit MCD-59.

143 Exhibits CA-12, CA-51 at 13-14.

144 *E.g.*, Exhibit CA-12, Exhibit CA-51 at 10-14, Exhibit MNA-2 at 11-12, Marina Coast Water District's Opening Brief and Request for Oral Argument, Dec. 15, 2017, at 12, Exhibit RWA-27 at 6-8, Exhibit WD-15 at 15, Opening Brief of Planning and Conservation League Foundation, Sierra Club & LandWatch Monterey County at 3-5, Surfrider Foundation's Phase 1 Opening Brief at 21, Exhibit CPB-1A at 4-6, Opening Brief of Water Plus at 4-7 and Appendix 1.

145 Exhibit CA-12. These projections prove a reasonable forecast given the puts and takes of development and the non-revenue water and Salinas Valley Return Flows projected by WD. Exhibit WD-15 at 15.

against all of the other evidence presented.[146] The Commission recognizes that growth due to new demand will not occur immediately, but will take time to develop. In planning for the future, Cal-Am has shown that the growth it is projecting is reasonable under the California Waterworks standards, and we are persuaded that it represents the best projection of demand from future customers outside Pebble Beach. The tourism industry recovery projection of 500 afy is also reasonable under the California Waterworks standards. The evidence in this case persuasively shows that the tourism industry on the Monterey Peninsula has not fully recovered from the economic downturn that started in 2008, and to the extent it has recovered, it has taken steps to conserve water in ways it would not do if there were no constraints on the water supply in the area.[147] A figure of 500 afy is a reasonable figure to represent the additional demand Cal-Am will have to meet in the future. Cal-Am has shown that it does not have sufficient supply to meet the projected water demand in 2021 and beyond. Accordingly, Cal-Am has met its burden to prove that 14,355 afy is a reasonable projection for the system's projected demand.

The parties that presented lower demand projections argue that a much smaller source or set of water sources is needed.[148] City of Marina also argues that Cal-Am itself will be jeopardized by building a high cost solution to the

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[146] California-American Water Company Comments on Proposed Decision at 16-17.

[147] *See*, Exhibit CPB-1A at 5-6, RT Vol. 23 at 3905, 3906.

[148] *E.g.*, Exhibit MNA-2 at 14, Marina Coast Water District's Opening Brief and Request for Oral Argument, Dec. 15, 2017, at 12, Opening Brief of Planning and Conservation League Foundation, Sierra Club & LandWatch Monterey County at 3-5, Surfrider Foundation's Phase 1 Opening Brief at 21, Opening Brief of Water Plus at 4-7 and Appendix 1.

problem.[149] The parties that presented higher demand projections argue the MPWSP is needed to meet that demand.[150]

While City of Marina asserts that Cal-Am has sufficient supplies to meet the California Waterworks standards, it failed to show how Cal-Am would accomplish this requirement. 22 C.C.R. §64544(a) is clear that the system's water source shall have the capacity to meet the system's MDD "[a]t all times." City of Marina did not explain how Cal-Am's current system can provide 60.48 acre-feet to meet its maximum day demand, or how it could provide 15.12 acre-feet to meet its peak hourly demand.[151] City of Marina's analysis begins in the correct place with the maximum day demand and how that translates to the four or five months of high demand.[152] However, City of Marina then argues the most recent annual demand figure demonstrates that Cal-Am has sufficient supply.[153] The Commission is not persuaded by the City of Marina that sufficient reason exists to deviate from the requirements set forth in statute and our general order and that its method is better than any other. The Commission is not convinced that the downward trend in water use in the District will continue and that only minimal growth will occur in demand after 2021. Such an assertion fails to consider that water use is not likely to go any lower (maximum month usage increased in 2017 compared to 2016) as conservation funding is projected to go down, and the "extreme conservation and moratorium measures implemented

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[149] Exhibit MNA-2 at 14.

[150] *E.g.*, Exhibit CA-51 at 10-14, Exhibit MNA-2 at 11-12, Exhibit RWA-27 at 6-8, Exhibit WD-15 at 15, Exhibit CPB-1A at 4-6.

[151] MNA-2 at 12-13.

[152] MNA-2 at 13.

[153] MNA-2 at 13.

during the drought" will end.[154] City of Marina fails to persuade us that the reasonable demand projections set forth by Cal-Am should be rejected. City of Marina fails to include an adequate "buffer" for unknowns. Accordingly, we were not persuaded by the City of Marina to reduce the demand projections to its recommended 10,599 afy.

Marina Coast Water District asserts that Cal-Am's current daily and annual water use will continue at current levels and that additional use will be between 300 to 925 afy, at most.[155] However, Marina Coast Water District fails to persuade the Commission to deviate from the statutory and general order methods for determining existing demand.[156] We see no reason why the three-year average is a better predictor of the future compared to any other period of time or methodology. In fact, we find that most recent three years of demand data is insufficient to predict the next ten plus years of demand the Commission is examining in this proceeding. After reviewing all of the evidence presented, the Commission determines that a reasonable evaluation of source capacity requirements should consider the MDD and PHD for the past ten years. Marina Coast Water District's approach does not do this. Marina Coast Water District also recommends projecting demand growth between 300 and 925 afy. Marina Coast Water District cites evidence presented by Surfrider to support the 300 afy

[154] MCD-59, CA-48 at 14, CA-52 at 5.

[155] Marina Coast Water District's Opening Brief and Request for Oral Argument at 9, 11-12.

[156] Marina Coast Water District does not use the methods it advocates we apply to Cal-Am for its own planning purposes. CA-53 at 13. If we were to use the design criteria Marina Coast Water District uses for its own projects it would result in a demand forecast of approximately 14,000 afy, and changes it was considering could justify a much higher figure. RT Vol. 26 at 4729-4743.

portion of its recommendation.[157] As explained below, the Commission is not persuaded that the low growth projections set forth by Surfrider are reasonable. Marina Coast Water District's recommendation of a 925 afy growth projection is also not persuasive. Marina Coast Water District estimates no more than 600 afy will be needed for development of the lots of record,[158] and that the 325 afy for Pebble Beach may be reasonable,[159] but that no additional projection should be made for the economic recovery of the tourism industry.[160] While the Commission agrees with Marina Coast Water District that development will occur gradually,[161] that does not mean that development will not occur. Cal-Am's projection reasonably assumes that the lots of record will be developed and will require water when they are developed. Marina Coast Water District asserts that "many" of the lots of record may not be developed, but presents no facts in support.[162] Thus, the Commission is not persuaded by Marina Coast Water District's reduction in the projected demand for the development of the lots of record from 1,180 afy to 600 afy. Marina Coast Water District argues that no additional projection for the economic recovery of the tourism industry is needed as any decline in water demand due to the economic downturn that started in 2008 has been recouped by now.[163] However, Marina Coast Water District has

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[157] Marina Coast Water District's Opening Brief and Request for Oral Argument at 11-12, *citing,* SF-12 at 1-3.

[158] Exhibit MCD-36A at 4-5.

[159] Exhibit MCD-36A at 5.

[160] Exhibit MCD-36A at 5.

[161] Exhibit MCD-36A at 4.

[162] Exhibit MCD-36A at 4.

[163] Exhibit MCD-36A at 5.

not shown us that such a recovery has occurred, and the Commission is convinced by other evidence that the industry has not fully recovered yet.[164] Thus, the Commission is not convinced by Marina Coast Water District to adopt no additional demand for tourism industry recovery. Marina Coast Water District fails to persuade us that the reasonable demand projections set forth by Cal-Am should be rejected. Accordingly, the Commission is not persuaded by Marina Coast Water District to reduce the demand projections to Marina Coast Water District's recommended range between 9,675 and 10,300 afy.

Monterey Peninsula Regional Water Authority "urges that the Commission adopt a long-term demand estimate of 14,000 afy …, with a projection of 12,000 afy for existing customers and 2,000 afy for future customer demand expansion."[165] The Commission agrees that Monterey Peninsula Regional Water Authority's projection of demand for existing customer of approximately 12,000 afy is appropriately conservative and reasonable.[166] Monterey Peninsula Regional Water Authority balances the low system demand experienced during recent drought years with the longer term history through 2014 in making its recommendation of 12,000 afy for existing customers. It recognizes the imprecisions in forecasting future demand and reasonably allows for potential fluctuations in demand, drought periods or other unanticipated limitations that may impact other elements of Cal-Am's water supply portfolio. The same reasoning supports its recommendation of 2,000 afy to meet future demands, *e.g.*, lots of record, Pebble Beach, and tourism rebound. With all of the

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[164] Exhibit CPB-1A at 5-6, RT Vol. 23 at 3905, 3906.

[165] Opening Brief of the Monterey Peninsula Regional Water Authority at 2.

[166] Exhibit RWA-27 at 7.

fluctuations in water consumption over the past decade, the constraints on demand, and considering non-revenue water and Salinas Valley Return Flows,[167] we agree that a projection of demand for future customer needs of approximately 2,000 afy is appropriately conservative and reasonable. In addition, the Commission agrees that a significant criterion regarding plant size is to ensure the MPWSP is sized to meet maximum monthly demands rather than annual total demand. The Commission also agrees with Monterey Peninsula Regional Water Authority's assessment that "projecting any amount less than approximately 14,000 [afy]" presents "unreasonable risk without commensurate public benefit."[168] Accordingly, the public interest considerations weigh heavily in favor of the balanced demand projection of 14,000 afy put forward by Monterey Peninsula Regional Water Authority. It would be a disservice to the public interest if the project were undersized to meet future demands, requiring yet another project to be permitted and constructed:

> [I]t is imperative that the MPWSP be sized sufficiently to serve these demands. The Monterey Peninsula has faced water supply shortages for decades, which has frustrated land use planning and impaired economic, social, and environmental interests. Of course, in recent years, the community has been unable to prudently plan and evolve land uses because of the current moratorium on new service connections. We now have the opportunity to correct these water supply challenges. But it is in practical effect a "one-shot" opportunity. Indeed, the length and delay of this proceeding illustrates the immense difficulty of permitting and developing new water supplies in this region. For this reason, [we] view[] the MPWSP as a rare opportunity to obtain the water supply we

[167] Exhibit WD-15 at 11-15.

[168] Exhibit RWA-27 at 8.

> need. We urge the Commission to not unduly restrict the size of the MPWSP such that the community is at risk of again facing water supply shortages in the future.[169]

Monterey Peninsula Regional Water Authority is also correct that the desalination project can only be sized up or down by the size of each desalination train (each desalination train is approximately 1.6 million gallons per day).[170] As such, a downsizing would cut supply by almost 1,800 afy, and as explained below, there is little to no ratepayer savings if the Commission were to limit the size of the desalination project to 4.8 million gallons per day.

Monterey Peninsula Water Management District argues that the second method used by Cal-Am overstates demand as conservation programs coupled with permanent statewide conservation requirements, increased rates, and other legislative action impose constraints on customer demand.[171] Monterey Peninsula Water Management District argues that 10,400 afy is a reasonable estimate for existing customer demand as that is approximately the most recent 5-year average demand for existing customers.[172] Monterey Peninsula Water Management District states that even if this recommendation is low, it allows some leeway for increased water use in its analysis of potential growth in the

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[169] Exhibit RWA-27 at 8.

[170] Exhibit RWA-27 at 7. The desalination process usually goes through a set of sub-processes or a "desalination train." A desalination train typically comprises three stages: pre-treatment; main treatment, and post-treatment. The 6.4 mgd MPWSP proposal consists of four 1.6 mgd desalination trains, and thus can be sized up or down by the size of each desalination train. A 1.6 mgd per train is roughly 1,792 afy if the train were to run constantly. *See*, Exhibit CA-51 at 17.

[171] Exhibit WD-15 at 8-9.

[172] Exhibit WD-15 at 10-11.

system.[173] Monterey Peninsula Water Management District would add 2,742 afy for future demand for lots of record, Pebble Beach, tourism rebound, system loss, and Salinas Valley Return Flow.[174] In normal circumstances, using the most recent 5-year average to forecast future existing customer demand could be justified. However, in this case, limiting the selection to the most recent five years without justifying the selection of that period of time is not persuasive, especially given the reasons for the fluctuations in monthly and annual demand levels over the past decade.[175] Absent persuasive evidence to the contrary, Monterey Peninsula Water Management District's showing justifying its existing customer demand figure is not compelling.[176] Monterey Peninsula Water Management District does provide reasons why it thinks additional demand due to tourism rebound will be 250 afy instead of the 500 afy projected by Cal-Am. Monterey Peninsula Water Management District claims that some permanent demand reductions have occurred in that sector due to targeted rebates, mandated conservation standards, and non-residential inspections and enforcement by Monterey Peninsula Water Management District, but it is not convincing to explain why the 250 afy tourism rebound figure should be adopted. Monterey Peninsula Water Management District may be correct that some of the reductions that have occurred will lower the future tourism rebound, and when taken as a whole with its additions for non-revenue water and Salinas Valley Return Flows, the Commission agrees that a total growth figure of 2,742

[173] Opening Brief of the Monterey Peninsula Water Management District at 4.

[174] Exhibit WD-15 at 11-15.

[175] *See,* CCR Title 22 Section 64554(b)(1).

[176] Exhibit WD-15 at 6-9.

afy is compelling support for adopting an overall demand figure of at least 14,000 afy.

The Commission is not persuaded by the arguments of Planning and Conservation League Foundation, jointly with Sierra Club and LandWatch Monterey County that the most recent 3-year average demand for existing customers of 9,398 afy is reasonable. For similar reasons as Monterey Peninsula Water Management District, Planning and Conservation League Foundation fails to convince us that the most recent three years should be used to model existing customer demand for the next ten plus years. If the Commission were only forecasting the next few years, then the conservation measures cited by Planning and Conservation League Foundation might make the most recent three year average a more reasonable alternative, though even in that case there are other factors to consider (e.g., ending of extreme conservation and moratorium measures). Planning and Conservation League Foundation, and others, fail to quantify how much of the recent reductions in demand are due to permanent conservation measures compared to other explanations offered for why demand has gone down. We are not persuaded by Planning and Conservation League Foundation's premise that none of the almost 3,000 afy reduction in existing customer demand over the past eight years will return after 2021.[177] Given the speed and timing of the reductions, it is not clear if Planning and Conservation League Foundation is correct and the system has a new normal, whether other factors are at play, or if we have reached the limits of conservation and demand will rebound. Planning and Conservation League Foundation has not put

[177] Exhibit CA-51 at 9, MCD-59.

persuasive evidence in the record that shows us it is correct and demand has stabilized at the average of the most recent three years.[178] Planning and Conservation League Foundation does not show how much of the recent demand reductions are related to the constraints Cal-Am has placed on the system, and Planning and Conservation League Foundation has not argued we should continue those constraints. Thus, Planning and Conservation League Foundation did not present evidence that convinces us that it is more likely that demand will continue as it projected for the future of the system. Further, Planning and Conservation League Foundation's projection does not account for peak demand obligations nor does it account for the seasonal availability of supply sources, or how those supply sources will be constrained in a multi-year drought. It is not reasonable to plan the future of the system needed to serve the customers of the Monterey District based on the snapshot of data used by the Planning and Conservation League Foundation.[179] Further, Planning and Conservation League Foundation's demand estimate does not account for the MDD and thus fails to account for the month-to-month fluctuations experienced by the system.

Without that context the Commission cannot find that the recent averages are more compelling than the longer-term averages the Commission has found persuasive. In evaluating the system demand for at least the next 10 years we are not convinced that a short-term snapshot fairly balances the system fluctuations and long-term demand.

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[178] *Cf.*, Exhibit CBP-1A at 5-6, WD-15 at 11, 13-15, RWA-27at 7.

[179] *Cf.*, Comments of Planning and Conservation League Foundation on Proposed Decision at 1-2.

Planning and Conservation League Foundation also advocates the smallest amount be allocated for future growth, 300 afy. Planning and Conservation League Foundation justifies this low number based on its professional opinion.[180] However, despite the expertise of the witness, there is no presentation as to any facts supporting this opinion.[181] Planning and Conservation League Foundation may or may not be correct in its criticism that the lots of record figure proposed by Cal-Am is inflated and that any tourism rebound has already occurred. It did not prove either of those allegations through facts or testimony, and absent evidence, we decline to adopt the Planning and Conservation League Foundation's estimate based solely on its professional opinion. Rather, we find the professional opinion (along with evidence) presented by other experts as more persuasive. Further, even Planning and Conservation League Foundation's own estimate of demand, 9,698 afy, is more than the supply it projects Cal-Am has available, 9,044 afy, and it does not propose a viable alternative to the MPWSP to close that gap.[182]

Surfrider states its estimate of 10,085 afy for existing customers is based on the five-year average demand methodology originally proposed by Cal-Am.[183] Surfrider argues that Cal-Am switched methods to calculate demand to use longer periods and more complicated methodologies after customers cut their water use. Surfrider's reason to use a five-year average does not convince us that its five-year average provides a more reasonable approach to forecasting demand

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[180] Exhibit SF-12 at 8.

[181] *See*, Exhibit SF-12 at 8.

[182] Exhibit SF-12 at 6-7, 12-15.

[183] Surfrider Foundation's Phase 1 Opening Brief at 4, *citing,* CA-12 at 5, Attachment 1 at 3-4.

for the next ten plus years. For example, as stated earlier in response to Monterey Peninsula Water Management District's use of a five-year average,[184] in normal circumstances, using the most recent five-year average to forecast future existing customer demand would provide a reasonable approach. However, in this case, limiting the selection to the most recent five years without justifying the selection of that period of time is not persuasive, especially given the reasons for the fluctuations in monthly and annual demand levels over the past decade. Surfrider does argue that the conservation measures that Cal-Am and Monterey Peninsula Water Management District have undertaken will result in permanent reductions in use and that the most recent periods thus reflect a better projection of the future. [185] However, it is unable to quantify how much of this reduction is due to conservation, and how much is attributable to other factors.[186] Surfrider also projects additional demand of 200 afy for Pebble Beach and 350 afy for growth and long term development in the remainder of Cal-Am's service territory.[187] The Commission does not find merit in Surfrider's characterization of Monterey Peninsula Water Management District testimony that only 217 afy is needed before 2035.[188] Monterey Peninsula Water Management District indicated that it supported a 1,181 afy figure,[189] though less

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[184] WD-15 at 11 uses full calendar years 2011-2016 for its five-year average calculation.

[185] SF-12 at 5.

[186] SF-12 at 5 ("This dramatic reduction in water use is the result of a variety of factors.")

[187] Surfrider Foundation's Phase 1 Opening Brief at 6, 10.

[188] Surfrider Foundation's Phase 1 Opening Brief at 18. However, parties have not presented credible, reliable, and persuasive evidence that double counting between the lots of records and Pebble Beach allocations has occurred.

[189] WD-15 at 13 ("long-term water supply planning should incorporate the full 1,181 [afy]. Failure to provide water for legal lots of record infringes on property rights and would

Footnote continued on next page

than half of that would likely be needed in the next 10-15 years.[190] Further, even if correct, we have already considered and rejected the concept that just because the additional water demand will not be needed immediately, that we should reduce the overall projected demand for the system. In looking at the long-term water supply planning, Surfrider fails to persuade the Commission to use a lower projected demand figure. Surfrider does agree that it would be prudent to provide an additional buffer to accommodate demand from future growth.[191] However, the Commission disagrees with its argument that growth will be slow.[192] The Commission has been given no basis to believe the current framework that limits growth will permanently continue in the same way after 2021. Rather, growth is just as likely to return to pre-2008 levels or be something different. We do have evidence that the Monterey District and its customers are already "drought-hardened" and the cost of additional conservation measures would be high,[193] and the Monterey District customers are already highly efficient water users.[194] Our adopted demand estimate considers all of these factors to reasonably account for growth limits while accommodating growth.

The Commission is persuaded by Coalition of Peninsula Businesses' testimony that there is additional water demand that the hospitality industry will

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perpetuate a state of "water poverty" in our communities, hence should be avoided by planning for sufficient water.").

[190] WD-15 at 13.

[191] Surfrider Foundation's Phase 1 Opening Brief at 21.

[192] Surfrider Foundation's Phase 1 Opening Brief at 19-20.

[193] RT Vol. 21 at 3576-3578, Vol. 22 at 3699, Vol. 23 at 3907; Exhibit RWA-27 at 7.

[194] CA-55 at 8-13 (Monterey District already has near the lowest average per person and per household usage in the state.), RT Vol. 25 at 4377.

require when mandatory conservation measures are removed.[195] Coalition of Peninsula Businesses provided testimony that the hospitality industry had reduced its water use by more than 40 percent over the past decade and needs to grow by 12-15% to re-attain occupancy levels of a decade ago.[196] While some of the reductions in water use may not be temporary,[197] others such as "shipping the actual linen and terrys out of the area to be serviced elsewhere," are temporary.[198] Further, hotel occupancy is not back to pre-2008 levels, and additional water will be needed to provide service for that 12-15% growth. In addition, if the industry is to grow beyond 2008 levels, additional water will be needed over the next 20 years.[199] Coalition of Peninsula Businesses has shown that there is a need to include additional water to account for the tourism rebound category and the Commission supports the addition of 500 afy in the projection of demand offered by Cal-Am.

Water Plus fails to show how its economic analysis complies with our General Order and statutory requirements that the capacity of the system will meet the system's maximum demand. Water Plus assumes water demand fits within the traditional basic economic analysis of rational consumer decision making.[200] Water Plus's theory assumes that at least some of the decline in demand over the past few years is due to higher prices, but Water Plus failed to

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[195] Exhibit CPB-1A at 5-6, RT Vol. 23 at 3905, 3906.

[196] Exhibit CPB-1A at 5-6.

[197] Exhibit WD-15 at 14.

[198] RT Vol. 23 at 3606.

[199] CPB-1A at 5.

[200] WP Reply Brief at 5 (cost to customers drives demand).

explain how its supply and demand curves fit with the past decade of water use in the district. Water is not a traditional consumable that fits neatly into the economic theories of supply and demand. There is no easy or perfect substitutable product for water. Water Plus's analysis is based on the assumption that water consumption rises and falls based solely on cost, but Water Plus's analysis does not take into account many other costs, influences, or externalities such as population change, costs of water conservation activities, public campaigns to conserve water, declarations of states of water emergency, or environmental changes. In addition, Water Plus's analysis is flawed by the assumptions it makes in costs of potential new water supplies. Many of the potential costs used by Water Plus were put forth by the sponsoring witnesses as hypothetical costs, and others are based on offers that have not been accepted by the buyers, and thus the Commission does not know what the final costs might be. The Commission is not persuaded that those costs can be relied upon. Moreover, if the costs are higher, or lower, Water Plus's projection of future cost-driven demand will change. Accordingly, the Commission is not persuaded that Water Plus's approach provides a reasonable solution in this case.

4.4.1 Authorizing a 6.4 mgd Desalination Plant Is Most Reasonable.

Cal-Am has proposed the MPWSP as either a 9.6 mgd production capacity desalination plant or a reduced capacity, 6.4 mgd production capacity desalination plant combined with a water purchase agreement for 3,500 afy product water from Monterey One Water Groundwater Replenishment (GWR) Project. The authorization for the 3,500 afy GWR WPA was approved in D.16-09-021, making the 6.4 mgd reduced capacity desalination plant the most reasonable option, which is also supported by the CEQA findings set out at Appendix C.

Even the most conservative demand estimate, 9,698 afy, is more than the supply the Commission has found to be reasonably available, 9,044 afy. The proponent of the lowest demand figure, Planning and Conservation League Foundation, would have Cal-Am eliminate the gap between available supply and expected demand with additional storage and "other available supplies."[201] The problem with all of the ideas to close the gap between available supply and future demand is that they are at the concept stage. The particular ideas raised fail to persuade us that they would be sufficient to provide a reliable water supply for the Monterey District for the peak day and month demand as they lack specifics, fail to be concrete, do not include credible cost estimates, and do not give enough detail to weigh the costs and benefits. Absent credible evidence of feasibility, cost reliability of supply, timeframes for development, potential for opposition, and more, we are not persuaded that these ideas can close the gap between supply and demand. Monterey District customers have faced shortages for decades and while some approaches have worked, others have not.[202] Intervenors have not persuaded the Commission that these particular ideas are viable alternatives to the MPWSP. Other than the MPWSP and the alternatives presented within the FEIR/EIS, the Commission does not have viable alternative proposals before us today.[203] Cal-Am must have additional water supply to serve its customers. The MPWSP is the most reasonable approach to solving the long-term problem of water supply in the Monterey District.

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[201] SF-12 at 7-8.

[202] *E.g.,* A.04-09-019 and D.16-09-021 in this proceeding.

[203] *See,* Appendix C, CEQA Findings, Section X; FEIR/EIS at Vol. IV, Section 5.

As the supply available is insufficient to satisfy an estimated demand of 14,000 afy, failure to approve the project would have significant impacts on the region's economy. The project's local and regional economic benefits by way of project construction and operation would be lost. There would not be temporary and permanent new local employment opportunities nor increased spending on construction and operating materials, equipment and/or services. Regarding long-term impacts, the lack of water supply would adversely affect the region's economic vitality, including the County's "four pillars" – agriculture, tourism, education, and research – by substantially reducing the reliability of water resources and water infrastructure. As persuasively stated by Mayor Kampe:

> Because the future is very uncertain. It's hard to tell exactly what's going to happen. There are a number of elements that I think are going to surprise us when we get beyond the current water poverty situation. And we're looking at a 50-year project. Why in the world are we trying to look at the -- the tiny microscopic level details of today's demand as the exclusive basis for projecting 50 years in the future? To me, and I don't have water demand experience, but I do have significant experience in forecasting in business environment, you just can't know the future that well. And to handicap ourselves over that period of time strikes me as – as just it doesn't make any sense.[204]

Finally, the approval of the MPWSP provides additional resource diversity and further ensures that Cal-Am has a portfolio of reliable water supply to meet fire flow requirements for public safety and overall water demand.

The Commission evaluated all of the evidence presented along with the arguments of the parties and determines that Cal-Am's water supply portfolio

[204] RT Vol. 22 at 3795.

will not exceed 9,044 afy. The Commission similarly evaluated all of the evidence presented along with the arguments of the parties and determines that Cal-Am's future water demand will be approximately 14,000 afy. The resulting supply deficit of at least[205] 4,956 afy needs to be addressed in this proceeding to comply with the State Water Resources Control Board's 2016 amended Cease and Desist Order (WR 2016-0016).

In addition, we have considered the seasonal supply and demand variations and how Cal-Am uses its sources of water to meet peak demands over the course of the year.[206] While Cal-Am can use the Seaside Groundwater Basin aquifer to hold excess winter supplies, we are not convinced that the aquifer reserves or other current sources of supply will allow Cal-Am to meet peak day or maximum month demands, particularly in drought years.

Cal-Am's Monterey District will not have sufficient source water to meet the anticipated demand of its customers after December 31, 2021, absent a new source of supply. The MPWSP is the most reasonable solution to provide that supply, and therefore, we find that the 6.4 mgd size MPWSP is the best option to ensure Cal-Am customers have a sufficient water source going forward. We conclude that a CPCN is needed to authorize Cal-Am to construct and operate the MPWSP so that it may replace water supplies for Cal-Am's Monterey District in response to the CDO issued by the State Water Resources Control Board to

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[205] The gap between projected supply and projected demand reflects not only considerations of average year supplies, but also the need to plan for dry years. *See e.g.,* SB 606 (Stats. 2018; ch. 14); AB 1668 (Stats. 2018; ch. 15). *See also*, Exhibit MNA-2, at 6, 8-9, and Attachments 1 and 2.

[206] *See*, D.16-09-021 at 3, fn. 1 ("The Monterey ASR project involves the injection of excess Carmel River water into the Seaside Groundwater Basin for later extraction and use. Future water sources for ASR may include the Pure Water Monterey Groundwater Replenishment Project and a desalination plant.").

cease excess diversions from the Carmel River by December 31, 2021, meet reasonable demand (e.g., existing customers, lots of record, Pebble Beach, tourism rebound), provide a reliable and secure supply, include a reasonable "buffer" against uncertainties, and satisfy all other reasonable needs.

We find the 6.4 mgd desalination plant to be superior to a 4.8 mgd desalination plant based on the little to no cost differential, and that the 4.8 mgd sized desalination plant would produce approximately 4,700 afy in non-drought years. This amount of water is not sufficient to close the 4,956 afy gap between existing supply and projected demand. Further, the 4.8 mgd desalination plant would provide no buffer for contingencies. Given the gap between existing supply and projected demand there is a potential that additional capacity would need to be added to the MPWSP in the future. If so there is a higher likelihood that any expansion that includes permitting, drilling, and construction of an additional well to increase capacity will increase environmental impacts, face additional scrutiny in the permitting review process, and increase costs to ratepayers. In addition, a 4.8 mgd desalination plant would not avoid or substantially lessen any significant impacts of the project: the significant impacts that would result from construction would be the same as the plant would have the same footprint, and require the same pipelines, and while one fewer well would be drilled, it would still require five well pads at the CEMEX site. As all greenhouse gas emissions will be mitigated no matter the size of the plant, a 4.8 mgd desalination plant would not alleviate or substantially reduce the greenhouse gas emission impacts of the project.

Moreover, a 4.8 mgd desalination plant would fail to provide sufficient supply to reliably meet, and be able to satisfy, peak month and peak day demands. Though a 4.8 mgd desalination plant, compared to no plant or any

plant less than 4.8 mgd, would provide some additional supply under drought circumstances when less water or even no water is available from other water sources, there would not be sufficient supply to reliably meet, and be able to satisfy peak month and peak day demands. Seasonal variability and potential drought conditions would exacerbate the water deficit of a 4.8 mgd desalination plant when other sources would be restricted. Thus, as a 4.8 mgd desalination plant would not alleviate or substantially reduce significant environmental impacts of the project, and would not meet the basic project objectives, we conclude it is inferior to the 6.4 mgd desalination plant.

We determine that a 6.4 mgd desalination plant that will produce approximately 6,250 afy of desalinated water in non-drought years (and approximately 7,167 afy in drought years) that would be delivered to Cal-Am customers is the best option to ensure Cal-Am is able to meet its maximum day demand and peak hour demand requirements.[207]

5. Environmental Review and Findings

The California Environmental Quality Act (CEQA) requires the Commission to consider the environmental consequences of its discretionary decisions. In this proceeding, the Commission is the CEQA lead agency and is responsible for conducting the environmental review of the MPWSP, and preparation of the EIR.[208] Accordingly, we employed environmental consultants to prepare the FEIR/EIS evaluating the MPWSP. The purpose of the FEIR/EIS is

[207] *See,* Exhibit CA-51 at 14, 17.

[208] The Commission is the lead agency for CEQA purposes. A portion of the MPWSP is proposed within the Monterey Bay National Marine Sanctuary (MBNMS), and therefore, the National Oceanic and Atmospheric Administration (NOAA) is the federal lead agency under the National Environmental Policy Act (NEPA) for the MPWSP. The Commission and NOAA are the lead agencies for purposes of preparing the EIR/EIS.

constraints as to water supply. Conservation alone will not solve the water needs of the Monterey District (as discussed above regarding demand and supply). Moreover, Cal-Am is faced with addressing the impact of the State Water Resources Control Board CDO and the continuing "urgent need to find an alternative water supply."[328] The CDO requires Cal-Am to reduce its draws from the Carmel River and find long-term permanent alternative water sources to serve its customers.[329] Other existing supplies are inadequate to meet demand (as explained above in the discussion of demand and supply). For example, Cal-Am cannot fully utilize the Seaside Basin as that supply has been adjudicated with Cal-Am facing mandatory triennial reductions until 2021. After 2021 Cal-Am's water right in the Seaside Basin will be reduced to less than half of its 2006 use.[330]

We have in detail previously explained the decades-long history of the Monterey Peninsula's water supply struggles. (See, D.10-12-016 at 9-10 and 33-34.) The Monterey Peninsula population has been dealing with documented water constraints dating back to the 1940s. There is a long and contentious

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[328] D.10-12-016 at 27. *See also,* D.16-09-021 at 3-5.

[329] Cal-Am continues to be subject to the SWRCB CDO which requires that Cal-Am cease all diversions beyond its water right by December 31, 2021, as well as to implement project milestones for the MPWSP. The project milestones include the Commission's issuance of a CPCN for the MPWSP by September 30, 2018 with construction commencing no later than September 30, 2019. *See,* SWRCB Order WR 2016-0016 at 21.

[330] Cal-Am Opening Brief at 3. As explained above, Cal-Am is currently allocated 3,504 afy from the Coastal subarea of the Seaside Basin and 345 afy from the Laguna Seca subareas. These allocations will be reduced over time until they eventually reach 1,474 afy from the overall Seaside Basin. Prior to the Seaside Basin adjudication, Cal-Am's allocation for the Coastal subarea was 4,000 afy. Cal-Am must also repay the Seaside Basin for overdrafts and has therefore assumed a reduction of supply of 700 afy over 25 years, resulting in a net supply available to Cal-Am of 774 afy from the Seaside Groundwater Basin.

is not made on the projects, each failure to achieve a milestone will result in a reduction of Cal-Am's effective diversion limit by up to 1,000 afy..

10. In 2006, the Monterey County Superior Court issued a final decision regarding adjudication of water rights of various parties who use groundwater from the Seaside Basin. (*Cal-Am v. City of Seaside et al.,* Super. Ct. Monterey County, 2006, No. 66343). The court's decision established physical limitations to various users' water allocations to reduce the drawdown of the aquifer and prevent additional seawater intrusion and set up a Watermaster to administer and enforce the Court's decision.

11. Cal-Am is currently allocated 3,504 afy from the Coastal subarea of the Seaside Groundwater Basin and 345 afy from the Laguna Seca subareas. These allocations will be reduced over time until they eventually reach 1,474 afy from the overall Seaside Groundwater Basin. Prior to the Seaside Groundwater Basin adjudication, Cal-Am's pumping from the Coastal subarea was 4,000 afy.

12. Cal-Am must also repay the Seaside Groundwater Basin for overdrafts and has therefore assumed a reduction of supply of 700 afy over 25 years, resulting in a net supply available to Cal-Am of 774 afy from the Seaside Groundwater Basin.

13. Cal-Am's existing water supply will consist of 3,376 afy from the Carmel River, 774 afy from the Seaside Groundwater Basin, an average of 1,300 afy from the Aquifer Storage and Recovery, 94 afy from the Sand City Desalination Project, and 3,500 afy from the Monterey One Water Groundwater Replenishment Project. This provides a total water supply of 9,044 afy.

14. The Commission evaluated all of the evidence presented along with the arguments of the parties and determines that Cal-Am's water supply portfolio will not exceed 9,044 afy.

15. In 2006, the Monterey Peninsula Water Management District issued a technical memorandum, updating the demand in Cal-Am's service territory. The replacement water supply then required to meet total updated demand was 12,500 afy.

16. The estimates of demand in Cal-Am's Monterey service territory as of November 2017 range from 9,675 afy to 15,000 afy.

17. No party estimated demand at a level that was equal to or less than the available supply (9,044 afy).

18. The Commission cannot rely upon the concept of potential expansion of the PWM project absent more concrete and specific information to find that additional supply is available to Cal-Am.

19. Even if completed, PWM expansion alone fails to provide sufficient supply to meet the average demands assumed in MPWSP planning, and will not provide sufficient supply flexibility or reliability to meet most peak demands.

20. The Commission would like to determine if, in conjunction with the MPWSP approved in this decision, PWM expansion could provide an affordable, specific, concrete, and reliable additional or supplemental source water supply for Cal-Am ratepayers in the Monterey district.

21. Cal-Am's ratepayers will face the burden of having an insufficient water supply if the MPWSP is not approved.

22. Additional water source(s) are needed to allow Cal-Am to continue to provide service to customers after Cal-Am reduces its draw from the Carmel River to allowable levels.

23. Cal-Am's water supply portfolio will not provide sufficient water to its customers after December 31, 2021, absent a new source of supply and the MPWSP is the most reasonable solution to provide that supply.

24. Construction and operation of the MPWSP is necessary to ensure Cal-Am operates within its legal water rights which requires cessation of its unlawful diversions from the Carmel River by December 31, 2021, in compliance with the cease and desist order issued by the SWRCB, as well as required reductions to other constrained water supply sources such as the Seaside Basin.

25. Construction and operations of the MPWSP will allow Cal-Am to meet reasonable demand (e.g., existing customers, lots of record, Pebble Beach, tourism rebound), provide a reliable and secure supply, include a reasonable "buffer" against uncertainties, and satisfy all other reasonable needs.

26. Marina Coast Water District made two proposals to sell water to Cal-Am, however these offers were not accepted by the Watermaster or Cal-Am before our record closed, and the initial durations were limited to six and ten calendar years, thus, the Commission cannot rely with adequate certainty that Marina Coast Water District's proposals are adequately specific, concrete, reliable, affordable, and permanent sources of water supply for Cal-Am.

27. Marina Coast Water District did not provide the Commission and parties enough time or information to, among other things, consider and resolve outstanding questions as to physical transfer of water, renewability of the agreements, and accept the terms such that we could include them in this proceeding.

28. Three potential new supply sources claimed by Marina Coast Water District are supply sources that are not available to be allocated to Cal-Am.

29. The assertions by some parties that the downward trend in water use in the District will continue and that only minimal growth will occur in demand after 2021 are not convincing because those assertions fail to consider that maximum month usage increased in 2017 compared to 2016, conservation

funding is projected to go down, and the conservation and moratorium measures implemented during the drought will end.

30. The selection of the most recent three years of demand data does not present a more compelling predictor for the next ten plus years of demand the Commission is examining in this proceeding compared to other methods.

31. A projection of demand for existing customers of approximately 12,000 afy is appropriately conservative and reasonable.

32. A projection of additional demand of approximately 2,000 afy is appropriately conservative and reasonable.

33. The maximum daily demand can be calculated to be 60.48 acre-feet and the peak hour demand can be calculated to be 15.12 acre-feet.

34. Strictly following the methodologies set forth in the Waterworks Standards would result in a projected demand that is significantly higher than is needed given the changes in water use in this system on a month by month basis.

35. A significant criterion regarding plant size is to ensure the MPWSP is sized to meet maximum monthly demands rather than annual total demand.

36. It would be a disservice to the public interest if the project were undersized to meet future demands, requiring yet another project to be permitted and constructed.

37. Both methods used by Cal-Am to forecast demand for existing customers provide reasonable results and their average is a reasonable figure to use for forecasting demand for existing customers.

38. In projecting water demand for the next 10-20 years, the assumptions Cal-Am has made for development of the lots of record and for Pebble Beach are reasonable.

39. The evidence persuasively shows that the tourism industry on the Monterey Peninsula has not fully recovered from the economic downturn that started in 2008, and to the extent it has recovered, it has taken steps to conserve water in ways it would not do if there were no constraints on the water supply in the area.

40. Coalition of Peninsula Businesses has shown that there is a need to identify additional water supply to account for the tourism rebound demand category.

41. An additional 500 afy is a reasonable figure to represent the additional demand Cal-Am will have to meet in the future to serve the tourism industry.

42. Public interest considerations weigh heavily in favor of the balanced demand projection of approximately 14,000 afy.

43. The Commission evaluated all of the evidence presented along with the arguments of the parties and determines that Cal-Am's future water demand will be approximately 14,000 afy.

44. The resulting supply deficit of at least 4,956 afy needs to be addressed in this proceeding to comply with the State Water Resources Control Board's 2016 amended Cease and Desist Order (WR 2016-0016).

45. Speculation as to ways to close the gap between water supply and water demand, absent credible evidence of feasibility, cost, reliability of supply, timeframes for development, potential opposition, and more is not persuasive.

46. Other than the MPWSP (and the alternatives examined in the FEIR/EIS) the Commission does not have viable alternative proposals before us today.

47. Cal-Am must have additional water supply to serve its customers.

87. The MPWSP (6.4 mgd plant) utilizes a source water intake system consisting of seven new subsurface slant wells (five active and two on standby; these would consist of the converted test slant well and six new wells), an open-water brine discharge system through the existing Monterey One Water outfall, a project water conveyance and storage infrastructure.

88. The MPWSP (6.4 mgd plant) could produce up to 7,167 afy assuming operation at full capacity.

89. The MPWSP (6.4 mgd plant) would produce approximately 6,250 afy of desalinated water in non-drought years, and in drought years, if used at full capacity, would produce up to 7,167 afy that would be delivered to Cal-Am customers.

90. A 6.4 mgd desalination plant is the best option to ensure Cal-Am is able to meet its maximum day demand and peak hour demand requirements.

91. The MPWSP (6.4 mgd plant) achieves an appropriate balance between supplying a sufficient amount of safe, reliable, potable water and maintaining just and reasonable rates.

92. Cal-am has met its burden, subject to the conditions set out in this decision, in demonstrating the need for the MPWSP sized at 6.4 mgd.

93. A reduction in size of the MPWSP from 6.4 mgd to 4.8 mgd would increase the annual O&M cost by $340,000.

94. There would be a one-time capital cost saving of $1.84 million if the MPWSP was downsized from 6.4 mgd to 4.8 mgd.

95. The annual O&M cost increases for the 4.8 mgd plant would offset the increased one-time capital costs for the larger 6.4 mgd plant within only a few years.

96. The desalination plant is appropriately sized at 6.4 mgd.

14. Based on the evidence presented in support of the project, when weighed with that opposed to it, the supporting evidence has more convincing force and the greater probability of truth.

15. Growth resulting in new demand will not occur immediately, but will take time to develop, and in planning for the future, Cal-Am has shown that the growth it is projecting is reasonable under the California Waterworks standards.

16. The tourism industry recovery projection of 500 afy is reasonable under the California Waterworks standards.

17. Cal-Am has met its burden to prove that 14,355 afy is a reasonable projection for the system's projected demand, and intervenors persuade us that a projection of approximately 14,000 afy is the most reasonable and appropriate figure to use.

18. The Commission should, as authorized by Senate Bill (SB) 936, Chapter 482, issue financing orders to facilitate the recovery, financing, or refinancing of water supply costs, defined to mean reasonable and necessary costs incurred or expected to be incurred by a qualifying water utility. The Commission should find that the bonds would provide savings to water customers on the Monterey Peninsula, which will allow the Monterey Peninsula Water Management District to issue water rate relief bonds. Savings from these bonds should result from the lower interest rates that would apply to this financing compared to market-rate financing.

19. The proposed financing framework set out in the Comprehensive Settlement should be adopted, including Cal-Am funding $20 million on the initial costs with short-term debt. $7.4 million of this short-term debt was used for the facilities approved in D.16-09-027. This leaves $12.6 million in short-term

EXHIBIT B

CASE NO. S253585

IN THE SUPREME COURT
OF THE STATE OF CALIFORNIA

CITY OF MARINA,

Petitioner,

vs.

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA,

Respondent,

CALIFORNIA-AMERICAN WATER COMPANY, COALITION OF PENINSULA BUSINESSES, COUNTY OF MONTEREY, MONTEREY COUNTY FARM BUREAU, MONTEREY COUNTY WATER RESOURCES AGENCY, MONTEREY PENINSULA REGIONAL WATER AUTHORITY, SALINAS VALLEY WATER COALITION, and MONTEREY PENINSULA WATER MANAGEMENT DISTRICT,

Real Parties in Interest.

California Public Utilities Commission
Decision Nos. 18-09-017 and 19-01-051

AMENDED PETITION FOR WRIT OF REVIEW

SUPPLEMENTAL EXHIBIT FILED UNDER SEPARATE COVER

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Exempt from fees (Govt. Code § 6103)

attempt in the EIR to argue that "groundwater" really means "fresh water" of a certain salinity has no chance of success.

In sum, this Commission cannot rely on the Return Water Settlement Agreement or the EIR to alter the Agency Act's unequivocal prohibition on extraction and export of groundwater. Instead, the export ban in the Agency Act is a fatal problem for the Project, renders the Project infeasible, and constitutes a clear legal constraint that cannot be overcome. The Decision's assertion that the Project "satisfies" the Agency Act is no more than wishful speculation that ignores the actual legal and jurisdictional requirements of the Act.[169]

XI. THE COMMISSION FAILED TO REGULARLY PURSUE ITS AUTHORITY BY GRANTING A CPCN FOR A PROJECT FOR WHICH THE NEED HAS NOT BEEN DEMONSTRATED.

A. The Decision's Assessment Of Project "Need" Is Based On Grossly Inflated And Unsupported Forecasts Of Water Demand And Supply In CalAm's Monterey District.

The Commission's assessment of "need" for the Project rests almost exclusively on a grossly inflated and unsupported forecast of water supply and demand in CalAm's Monterey District. The Project is not required by any reasonable demand, supply, or cost considerations, and the present or future public convenience and necessity does not require, nor will it require, its construction.

The evidence on water demand presented to the Commission demonstrates that CalAm did not sustain its burden to affirmatively establish that the public convenience and necessity "requires" the installation of a 6.4 mgd desalination plant. To the contrary, the record clearly demonstrates that the EIR's water demand assumptions (imported into the Decision) are greatly inflated and, coupled with erroneous use and

[169] Exhibits, Vol. 18, Tab 10, p. 5072.

supply assumptions, improperly skew and undermine the Decision.

The EIR confirms in Table 2-2 that CalAm's annual service area demand has dramatically and steadily declined over a ten-year period by almost 5,000 AFY from 14,176 AFY in 2006 to 9,545 AFY in 2015.[170] Yet, the EIR identifies 12,351 AFY as the "average annual" demand.[171] The record demonstrates that "it is illogical to assume any significant increase in water demand," and that a rebound is expected.[172] Instead, CalAm's true "need" for new water is actually much less and could be supplied by other projects. Four experts who testified at the October/November 2017 evidentiary hearings calculated that the future reasonable total water demand estimates for CalAm's existing customers averaged at or below the 9,545 AFY recorded in 2015.[173]

In fact, the non-CalAm experts who testified in 2017 established that the anticipated future reasonable *total* water demand for CalAm's service area (including lots of record, tourism rebound and all other factors) is in the range of only 10,500 AFY and that CalAm's future expected sources of water will supply at least 9,044 AFY. Accordingly, the future water supply shortfall (if any) is in the range of only 1,500 AFY. However, a 6.4 mgd plant will produce an additional 7,167 AFY of water supply for CalAm, for a total supply of approximately 16,200 AFY, which is 6,700 AFY or 70% more than its current demand of about 9,500 AFY.[174]

These experts also disputed CalAm's claims that its customer water demand would grow approximately 41% in the next few years, a

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[170] Exhibits, Vol. 2, Tab 5, p. 373.
[171] *Id.*
[172] Exhibits, Vol. 16, Tab 6, p. 4574, 4579, 4587; Exhibits, Vol. 25, Tab 38, p. 6893.
[173] Exhibits, Vol. 16, Tab 6, pp. 4574-4575, 4587; Exhibits, Vol. 26, Tab 41, pp. 7042-7043; Exhibits, Vol. 25, Tab 38, pp. 6893-6895.
[174] Exhibits, Vol. 8, Tab 5, p. 2248.

preposterous claim in the face of permanent water conservation measures and more stringent State water usage requirements that are now in place and would prevent such an increase.[175] Contrary to the testimony of all of the independent experts, the Decision wrongly adopts CalAm's position. Rather than requiring CalAm to demonstrate the extent to which permanent conservation has not occurred, the Decision instead relies on the non-quantified, lay opinion of Coalition of Peninsula Businesses ("CPB"): "The Commission is persuaded by Coalition of Peninsula Businesses' testimony that there is additional water demand that the hospitality industry will require when mandatory conservation measures are removed."[176]

The Rehearing Order repeats the same mistakes in the Decision with respect to demand by fixating on CalAm's self-serving expert testimony and on lay opinion. Rather than critically assess why all of the non-CalAm experts independently found that CalAm's estimates were grossly inflated and despite the fact that water use has steadily declined since 2006, the Rehearing Order pieces together various possibilities for why "water use is not likely to go lower [than CalAm's estimate]."[177] The Rehearing Order provides no additional rationale to justify the Commission's adoption of CalAm's demand numbers and, moreover, why it would find it appropriate to accept lay opinion over expert testimony regarding the tourism rebound.

B. The Decision Offers No Rationale Or Basis For Its Complete Disregard For The Overwhelming Expert Testimony On Water Demand.

The Decision also ignores Marina's expert record evidence. Dr. House demonstrated that, because CalAm's Monterey District water rates are already the highest in the nation, the further increase in rates that will be

[175] Exhibits, Vol. 26, Tab 41, pp. 7042-7043; Exhibits, Vol. 25, Tab 38, pp. 6894.
[176] Exhibits, Vol. 18, Tab 10, pp. 5053-5054.
[177] Exhibits, Vol. 28, Tab 52, p. 7558.

required to recover costs of a desalination plant will inevitably suppress water demand and could in fact create a CalAm utility "death spiral."[178]

Accepted studies on "price elasticity" establish that "as the price of water increases, people use less" water.[179] Dr. House testified that CalAm already has experiential knowledge with this phenomenon from the 2006-16 period: "[w]hen Cal-Am increases the price for water, the demand for it falls in proportion to the price increase" down to some minimum level of usage.[180] In the Rehearing Order, the Commission unsuccessfully attempts to explain how it responded to Marina's expert testimony regarding the impact of rates on demand. However, all the Rehearing Order does is quote a paragraph from the Original Decision that responds to another party's different supply and demand analysis, and then purport to identify where the Commission allegedly responded to Marina.[181] However, the discussion on those pages does not address the impact of rates on demand, let alone Dr. House's testimony on this important topic.[182]

With respect to the phantom future "tourism rebound," all of the experts who contested CalAm's claims demonstrated that the economy and spending in Monterey County had already completely rebounded and been fully recouped from the 2008 recession. Thus, demand for tourism rebound should be zero.[183] For "lots of record," the evidentiary record shows that CalAm's claim of 1,181 AFY was an outdated and unreliable estimate, with the actual number being as little as half of that amount.[184]

In sum, the Decision essentially disregards all of this expert

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[178] Exhibits, Vol. 21, Tab 23, p. 5781.
[179] Exhibits, Vol. 16, Tab 6, p. 4578.
[180] *Id.* at pp. 4577-4578; Exhibits, Vol. 21, Tab 23, pp. 5797.
[181] Exhibits, Vol. 28, Tab 52, pp. 7558-7559.
[182] Exhibits, Vol. 18, Tab 10, pp. 5015-5016.
[183] Exhibits, Vol. 26, Tab 41, pp. 7042-7043; *see also* Exhibits, Vol. 16, Tab 6, p. 4583-4585.
[184] Exhibits, Vol. 26, Tab 41, pp. 7042; Exhibits, Vol. 16, Tab 6, pp. 4583.

testimony and asserts that the CalAm's anticipated future water demand is "at least 14,000 AFY."[185] The inflated and unjustified "water grab" embodied in the Decision is particularly unnecessary because there are reasonable, viable, and much less expensive water alternatives such as the expanded PWM Project and MCWD water sale offers. However, this faulty water demand/supply analysis has also undermined many other aspects of the Commission process, most prominently by improperly eliminating any analysis in the EIR of *any* alternative to the Project that produced less than 6.4 mgd of water.

Given the Commission's sole reliance on CPB to support its adopted 14,000 AFY demand projection, it is clear that the Commission was not considering the public interest as a whole, but rather only these limited commercial interests when it stated: "Accordingly, the *public interest considerations* weigh heavily in favor of the balanced demand project of 14,000 AFY put forward by Monterey Peninsula Regional Water Authority."[186] Clearly, that does not include the "interest" of the "public" who are living and doing business in Marina and who will be adversely impacted by the Project and its operation, nor does it represent the broader "public" outside of certain hotel owners in Monterey.

In short, CalAm did not sustain its burden to demonstrate that "the present or future public convenience and necessity *require or will require* the construction and operation" of the Project. P.U. Code § 1001 (emphasis added). The Decision had no evidence on which to draw a contrary conclusion. The water demand originally assumed by CalAm seven years ago when it first applied for this CPCN was rendered obsolete by the dramatic demand decreases that occurred over the intervening seven years. All of the expert evidence introduced at the 2017 evidentiary hearings

[185] Exhibits, Vol. 18, Tab 10, p. 5049.
[186] *Id*. at p. 5046 (emphasis added).

conclusively demonstrated that there is no "need" for an expensive Project of this huge size. The Commission, as reflected in the Decision, thereby failed to regularly pursue its authority in concluding that the "demand" needed to support this huge Project exists.

XII. THE COMMISSION FAILED TO MEET ITS STATUTORY DUTY TO ENSURE THAT THE COSTS OF THE PROJECT ARE JUST AND REASONABLE AND INSTEAD THE PROJECT'S EXCESSIVE COSTS RENDER IT INFEASIBLE.

A. The Decision Does Not Meet The Commission's Statutory Obligations To Evaluate Project Rate Impacts Or Ensure That It Will Result In Just And Reasonable Rates For CalAm Customers.

In the Decision, the Commission completely ignores its statutory obligations for regulation of the rates and charges of water corporations. Thus, while the Decision references the Commission's obligation to ensure that "all rates demanded or received by a public utility are just and reasonable" pursuant to P.U. Code Section 451,[187] it not only fails to confirm whether such rates will result from the Project, but never acknowledges the Commission's additional duties *specific* to "rates and charges . . . for water service provided by water corporations." P.U. Code § 701.10. Those obligations require the Commission to provide only for "sufficient" revenues and earnings on "used and useful" plant, to "[m]inimize the long-term cost of reliable water service to water customers" and to "[p]romote the long-term stabilization of rates in order to avoid steep increases in rates." *Id*.

The Decision fails to meet these statutory obligations because it never evaluated the actual rate impacts of the Project, once it is constructed. Instead, it states that those impacts will not be known until the Project is operational and instead simply adopts a convoluted and vague "ratemaking framework" based on the "Comprehensive Settlement Agreement" for

[187] Exhibits, Vol. 18, Tab 10, pp. 5009-5010.

EXHIBIT C

Case No. S253585
California Public Utilities Com. Application 12-04-019

IN THE SUPREME COURT OF THE STATE OF CALIFORNIA

MARINA COAST WATER DISTRICT,
Petitioner,
v.
PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA,
Respondent.

CALIFORNIA-AMERICAN WATER COMPANY, COALITION OF PENINSULA BUSINESSES, COUNTY OF MONTEREY, MONTEREY COUNTY FARM BUREAU, MONTEREY COUNTY WATER RESOURCES AGENCY, MONTEREY PENINSULA WATER MANAGEMENT DISTRICT, MONTEREY PENINSULA REGIONAL WATER AUTHORITY, SALINAS VALLEY WATER COALITION, *Real Parties in Interest*

From California Public Utilities Com. Decision 18-09-017
(Pub. Resources Code § 21168.6; Pub. Util. Code § 1756(f))

AMENDED VERIFIED PETITION FOR WRIT OF REVIEW/MANDATE

(Pub. Resources Code § 21167, subds. (b), (c); Pub. Util. Code § 1001)

APPENDIX FILED SEPARATELY

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Exempt from fees (Gov. Code § 6103)

primary responsibility under law to ensure that ratepayers are not repeatedly burdened with the unjust and unreasonable stranded costs of projects that are abandoned or ultimately determined to be infeasible. (Pub. Util. Code § 451.) The Commission must ensure that the utilities it regulates are permitted to carry out only lawful, feasible infrastructure projects that are required by the present or future public convenience and necessity. (Pub. Util. Code § 1001.) The Commission failed to do so here, in the first instance by failing to follow the provisions of the California Constitution and other laws regarding reasonable and beneficial use of groundwater, and then by failing to ensure that Cal-Am would be able to lawfully carry out its proposed project by seeking guidance from bodies that have the jurisdiction to determine questions of groundwater harm, Basin Plan compliance and/or water rights.

Moreover, as a practical matter, the MPWSP is simply not required for the present *or the future* public convenience and necessity of Cal-Am's Monterey District customers. (Pub. Util. Code § 1001.) As MCWD has explained at length in briefing and in its comments on the Proposed Decision, the 14,000 AFY demand assumptions of Cal-Am, largely adopted by the Commission in D.18-09-017, are grossly inflated. What is more, new legislation and Executive Orders have made water conservation a way of life in California, rendering such a steep increase in demand highly unlikely. (39APP531, pp. A25504, 25509.) For all of these reasons, the FEIR's supply

and demand analysis was deeply flawed, requiring revision and recirculation, as discussed below in section III.C.

Undisputed record facts demonstrate that Cal-Am's supply requirement has been steadily dropping (*see* numbered Petition allegations 63, 64, 87), and over the past four years it stabilized at 9,500 AFY. (Ex. MCD-59 [15APP417, p. A18809][23].) Cal-Am's portfolio of lawful supply sources will total 9,180 AFY prior to the current CDO deadline of December 31, 2021, nearly sufficient to meet its current demand without desalination. With addition of a modest increment of additional supply from MCWD and PWM, instead of the 7,167 AFY the MPWSP would produce, there would still be a 26% surplus over the current demand level:

Available Supply Sources –2019/2020	Volume in AFY
Pure Water Monterey base	3,500
Carmel River legal limit	3,376
Seaside Basin adjudicated supply	1,474
Seaside 25-yr payback	-700
ASR average	1,300
Sand City average	230
SUBTOTAL W/O MPWSP	**9,180**

[23] *See also* https://www.watersupplyproject.org/system-delivery, last visited Jan. 14, 2019. From 2015-2018, demand averaged 9,403 AFY. *Ibid.*

PWM Expansion "Scenario B"	2,250
MCWD sale of portion of its PWM supply	550
POTENTIAL GRAND TOTAL	**11,980**
Excess of 9,500 AFY current demand	**26%**

(RT, Vol. 29, pp. 5110-5111; see FEIR/EIS, p. 5.4-12 [9,880 AFY of available supply, comprised of 3,500 AFY PWM, 3,376 AFY Carmel River, 1,474 AFY Seaside (before payback), 1,300 AFY average Carmel River seasonally-stored ASR, 230 AFY Sand City desalination plant). In other words, the Commission certificated a 7,167 AFY solution to what is, at most, a 320 AFY problem.

The record shows that Cal Am's 30-year requirement is no more than 11,500 AFY, and with an operational surplus of approximately 10%, this would come to no more than 12,650 AFY by 2048. But even assuming for argument's sake that Cal-Am actually needed to secure a future supply of up to 14,000 AFY within the 30-year lifetime of the project, as D.18-09-017 found, Cal-Am's available non-MPWSP supply sources can meet that inflated level of demand. Assuming 14,000 AFY were actually required, after the 25-year Seaside Basin payback period, the water supply portfolio for Cal-Am's Monterey District could be comprised of the following sources:

Available Supply Sources – 2048	Volume in AFY
Pure Water Monterey base	3,500

PWM expansion scenario "C"	3,570
Carmel River legal limit	3,376
Seaside Basin adjudicated supply	1,474
ASR average	1,300
Sand City average	230
MCWD sale of portion of its PWM supply	550
GRAND TOTAL	**14,000**
Excess of 9,500 AFY current demand	**47%**

As the uncontested evidence clearly demonstrates, with available public supply options, there is no supply shortage even if future demand rises as high as 14,000 AFY in thirty years, which MCWD contends is unlikely to be the case as there is no evidence to support a higher demand figure. (*See* Ex, MCD-36A, pp. 6-9 [25APP405, pp. A18454-57]). As shown above, if there is a future shortfall, it can readily be met by feasible public agency alternatives. (*Ventura County Waterworks v. Public Util. Com., supra,* 61 Cal.2d at 464-466.)

Therefore, the MPWSP is not required by the present or future public convenience and necessity. (Pub. Util. Code § 1001.) Accordingly, the Commission committed prejudicial legal error and failed to regularly pursue its authority in finding in D.18-09-017 that the MPWSP is required. (*Ibid*.) The decision should be vacated or set aside.

c. *The FEIR failed to evaluate potentially feasible reduced-capacity alternatives, based largely on an erroneous and unsupported supply and demand analysis.*

Compounding this error, the EIR's identification of alternatives was also improperly constrained due to its defective water supply and demand analysis that is not supported by substantial evidence, which was used to define the objectives and purpose and need for the project. As this Court has explained, because the project objectives are crucial to the formulation and evaluation of project alternatives, a lead agency may not give the project objectives an artificially narrow definition such that the range of alternatives to the proposed action is unduly constrained. (See *In re Bay-Delta, supra,* 43 Cal.4th at p. 1166.) But that is exactly what occurred here.

In describing the purpose of the demand and supply information, the EIR acknowledged that "supply and demand are fundamentally tied to the ability of the project to satisfy the project need and objectives" and "are therefore important to fashioning the requisite range of feasible and reasonable project alternatives." (FEIR, p. 8.2-100.) The supply and demand analysis in the EIR, however, ignores the most recent (and most accurate) data, which resulted in the EIR grossly overestimating future demand and discounting available supply.

22823-22829]; Surfrider Reply Brief, Jan. 9, 2018, pp. 1-21 [35APP458, A21330-21350].)

Specifically, the EIR improperly identified the water supply shortfall or "need" for the project (in addition to Cal-Am's other legal supplies) as 10,750 AFY, which by itself exceeds Cal-Am's total water deliveries in every year since 2013. (Ex. MCD-59 [25APP417, p. A18809]; see FEIR, pp. 8.5-5.) With the project, Cal-Am would have a future water supply of over 16,000 AFY, of which only about 9,500 AFY is required for its full present demand. The remaining 6,500 AFY is for unspecified future uses, which could potentially include sale of water at a profit. (*Ibid*.)

In reality, Cal-Am's "need" for new water is actually much less and could be supplied *entirely* by other projects. As acknowledged in the EIR, Cal-Am's annual service area demand declined consistently over a ten-year period from 14,176 AFY in 2006 to 9,545 AFY in 2015. (FEIR, pp. 8.5-11.) This steady decline is the result of many factors including reduction of leaks and adoption of permanent water conservation measures, and there is no evidence that these annual declines will not continue in the future. (*Ibid.*) In other words, the evidence shows that Cal-Am does not "need" anywhere near 10,750 AFY from the project or a total of over 16,000 AFY of water supply when its total service area demand appears to have stabilized at 9,500 AFY. (FEIR, pp. 8.5-12.) [30] Since by its own calculations, Cal-Am will receive at

[30] As evidenced by the extensive comments and evidence submitted to the CPUC on this issue, numerous interested agencies and environmental groups all concur that there is no basis, much less a need, for even a 6.4 MGD facility. (Opening Brief of Planning and Conservation League Foundation

least 7,800 and as much as 9,000 AFY of water from other sources by 2020, its apparent true demand and need from the project – or other, alternative water sources – to serve future demand is at most in the range of 3,000 AFY.[31] (*Ibid*.) This error alone is sufficient to warrant review here. (*Vineyard*, *supra*, 40 Cal.4th at 447 ["the FEIR's use of inconsistent supply and demand figures, and its failure to explain how those figures match up, results in a lack of substantial evidence"].)[32]

Nonetheless, the CPUC refused to analyze any alternatives that did not meet *all* of Cal-Am's stated project objectives of *fully* supplying Cal-Am's unsupportable 14,000 AFY demand estimates, rendering the EIR legally inadequate. (Guidelines, § 15126.6, subds. (a), [EIRs must consider

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Addressing Final EIR/EIS [39APP524, A25208-25213]; Opening Brief of City of Marina on Final EIR/EIS [37APP498, A22807]; Surfrider Foundation's Opening FEIR/FEIS Brief [38APP500, A23321]; comments on PD [40APP556, A25784; 40APP557, A25808].)

[31] This number assumes Cal-Am needs additional supplies to meet maximum daily demand, which Cal-Am has admitted is not necessary. (RT, Vol. 13, at 2093:1-2094:6 (Cal-Am, Mr. Svindland) [8APP117, A7346-7347]; see also Surfrider Foundation and LandWatch Monterey County's Comments on Proposed Decision, p. 12-14 [explaining same] [41APP568, A26279-26281]].

[32] The FEIR's sole concession to parties' comments regarding inflated demand, Appendix L, erroneously and misleadingly *omitted entirely* the already-approved 3,500 AFY PWM purchase from its supply analysis, resulting in an artificially low total of available non-MPWSP supply sources. (FEIR, App. L, pp. L-3, L-4 and Tables X-6 through X-16.) This error is significant, justifying revision of the Appendix and alternatives analysis, and recirculation of the RDEIR.

alternatives that meet "*most* of the basic objectives of the project and avoid or substantially lessen any of the significant effects"], (b).)

Because the EIR improperly relied on Cal-Am's bloated future demand estimates, and failed to consider all available supplies, the EIR rejected potentially feasible alternatives that would satisfy *most* – if not all – of the project's objectives. In fact, as explained below, there is at least one potentially feasible, and most likely *actually* feasible, alternative that the CPUC ordered the applicant to evaluate *after* its project approval – and outside the public review process – further violating CEQA's requirements.

d. *The Commission violated CEQA by ordering the project applicant to evaluate a potentially feasible alternative that would significantly lessen – if not avoid entirely – the MPWSP's significant and unavoidable impacts, after project approval and outside of the CEQA process.*

In investigating alternatives, the CPUC requested that M1W provide information regarding the potential expansion of the approved PWM project. In response, M1W submitted three potential alternatives to expand the PWM project and produce substantially more than 3,500 acre feet of purified recycled water annually for Cal-Am's Monterey District service area. (FEIR, p. 8.2-108; Ex. PCL-7 [16APP268, p. A11979].) The FEIR, however, refused to evaluate the alternatives, labelling them "speculative" because M1W did not have plans to expand without a request *from Cal-Am*. (*Ibid.*) The EIR's failure to evaluate these potential alternatives violated CEQA.

The PWM project has already committed to deliver 3,500 AFY of

EXHIBIT D

No. S253585

Exempt from Filing Fees
Government Code § 6103

In the Supreme Court of the State of California

City of Marina and Marina Coast Water District,
Petitioners,

vs.

Public Utilities Commission of the State of California,
Respondent,

California-American Water Company, Coalition of Peninsula Businesses, Monterey Peninsula Regional Water Authority, Salinas Valley Water Coalition, Monterey Peninsula Water Management District, County of Monterey, Monterey County Water Resources Agency, and Monterey County Farm Bureau,
Real Parties in Interest.

From California Public Utilities Com. Decisions 18-09-017 and 19-01-051

ANSWER OF REAL PARTY IN INTEREST MONTEREY PENINSULA WATER MANAGEMENT DISTRICT TO AMENDED PETITIONS FOR WRITS OF REVIEW

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79. MPWMD lacks sufficient knowledge or information to form a belief as to the truth of the allegations in paragraph 79 and on that basis denies each and every allegation contained therein.

80. MPWMD lacks sufficient knowledge or information to form a belief as to the truth of the allegations in paragraph 80 and on that basis denies each and every allegation contained therein.

81. MPWMD lacks sufficient knowledge or information to form a belief as to the truth of the allegations in paragraph 81 and on that basis denies each and every allegation contained therein.

82. MPWMD admits the allegations in paragraph 82.

83. Answering paragraph 83, the cited documents speak for themselves. MPWMD otherwise admits the allegations in paragraph 83.

84. Answering paragraph 84, the cited documents speak for themselves. MPWMD lacks sufficient knowledge or information to form a belief as to the truth of the remaining allegations in paragraph 84 and on that basis denies each and every allegation contained therein.

85. MPWMD lacks sufficient knowledge or information to form a belief as to the truth of the allegations in paragraph 85 and on that basis denies each and every allegation contained therein.

86. MPWMD admits the allegations in paragraph 86.

87. Answering paragraph 87, the cited documents speak for themselves. MPWMD admits that water demand for Cal-Am's

71. MPWMD admits that the water demand for the Cal-Am area that would be served by the Project is less than originally anticipated. The remaining allegations of paragraph 71 consist of legal theory, conclusions, and argument requiring no response. To the extent paragraph 71 contains any remaining factual allegations, except as specifically admitted, MPWMD denies each and every allegation contained therein.

72. The allegations in paragraph 72 consist of legal theory, conclusions, and argument requiring no response. However, to the extent paragraph 72 contains any factual allegations, MPWMD denies each and every allegation contained therein.

Sixth Cause of Action

73. MPWMD re-alleges and incorporates by reference each and every denial, admission, and allegation set forth in paragraphs 1–72 above.

74. MPWMD admits the PUC adopted a Statement of Overriding Considerations in its Decision. The remaining allegations in paragraph 74 consist of legal theory, conclusions, and argument requiring no response. However, to the extent paragraph 74 contains any factual allegations, except as specifically admitted, MPWMD lacks sufficient information to form a belief as to the truth of those allegations and on that basis denies each and every allegation contained therein.

Eleventh Cause of Action

103. MPWMD re-alleges and incorporates by reference each and every denial, admission, and allegation set forth in paragraphs 1–102 above.

104. MPWMD admits that Cal-Am's application for a CPCN was based on a projected water "need" for current customers of about 14,000 afy, and further admits that a reduction in water demand since indicates the Project need only cover a portion of that demand. Except as specifically admitted, MPWMD denies the remaining allegations in paragraph 104.

105. Answering paragraph 105, the cited document speaks for itself. MPWMD admits Table 2-2 of the EIR indicates a reduction in demand within Cal-Am's service area from 14,176 afy in 2006 to 9,545 afy in 2015. Except as specifically admitted, MPWMD denies the remaining allegations in paragraph 105.

106. Answering paragraph 106, the cited testimony speaks for itself. MPWMD lacks sufficient knowledge or information to form a belief as to the truth of the allegations in paragraph 106 and on that basis denies each and every allegation contained therein.

107. MPWMD lacks sufficient knowledge or information to form a belief as to the truth of the allegations in paragraph 107 and on that basis denies each and every allegation contained therein.

108. MPWMD admits Cal-Am's demand forecast was not supported by the overwhelming record evidence and further admits

EXHIBIT E

S253585

IN THE SUPREME COURT OF CALIFORNIA

En Banc

CITY OF MARINA AND MARINA COAST WATER DISTRICT, Petitioners,

v.

PUBLIC UTILITIES COMMISSION, Respondent;

CALIFORNIA-AMERICAN WATER COMPANY et al., Real Parties in Interest.

The requests for judicial notice are granted.

The motion by California-American Water Company to strike the Answer of Monterey Peninsula Water Management District is denied.

The petitions for writ of review are denied.

CANTIL-SAKAUYE

Chief Justice

EXHIBIT F

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Application of California-American Water Company (U210W) for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates	Application 12-04-019 (Filed April 23, 2012)

DIRECT TESTIMONY OF IAN CROOKS

ERRATA VERSION

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Original: September 15, 2017

Errata: September 27, 2017

3.) Commission General Order 103-A, II.2.B.3 requires that "[a] system's facilities shall have the capacity to meet the source capacity requirements as defined in the Waterworks Standards, CCR Title 22, §64554, or its successor. If, at any time, the system does not have this capacity, the utility shall request a service connection moratorium until such time as it can demonstrate the source capacity has been increased to meet system requirements."

In summary, water supply planning must consider annual demand, maximum month demand ("MMD") and maximum daily demand ("MDD") during normal, dry and multiple dry years. As evidenced by these regulations, meeting the future MDD and MMD demand is the critical determination when planning future water supplies. However, from a comprehensive water resource planning perspective, it is essential to have the water resources available to meet maximum month demands, which is the time when MDDs occur. This is important, as it is one thing to deliver water supply for a single MDD but even more challenging to plan, design, and operate a water system to deliver water supplies at near MDD levels during dry years over a few maximum months of demands. While the Monterey County District system benefits from a diverse portfolio of water supplies (existing and planned), this comes with the burden of complicated regulations, agreements, and constraints dictating when certain supplies are available. Therefore, as we plan water supplies to meet maximum month and maximum day demands in Monterey, we must consider the limitations and risks associated with those supplies during dry summer months and extended periods of drought (which affect Carmel River and ASR availability). While these sources may be limited seasonally and during periods of drought, the desalination component of the water portfolio will provide a reliable, drought-resilient baseline of supply to meet the long-term water demands of customers in the Monterey County District.

Q10. Please provide a brief summary of the water supply and demand information last updated

systems because these satellite systems will be connected to and receive water from the Monterey Main system by the time the MPWSP facilities are approved and constructed.

Q12. Since the information provided previously in testimony and summarized above is based on system demand from 2007 to 2011, what are the updated system demands through 2016?

A12. Table 3 below provides system demand data from 2007-2016 to provide a broad 10-year historic view of demands.

Table 3
Historic System Demand

Monterey Main System Demand including RR, HH, & Bishop (acre-feet)

Month	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
J	955	902	901	801	855	864	745	893	730	597
F	847	865	801	738	822	805	710	667	671	635
M	1,056	1,076	982	869	894	832	853	757	771	623
A	1,144	1,194	1,126	883	967	837	957	800	814	742
M	1,354	1,375	1,212	1,096	1,171	1,087	1,079	982	814	836
J	1,397	1,449	1,243	1,236	1,106	1,136	1,056	975	853	912
J	1,522	1,496	1,352	1,328	1,250	1,206	1,127	1,018	942	946
A	1,506	1,464	1,369	1,301	1,195	1,195	1,131	1,023	956	944
S	1,410	1,434	1,268	1,238	1,131	1,075	1,027	906	893	909
O	1,214	1,299	1,092	1,112	996	996	1,002	897	840	826
N	1,155	998	999	908	854	820	861	707	640	670
D	1,037	888	854	760	888	696	809	627	621	646
Total	14,596	14,439	13,198	12,270	12,129	11,549	11,356	10,250	9,545	9,285
Max Month	1,522	1,496	1,369	1,328	1,250	1,206	1,131	1,023	956	946

As the data shows, the water demand trend has declined over the last 10 years. This decline is attributable to many factors including but not limited to economic conditions, record setting multi-year (2011-2015) drought conditions, aggressive conservation efforts, and a moratorium since 2010 on new service connections. We also anticipate the demand to stay at relatively low levels until 2021, when new water supplies are brought online to meet the State Water Resources Control Board ("SWRCB") cease and desist

order ("CDO") deadline. We anticipate demand to rebound over time after these new water supplies are available, the drought conditions continue to subside, the moratorium on new service connections is lifted, and strict conservation and water use restrictions are eased. Since we are planning and developing a resilient and reliable water supply to serve the community for decades to come, it is not prudent to use the last few of years of extreme drought and low system demand as an indication of future customer demand.

Q13. Based on the updated demand data in Table 3, what in your opinion is a reasonable forecast for annual system demand?

A13. I used two methods for estimating a normalized annual system water demand. These methods include looking at historical data and using projections from the 2015 Urban Water Management Plan ("UWMP") to normalize demands.

Method 1: Historical Data: The 10-year average demand from 2007 through 2016 was 11,862 AFY. The first three years (2007-2009) had high demand and the last three years (2014-2016) had abnormally low demand due to the drought and associated water restrictions. Excluding the high and low years, the average demand from 2010 through 2013 (4 years) was 11,826 AFY, which happens to be nearly the same as the 10-year average. Following regulation CCR Title 22, §64554, the highest 10-year (2007-2016) maximum month demand was 14,596 AFY in 2007; however, because a portion of conservation is permanent, this is not a realistic projection to use for the same reason that using the 2016 demand of 9,285 AFY is not realistic due to extreme drought and stringent conservation efforts. With the plant projected to be in-service by 2021 and following §64554, the highest 10-year (2012-2021) maximum demand year is anticipated to the year 2012 at 11,549 AFY. The average of 11,862 + 11,826 + 11,549 is a system average demand of approximately 11,745 AFY. Note that this estimate is based solely on historical data and does not account for any change in population, as is

the case in Method 2.

Method 2: Demand Projections: The UWMP was used to help determine normalized system demand based on projections. The key factors in determining future demand are population and customer use. The methods for determining these values are described below.

The UWMP's purpose is to define how water providers will reduce overall water use and meet required water use reduction targets. The goal is a 20% reduction in customer use between the determined baseline and the year 2020. Customer use is defined in gallons per capita per day (gpcd) and is calculated by dividing total customer use (including all customer categories) by the estimated population (note that customer use data comes from customer meter/billing data, not total production). The baseline of 144 gpcd was calculated as the average customer use between 1996 and 2005; therefore, the 20% reduction target is 118 gpcd. This target includes all systems in the Monterey County District.

As seen in the diagram from the UWMP on the following page, customer use started to decline steadily in 2010 and dropped below the 20% target in 2013, largely due to conservation measures implemented during the drought from 2011 to 2015 and the moratorium on new water connections and fixtures. By 2015, the fourth year of extreme drought, average customer use was at 94 gpcd. In 2016, after the UWMP was published, the average customer use fell to 82 gpcd.

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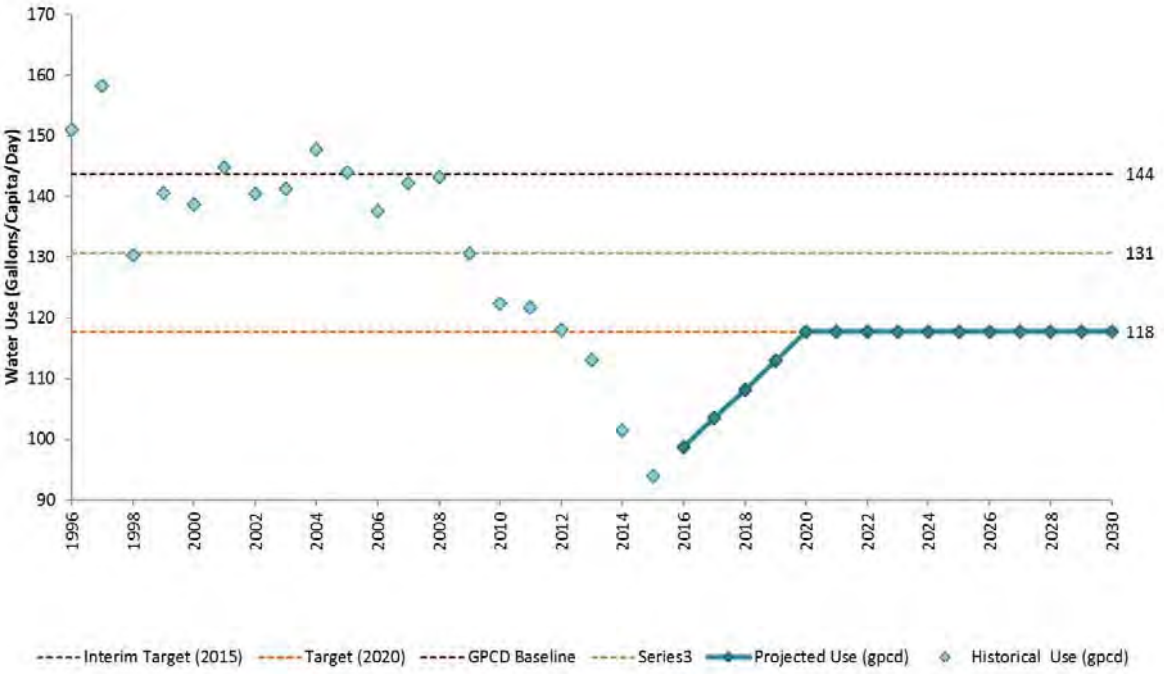

Figure 1

The UWMP assumed that post-drought usage would return to the 20% reduction target by 2020. While this projected increase in gpcd may not happen by 2020, it is anticipated that customer use will increase at some point in the future when new replacement water supplies are online, the moratorium is lifted and some conservation measures ease. The average customer use over the last 10 years (2007 through 2016) was 117 gpcd. This included drought and non-drought years. Excluding high-usage data from years prior to the drought (2007 through 2009) as well as data from extremely low-usage years (2014 through 2016), the average use between 2010 and 2013 was 119 gpcd (note that three of these years still occurred during the drought). Based on this data, it is reasonable to expect that customer use will return to 118 gpcd in future years, both for normal and dry years.

Calculations from the UWMP account for all systems within the Monterey County District. Only the Monterey Main, Hidden Hills, Ryan Ranch, and Bishop systems will be served by the desalination plant. Their collective water use target is 116 gpcd. Based on the information presented previously, it is reasonable to estimate a future water use of 116 gpcd within these combined systems. Again, it is assumed that an increase in water use will happen gradually. Stringent conservation measures are unlikely to change until the desalination plant is operational around 2020/2021. At this time, the CDO, including the moratorium on new service connections, will be lifted, and an increase in customer use is expected until the target customer use of 116 gpcd is reached, sometime between 2021 and 2025.

To determine future system demand at this time, population estimates from the UWMP were used. These estimates were based on the California Department of Water Resources' Population Tool and Transportation Analysis Zones (TAZ) growth rates from the Association of Monterey Bay Area Governments' 2014 population projections. Using these population estimates, the customer demand is projected to be 12,971 AFY at the time that customer use has returned to 116 gpcd.

The average of Method 1 and 2 system demand is approximately 12,350 AFY (rounded up to nearest 50 AFY) as normalized annual system demand. This does not include demand for lots of record, Pebble Beach, and economic recovery of the hospitality industry (tourism bounce back) nor does it account for pent up demand from existing customer base when the conditions of the CDO are met and the moratorium on new service connections/fixtures is lifted.

Q14. As required in the August 28, 2017 Ruling can you provide an update on the status of legal lots of record, Pebble Beach, and tourism bounce back?

A14. I'm not aware of information that warrants any change in the status from information

previously provided in this proceeding. I believe any meaningful change will occur when new replacement water supply is online, the moratorium is lifted, and stringent conservation and drought conditions ease.

Q15. Can you update the annual supply and demand tables provided in Table 1 above with the estimated 12,350 AFY system demand?

A15. Certainly. We need to plan for both a normal year with all supplies available and dry/drought year(s) without the availability of the 1,300 AFY from Carmel River winter flows stored in ASR. Assuming 12,400 AFY of annual system demand and desalination plant supply of 6,252 AFY as previously provided, Table 4 illustrates the supply and demand projections under normal conditions.

Table 4
Normal Year

Supply		Demand	
Item	**(AFY)**	**Item**	**(AFY)**
Carmel River	3,376	Estimate Avg. Demand (2021)	12,350
Seaside Basin yield	774	Lots of Record	1,180
ASR long-term yield	1,300	Pebble Beach	325
Sand City Desal yield to CAW	94	Tourism Bounce back	500
GWR Supply	3,500		
Desalination Supply	6,252		
Total	15,296	Total	14,355
Surplus	**941**		

The supply/demand comparison for a normal year shows that during a normal, non-drought year there is a surplus of about 941 AFY of system supply. This equates to the 6.4 MGD plant running at approximately 86% capacity[1] (including an estimated 7% source water return water obligation), which provides a reasonable 14% operational

[1] Calculated assuming 6.4 MGD = 7167 AFY and 42% production to source water ratio.

reserve capacity to meet maximum day/month demands, dry weather reserves, variable water return percent, and additional supply for other system supply constraints and availability. For instance, the estimated 1,300 AFY of Carmel River stored in ASR may not be available in dry years or initial years of operation when no carry-over reserve is established. In this instance, without the 1,300 AFY the supply surplus of 941 in normal years turns into an estimated deficit of 359 AFY (941 – 1,300) during dry years. The shortfall can be covered by increasing desalination plant output to 100% and peaking other system supplies (Seaside Basin, ASR, Carmel River) depending on operational variables and regulatory availability.

In summary, based on estimated future system demands, the range of desalination plant utilization is from 86% (normal years) to 100% (dry years). It is standard engineering practice when plant capacity (water or wastewater) reaches 80% capacity to start planning for plant expansion. Therefore, the size of desalination plant size is appropriate at 6.4 MGD to meet estimated future system demand while operating the plant at reasonable utilization ranges.

Q16. You mentioned the need to have capacity to meet maximum month demands, can you explain?

A16. Yes. As I provided earlier, CCR Title 22, §64558 requires water sources to meet maximum demands and how it is important that water sources can sustain supply over the duration of the high demand summer months. The historic system demand in Table 3 indicates the highest maximum month demand occurs in either July or August and the duration of high demand months is generally about four months from May/June through September/October. Over these four to five months, 40%-50% of total system supply must be delivered to meet demand. The system peaking factor for maximum month demand to the monthly average demand is 1.23 based on Table 3 demands from 2007-2016 (calculated as year's maximum month demand/(annual demand/12)). With a future

system demand estimate of 14,355 as shown in Table 4, the annual monthly average is 1,196 (14,355/12) which, multiplied by the 1.23[2] maximum month peaking factor, equates to a maximum month demand of about 1,470 AF month or about 15.5 MGD. The amount of supply needed over the duration of the four to five months of high demands equates to about 5,742 to 7,177 AF (40% & 50% of 14,355 AFY). The desal plant is a critical component to provide a stable baseline supply of about 6.4 MGD while other system supplies provide the remaining supply during maximum months and other times of the year.

IV. ISSUE #2 – NEW SUPPLY SOURCES

Q17. Can you speak to the availability of water from MCWD for purchase by Cal-Am?

A17. MCWD has not provided to Cal-Am a proposal regarding the availability of water from MCWD for purchase by Cal-Am. I, therefore, have no information regarding amounts, price, etc., regarding water MCWD may have for sale to Cal-Am in the future.

Over the past five years, MCWD attempted at every turn to block Cal-Am's development of an alternative water supply for the Monterey Peninsula. For example, MCWD engaged, and continues to engage, in protracted litigation with Cal-Am over Cal-Am's prior joint effort with MCWD and the Monterey Peninsula Water Resources Agency to develop a Regional Desalination Project ("RDP"). MCWD also filed numerous actions relating to claimed environmental harm from Cal-Am's test slant well, even though in 2011, in connection with the RDP, MCWD supported a test slant well drawing from the same groundwater basin as Cal-Am's current test slant well. MCWD has also repeatedly declined to negotiate ways to address MCWD's concerns with Cal-Am.

[2] CCR Title 22, §64554 provides for using a 1.5 peaking factor of annual demand to determine maximum month and 1.5 peak factor of maximum month demand to determine maximum day demand.

EXHIBIT G

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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of California-American Water Company (U210W) for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates	)	Application 12-04-019 (Filed April 23, 2012)

OPENING BRIEF OF MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

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December 15, 2017

SUMMARY OF MPWMD RECOMMENDATIONS

DEMAND PROJECTIONS

The Commission should adopt 10,400 acre-feet per year (AFY) as the future use demand by existing customers plus an additional 2,742 AFY for certain growth (lots of record, Pebble Beach, and economic recovery), Non-Revenue Water, and Salinas Valley Return Water.

SUPPLY ALTERNATIVES

The Commission should adopt a CPCN for a 6.4 MGD desalination facility and authorize expansion of the Pure Water Monterey (PWM) project and acceptance of Marina Coast Water District (MCWD) offers of water purchase if certain criteria are met.

The Commission should allow for further evidentiary hearings in this proceeding to take place in Spring 2018 to receive additional evidence on the progress of PWM expansion and MCWD water purchase offers. These provide near-term water sources for the Cal-Am customers on the Monterey Peninsula and avoid missing milestones imposed by the State Water Resources Control Board (SWRCB).

APPROPRIATE PLANT SIZE

The Commission should adopt 6.4 MGD as the appropriate desalination plant size with phased implementation as demand develops. If the desalination plant were to be delayed, near-term demand can be met with water purchase agreements that derive from expansion of PWM and MCWD water sale offers.

were 2000 of those folks making that behavioral decision because they can afford it, it is not going to radically change the water use on the Monterey Peninsula."[9]

Recent increases doubled average monthly residential bills. Also, additional increases are anticipated to cover various costs associated with the Monterey Peninsula Water Supply Project (MPWSP).[10]

Moving from a per capita focus to a system-demand projection, MPWMD recommended 10,400 acre-feet per year (AFY) be used; this is the average demand from the previous 5-year period.[11] "Adjustments for contingencies and peaking needs should be included in the plant capacity…."[12]

In contrast, Cal-Am recommended that projected demand be set at 12,350 AFY; this is almost 2,000 AFY more than the MPWMD demand estimate.[13] Even if MPWMD's recommendation is low, there is leeway to allow increased water use as discussed in the following section.

(b) Growth, including legal lots of record, Pebble Beach, and economic recovery of hospitality industry

Analysis of projected development is not only an exercise in forecasting the increased water demand to be expected, but also the timing for development. The issue of market absorption is a critical factor to determine when new water sources are required to be on

[9] 24RT at 4155:13-17 (MPWMD/Stoldt).
[10] Exhibit WD-15, Stoldt Direct at 9.
[11] Exhibit WD-15, Stoldt Direct a 10-11. This figure is based on Cal-Am deliveries to customers in the Cal-Am Main, Ryan Ranch, Hidden Hills, and Bishop systems from 2012 through 2016.
[12] Exhibit WD-15, Stoldt Direct at 11.
[13] Exhibit CA-51, Direct Testimony of Ian Crooks, Errata Version (Crooks Direct) at 13. Crooks' multiple methodologies adds nearly an additional 2000 acre-feet annually to what he argues is "normalized annual system demand."

line. If the water supply is not needed immediately, it still must be paid for…and it is the existing customers who must bear this payment obligation.

MPWMD has records covering a 20-year period related to the absorption of new water demand within the Monterey Peninsula marketplace; this data supports the MPWMD observations as to the timing for increased water use, and has informed MPWMD's water demand recommendations.[14]

(i) **Legal lots of record**

MPWMD supports using 1,181 AFY as the projected demand to satisfy build-out of existing lots of record. However, historical and anticipated demand to satisfy the development of lots of record is worth discussion.

As General Manager Stoldt noted, the preliminary assessment dates from 1997 and was incorporated into a 2002 study whereby the projected demand of 1,181 acre-feet (AF) figure was still recognized.[15]

In addition, some of the 1,181 AF projected demand figure has already been realized by development or remodels that occurred during the past 20 years; accordingly, the amount of water needed for each new unit has been reduced. For example, the original aggregate demand estimate used a factor of 0.286 AFY for a single-family dwelling; this factor results in an overstatement of demand as the assumption for a single-family dwelling unit is now 0.20 AFY. This is a 40% reduction in water use.[16] A similar

[14] 24RT at 4171:2-17 (MPWMD/Stoldt).
[15] 24RT at 4165:4-20 (MPWMD/Stoldt).
[16] 24RT at 4167: 4-13 (MPWMD/Stoldt).

reduction exists for the multi-family dwelling assumption from 0.134 AFY to 0.122 AFY.[17]

David Stoldt testified, "In conclusion, *the near-term (10 to 15 years) water use by lots of record is likely considerably less than half of the long-term needs*. Therefore, near-term needs could be met with a smaller increment of supply if there was a delay in the desalination plant construction. Nevertheless, the district believes long-term water supply planning should incorporate the full 1,181 AFY."[18] [Emphasis added.]

(ii) **Pebble Beach**

MPWMD supports the use of 325 AFY as the demand figure for Pebble Beach buildout, even though its records show some of this entitlement has already been used (constructed) or has at least permitted.[19] MPWMD further notes, in addition, that actual market absorption in the near-term for Pebble Beach buildout "will not happen immediately because their EIR approved in 2012 envisioned only 147 AFY of water needs and includes some facilities unlikely to be built in a decade or more, if at all…."[20]

(iii) **Economic recovery of hospitality industry**

The quantity of water needed for economic recovery within the hospitality industry is disputed. Cal-Am asserts 500 AFY are required to satisfy this recovery[21] while MPWMD argues 250 AFY is a more realistic figure to meet this future need.[22] "A

[17] 24RT at 4167:17-28 to 4168:1-7 (MPWMD/Stoldt).
[18] Exhibit WD-15, Stoldt Direct at 13. MPWMD does not certify that the 1,181 AFY value is valid. See Exhibit WD-5 at 9.
[19] Exhibit WD-15, Stoldt Direct at 13-14.
[20] Exhibit WD-15, Stoldt Direct at 14.
[21] Exhibit CA-51, Crooks Direct at 14.
[22] Exhibit WD-15, Stoldt Direct at 14.

'bounce-back' of 500 AFY would represent an increase in water use demand of 22% in the entire non-residential sector, not just the hospitality industry. The District does not view this as likely or reasonable and suggests reducing this element of demand to 250 AFY."[23]

Jonas Minton on behalf of Surfrider Foundation and Planning and Conservation League (PCL) has extensive experience in California water policy. He argued that, "While it might have made sense to allocate water for economic recovery in 2012 when Cal-Am filed its application, it no longer does. It has been 9 years since the Great Recession and whatever "bounceback" Cal-Am was attempting to accommodate has likely occurred."[24]

2. Estimates and analysis of supply alternatives

(a) Plans for expansion of Pure Water Monterey, including from Marina Coast Water District

Due to concerns of potential litigation over the source water configuration, MPWMD supports a further evidentiary hearing in the Spring of 2018 to evaluate progress on the expansion of PWM, and the availability of additional water supply as proposed by MCWD. Failure to explore these near-term opportunities and assess their viability could result in failure to meet milestones under the Cease and Desist Order.

[23] Exhibit WD-15, Stoldt Direct at 14.
[24] Exhibit SF-12, Testimony of Jonas Minton on Behalf of Surfrider Foundation and Planning and Conservation League (PCL) (Minton Direct) at 8.

basin adjudication's "triennial rampdown" of pumping and allow Cal-Am to use the MCWD water instead of desalination water as payback for overpumping the basin.[37]

Parties are currently exploring the feasibility of the MCWD offers and would be able to provide updated information at the proposed Spring 2018 evidentiary hearing.

3. Need for and appropriateness of proposed plant and plant size

MPWMD supports a 6.4 MGD desalination facility as the long-term component for Monterey Peninsula's water supply. General Manager David Stoldt's analysis recognized the need for variations in plant capacity to meet peak month demand that is 21.5% higher than the average demand.[38] He also identified potential shortfalls from Aquifer Storage and Recovery (ASR) during extended dry periods as well as the need for additional capacity to meet demand spikes, outages, emergencies, and a buffer for future expansion.[39]

While Mr. Stoldt recognized the need for the 6.4 MGD desalination facility given the arduous nature of securing Commission and permitting agency approvals, he is equally aware of the burden of fixed costs if the facility comes on line before the demand exists.[40]

(a) Potential methods of reduction from proposed size

MPWMD defers briefing this section at this time other than to reiterate a general concern for the timing of when desalination components become used and useful. As Mr. Stoldt testified, "…at some point in the future, as currently unpredicted, [t]here will

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[37] Exhibit MCD-44, Letter from Keith Van Der Maaten to Board of Directors, Seaside Groundwater Basin Watermaster re Offer to Sell 700 AFY as Seaside Basin Replenishment for Use Within Ord Community (Van Der Maaten Letter to Seaside Watermaster).
[38] Exhibit WD-15, Stoldt Direct at 16.
[39] Id.
[40] 24RT at 4203: 12-27 (MPWMD/Stoldt).

MPWMD offers no additional comments at this time on the four Settlement Agreements listed below.

A. Comprehensive Settlement Agreement

B. Sizing Settlement Agreement

C. Return Water Settlement Agreement

D. Brine Settlement Agreement

V. OTHER

MPWMD offers no additional issues for evaluation now, but reserves the right to reply to any issues that might be raised by other parties to this proceeding.

VI. CONCLUSION

The recent 2017 evidentiary hearings provided an opportunity for a fresh look at some of the issues dating from 2012 and 2013. MPWMD's recommendations are summarized at the beginning of this brief and include establishing demand of future use by existing customers at 10,400 AFY, 2742 AFY for growth, Non-Revenue Water and Salinas Valley Return Flows, 13,142 AFY recognition of long-term planning water supply that includes 4,098 AFY from the MPWSP desalination plant, and an opportunity to present additional information on PWM expansion and MCWD water offers in Spring 2018.

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EXHIBIT H

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of California-American Water Company (U210W) for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present And Future Costs in Rates	Application No. 12-04-019 (Filed April 23, 2012)

DIRECT TESTIMONY OF DAVID J. STOLDT

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September 28, 2017

measures are eased (page 10 lines 3 and 23, page 9 lines 25 and 26, page 11 lines 20 and 21.) However, such a rebound cannot be soundly predicted, nor is it likely.

The District's significant conservation programs, such as its targeted rebate program, residential retrofit requirements, conservation standards for the visitor-serving sector since 2001, mandatory conservation standards for all non-residential uses instituted in 2013, non-residential inspection/enforcement started by the District two years ago, and coming mandatory multi-family retrofit requirements will also not be reversed. These programs were not simply implemented during the drought, rather over the past 30 years multiple programs have been introduced that will not be "eased." Further, the State intends to set more rigid standards as part of its "Making Water Conservation a California Way of Life" initiative.[3]

In addition, steep increases in water rates in recent years have resulted in increased conservation. Such increases will continue with completion of the water supply project and are unlikely to be reversed. The Cal-Am testimony does not even mention the recent rate increases and the effect of price elasticity.

Finally, a moratorium on new connections cannot cause a decline in water use, it only prevents an increase in use.

[3] A State- commissioned study to support the development of an indoor residential water use standard of 55 gallons per person per day suggests that compliance could likely be facilitated through plumbing code changes and continued appliance replacements with higher efficiency units. The state will continue gathering additional data on current indoor water use to support future revisions of the existing standard downward to reflect the increased use of efficient fixtures and appliances. The updated standards will be available in 2018, with a timeline for interim and final compliance by 2025. Making Water Conservation a California Way of Life also includes outdoor water budgeting compliance by 2025. Starting with 2021 (reported on in 2022), urban water suppliers must start showing sufficient progress towards meeting the water use targets based on the 2025 standards.

- 2016 was not a year of extreme drought (page 10, line 23 of Mr. Crook's testimony). Rather, 2016 was "normal" to "below normal" based on precipitation and unimpaired streamflow in the watershed. Also 2011 was not part of the drought (page 9, line 25); rather, it was "above normal" based on precipitation and unimpaired streamflow.

- Mr. Crooks then averages the system demand calculated by Method 1 and Method 2 (page 13, line 19). We feel this is inappropriate because Method 1 is a historical number, yet Method 2 reflects future growth in population. Such growth will occur on the legal lots of record, which is added on top of the averaged estimate, thereby introducing double-counting to Method 2. Instead, existing demand should be calculated and then increases in that demand added on incrementally.

Q9. What is the District's estimate of water use by existing customers (Issue 1.a.)?

A9. The District believes 10,400 AFY is a reasonable estimate of use by existing customers. The systematic implementation of the District's permanent conservation measures, coupled with steep increases in customer water bills renders historic data greater than 6 or 7 years old as not representative of existing customer demand. We also would not rely solely on the most recent year as representative of existing demand, although 2016 was a normal water year and to date the 2017 water year is only 46 acre-feet lower in demand than 2016 through the same 10-month period last year, therefore 2016 is very representative and should be included in the data, contrary to Cal-Am's testimony.

Table 1 below shows historic deliveries for customer service for the Cal-Am Main, Ryan Ranch, Hidden Hills, and Bishop systems. These are numbers on which both Cal-Am and the District agree.

Table 1

Historic Demand

(Calendar Year in Acre-Feet)

Year	Demand	Max Month
2007	14,596	1,522
2008	14,439	1,496
2009	13,198	1,369
2010	12,270	1,328
2011	12,129	1,250
2012	11,549	1,206
2013	11,356	1,131
2014	10,250	1,023
2015	9,545	956
2016	9,285	946
10-Year Avg	11,862	1,223
Last 5-Year Avg	10,397	1,052
Last 3-Year Avg	9,693	975

The most recent 5-year average demand for existing customers is 10,397 AFY, which is a reasonable estimate. Adjustments for contingencies and peaking needs should be included in the plant capacity as discussed in the answer to Question 13 below.

Q10. What is the status with respect to legal lots of record (Issue 1.b.)?

A10. The District views water use for future increases in population to be encompassed in the legal lots of record and Pebble Beach build-out. That is, new homes will be likely occur on existing approved lots, with the exception of a few remaining subdivisions to occur in the unincorporated county. Legal lots of record are defined as lots resulting from a

subdivision of property in which the final map has been recorded in cities and towns, or in which the parcel map has been recorded in Parcels and Maps or Record of Surveys. Lots of record may include vacant lots on vacant parcels, vacant lots on improved parcels, and remodels on existing improved, non-vacant parcels. Not all legal lots are buildable. The District provided the estimated demands for the lots of record of 1,181 AFY to Cal-Am in 2012. This number is derived from the October 2009 Coastal Water Project Final Environmental Impact Report and cites Cal-Am's 2006 Urban Water Management Plan (UWMP) referencing a 2001 District analysis as the source. The District does not certify that the 1,181 AFY value is valid. In fact, it was derived from an interim period between the Land Systems Group Phase II report of August 2000, which estimated 1,166 AFY for lots of record, but did not include vacant lots on improved parcels for the City of Monterey or the unincorporated County, and a subsequent June 2002 report that estimated 1,211 AFY, but did not include vacant lots on improved parcels in the unincorporated County. Since then, some of these lots may have been built upon, others determined unbuildable. Further, the amount of water may be overstated – for example, the 2002 study assumed 0.286 acre-feet per single family dwelling, yet due to improved technology and changes in state-wide standards, we know this number is closer to 0.2 acre-feet, a difference of over 40%. Nevertheless, the District believes that the 1,181 AFY estimate is a reasonable long-term planning figure of water demand for the inventory of legal lots of record.

From a planning perspective, in the foreseeable near-term the market absorption of new housing stock will not happen immediately and therefore near-term needs could be met with a smaller increment of supply if there was a delay in the desalination plant construction. Examples of the slowness of market absorption can be illustrated by the 10 years 1997-2006 where only 107 AFY of new uses came into existence in the 6 cities, unincorporated county, and Pebble Beach when there was no moratorium on setting new connections. From 2007-2016, 86 AFY was added even though there was a moratorium

on new service connections for almost half the period (48 AFY of which was Pebble Beach, not subject to the moratorium.)

Going forward, AMBAG's 2014 Regional Growth Forecast showed 2,231 additional housing units expected in the 6 cities between 2020 and 2035. Assuming another 120 in the unincorporated county within the Cal-Am service area, and 2/3rds single-family and 1/3rd multifamily, with single-family water use at 0.2 AFY and multifamily use at 0.12 AFY, this equates to 407 AFY over a 15-year period. Most of AMBAG's projected growth occurs in Seaside and Del Rey Oaks, which if slated for the former Fort Ord would be served by Marina Coast Water District, not Cal-Am. Unfortunately, it is not possible to accurately distinguish the Cal-Am served housing growth from the non-Cal-Am housing growth, but the 407 AFY likely overstates the Cal-Am growth.

There will also be non-residential build-out on the lots of record, which I do not address here.

In conclusion, the near-term (10 to 15 years) water use by lots of record is likely considerably less than half of the long-term needs. Therefore, near-term needs could be met with a smaller increment of supply if there was a delay in the desalination plant construction. Nevertheless, the District believes long-term water supply planning should incorporate the full 1,181 AFY. Failure to provide water for legal lots of record infringes on property rights and would perpetuate a state of "water poverty" in our communities, hence should be avoided by planning for sufficient water.

Q11. What is the status with respect to Pebble Beach (Issue 1.c.)?

A11. When the 325 AFY for Pebble Beach build out was first developed in 2011, that was the approximate remaining entitlement. In fact, on December 31, 2012 (prior to the A.12-04-019 filing) the remaining Pebble Beach entitlements were 321.6 AF (see Direct Testimony of Stoldt, February 22, 2013, page 8, line24.) Since that time, another 31.4 AFY of entitlements have been permitted, leaving 290.2 AFY remaining. However, not all permits

have resulted in construction and the water use may not be reflected in existing customer water use data. For now 325 AFY remains a reasonable estimate, and is a legal entitlement to the Pebble Beach Company.

From a planning perspective, if planning a water supply for long-term purposes, the total 325 AFY use for Pebble Beach build-out should be considered. However, in the foreseeable near-term the actual market absorption of Pebble Beach build-out will not happen immediately because their EIR approved in 2012 envisioned only 147 AFY of water needs and includes some facilities unlikely to be built in a decade or more, if at all, (e.g. a new hotel at Spyglass Hill golf course.) Therefore, near-term needs could be met with a smaller increment of supply if there was a delay in the desalination plant construction.

Q12. What is the status with respect to economic recovery of the hospitality industry (Issue 1.d.)?

A12. The hospitality industry is the service area's largest commercial driver, generating approximately $2.6 billion per year, 9 million visitors, and approximately 22,000 jobs. Despite the recent upturn in the economy, commercial/industrial water use in the Cal-Am service area went from 2,799.7 AFY in the year prior to filing the application (2011) to 2,296.6 AFY last year (2016), a decline of 503 AFY. As such, we believe that there is a secular change in non-residential demand that is due to permanent demand reductions resulting from its targeted rebate program, conservation standards for the visitor-serving sector since 2001, mandatory conservation standards for all non-residential uses instituted in 2013, and non-residential inspection/enforcement started by the District two years ago. A "bounce-back" of 500 AFY would represent an increase in water use demand of 22% in the entire non-residential sector, not just the hospitality industry. The District does not view this as likely or reasonable and suggests reducing this element of demand to 250 AFY.

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III. ISSUE #2 - UPDATED SUPPLY ESTIMATES

Q13. What would be the District's updated supply estimate (Issue 2)?

A13. The District believes supply should meet the demands computed as shown in Table 2 below:

Table 2

Summary of Long-Term Planning Demand

(Acre-Feet per Year)

Existing Customer Use (5-Year Average)	10,400
Lots of Record – Build-Out	1,181
Pebble Beach Build-Out	325
Economic Recovery	250
Non-Revenue Water (NWR)	303
Salinas Valley Return Flows	683
TOTAL DEMAND	13,142

Here, "NWR" refers to the eventuality that the plant and the long transmission lines to reach the Cal-Am distribution system will eventually exhibit some loss. We have assumed 2.5% of the deliveries to the system, which excludes the return flows. Such a loss factor is lower than national averages, but is chosen because when initially installed losses are expected to be nil. In the current Cal-Am General Rate Case (A.16-07-002) the Direct Testimony of Eric Sabolsice of July 1, 2016 stated the total water loss for the Monterey Main System was 250 AF for Calendar year 2015. By Cal-Am's calculation the NRW percentage is 2.7%.

"Salinas Valley Return Flows" are calculated as 7% of source water, assuming a 42% conversion of source water to product water. That is, 4,098 AFY (Table 3, below) of product water requires 9,757 AFY of source water from the slant wells. At 7%, return flows would be 683 AFY.

This translates to a supply estimate for a normal year as shown in Table 3 below.

Table 3

Summary of Long-Term Planning Supply

(Acre-Feet per Year)

Carmel River	3,376
Seaside Basin	774
ASR	1,300
Sand City Desalination	94
Pure Water Monterey	3,500
MPWSP Desalination Plant	4,098
TOTAL SUPPLY	13,142

4,098 AFY would seem to equate to a 4.8 MGD plant running at 76% capacity. However, the maximum month in the 5-year period is 1,052 AFY, but the average month is 866 AFY, thus peak month is 21.5% higher than average. This means there should be capacity in the warm/dry months to produce 185 to 200 additional AF. This additional peaking capacity would also allow the facility to produce return flows in the 7-8 non-warm/dry months. Additionally, in extended dry periods ASR retrieval may be reduced. If ASR was cut in half to 650 AFY, there would be an additional shortfall of 130 to 163 AF each of 4 to 5 mid-year months. Hence, we assume that capacity for those 4 to 5 months must have an additional 315 to 363 AF to be met by the desalination plant and other supplies. Further, sound engineering principals dictate that a plant should be run at 80% - 85% capacity. To account for health and safety concerns there should be additional capacity in the system for emergencies, demand spikes, outages, and to cover provide a buffer for planning and executing future expansion, if needed.

For the reasons stated in the paragraph above, the District recommends construction of the 6.4 MGD alternative.

Q14. Can Pure Water Monterey be expanded, in what amounts, at what cost (Issue 2.a.&b.)?

A14. Yes, this will be described in the testimony of Paul Sciuto of Monterey One Water. As stated in earlier responses, the District believes if there was a delay in the desalination plant construction, near-term needs could be met with a smaller increment of supply, which could be provided by expansion of Pure Water Monterey[4], as well as interim supplies from Marina Coast Water District. This is due primarily to the recent declines in demand and the relatively slow market absorption of legal lots of record and Pebble Beach build-out. However, to eventually meet the long-term planning demand needs, additional supply will be needed.

Q15. Is water available for purchase by applicant from Marina Coast Water District (MCWD), in what amounts, and at what cost (Issue 2.c.)?

A15. Yes, on an interim basis for up to the next 10 years. This will be described in the testimony of Keith Van Der Maaten of Marina Coast Water District. However, the District has been made aware of two sources of availability: (a) water from Pure Water Monterey designated for MCWD of 1,000 AFY in two phases, 500AFY available beginning 2019 and 500 AFY beginning in 2021 or 2022. Term would be for 10 years at a price estimated to be initially just over $2,000 per AF. Water would be sold to us, the District, and wholesaled to Cal-Am; and (b) Up to 700 AFY of groundwater from MCWD available beginning 2018. Term would be for 6 years at a price set at the Seaside Groundwater Basin Watermaster's Replenishment Assessment Rate estimated to be initially just over $2,800 per AF. This water would be used within the Seaside Basin, but would likely "free up" a like amount of water that could be wheeled by Cal-Am outside the basin.

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[4] Expansion will be subject to resolution of certain environmental, technical, and legal actions before it can be deemed "certain."

IV. ISSUE #4 - PROJECT FINANCING

Q16. Does the District have updated information on project financing (Issue 4)?

A16. The District continues to support a public contribution to the overall project financing, referred to as a "securitization", as a means to reduce the cost of the desalination project. In 2014, the California Legislature adopted Senate Bill 936 to authorize the Commission to approve the use of this "securitization" strategy if it will reduce rates on a present value basis as compared to the use of traditional utility financing. Using this financing tool, the parties expect to achieve approximately $70 to $90 million in savings to ratepayers over 30 years.

The Large Settlement Agreement states the parties' agreement that use of securitization as a component of the MPWSP's financing is reasonable only if it: (1) lowers costs to consumers; (2) does not adversely impact Cal-Am customers outside of its Monterey County District; (3) does not require a separate Cal-Am credit rating; (4) does not alter Cal-Am's current debt-to-equity ratio for the MPWSP portion not financed through securitization; (5) does not alter the Cal-Am's currently authorized rate of return; (6) does not materially delay the MPWSP; and (7) does not create a taxable event for Cal-Am or adverse tax implications for the Company or its customers. At this time, the District expects that these criteria can be satisfied. Therefore, the Commission is encouraged to issue a Financing Order to allow Cal-Am to finance the MPWSP with funds received through securitization.

Q17. The comprehensive financial model attached as Attachment 1 to Mr. Linam's September 15, 2017 testimony indicates that the public contribution (securitization) would occur later during the construction period, December of 2020. Is it necessary to wait?

A17. No, the public contribution could be accelerated to earlier in the construction period once better cost estimates are known and construction is commenced. When SB936 was being carried through the Legislature, the Office of Ratepayer Advocates raised concerns over

EXHIBIT I

Coalition of Peninsula Businesses

A coalition to resolve the Peninsula water challenge to
comply with the CDO at a reasonable cost

Members Include: Monterey County Hospitality Association, Monterey Commercial Property Owners' Association,
Monterey Peninsula Chamber of Commerce, Carmel Chamber of Commerce, Pacific Grove Chamber of Commerce, Monterey County Association of Realtors, Associated General Contractors-Monterey Division, Pebble Beach Co., Community Hospital of the Monterey Peninsula

September 16, 2019

The Honorable Molly Evans, Chair, and Board
Dave Stoldt, General Manager
Monterey Peninsula Water Management District
P. O. Box 85
Monterey, California 93942

Transmitted by fax to 831-644-9560

Re: Item 9-A, *Supply and Demand for Water on the Monterey Peninsula*

Dear Ms Evans, Board Members and Mr. Stoldt:

The Coalition of Peninsula Businesses finds a number of things about the report, *Supply and Demand for Water on the Monterey Peninsula,* troubling. In fact, the report appears to be a 'dressed-up' version of arguments MPWMD made to the CPUC before, and rejected by the CPUC in, its final approval of the Monterey Peninsula Water Supply Project. This report seems to constitute a 'second bite at the apple' now that the Supreme Court rejected all appeals, including MPWMD's, of the CPUC decision approving the Monterey Peninsula Water Supply Project. As a consequence, the report deservedly lacks credibility.

The 'Principal Conclusions' reached are problematic.

The first 'conclusion' contradicts a number of the CPUC findings of fact' in its decision approving the Monterey Peninsula Water Supply Project. A sampling of those contradictions follows:

- 19. PWM expansion alone fails to provide a sufficient supply …[or] sufficient supply flexibility or reliability…;
- 25. Construction and operation of the MPWSP will allow Cal Am to meet reasonable demand…, provide a reliable a and secure supply, include a reasonable "buffer" against uncertainties, and satisfy all other reasonable

needs;

- 73. There is a need for additional water supplies, over and above any water savings that can be accomplished through conservation, use of recycled water or other purchased water.

The CPUC approval was based on objective standards following CPUC General Order 103b (written into law in the California Code of Regulations at Waterworks Standards) and AWWA standards for sizing water supply projects. How do the assertions in this report meet those important standards for supply, reliability and flexibility?

The second conclusion is that either water supply option is sufficient to lift the CDO. The CDO specifies it shall remain in effect until a) Cal Am certifies, with supporting documentation, that it has obtained a permanent supply of water [to reduce Carmel River pumping to the legal limit] and b) the Deputy Director for Water Rights concurs…. Given that the supply option that does not include a desal plant does not and cannot comply with the standards mentioned above (including sufficiency, reliability, flexibility) and since the CDO is issued against Cal Am, how can the District assert with any confidence that it can secure a lifting of the CDO based on non-existent evidence of a "permanent" water supply to serve Peninsula water needs?

The fourth conclusion is that 'several factors' contribute to pressure on (sic) decreasing per capita water use. As mentioned earlier, the CPUC rejected this argument by stating in "finding of facts" point 29 that "the assertions by some parties [importantly including MPWMD] that the downward trend in water use in the District will continue …are not convincing."

The third conclusion that the long-term Peninsula water needs may be less than thought is problematic on several levels.

- Report calculations of water needed for legal lots results in a trivial reduction in overall demand (by the way, the updated water use factors incorrectly list multi-family use at 1.2 AFA instead of .12 AFA) so are not of much concern.

- Reducing the 'tourism bounceback' needs from 500 AFA (the need used in the CPUC approval, and once agreed to by MPWMD - that helped develop that figure) without adequate discussion or documentation is unacceptable. It is also unacceptable to label this figure as due to 'tourism bounceback' as it actually represents a figure for economic recovery of all sectors of the Peninsula economy including recovery of lodging levels to prior highs. Again, this reduction was presented to the CPUC and rejected in its final approval.

- The Pebble Beach Co. entitlement to 345 AFA is a matter of law and not subject to ex post facto tinkering.

We urge the District to reject this analysis of Peninsula water demand and supply. We need a desal plant as approved by the CPUC as the only means of obtaining a sufficient, stable, secure and sustainable water supply which even an expanded Pure Water Monterey (soon to be in double default without any "transparent" explanation to the public) and drought failure-prone Aquifer Storage and Recovery will not provide.

Sincerely,

Jeff Davi, Co-chair

John Tilley, Co-chair

MPWMD Response to Claims in

Coalition of Peninsula Businesses

Letter of September 16, 2019

Citation of CPUC Findings: We do not dispute those findings were made by the CPUC. We are simply presenting the facts about supply and demand as they exist at this time. One could assert that the CPUC knows less about local demand than the District. The CPUC did not present any findings about market absorption, nor when future demand will require new supply.

Objective Standard of CPUC General Order 103b: We believe it is intended to have said 103A. GO 103A only speaks to maximum daily demand (MDD) and peak hourly demand (PHD), and does not refer to average annual demand. Hence, there is no requirement to look back 10 years on annual demand (which if you did, is still over 1,000 AF below the current sizing assumption.) Our analysis does consider trending 10-year MDD and PHD, and asserts that the additional well capacity included in the Pure Water Expansion will be more than sufficient for a 15-16 MGD MDD. Because the trending MDD is in decline, the 10-year Max-Month was 10-years ago, so may require over 21-22 MGD MDD. Use of the Carmel River legal rights in summer months or additional well capacity would be required – still inexpensive – to meet the higher MDD values.

How can the District assert the CDO would be lifted? Both supply scenarios are "permanent." Both scenarios allow Carmel River pumping to stay below the legal rights.

"the downward trend in water use in the District will continue" The District report does not contend this at all. The report says where do we go from here?... assuming no continued downward trend in annual use. The price elasticity and legislative action discussion underpins the District claim that water use per person is not likely to increase.

Legal lots of record: Yes, there was a typo. The point is the sum of several "trivial" reassessed assumptions can be significant.

Tourism Bounceback: This figure was labeled 'tourism bounceback' by Cal-Am in its April 14, 2016 and September 27, 2017 testimony and tied to tourism occupancy rates in their April 23, 2012 and January 11, 2013 testimony.

Pebble Beach Company entitlement: We do not dispute the Company's legal right to the entitlement. We helped create the entitlement and monitor permits pulled against it. The report discussed how much water is actually envisioned for actual use against the entitlement. The items identified in the EIR are discussed as "known" water uses. Once a new water supply is on-line it is unlikely that future residential users will purchase an entitlement, rather simply get a new connection to Cal-Am. Hence, that demand is addressed in the legal lots of record.

Coalition of Peninsula Businesses

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Monterey Peninsula Chamber of Commerce, Carmel Chamber of Commerce, Pacific Grove Chamber of Commerce, Monterey County Association of Realtors, Associated General Contractors-Monterey Division, Pebble Beach Co., Community Hospital of the Monterey Peninsula

September 24, 2019

The Honorable Molly Evans, Chair, and Board

Monterey Peninsula Water Management District
P. O. Box 85
Monterey, California 93942

Transmitted by fax to 831-644-9560

Dear Chair Evans and Board:

The night of your recent Board meeting, MPWMD General Manager handed us a one page 'response' to our letter of concern re the 'water demand and supply' report (the report); our letter was delivered to you by fax Sunday night before your Board meeting.

Aside from the informality of the response, the responses are not satisfactory for several reasons which we explain below (the responses are shown in italics).

> Response to our criticism of first Principal Conclusion in the report: *Citation of CPUC Findings: We do not dispute those findings were made by the CPUC. We are simply presenting the facts about supply and demand as they exist at this time. One could assert that the CPUC knows less about local demand than the District. The CPUC did not present any findings about market absorption, nor when future demand will require new supply.*

The conclusions reached by the CPUC were based on exhaustive testimony and exhibits from Cal Am, from various subject matter experts and the testimony of numerous

others (including Mr. Stoldt in 2017) with a stake in the outcome. To imply that the district knows more about local demand than the company tasked with producing water to meet local water demand is absurd; virtually everything Mr. Stoldt purports to know about local water production and use is based on information derived from Cal Am. After decades of frustration of efforts and desires of local water users to remodel, renovate, reuse and rebuild, Mr. Stoldt should be a little more receptive to the ideas about future demand and 'market absorption' expressed by those local water users, many of whom will be the source of future demand and 'market absorption.' Also missing from the analysis is any mention, or taking into account, of the new California housing mandates from a package of bills signed into law by Governor Jerry Brown in late September 2017 (an excellent recap of those bills and their requirements can be found at <sacbee.com/news/politics-government/capitol-alert/article176152771.html>.

> Response to our criticism of the report's lack of objective standards in estimating demand and supply needed: *Objective Standard of CPUC General Order 103b: We believe it is intended to have said 103A. GO 103A only speaks to maximum daily demand (MDD) and peak hourly demand (PHD), and does not refer to average annual demand. Hence, there is no requirement to look back 10 years on annual demand (which if you did, is still over 1,000 AF below the current sizing assumption.) Our analysis does consider trending 10-year MDD and PHD, and asserts that the additional well capacity included in the Pure Water Expansion will be more than sufficient for a 15-16 MGD MDD. Because the trending MDD is in decline, the 10-year Max-Month was 10-years ago, so may require over 21-22 MGD MDD. Use of the Carmel River legal rights in summer months or additional well capacity would be required - still inexpensive - to meet the higher MDD values.*

Mr. Stoldt is right – we should have cited CPUC General Order 103-A. Mr. Stoldt is not correct in asserting that General Order 103-A (along with the AWWA standards we referenced but Mr. Stoldt does not mention) do not specify that sizing a water supply project to cover *maximum daily demand* and *peak hourly demand* within a ten-year period. It should be remembered that at the beginning of the MPWSP application process, Cal Am used statistics based on five-year histories and changed to using statistics based on ten-year histories because of the generally used water supply project sizing standards. Cal Am's testimony and exhibits of Richard Svindland and others filed in January 2013 are excellent sources, among others, to consult on this point.

> Response to our criticism of the second Principal Conclusion that either supply option (desal or expanded PWM) would be sufficient to lift the CDO: *How can the District assert the CDO would be lifted? Both supply scenarios are "permanent." Both scenarios allow Carmel River pumping to stay below the legal rights.*

Our criticism stands as presented: the CDO cannot be lifted until our area "proves" it has a "permanent supply of water.' Aquifer storage and recovery (ASR) is far from a permanent supply. One only has to review the ASR production records of the Peninsula's last drought – when ASR produced NOTHING - to understand the danger of relaying on ASR as a source of "permanent supply." To include Pure Water Monterey (PWM), with its interruptible source of treatment water, is problematic. The source water is dependent on ag water uses remaining constant, which is highly unlikely in light of recent developments in ag practices and changes in technology. PWM is close to its second default in the last few months. PWM expansion is dependent on some of the same unreliable and interruptible water sources as the original plant and therefore as distant, if it is in fact built, from a "permanent supply" as the original. Any water supply project that purports to be 'permanent' that does not include a desal plant to provide drought-proof and reliable water production is just wishful thinking (this important concept was supported in testimony from, among others, Mr. Stoldt in 2017). To step away from desal, which seems to be the real purpose of the study, would create a serious risk that we will never see a lifting of the CDO.

> Response to our questioning the fourth Principal Conclusion about contributing factors to decreased water use: *"the downward trend in water use in the District will continue" The District report does not contend this at all. The report says where do we go from here?... assuming no continued downward trend in annual use. The price elasticity and legislative action discussion underpins the District claim that water use per person is not likely to increase.*

We did not contend that the report predicted continued decreases in water use; we did point out that the CPUC rejected this argument as "not convincing." To conclude water use per person will not rebound (that is, increase) as it has throughout California after the severe state drought restrictions were lifted is to ignore recent history and human nature.

In addition, when thinking about water demand and 'market absorption' please see our comment above on the new California housing mandate – for housing for workers and middle management.

> Response to our comments on the third Principal Conclusion *(that long-term water supply needs may be less than thought): Legal lots of record: The point is the sum of several "trivial" reassessed assumptions can be significant. Tourism Bounceback: This figure was labeled 'tourism bounceback' by Cal-Am in its April 14, 2016 and September 27, 2017 testimony and tied to tourism*

occupancy rates in their April 23, 2012 and January 11, 2013 testimony.

The comment that the "sum of several trivial assessments can be significant" will be addressed later.

Mr. Stoldt spent a lot of time on occupancy statistics (STRS reports, etc.) to reach the conclusion that the amount of water labeled 'tourism bounceback' is overstated even though it is part of the final CPUC approval and even though the district earlier on agreed with that number and later unsuccessfully tried to convince the CPUC it should be reduced.

Mr. Stoldt's conclusion that the bounceback has already occurred is wrong and a few simple conversations with hospitality industry professionals would have shown him otherwise.

The occupancy statistics relied on are county-wide, not specific to the Peninsula. Further, those statistics do not differentiate between full-service establishments and others. The 500 afa of supply was intended to include not just the return to prior levels of occupancy on the Peninsula (full-service facilities, for instance, were at occupancy levels in the high 70s to low and mid-80s during 1998-99-2000) but water use increases as the rest of the Peninsula economy recovers (see Svindland testimony of January 11, 2013).

The events of 9-11-01 hurt the industry but the recent recession hurt the industry much more and has had a much more lasting effect. The lodging industry is still struggling to achieve occupancy levels in the high 70s and low 80s. As the Peninsula's principal driver of economic activity, all other economic activity - and therefore water use - will increase as the lodging industry achieves its goal. Also ignored in this analysis is the fact that several new lodging facilities will be built in the next couple of years. The Peninsula should be a world-class travel destination; it should not be stuck, as it has been for years, with a third-rate water supply.

Returning to the 'sum of trivial reassessments can be significant:' it seems to the Coalition that this *Supply and Demand for Water* report is created to accomplish one thing: tinkering at the margins to reassert failed arguments about the nature and extent of long-term water demand and persuade everyone to abandon the desal plant. Abandoning the desal might (but likely would not) make the purchase of Cal Am more affordable or feasible and make it imperative to embrace the construction of expanded PWM with a guaranteed source of purchase for the produced water, without which

construction of the expansion cannot take place.

Mr. Stoldt may be forgetting the decades-long struggle of the Peninsula to achieve a long-term, safe, sustainable, secure, sufficient water supply. With such a supply now in sight, he has unfortunately slipped in to an all-too-familiar train of thought that has derailed local water supply efforts for over almost fifty years. The Peninsula's long-term water supply needs may not be less than thought. If the report is successful in persuading the Peninsula to abandon the desal plant, we will be stuck in our current condition of water poverty for the foreseeable future.

Please reject this report and its unsupportable conclusions and please do not allow it to become an issue at the November California Coastal Commission Monterey Peninsula Water Supply Project Coastal Development Permit hearings.

Sincerely,

Jeff Davi, Co-chair

John Tilley, Co-chair

cc: MPWMD General Manager Dave Stodt

EXHIBIT J

FILED
09/07/18
04:59 PM

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Application of California-American Water Company (U210W) for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates.	Application 12-04-019 (Filed April 23, 2012)

REPLY COMMENTS OF MONTEREY PENINSULA WATER MANAGEMENT DISTRICT ON THE PROPOSED DECISION APPROVING A MODIFIED MONTEREY PENINSULA WATER SUPPLY PROJECT

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Attorneys for **MONTEREY PENINSULA WATER MANAGEMENT DISTRICT**

September 07, 2018

acknowledged by Cal-Am's President, Richard Svindland, at Oral Argument on August 22, 2018)[10], or (b) if critical State Water Resources Control Board (SWRCB) milestones are missed for any reason.

The Monterey Regional Water Pollution Control Agency (MRWPCA) argued in its opening comments that the PD erred by concluding PWM Expansion is not affordable[11], specific[12], concrete[13] or a reliable and permanent source of water.[14] MPWMD concurs with MRWPCA that "the PWM Expansion can supply water to the community in the event of delays in implementation of a MPWSP desalination project, including delays that may arrive from permitting and litigation obstacles."[15]

PWM Expansion would provide real, wet water in a timely way to meet SWRCB milestones in the event the MPWSP is delayed. Unfortunately, the PD as drafted affords no vehicle by which this option can be addressed on an expedited basis. MPWMD concurs with MRWPCA that the PD should be modified to expressly provide for PWM Expansion as a "Plan B." MPWMD suggested draft Ordering Paragraph language in its comments, and urges the Commission adopt this pragmatic approach.[16]

In conclusion, MPWMD urges the Commission retain the apportionment of risk articulated in the PD, provide an expedited path by which PWM Expansion as a "Plan B" if needed, and adopt the additional protections needed by Cal-Am ratepayers and community water users as identified in

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[10] Reporter's Transcript (RT) at 5096:11-14 (CA/Svindland).

[11] *Opening Comments of Monterey Regional Water Pollution Control Agency*, September 4, 2018 (MRWPCA Opening Comments), at pp.6-7.

[12] Id., at p. 7.

[13] Id., at p. 8.

[14] Id., at pp. 8-9.

[15] Id., at p. 2.

[16] *Comments of Monterey Peninsula Water Management District on the Proposed Decision Approving a Modified Monterey Peninsula Water Supply Project*, September 4, 2018 (MPWMD Comments), Appendix A at pp. 3-4.

EXHIBIT C

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September 16, 2019

The Honorable Molly Evans, Chair, and Board
Dave Stoldt, General Manager
Monterey Peninsula Water Management District
P. O. Box 85
Monterey, California 93942

Transmitted by fax to 831-644-9560

Re: Item 9-A, *Supply and Demand for Water on the Monterey Peninsula*

Dear Ms Evans, Board Members and Mr. Stoldt:

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- 73. There is a need for additional water supplies, over and above any water savings that can be accomplished through conservation, use of recycled water or other purchased water.

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The third conclusion that the long-term Peninsula water needs may be less than thought is problematic on several levels.

- Report calculations of water needed for legal lots results in a trivial reduction in overall demand (by the way, the updated water use factors incorrectly list multi-family use at 1.2 AFA instead of .12 AFA) so are not of much concern.

- Reducing the 'tourism bounceback' needs from 500 AFA (the need used in the CPUC approval, and once agreed to by MPWMD - that helped develop that figure) without adequate discussion or documentation is unacceptable. It is also unacceptable to label this figure as due to 'tourism bounceback' as it actually represents a figure for economic recovery of all sectors of the Peninsula economy including recovery of lodging levels to prior highs. Again, this reduction was presented to the CPUC and rejected in its final approval.

- The Pebble Beach Co. entitlement to 345 AFA is a matter of law and not subject to ex post facto tinkering.

We urge the District to reject this analysis of Peninsula water demand and supply. We need a desal plant as approved by the CPUC as the only means of obtaining a sufficient, stable, secure and sustainable water supply which even an expanded Pure Water Monterey (soon to be in double default without any "transparent" explanation to the public) and drought failure-prone Aquifer Storage and Recovery will not provide.

Sincerely,

Jeff Davi, Co-chair

John Tilley, Co-chair

MPWMD Response to Claims in

Coalition of Peninsula Businesses

Letter of September 16, 2019

Citation of CPUC Findings: We do not dispute those findings were made by the CPUC. We are simply presenting the facts about supply and demand as they exist at this time. One could assert that the CPUC knows less about local demand than the District. The CPUC did not present any findings about market absorption, nor when future demand will require new supply.

Objective Standard of CPUC General Order 103b: We believe it is intended to have said 103A. GO 103A only speaks to maximum daily demand (MDD) and peak hourly demand (PHD), and does not refer to average annual demand. Hence, there is no requirement to look back 10 years on annual demand (which if you did, is still over 1,000 AF below the current sizing assumption.) Our analysis does consider trending 10-year MDD and PHD, and asserts that the additional well capacity included in the Pure Water Expansion will be more than sufficient for a 15-16 MGD MDD. Because the trending MDD is in decline, the 10-year Max-Month was 10-years ago, so may require over 21-22 MGD MDD. Use of the Carmel River legal rights in summer months or additional well capacity would be required – still inexpensive – to meet the higher MDD values.

How can the District assert the CDO would be lifted? Both supply scenarios are "permanent." Both scenarios allow Carmel River pumping to stay below the legal rights.

"the downward trend in water use in the District will continue" The District report does not contend this at all. The report says where do we go from here?... assuming no continued downward trend in annual use. The price elasticity and legislative action discussion underpins the District claim that water use per person is not likely to increase.

Legal lots of record: Yes, there was a typo. The point is the sum of several "trivial" reassessed assumptions can be significant.

Tourism Bounceback: This figure was labeled 'tourism bounceback' by Cal-Am in its April 14, 2016 and September 27, 2017 testimony and tied to tourism occupancy rates in their April 23, 2012 and January 11, 2013 testimony.

Pebble Beach Company entitlement: We do not dispute the Company's legal right to the entitlement. We helped create the entitlement and monitor permits pulled against it. The report discussed how much water is actually envisioned for actual use against the entitlement. The items identified in the EIR are discussed as "known" water uses. Once a new water supply is on-line it is unlikely that future residential users will purchase an entitlement, rather simply get a new connection to Cal-Am. Hence, that demand is addressed in the legal lots of record.

Coalition of Peninsula Businesses

A coalition to resolve the Peninsula water challenge to
comply with the CDO at a reasonable cost

Members Include: Monterey County Hospitality Association, Monterey Commercial Property Owners' Association,
Monterey Peninsula Chamber of Commerce, Carmel Chamber of Commerce, Pacific Grove Chamber of Commerce, Monterey County Association of Realtors, Associated General Contractors-Monterey Division, Pebble Beach Co., Community Hospital of the Monterey Peninsula

September 24, 2019

The Honorable Molly Evans, Chair, and Board

Monterey Peninsula Water Management District
P. O. Box 85
Monterey, California 93942

Transmitted by fax to 831-644-9560

Dear Chair Evans and Board:

The night of your recent Board meeting, MPWMD General Manager handed us a one page 'response' to our letter of concern re the 'water demand and supply' report (the report); our letter was delivered to you by fax Sunday night before your Board meeting.

Aside from the informality of the response, the responses are not satisfactory for several reasons which we explain below (the responses are shown in italics).

> Response to our criticism of first Principal Conclusion in the report: *Citation of CPUC Findings: We do not dispute those findings were made by the CPUC. We are simply presenting the facts about supply and demand as they exist at this time. One could assert that the CPUC knows less about local demand than the District. The CPUC did not present any findings about market absorption, nor when future demand will require new supply.*

The conclusions reached by the CPUC were based on exhaustive testimony and exhibits from Cal Am, from various subject matter experts and the testimony of numerous

others (including Mr. Stoldt in 2017) with a stake in the outcome. To imply that the district knows more about local demand than the company tasked with producing water to meet local water demand is absurd; virtually everything Mr. Stoldt purports to know about local water production and use is based on information derived from Cal Am. After decades of frustration of efforts and desires of local water users to remodel, renovate, reuse and rebuild, Mr. Stoldt should be a little more receptive to the ideas about future demand and 'market absorption' expressed by those local water users, many of whom will be the source of future demand and 'market absorption.' Also missing from the analysis is any mention, or taking into account, of the new California housing mandates from a package of bills signed into law by Governor Jerry Brown in late September 2017 (an excellent recap of those bills and their requirements can be found at <sacbee.com/news/politics-government/capitol-alert/article176152771.html>.

> Response to our criticism of the report's lack of objective standards in estimating demand and supply needed: *Objective Standard of CPUC General Order 103b: We believe it is intended to have said 103A. GO 103A only speaks to maximum daily demand (MDD) and peak hourly demand (PHD), and does not refer to average annual demand. Hence, there is no requirement to look back 10 years on annual demand (which if you did, is still over 1,000 AF below the current sizing assumption.) Our analysis does consider trending 10-year MDD and PHD, and asserts that the additional well capacity included in the Pure Water Expansion will be more than sufficient for a 15-16 MGD MDD. Because the trending MDD is in decline, the 10-year Max-Month was 10-years ago, so may require over 21-22 MGD MDD. Use of the Carmel River legal rights in summer months or additional well capacity would be required - still inexpensive - to meet the higher MDD values.*

Mr. Stoldt is right – we should have cited CPUC General Order 103-A. Mr. Stoldt is not correct in asserting that General Order 103-A (along with the AWWA standards we referenced but Mr. Stoldt does not mention) do not specify that sizing a water supply project to cover *maximum daily demand* and *peak hourly demand* within a ten-year period. It should be remembered that at the beginning of the MPWSP application process, Cal Am used statistics based on five-year histories and changed to using statistics based on ten-year histories because of the generally used water supply project sizing standards. Cal Am's testimony and exhibits of Richard Svindland and others filed in January 2013 are excellent sources, among others, to consult on this point.

> Response to our criticism of the second Principal Conclusion that either supply option (desal or expanded PWM) would be sufficient to lift the CDO: *How can the District assert the CDO would be lifted? Both supply scenarios are "permanent." Both scenarios allow Carmel River pumping to stay below the legal rights.*

Our criticism stands as presented: the CDO cannot be lifted until our area "proves" it has a "permanent supply of water.' Aquifer storage and recovery (ASR) is far from a permanent supply. One only has to review the ASR production records of the Peninsula's last drought – when ASR produced NOTHING - to understand the danger of relaying on ASR as a source of "permanent supply." To include Pure Water Monterey (PWM), with its interruptible source of treatment water, is problematic. The source water is dependent on ag water uses remaining constant, which is highly unlikely in light of recent developments in ag practices and changes in technology. PWM is close to its second default in the last few months. PWM expansion is dependent on some of the same unreliable and interruptible water sources as the original plant and therefore as distant, if it is in fact built, from a "permanent supply" as the original. Any water supply project that purports to be 'permanent' that does not include a desal plant to provide drought-proof and reliable water production is just wishful thinking (this important concept was supported in testimony from, among others, Mr. Stoldt in 2017). To step away from desal, which seems to be the real purpose of the study, would create a serious risk that we will never see a lifting of the CDO.

> Response to our questioning the fourth Principal Conclusion about contributing factors to decreased water use: *"the downward trend in water use in the District will continue" The District report does not contend this at all. The report says where do we go from here?... assuming no continued downward trend in annual use. The price elasticity and legislative action discussion underpins the District claim that water use per person is not likely to increase.*

We did not contend that the report predicted continued decreases in water use; we did point out that the CPUC rejected this argument as "not convincing." To conclude water use per person will not rebound (that is, increase) as it has throughout California after the severe state drought restrictions were lifted is to ignore recent history and human nature.

In addition, when thinking about water demand and 'market absorption' please see our comment above on the new California housing mandate – for housing for workers and middle management.

> Response to our comments on the third Principal Conclusion *(that long-term water supply needs may be less than thought): Legal lots of record: The point is the sum of several "trivial" reassessed assumptions can be significant. Tourism Bounceback: This figure was labeled 'tourism bounceback' by Cal-Am in its April 14, 2016 and September 27, 2017 testimony and tied to tourism*

occupancy rates in their April 23, 2012 and January 11, 2013 testimony.

The comment that the "sum of several trivial assessments can be significant" will be addressed later.

Mr. Stoldt spent a lot of time on occupancy statistics (STRS reports, etc.) to reach the conclusion that the amount of water labeled 'tourism bounceback' is overstated even though it is part of the final CPUC approval and even though the district earlier on agreed with that number and later unsuccessfully tried to convince the CPUC it should be reduced.

Mr. Stoldt's conclusion that the bounceback has already occurred is wrong and a few simple conversations with hospitality industry professionals would have shown him otherwise.

The occupancy statistics relied on are county-wide, not specific to the Peninsula. Further, those statistics do not differentiate between full-service establishments and others. The 500 afa of supply was intended to include not just the return to prior levels of occupancy on the Peninsula (full-service facilities, for instance, were at occupancy levels in the high 70s to low and mid-80s during 1998-99-2000) but water use increases as the rest of the Peninsula economy recovers (see Svindland testimony of January 11, 2013).

The events of 9-11-01 hurt the industry but the recent recession hurt the industry much more and has had a much more lasting effect. The lodging industry is still struggling to achieve occupancy levels in the high 70s and low 80s. As the Peninsula's principal driver of economic activity, all other economic activity - and therefore water use - will increase as the lodging industry achieves its goal. Also ignored in this analysis is the fact that several new lodging facilities will be built in the next couple of years. The Peninsula should be a world-class travel destination; it should not be stuck, as it has been for years, with a third-rate water supply.

Returning to the 'sum of trivial reassessments can be significant:' it seems to the Coalition that this *Supply and Demand for Water* report is created to accomplish one thing: tinkering at the margins to reassert failed arguments about the nature and extent of long-term water demand and persuade everyone to abandon the desal plant. Abandoning the desal might (but likely would not) make the purchase of Cal Am more affordable or feasible and make it imperative to embrace the construction of expanded PWM with a guaranteed source of purchase for the produced water, without which

construction of the expansion cannot take place.

Mr. Stoldt may be forgetting the decades-long struggle of the Peninsula to achieve a long-term, safe, sustainable, secure, sufficient water supply. With such a supply now in sight, he has unfortunately slipped in to an all-too-familiar train of thought that has derailed local water supply efforts for over almost fifty years. The Peninsula's long-term water supply needs may not be less than thought. If the report is successful in persuading the Peninsula to abandon the desal plant, we will be stuck in our current condition of water poverty for the foreseeable future.

Please reject this report and its unsupportable conclusions and please do not allow it to become an issue at the November California Coastal Commission Monterey Peninsula Water Supply Project Coastal Development Permit hearings.

Sincerely,

Jeff Davi, Co-chair

John Tilley, Co-chair

cc: MPWMD General Manager Dave Stodt

EXHIBIT D

PEBBLE BEACH
COMPANY

October 18, 2019

Via Email: CalAmMonterey@coastal.ca.gov

Hon. Dayna Bochco, Chair and Commissioners
California Coastal Commission
Attn: Tom Luster
45 Fremont, Suite 2000
San Francisco, CA 94105- 2219

Re: Support for California American Water's Monterey Peninsula Water Supply Project

Dear Madame Chair Bochco and Commissioners:

Pebble Beach Company (PBC) would like to join with the broad coalition of governments, businesses, residents, and environmental organizations in support of the Monterey Peninsula Water Supply Project. We urge you to approve the required Coastal Development Permit for the project.

The Monterey Peninsula community has been at work for more than forty years to develop a long-term, sustainable, drought resistant water supply for the Monterey Peninsula. The comprehensive, six-year environmental review for the Monterey Peninsula Water Supply Project was completed by state and federal agencies and unanimously approved by the California Public Utilities Commission in 2018. Objections raised by project opponents, including groundwater impacts, environmental justice, water rights, and project alternatives - to name a few - were all exhaustively analyzed, and ultimately dismissed. The question of how much water the Monterey Peninsula requires has also been carefully studied, deliberated, and ultimately settled by the California Public Utilities Commission in 2018. The decision before you today is the crucial, final step of approval needed to bring the Water Supply Project to fruition.

PBC has a long history of leading the golf industry and Monterey Peninsula with innovation and responsible water resource management. In the early 1990s, we financed and developed the $70M Del Monte Forest water reclamation project – today this project supplies 100% of the water needed to irrigate all the golf courses in Del Monte Forest. To date, we've saved more

Post Office Box 567, Pebble Beach, California 93953 831-647-7500 telephone

than 6.4 billion gallons of potable water for the Monterey Peninsula. Needless to say, we're staunch supporters of recycled water, and now we have almost three decades of experience relying on recycled water. Importantly, we've learned that the supply of recycled water is dependent upon and proportionate to water use. As residents and businesses use less water, in turn, less waste water is generated for recycling. We know firsthand that the supply of recycled water is not constant or guaranteed over time, and supply shrinks seriously during times of drought. The Cal-Am desalination project before you today is essential because recycled water alone cannot meet the Monterey Peninsula's water supply needs.

PBC would also like to call your attention to the Monterey Peninsula Water Management District's report entitled "Supply and Demand for Water on the Monterey Peninsula" presented to the District board on September 16, 2019. On pages 5 and 9-10, the study falsely assumes that PBC will not use our full water entitlement and, along with other questionable assumptions, erroneously calculates a reduced water demand for the greater Monterey Peninsula. PBC's vested right to use our water entitlement has been consistently upheld by every concerned agency, and we intend to fully utilize the entitlement. In fact, we've already used or allocated for use all but 60 acre-feet (out of our total 365 acre-foot entitlement). We bring this error to your attention for two reasons: (1) false assumptions call into question the overall credibility and integrity of the report, and (2) we sincerely hope that the Coastal Commission will not allow erroneous data and incorrect assumptions to influence your decision-making today. We believe the supply and demand numbers only recently presented by MPWMD are erroneous and fail to take into account the complexity of the water issue here and the long- and short-term needs of the community. Please rely on the much more comprehensive study of our water supply and demand approved by the California Public Utilities Commission with far more rigorous analysis and public review.

PBC strongly believes that we need both desalination and recycled water to provide our community with a long-term, adequate, secure, and flexible water supply. We are approaching the finish line to resolve our community's long-term water supply crisis, after 40 years in pursuit of that goal. We urge you to support the project to the fullest extent of your powers.

Sincerely,

PEBBLE BEACH COMPANY

David L. Stivers, President

EXHIBIT E

CALIFORNIA AMERICAN WATER

Ian C. Crooks
Vice President, Engineering
655 West Broadway, Suite 1410
San Diego, CA 92101
P: 619-446-4786
E: ian.crooks@amwater.com
www.amwater.com

January 23, 2020

VIA E-MAIL

Board of Directors
Monterey Peninsula Water Management District
5 Harris Court, Building G
Monterey, California 93940

Re: **Agenda Item 15 – *Updated Water Demand Forecasts***

Dear Chair Edwards and Honorable Board Members:

California-American Water Company ("Cal-Am") has previously expressed significant concerns with the updated supply and demand estimates being promoted by MPWMD General Manager David Stoldt, including in letters dated October 15 and November 11, 2019. Specifically Cal-Am has expressed concerns that Mr. Stoldt's estimates are based on several inaccurate assumptions that result in a substantially flawed analysis. Unfortunately, our stated concerns have not been addressed to date.

Since our prior correspondence, the engineering firm of Hazen & Sawyer – worldwide experts in drinking water and water supply – has conducted a detailed analysis of Mr. Stoldt's estimates and identified numerous defects in his assumptions and conclusions. Ultimately, Hazen & Sawyer conclude that (i) Mr. Stoldt's water supply estimates do not meet engineering practices of reliability and resiliency necessary to provide a reliable and adequate water supply under applicable California law; and (ii) the Monterey Peninsula Water Supply Project is necessary to provide a safe and reliable water supply to meet regional demand, regardless of whether the Pure Water Monterey Expansion project is developed. A copy of Hazen & Sawyer's analysis is enclosed.

Given the importance of water supply issues to Peninsula residents and businesses, we respectfully request that the MPWMD Board consider Hazen & Sawyer's analysis in connection with its assessment of regional water supply and demand.

Sincerely,

Ian Crooks
California-American Water Company

cc: Kathryn Horning, California-American Water Company
DJ Moore, Latham & Watkins LLP

Enclosure

CALIFORNIA AMERICAN WATER
PEER REVIEW OF SUPPLY AND DEMAND FOR WATER ON THE MONTEREY PENINSULA

Prepared by: Kevin Alexander, P.E. and Cindy L. Miller, P.E.
Hazen and Sawyer[1]
January 22, 2020

This memorandum reviews the adequacy of the water supply portfolio on the Monterey Peninsula to meet current and future demands, with consideration of engineering best practices and State regulatory requirements for the establishment of supply and demand projections. This review analyzes the projections recently put forth by Monterey Peninsula Water Management District (MPWMD) staff, specifically the "Supply and Demand Analysis for Water on the Monterey Peninsula" dated September 2019 and the subsequent "Updated Water Demand Forecasts" dated December 17, 2019, and reaches the following key conclusions:

- Established values for supply and demand must meet the requirements of the California Health and Safety Code (CHSC) and the California Code of Regulations (CCR), specifically with regards to the reliability of the supply noted in CHSC Section 116555, and the estimation of demands based upon the highest 10-year maximum daily demand (MDD) required by CCR Title 22 Section 64554. The methodology used by MPWMD staff does not meet these requirements.

- The projected demand for Cal-Am's Monterey service area identified by MPWMD staff is incorrect. MPWMD staff used a 5-year average rather than the 10-year MDD requirement. As a result, the staff's demand and probable growth projections are underestimated, without clear supporting data. MPMWD staff also assumes continued implementation of tiered rates, conservation restrictions, and enforced water use reductions in order to justify these lower demand projections, all of which have the potential to do continuing harm to the area's businesses and residential customers.

- The supply projection presented by MPWMD staff incorrectly assumes that each supply source included in the analysis is available at all times at maximum capacity, with no allowance or consideration of the potential shortfall that would occur should one or more sources be reduced or off-line for extended periods. This does not meet engineering best practices for reliability, resiliency, and incorporation of a factor of safety to ensure compliance with the regulations for a "reliable and adequate supply", as required by §116555(a)(3) of CHSC.

- The supply portfolio assumption made by Mr. Stoldt would operate at a precarious edge where current Peninsula water demand would need to be met by relying on **all** supply sources operating at **full capacity** at **all times** to meet the regulatory criteria. Not only is this assumption

[1] Hazen & Sawyer is recognized worldwide as experts in safe drinking water, and has performed water system supply and new source evaluations for major metropolitan areas such as New York City and Washington, D.C., as well as for many smaller cities, towns and municipalities. Kevin Alexander, P.E., is Vice President and Regional Manager of the Firm's West Region. Cindy Miller, P.E., is Vice President and Operations Manager of the Firm's Irvine, California office. Each of their resumes is attached.

risky, it is unrealistic. As has recently occurred at nearby agencies, if even one source were to be reduced by capacity or water quality issues, the Peninsula supply would fall out of compliance, resulting in new Water Board restrictions, moratoriums, etc.

- Based upon the portfolio of ***reliable*** sources of water supply, the available supply with the Pure Water Monterey Expansion project and without another water source is inadequate to serve the current water demand determined by the CPUC of 12,000 afy, as well as the reduced 10-year average demand of 10,863 afy as projected by MPWMD staff.

- Based upon the foregoing, the implementation of the proposed MPWSP Desalination Plant is necessary to provide a safe and reliable water supply to meet regional demand, regardless of whether the Pure Water Monterey Expansion project is developed.

PURPOSE AND BACKGROUND

California American Water (Cal-Am) requested Hazen and Sawyer (Hazen) perform an independent engineering peer review of the memorandum entitled "Supply and Demand Analysis for Water on the Monterey Peninsula", prepared September 2019 by MPWMD's General Manager David J. Stoldt, (referred to hereafter as the Stoldt memo). The Stoldt memo re-examined available current and future water supplies, along with current and projected long-term demands and compared its updated values with previous estimates provided by Cal-Am and identified in the September 13, 2018 California Public Utilities Commission (CPUC's) Decision Approving a Modified Monterey Peninsula Water Supply Project (Decision). Cal-Am also requested Hazen review General Manager Stoldt's Updated Water Demand Forecasts presented to the MPWMD Board's Water Demand Committee on December 17, 2019.

A conclusion of the Stoldt memo and subsequent water demand forecast was that long-term water demands could reliably be met if Monterey One Water (M1W) constructs the Pure Water Monterey (PWM) Expansion, which it has been claimed could potentially eliminate the need to construct the MPWSP Desalination Plant that is required by the CPUC's Decision. This conclusion was cited as a major factor in the California Coastal Commission Staff Report issued on October 28, 2019 that recommended denial of Coastal Development Permits for Cal-Am to construct a slant well field, associated transmission pipelines and related infrastructure within the coastal zone to support the proposed MPWSP desalination facility.

This technical memo examines the supply and demand analysis methodology provided in the Stoldt memo, with a focus on whether the methodology used was consistent with the California Water Code, which Cal-Am, as a public water supplier, is required to follow. Specifically, Water Code §10635(a) states:

> *"Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. The water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. The water service reliability assessment shall be*

based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier."

DEMAND

Sound water demand forecasting is critical to effective water resources planning. In particular, determining a utility's adequacy of supply hinges upon the accuracy of its demand forecasts. CCR §64554(b), establishes the requirements that California water utilities must use to project demands. The procedure requires that the public water system identify the day, month, and year with "the highest water usage during at least the most recent ten years of operation." This methodology is further supported by engineering best practices described in the American Waterworks Association (AWWA)[2] Manual M50 (Water Resources Planning Manual) which states, *"…the utility should forecast using monthly consumption from a period of **at least 10 years**"*, and that *"…data from a **20-year period** are most beneficial if the overall period includes one or more drought crises that must be analyzed to measure their temporary and permanent effects on consumption."*

The foregoing regulatory requirements and AWWA guidance form the basis for review of the adequacy of the demand forecasting provided in the Stoldt memo and subsequent demand forecast update.

Current Annual Demand

The Stoldt memo disagrees with the CPUC's determination that current water demand in Cal-Am's service territory is 12,000 afy. After reviewing the estimates of multiple parties, including MPWMD, the CPUC determined that an appropriately conservative and reasonable demand for Cal-Am's existing customers is 12,000 afy, based upon the maximum water demand within the 10-year period prior to the anticipated in-service date of the desalination plant (i.e., 2012-2021). The maximum water demand in Cal-Am's service territory over this 10-year period has not changed since the CPUC's determination. The Stoldt memo update, however, presents both a 10-year average annual demand of 10,863 afy and a 5-year average annual demand of 9,825 afy, and bases its supply/demand balance upon the latter, lower value. In light of the State regulations (i.e. CCR §64554(b)) and Engineering Best Practices for demand estimating as described in the AWWA Water Resources Planning Manual, it is unclear why MPWMD considers a 5-year period to be an acceptable method to calculate the demand for the Monterey Peninsula. Moreover, basing capacity determinations on a 5- or 10-year average fails to provide sufficient system capacity to meet peak demands. To our knowledge, using a 5-year period to calculate demands has not been accepted previously by applicable regulatory bodies, including the State Water Board and the CPUC.

Based on review of the documentation provided, Hazen concludes the CPUC-approved demand assumptions meet the CCR requirements and engineering best practices as defined by AWWA, while those outlined in the Stoldt memo *do not*.

[2] The American Water Works Association is an international, nonprofit, scientific and educational society dedicated to providing total water solutions assuring the effective management of water. Founded in 1881, the Association is the largest organization of water supply professionals in the world.

Future Demand Trends

In addition to the 12,000 afy needed to serve existing customer demand, the CPUC determined that 2,000 afy of additional water, for a total of 14,000 afy, would be necessary to account for projected growth based upon lots of record, tourism bounce-back, and Pebble Beach buildout. The CPUC's findings were based upon actual numbers of legal lots of record, economic recovery projections, and the actual legal entitlement of Pebble Beach. To calculate future demand trends, the Stoldt memo reanalyzes the CPUC-approved demand estimations for future growth, and recommends reductions in the demand assumptions for each of these growth areas; however, the recommendations appear to be based on anecdotal data to support what-if scenarios rather than any hard data of actual lots and entitlements. The lack of concrete evidence does not appear to be sufficient to justify revising the demands already approved by the CPUC.

The Stoldt memo also relies heavily upon the presumption that a general downward trend in water use is guaranteed to continue. However, as noted by the CPUC in its Decision,

> *"The assertions by some parties that the downward trend in water use in the District will continue and that only minimal growth will occur in demand after 2021 are not convincing because those assertions fail to consider that maximum month usage increased in 2017 compared to 2016, conservation funding is projected to go down, and the conservation and moratorium measures implemented during the drought will end."*

The conservation and moratorium measures that were implemented in response to drought conditions, including tiered rates, conservation restrictions, and enforced water use reductions, were effective in lowering demand. However, no additional methods are presented in the memo to indicate how further reductions in demands would occur; absent any, it is reasonable to assume everything has already been done on the demand side to reduce levels and further reductions should not be considered in demand forecasting for determining water supply sufficiency. Additionally, continued implementation of these measures over the long term is uncertain and has the potential to do harm to the area's businesses (such as hotels having to ship out laundry services), economic growth, accessory dwelling units (ADU's), affordable housing, existing residential property improvements, and quality of life.

The Stoldt memo presents demand projections based upon market absorption rates and calculates increased demand between 492 and 1,476 afy. Mr. Stoldt then presented newly revised demand projection information to the MPWMD Board's Water Demand Committee on December 17, 2019, which now proposes to use growth projections prepared by the Association of Monterey Bay Area Governments (AMBAG) in its 2018 Regional Growth Forecast. The population forecast is used as a proxy for residential water demand and the employment forecast as a proxy for commercial water demand. While the intent of Mr. Stoldt in presenting this alternative methodology of computing future demand appears to be to provide input from "an objective third-party" as stated in his presentation to the Board, he also notes himself that "certainly, other factors can be considered. " Based on the water demands calculated by Stoldt using the AMBAG forecast, 1,469 afy would be needed to accommodate growth through 2049. This is in contrast to the CPUC-approved value of 2,000 afy noted previously. Further, Section 2.5.3.4 of the FEIR for the MPWSP Desalination Plant provides each city's projection of future water supply needs, with a total of 3,526 afy needed to accommodate the projected growth at buildout that each City determined (see Table 2-5 from the FEIR).

TABLE 2-5
FUTURE WATER DEMAND – SERVICE AREA JURISDICTIONS
(acre-feet per year)

Jurisdiction	Future Supply Needs (2006 Estimate)[a]	Future Supply Needs (Revised Estimate)
City of Carmel	288	288[b]
City of Del Rey Oaks	48	48
City of Monterey	705	705
City of Pacific Grove	1,264	500[c,d]
City of Sand City	386	180[e]
City of Seaside	582	662[f]
Monterey County (Unincorporated)	1,135	1,005[b,g,h]
Monterey Peninsula Airport District	138	138
Total	**4,545**	**3,526**

Clearly, the difference between Mr. Stoldt's projections and the growth projections of each jurisdiction within Cal-Am's service territory demonstrates that there is a wide variation in growth forecasts. Mr. Stoldt's assumption of 1,469 afy is 531 afy less than the CPUC-approved value of 2,000 afy; based on the supply needs of each local jurisdiction presented in the MPWSP FEIR, that could represent entirely dismissing the future supply needs of the Cities of Carmel, Del Rey Oaks, and Sand City. Further, making assumptions which undercut both the CPUC-approved demand projections and the projections of each local jurisdiction becomes even more risky when coupled with other assumptions in the Stoldt memo that exaggerate the available reliable supply, as discussed later in this document.

There is no basis to conclude that AMBAG growth forecasting should be considered any more accurate or helpful than the CPUC-approved demand projection, the growth projections of each local jurisdiction in Cal-Am's service territory, or even Stoldt's prior projections. AMBAG's methodology can be acknowledged as one of several possible means of estimating future demands; however, the selected methodology must first and foremost utilize an acceptable current annual demand value, which is required by the regulations to be the 10-year period maximum demand estimate.

SUPPLY

Existing and future available water supply sources for the Cal-Am service area are presented in Table 5-2 of Cal-Am's 2015 Urban Water Management Plan (UWMP). The UWMP includes the MPWSP desalination plant as a source of supply. The Stoldt Memo presents an alternative portfolio with the PWM expansion as a source of new future supply in lieu of the desalination plant. Aside from the desalination plant or PWM expansion, the balance of the water supply portfolios for both alternatives consist of almost identical supplies from five additional sources. The two supply portfolios are summarized in Table 1 on the following page, with a total available supply of up to 15,296 afy for the desalination plant alternative and up to 11,294 afy for the PWM expansion alternative.

Table 1 - Monterey Peninsula Available Supply
(Acre-Feet per Year)

Supply Source [1]	Per UWMP w/Desalination	Per Stoldt Memo w/PWM Expansion
MPWSP Desalination Plant	6,252	0
Pure Water Monterey	3,500	3,500
PWM Expansion	0	2,250
Carmel River [2]	3,376	3,376
Seaside Basin[3]	774	774
Aquifer Storage & Recovery (ASR)	1,300	1,300
Sand City Desalination Plant[4]	94	94
Total Available Supply	**15,296**	**11,294**
Total *Reliable* Supply (w/o ASR[5])	**13,996**	**9,994**

[1] Other sources of supply in the amount of 406 afy from the Carmel River and Sand City plant may be available; however, they have been noted by Stoldt as not to be included as reliable supplies and are excluded from this summary.
[2] Amount limited to 3,376 afy by Water Order 95-10; may be further declining due to storage limitations caused by sedimentation.
[3] The amount of 794 afy was used in the UWMP, but is revised to 774 afy here to reflect revisions to Cal-Am's Seaside Basin groundwater rights.
[4] Sand City Desalination Plant supply is adjusted from UWMP level to reflect legal commitments to offset Carmel River Pumping.
[5] Reliability of ASR supply discussed further below.

CHSC, §116655, requires "a reliable and adequate supply of pure, wholesome, healthful, and potable water." Evaluation of the reliability and adequacy of the supply portfolios presented in the table must include consideration of source capacity requirements established in Water Code, §10635 and CCR §64554, as well as best practice incorporation of a reasonable factor of safety should a major source of supply be reduced or eliminated such that the ability to meet demands is still maintained. While the table above provides a comprehensive list of all available sources of supply, it does not necessarily follow that each and every supply source can be assumed to be **reliably** available at full capacity and quality at all times.

Reliability of Aquifer Storage and Recovery

Of particular concern is the supply from Aquifer Storage and Recovery (ASR). The average ASR yield is estimated in the UWMP at 1,300 afy. However, it is also noted therein that this amount will be reduced during drought conditions. In its October 15, 2019 comment letter to the Stoldt memo, Cal-Am took issue with including the ASR supply as a consistent, reliable source at 1,300 afy, asserting that it cannot be reliably assured to be capable of meeting long-term demand in normal water years, a single dry water year, and during droughts lasting at least five years per Water Code, §10635. Table 6-2 of the UWMP, which analyzes the reliability of each supply source, notes the availability of the ASR supply is reduced to 63% in a single dry year down to 4% in year 3 of multiple dry years, making this supply essentially almost entirely unavailable as a reliable continuous source during a drought.

Table 6-2: Monterey County District Supply Reliability-Current Water Use

Water Supply Sources[1]	Average / Normal Water Year Supply	Single Dry Water Year	Multiple Dry Water Year Supply		
			Year 1	Year 2	Year 3
Carmel Valley Aquifer	100%	100%	100%	100%	100%
Seaside Groundwater Basin	100%	100%	100%	100%	100%
Salinas Valley Groundwater Basin	100%	100%	100%	100%	100%
Aquifer Storage and Recovery	100%	63%	74%	17%	4%
Sand City Desalination	100%	100%	100%	100%	100%

The Direct Testimony of Ian Crooks before the CPUC on September 15, 2017 explains Cal-Am's position regarding ASR shortfalls during dry years, which was expected to be made up by desalination supplies. Mr. Crooks stated, "the estimated 1,300 AFY of Carmel River stored in ASR may not be available in dry years or initial years of operation when no carry-over reserve is established. In this instance, without the 1,300 AFY, the supply surplus of 941 in normal years turns into an estimated deficit of 359 AFY (941 – 1,300) during dry years. The shortfall can be covered by increasing desalination plant output to 100% and peaking other system supplies (Seaside Basin, ASR, Carmel River) depending on operational variables and regulatory availability."

In response to Cal-Am's stated disagreement regarding the adequacy of the ASR supply to meet Water Code §10635 criteria, MPWMD staff provided a purported excerpt of a draft technical memorandum prepared by Pascual Benito and Derrik Williams dated September 30, 2019 (Benito/Williams memo), which used the Seaside Basin predictive model to evaluate water availability for Cal-Am pumping[3].The simulation assumes no ASR water is stored until Cal-Am satisfies the Cease and Desist Order (CDO), which is estimated to occur in year 2020 for the simulation. Once the CDO is met, the predictive model unreasonably assumed all water Cal-Am is permitted to pump from the Carmel River is injected into the Basin, and that ASR extraction is capped by ASR well capacity.

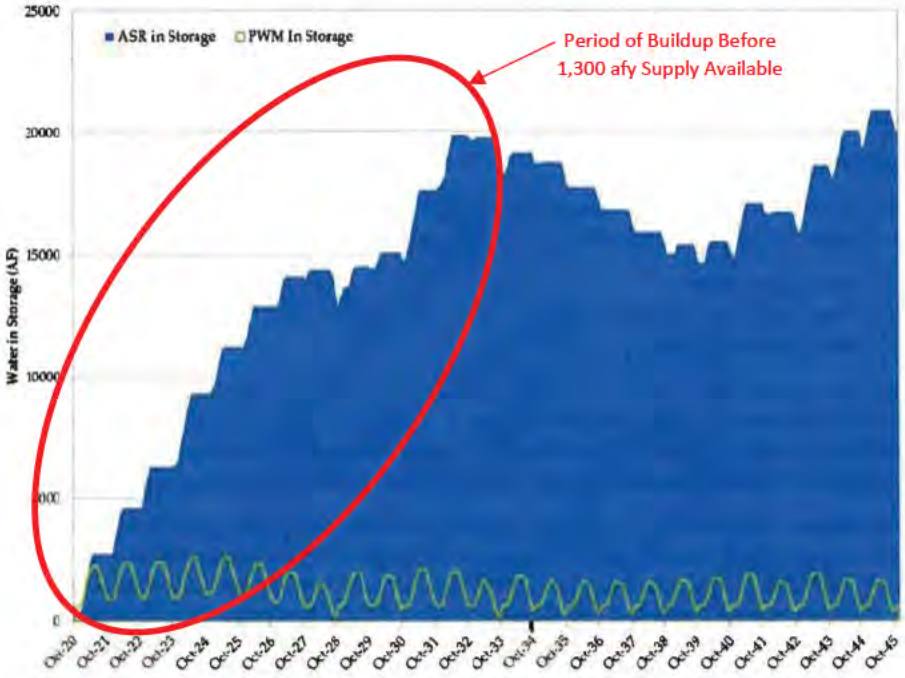
The predictive model also uses an initial annual demand of 10,400 AFY for year 2020, and a linear increase in demand over the following 25 years, to develop an ultimate annual demand of 11,325 AF in the year 2045, which was developed based upon an incorrect demand estimation methodology as previously discussed (note the 10-yr average presented by Mr. Stoldt was even lower at 11,232 afy). The initial and ultimate demand assumptions used for the model simulation are lower than the Peninsula's current estimated annual water demand of 12,000 AFY, as determined by the CPUC, for the initial period, and projected 14,000 AFY future demand also as determined by the CPUC. As previously discussed, the 12,000 current annual water demand is based upon historical data over a 10-year period, and projections from Cal-Am's 2015 Urban Water Management Plan.

The conclusion drawn in the Benito/Williams memo is that buildup of ASR storage would be sufficient to meet a 4-year drought, and likely longer, beginning in the year 2034. Note that this is predicated on the lower demand assumption refuted earlier in the demand discussion of this memorandum and relies upon the unreasonable assumption of 14 to 15 years of full ASR storage, which would require a significant wet period, no drought (highly unlikely for this extended period), and full availability of

[3] It should be noted that only an excerpt of the memo was provided, that the purpose of the overall memo was to perform groundwater modeling and not evaluate supply, and that conclusions drawn by Mr. Stoldt in relation to adequacy of supply were his conclusions and not those of the memo's authors.

Carmel river pumping. Nonetheless, during the period of buildup of ASR storage from year 2020 through 2034, it can be deduced that sufficient reserves to meet drought conditions will *not* be available during that period. Likewise, if any prolonged drought condition were to occur during the buildup period, the reserves would be depleted, requiring a new "buildup period" during which ASR supply would again not be considered to be drought proof. Additionally, the Benito/Williams memo states that "the actual amount of ASR water stored during the project may be less than what is shown by the blue area on Figure 7 because some water may flow out to the ocean or to adjoining basins." This potential water loss is not quantified nor is its potential impact to annual ASR capacity quantified or the potential delay in the 2034 date noted above.

Figure 7.



In addition to the concerns with the quantity of reliably available ASR supply, there is no data presented in the memo to analyze the potential water quality concerns associated with ASR. It does not consider the uncertainties of this supply due to the potential that water extracted may not (now or at some point) meet the MCL for one or more constituents. Confirmation testing should be provided to make sure there are no issues such as Iron, Manganese, Arsenic, Silica, hardness, volatile organics and since some of the areas are near an old base, whether there are PFOA/PFOS concerns.

Based upon the foregoing, it is Hazen's opinion that ASR supply does not meet the requirements of the CHSC for consideration as a permanent reliable water supply source, but should be treated as an alternative or backup supply, thus reducing the listed "Available Supply" in the Stoldt memo by 1,300 AFY. Further, as discussed later in this document, without ASR as a reliable source, the supply cannot meet the 10-yr average assumed by Mr. Stoldt, or even Mr. Stoldt's 5-yr demand average when growth is considered.

Reliability of Pure Water Monterey Expansion

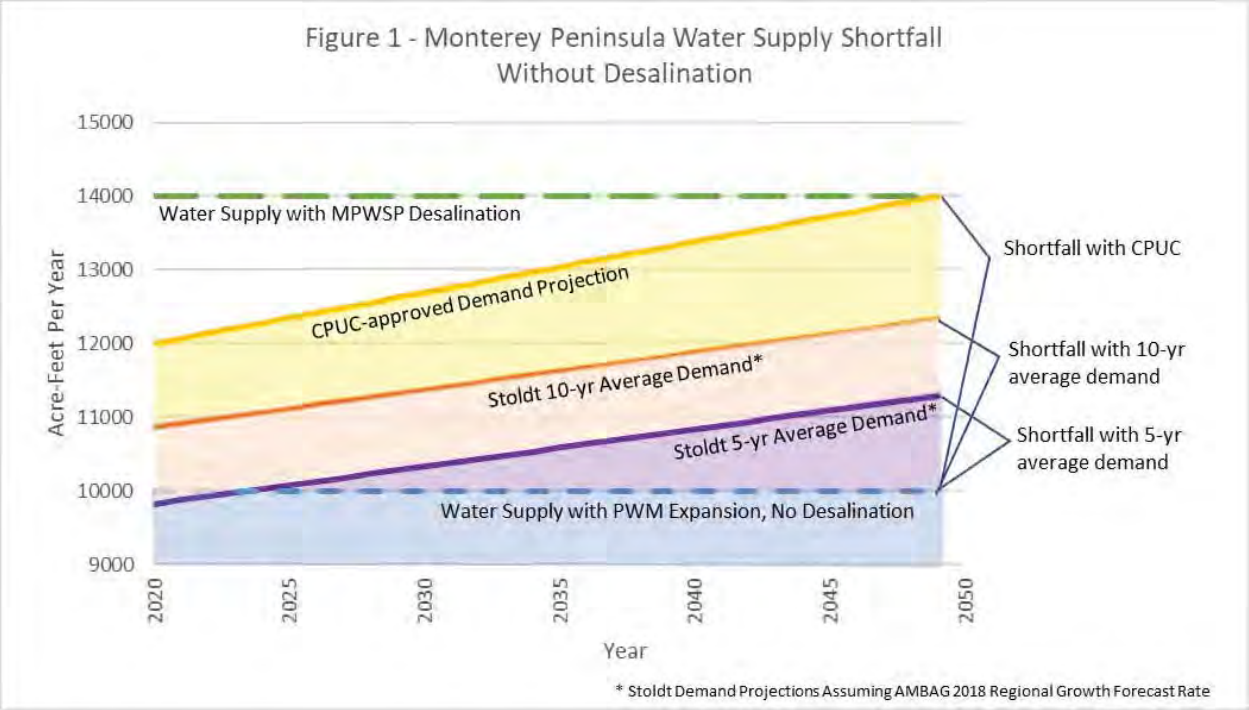
Also of significant concern is the reliability of the PWM Expansion at the full capacity of 2,250 afy, particularly in the context of the Stoldt memo's assumption that the PWM Expansion project replaces the need for the desalination supply. Without the MPWSP desalination plant and the ASR, the need to rely on the full production capacity of the Expansion project becomes critical. However, the assumed availability of the supply provided by the Expansion project as reflected in the Stoldt memo does not appear to consider the reliability of the sources of supply to the Expansion project (wastewater, irrigation runoff) during reduced usage or drought years, to consider impacts to water quality that may occur as the availability of the individual sources vary, and the potential shortfall of supply should the plant not operate at full capacity.

There have been disagreements between the parties regarding key water rights and source water issues, including access to Salinas-area wastewater sources, and claims that the Salinas Valley and its agricultural industry also have a need for the source water that is planned for the Expansion project. There are also concerns regarding the water quality variability and treatability of the wastewater. M1W's general manager told The Herald newspaper that the wastewater is more challenging to treat during certain times and contains chemicals that upset the treatment plant's processes, and that the agency will monitor the source water for those contaminants and shut off the water when those are present.

Given the PWM Expansion project would represent approximately 60% of supplies on an annual basis and even more during peak summer demand, this supply is critically important in the absence of the MPWSP Desalination Plant , and the reliability aspect of the PWM Expansion project's source water supply needs to be validated and proven before it can be considered a verified supply source such that the Expansion project could provide its estimated full capacity of 2,250 afy. The absence of such information means that the projected supply from PWM Expansion is speculative. If the Expansion project cannot reliably meet its full capacity of 2,250 afy, there will be an even larger water supply deficit within Cal-Am's service territory. Further, even if PWM Expansion was proven reliable, the total water supply portfolio available barely meets today's demands and provides no buffering or contingency, and certainly not enough to permit additional or new water use.

SUMMARY OF DEMAND VERSUS SUPPLY

Based upon the foregoing discussion of demand and supply, a projection can be made to forecast the ability to meet demands within Cal-Am's service territory for the next 30 years with and without the proposed desalination plant. Based upon the ***reliable*** supply portfolio presented in Table 1 herein, Figure 1 on the following page presents the water supply under two conditions: 1) after the CDO with PWM Expansion of 9,994 afy, and 2) water supply after the CDO with MPWSP Desalination of 13,996 afy. The projected water demand through 2049 is overlaid on the graph to evaluate the adequacy of the supplies.



Stoldt provided a similar analysis in his December 17, 2019 presentation based upon the 5-yr average starting demand and the AMBAG growth projections, and based upon his assumptions, the supply is purported to meet the demand requirements. However, correction of the initial demand projection and of the portfolio of reliable supply sources fundamentally change those conclusions when analyzed as follows:

- Three demand projections are included in Figure 1, based upon the following criteria:

Source	Initial Demand (afy)	Growth Projection
CPUC-approved	12,000	Per CPUC-approved ultimate demand of 14,000 afy
Stoldt 10-yr average	10,863	Per Stoldt estimates using AMBAG growth projection
Stoldt 5-yr average	9,825	Per Stoldt estimates using AMBAG growth projection

- The available supplies illustrated in Figure 1 exclude ASR based upon the assumption that at least one of the sources is reduced or offline. This is critical because even if the supply and demand appears to balance exactly on paper as per the Stoldt memo, the risk of operating at this precarious edge can be illustrated by two recently-issued compliance orders by the State Water Board's Division of Drinking Water – to Sheep Creek Water Company[4] and the City of San

[4] See SWRCB Compliance Order No. 05-13-18R-002, available at https://www.waterboards.ca.gov/drinking_water/programs/documents/ddwem/dwp%20enforcement%20actions/San%20Bernardino/2018/05_13_18R_002_3610109_WW.pdf.

Juan Bautista[5] – for failure to meet the requirements of CHSC §116655 for a reliable and adequate supply. In each of these two cases, the water systems relied upon all of their supply sources to be available at full capacity at all times to meet the regulatory criteria. However, when capacity or water quality issues resulted in reduction or loss of one or more sources, they fell out of compliance. The supply portfolio assumption made by Mr. Stoldt risks this same outcome for the Monterey Peninsula, particularly in its reliance on the reliability of ASR.

As illustrated in Figure 1, without ASR, the only water supply portfolio that meets any of the three demand projections is the water supply with MPWSP Desalination. The water supply portfolio with the PWM expansion does not meet the CPUC-approved demand nor the demand under the Stoldt 10-yr demand methodology, and only meets Stoldt's 5-yr demand estimate for approximately 3 years before falling out of compliance. Therefore, a reasonable conclusion is the Desalination plant is a vital part of the water supply portfolio for a reliable and adequate supply.

Additional concerns may be considered when attempting to operate at an exact balance of supply and demand as proposed in the Stoldt memo:

- In considering the balance of supply and demand, it is unclear whether the analysis presented in the memo has taken into account potential impacts of climate change. For example, California's Fourth Climate Change Assessment report published by State of California on September 28, 2018, predicts that in the next 50 years annual average maximum temperatures in Monterey may increase approximately 4 degrees, and average number of days with maximum temperature above a threshold will increase by 10 days a year. Potential impacts to water usage are unknown, but present an added variable suggesting that operating right on the limit of the supply/demand balance would present risk that warrants further analysis if only the Expansion project is pursued.

- It is unclear if the supply portfolio presented by MPWMD staff would pass the required Risk and Resilience Assessment as defined within America's Water Infrastructure Act (AWIA) enacted on October 23, 2018, since even if the significant reductions in demand projections are accepted, the proposed non-desal supply option barely meets the current demand and if any supply source was reduced or eliminated due to malevolent acts, drought, or other natural hazards, even current demands would not be able to be met.

CONCLUSIONS

This peer review finds the following in regard to water supply and demand on the Monterey Peninsula, and the specific assertions presented in the Stoldt memo:

- Established values for supply and demand must meet the requirements of the California Health and Safety Code (CHSC) and the California Code of Regulations (CCR), specifically with regards to the reliability of the supply noted in CHSC Section 116555, and the estimation of demands

[5] See SWRCB Compliance Order No. 02-05-16R-004, available at https://www.waterboards.ca.gov/drinking_water/programs/documents/ddwem/dwp%20enforcement%20actions/San%20Benito/2016/02_05_16R_004_3510002_WW.pdf.

based upon the highest 10-year maximum daily demand (MDD) required in CCR Section 64554. The methodology used in the Stoldt memo does not meet these requirements.

- The demand identified in the Stoldt memo is incorrect. Stoldt used a 5-year average rather than a 10-year MDD requirement. As a result, demand and probable growth projections in the memo are underestimated, without clear supporting data. MPMWD staff also assumes continued implementation of tiered rates, conservation restrictions, and enforced water use reductions in order to justify lower demand projections, all of which have the potential to do continuing harm to the area's businesses and residential customers.

- The supply projection presented in the Stoldt memo incorrectly assumes that each supply source included in the analysis is available at all times at maximum capacity, with no allowance or consideration of the potential shortfall that would occur should one or more sources be reduced or off-line for extended periods. This does not meet engineering best practices for reliability, resiliency, and incorporation of a factor of safety to ensure compliance with the regulations for a "reliable and adequate supply", as required by §116555(a)(3) of CHSC.

- The supply portfolio assumption made by Mr. Stoldt would operate at a precarious edge where current Peninsula water demand would need to be met by relying on **all** supply sources operating at **full capacity** at **all times** to meet the regulatory criteria. Not only is this assumption risky, it is unrealistic. As has recently occurred at nearby agencies, if even one source were to be reduced by capacity or water quality issues, the Peninsula supply would fall out of compliance, resulting in new Water Board restrictions, moratoriums, etc.

- Based upon the portfolio of ***reliable*** sources of supply, the supply without MPWSP Desalination is inadequate to serve the CPUC's determined demand of 12,000 afy, as well as the reduced 10-year average demand of 10,863 afy as projected by MPWMD staff.

- The implementation of the proposed MPWSP Desalination Plant is necessary to provide a safe and reliable water supply to meet regional demand, regardless of whether the Pure Water Monterey Expansion project is developed.

Additionally, the Stoldt memo provides four principal conclusions, each of which is listed below, followed by the findings of this peer review based upon the supply and demand discussions already presented.

- *Either supply option can meet the long-term needs of the Monterey Peninsula*
  This has not been demonstrated because the supply analysis in the Stoldt memo has neither followed the applicable statutes nor has it adequately addressed the limitations on supply that would occur during drought years.

- *Either supply option is sufficient to lift the CDO*
  This conclusion has not considered impacts of risk and resiliency that may interrupt one or more of the water supply sources, as a result of the four main categories for risk and resiliency of a water system (i.e. security, hazards, assets, and enterprise) as defined by the American Water

Infrastructure Act (AWIA) of 2018. Without ASR as a consistent reliable source, the supply portfolio with the PWM Expansion cannot achieve the Stoldt memo's 10-yr demand average (or even the memo's 5-yr demand average when growth is considered), and it is reasonable to assume that CDO requirements (moratorium) would continue. The current CDO imposes a moratorium on new service connections and increased use at existing connections, and the State Board would have the authority to impose continued moratoria based on a failure to comply with CCR §64554, as noted in CHSC §116655, which states in relevant part:

> *"(a) Whenever the state board determines that any person has violated or is violating this chapter, or any order, permit, regulation, or standard issued or adopted pursuant to this chapter, the state board may issue an order doing any of the following . . .*
> *(b) An order issued pursuant to this section may include, but shall not be limited to, any or all of the following requirements:*
> *. . .*
> *(4) That no additional service connection be made to the system."*

- *The long-term needs of the Monterey Peninsula may be less than previously thought*
  This assumes that per capita usage will remain at current low levels without consideration of possible effects of availability of secure supply and ongoing impacts to businesses of excessive conservation (such as having to ship out laundry services), as well as assuming that the CDO requirements preventing new connections coupled with steeply tiered rates to penalize higher water users and drive conservation will have to stay in place. The water supply portfolio presented under the Stoldt memo results in "water poverty" for the peninsula, with limited reliability and resiliency and steep rates and restrictions on usage and growth now and into the future.

- *Several factors will contribute to pressure on decreasing per capita water use*
  While the Stoldt memo discusses potential impacts of increased water cost and recent conservation legislation signed by the Governor, it does not provide any evidence as to the actual impacts to per capita water use. The Governor's conservation bills are not statutory and are therefore not enforced by any regulatory agency; rather they are tools for agencies to calculate their own objectives. The data does show that rate-related conservation measures already in place, such as tiered rates, have driven per capita usage downward. No additional methods are presented in the memo to reduce demands; absent any, it is reasonable to assume everything has already been done on demand side to reduce levels and further reduction is not expected. Indeed, after a secure water supply is provided, it may be reasonable to assume the opposite, that an increase in demand is equally likely. A secure supply may provide some relief of the intense pressure on businesses to reduce usage, and coupled with projected tourism rebound and growth, suggests that it is not necessarily true that per capita usage will remain at current levels or continue to decrease.

Kevin Alexander, PE

Vice President

Mr. Alexander is Vice President and West Regional Manager for Hazen and Sawyer. He has extensive experience on integrated water resource projects from planning and design through construction and operations.

Education

B.S. Civil Engineering, Missouri University of Science and Technology (Previously University of Missouri at Rolla)

Certification/License

Professional Engineer

Areas of Expertise

- Project Management
- Project Delivery
- Microfiltration
- Membrane Bioreactors
- Reverse Osmosis
- Drinking Water
- Wastewater
- Water Reclamation
- Concentrate Treatment

Professional Activities

AWWA, AZWA, AMTA

CA-NV AWWA

CA Water Reuse Association

WateReuse Association

WEF

Technical Publications

Author of more than 30 technical presentations and publications.

He is a hands-on project manager with a background built on over 25 years of advanced membrane treatment plant designs from groundwater RO, potable reuse projects through seawater desalination facilities. He has led feasibility/planning studies, developed treatment process evaluations and life-cycle cost evaluations, participated in value engineering studies and operations evaluations and has served as an expert witness. He has extensive experience with alternative project delivery including: design-bid-build, CM at risk, alliance contracting, design-build and design-build-operate serving in capacity as the Owner's Agent and on the Alternative Delivery Teams.

Owners Agent-San Fernando Basin Groundwater Remediation, Los Angeles Department of Water and Power, Los Angeles, CA
Technical Advisor and Alternative Delivery Expert. Project includes the planning, modeling, and project development for the treatment systems to cleanup of the San Fernando Valley Groundwater Basin. The treatment uses UV/AOP and GAC Treatment at three(3) facilities for removing groundwater contaminants. One facility is 10 mgd and the other facilities are 50 mgd. The project is to be permitted under the 97-005 requiring very specialized coordination with DDW. The project is being delivered as a Progressive Design Build project. Responsibilities included reviewing the Design Build documents and providing Owner Agent services.

Feasibility Study to Evaluate the Simi Valley Groundwater Basin as a Potable Water Supply, Ventura Waterworks No. 8. Simi Valley, CA
Project Director. Project developed a feasibility study for the Simi Valley basin as a potable water source. The evaluation included determining groundwater well locations, production potential, water quality and treatment requirements for groundwater that is over 3000 mg/l in TDS. The feasibility study identified three alternatives, including evaluation of pumping and transmission needs, treatment needs and connection to a proposed brine line. Responsibilities included review and support of project teams with technology evaluation.

Los Angeles Department of Water and Power, Tajunga Spreading Ground Tracer Study, Los Angeles, CA
Project Director and ASR technical support. Services include recycled water regulatory review and evaluation of pilot test program and consideration for construction and implementation of tertiary spreading under current groundwater rules.

Design Build of the Central Groundwater Treatment Facility, City of Monterey Park, Monterey Park, CA
Design Project Manager as part of a Design Build Team responsible for the complete design of a 10 MGD UV Advanced Oxidation system and catalytic GAC system for treatment of a highly impaired groundwater in the City. Responsible for the complete process mechanical design as well as coordination of civil, electrical and structural designs including design of 0.5 miles of sliplined piping for raw well water. Responsible for leading the process for obtaining the permit from the California DDW.

Design Build of the Well No. 9 NF Treatment Plant, City of Signal Hill, CA
Design Project Manager responsible for the complete design of the well pump through the NF treatment system including the design of the electrical and control building. Responsible for coordination of mechanical, civil, electrical and structural designs for a 2 MGD high recovery NF treatment plant for color removal and a GAC system for Benzene removal.

Design-Build-Operate (DBO) Services For Reactivation and Operation of the Charles Meyer Desalination Plant, Santa Barbara, CA
Design Project Manager as part of the Acciona/Filanc DBO Team, responsible for the process design and coordination of the civil, electrical and structural design of the desalination plant from the open ocean intake through the treatment process. Project required a 60 percent design to allow for development of is a 2.9 MGD seawater desalination plant that is expandable to an ultimate capacity of 8.9 MGD. Project was not awarded to the Team.

Seawater Desalination Demonstration Facility, West Basin Municipal Water District, Redondo Beach, CA
Project Manager. Mr. Alexander was involved in supporting the demonstration of the West Basin seawater desalination demonstration. He subsequently lead the decommissioning project to remove the seawater desalination demonstration system and return the facility to . A major effort includes finding a buyer or research organization for purchasing the used equipment to maximize value to the Client.

Seawater Desalination – Adelaide, Melbourne (Wonthaggi), Sydney Desalination and Gold Coast Desalination Facilities, Veolia Water Services, Australia
Project Manager. Managed a team and participated in the development of designs for multiple facilities in Australia. The efforts were in support of operations for Veolia Water Australia in developing the design and operations for the facilities. Efforts included membrane system optimization to save energy, evaluation of temperature gradients from the intake through the entire facility. Assistance included support of operations including commissioning and decommissioning support. Adelaide and Melbourne were not won by the team so efforts stopped at the end of pilot testing and design.

Seawater Desalination Facility Planning and Design Build Document Development, Sand City, CA
Project Engineer. Assisted with the development of a 300 AFY Seawater RO system treating wedge water between brackish groundwater and seawater for potable use. Assisted with permitting of the facility as a groundwater under the direct influence of surface water and with development of the design build documents.

Cindy Miller, PE

Vice President

Ms. Miller is an experienced Civil Engineer specializing in Water Resources, with a long resume of leading the most challenging water supply projects to successful completion. Her experience extends from planning, design, construction, and owner's agent services.

Education

B.S., Civil Engineering, University of California, Irvine

Certification/License

Professional Engineer: CA (C58116)

Areas of Expertise

- Pipeline Planning and Design
- Project Management
- Program Management
- Project Delivery
- Pump Station Planning and Designr

Professional Activities

AWWA, ASCE, AMTA

CA-NV AWWA,

CA Water Reuse Assoc.

Her assignments have included providing Program Management services for a $150 million groundwater supply project, which includes wells, pipelines, pump stations, and an advanced treatment system for R.O. concentrate reduction; Project Manager for preliminary and final design of a 28 MGD microfiltration treatment facility, and Project Manager for a 10 MGD R.O./Ion Exchange groundwater treatment plant, including groundwater and treated water conveyance facilities. Ms. Miller has also led numerous water storage and conveyance infrastructure projects, including design of over 100 miles of pipeline Ductile Iron, CML&C steel, PVC, and HDPE pipeline, design of steel, pre-stressed concrete, and cast-in-place concrete storage reservoirs, up to 10 million gallons, and numerous pump station facilities. She has led feasibility/planning studies, developed treatment process evaluations and life-cycle cost evaluations, participated in value engineering studies and operations evaluations. She has developed detailed designs of many systems and provided construction and startup services. She has experience with different project delivery methods including: design-bid-build, design-build and design-build-operate-finance.

Chino Basin Desalter Authority (CDA) Phase 3 Expansion, Chino, CA
Ms. Miller provided Program Management services to the Chino Basin Desalter Authority (CDA) for their Phase 3 Expansion Project. The Phase 3 Expansion increases production capacity of the CDA's groundwater desalter Facilities to over 35,000 acre-ft per year of potable water capacity. The project included construction of new groundwater wells, pipelines, treatment facility to recover desalter concentrate (i.e. concentrate reduction facility), product water pump station expansion and new product water pump stations. The Phase 3 Expansion Project cost was $150 million, with over $80 million of funding coming from Federal and State grants.

Baker Water Treatment Plant, Lake Forest, CA

Ms. Miller served as Project Manager and Engineer-of-Record for the Irvine Ranch Water District's Baker Water Treatment Plant. The Baker Plant is a 28-mgd microfiltration treatment plant with UV disinfection, designed to treat surface water supplied by the Metropolitan Water District and a local surface water supply from Irvine Lake. The project includes design of a 100-percent redundant flow control facility utilizing dual sleeve valves, a 56- cfs raw water pump station to convey flow to the plant from Irvine Lake, upgrades to a Metropolitan Water District turnout facility and transmission pipeline to increase deliveries to 100 cfs, a 6-cfs raw water pump station for Trabuco Canyon Water District, a forebay designed to provide adequate contact time for chlorine dioxide injection, feedwater pump station, coagulation injection, strainers, 14 pressure microfiltration membrane racks, UV disinfection system, chlorine contact basin, chemical building housing 9 different chemicals, an extensive chemical piping delivery system, solids dewatering facilities, civil site work, finished water pipelines, retrofit of two16 MG pre-stressed concrete reservoirs, Product Water Pump Station, transmission pipeline and connection to Metropolitan Water District's South County Pipeline.

Chino I Desalter Expansion and Chino II Desalter Projects, Inland Empire, CA

Ms. Miller served as Project Manager and Engineer-of-Record to the Chino Basin Desalter Authority's (CDA's) multimillion-dollar Chino I Desalter Expansion and Chino II Desalter project. The assignment involved design of a new desalter facility; expansion and upgrade of an existing desalter facility; design of water distribution facilities, including pump stations, pipelines, and well equipping. The project included expansion of an existing 9 MGD reverse-osmosis treatment plant to a 14 MGD plant by adding ion exchange treatment for nitrate removal and VOC treatment for removal of TCE. Other plant improvements included the upgrading of the existing disinfection system to 0.8 -percent solution sodium hypochlorite generated on site, expansion of the on-site product water pump station, and other miscellaneous upgrades to improve plant performance. In conjunction with increasing the Chino I Desalter's capacity, three new wells were added to increase the system's raw water supply. Delivery facilities from the Chino I Desalter were added to enhance movement of treated water to the end-users. Delivery facilities included two new booster pump stations with capacities of 2,600 gpm and 1,400 gpm and approximately 14,000 linear feet of product water pipeline, 12 inches to 24 inches in diameter. The project also included design of a new 10 MGD Chino II Desalter. This treatment plant was designed to target TDS and nitrate removal and using reverse-osmosis and ion exchange in parallel. The project included eight new groundwater wells; approximately 30,000 linear feet of raw water pipeline, 16 inches to 36 inches in diameter; approximately 24,000 linear feet of product water pipeline, 12 inches to 42 inches in diameter; and a new booster pump station with 3,000 gpm capacity. The new and expanded desalters, which include the Chino I Desalter and the Chino II Desalter, provide potable water to and strengthen the water supply reliability of cities and agencies in the southwesterly region of the Inland Empire, including Jurupa Community Services District, City of Chino, City of Chino Hills, City of Ontario, Santa Ana River Water Company, and the City of Norco.

City of Beverly Hills Reverse Osmosis Water Treatment Plant, Beverly Hills, CA

Assistant Program manager for a design-build-operate-finance (DBOF) project for the City of Beverly Hills that consisted of a 3.0-million-gallons-per-day reverse osmosis treatment facility, five production wells, transmission main, and public works offices and departments, such as painting room, parking meter coin collection center, and machine shop. Responsible for overseeing the preparation of all documents required to execute a DBOF contract and completion of preliminary facility design, construction management, and construction inspection.

La Brea Subarea Groundwater Supply Project, City Beverly Hills, Beverly Hills, CA

Project Manager. Developed a comprehensive Preliminary Design Report (PDR). The City of Beverly Hills (City) is moving forward with a project to expand its local water supply by developing local groundwater in the La Brea Subarea, which is located outside of City limits within the City of Los Angeles. The project includes developing approximately 1700 acre-feet per year (AFY) of new potable water supply from local groundwater in the La Brea Subarea of the Central Groundwater Basin by drilling new wells near Interstate 10 and La Cienega Boulevard, located approximately 1 - 2 miles south of the City's southerly boundary. The production wells were optimally located to provide the highest sustainable groundwater production, on sites that can be purchased and developed in the most efficient manner and permitted by Division of Drinking Water. The project required water treatment that is reliable, efficient, and cost effective, with a priority on ease of operation for City staff. Conveyance facilities (20,000+ LF) from the well sites to the City's existing reverse osmosis water treatment plant that includes a combination of new pipeline and rehabilitation of an existing inactive transmission main. Related tasks included drilling an exploratory test hole on a private property to obtain projected production rates and projected water quality, potholing and CCTV to locate and investigate an inactive 18-inch transmission main to determine if it could be used for the purpose of the project, coordination with Division of Drinking Water, property research, environmental studies on potential well site locations, and evaluation of the optimal treatment alternatives. All aspects of the related tasks and analysis were included in a comprehensive Preliminary Design Report. Ms. Miller is currently serving as Project Manager to the City of Beverly Hills for final design of one of the production wells and conveyance pipeline to the City's RO treatment plant.

EXHIBIT F

This meeting is not subject to Brown Act noticing requirements. The agenda is subject to change.

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

Water Demand Committee Members:
Alvin Edwards, Chair
Jeanne Byrne
Molly Evans

Alternate:
David Potter

Staff Contact
Stephanie Locke
Arlene Tavani

After staff reports have been distributed, if additional documents are produced by the District and provided to the Committee regarding any item on the agenda, they will be made available at 5 Harris Court, Building G, Monterey, CA during normal business hours. In addition, such documents may be posted on the District website at www.mpwmd.net. Documents distributed at the meeting will be made available in the same manner.

AGENDA
Water Demand Committee
Of the Monterey Peninsula Water Management District

****

Tuesday, December 17, 2019, 4:00 PM
District Conference Room, 5 Harris Court, Building G, Monterey, CA

Call to Order

Comments from Public - *The public may comment on any item within the District's jurisdiction. Please limit your comments to three minutes in length.*

Action Items -- *Public comment will be received.*

1. Consider Adoption of October 31, 2019 Committee Meeting Minutes

2. Consider Adoption of Updated Water Demand Forecasts Related to Association of Monterey Bay Area Government 2018 Regional Growth Forecast and Regional Housing Needs Allocation Plan: 2014-2023, and Inclusion of 2019 Water Year

Discussion Items – *Public comment will be received.*

3. Discuss Concepts for Ordinance re Water for Affordable/Workforce Housing

4. Discuss Use of Remaining Proceeds from IRWM Disadvantaged Communities Fund

Adjournment

Upon request, MPWMD will make a reasonable effort to provide written agenda materials in appropriate alternative formats, or disability-related modification or accommodation, including auxiliary aids or services, to enable individuals with disabilities to participate in public meetings. MPWMD will also make a reasonable effort to provide translation services upon request. Submit requests by 5 pm on Friday, December 19, 2019, to the Board Secretary, MPWMD, P.O. Box 85, Monterey, CA, 93942. You may also fax your request to the Administrative Services Division at 831-644-9560, or call 831-658-5600.

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831-658-5600 • Fax 831-644-9560 • http://www.mpwmd.net

WATER DEMAND COMMITTEE

ITEM: ACTION ITEM

1. CONSIDER ADOPTION OF OCTOBER 31, 2019 COMMITTEE MEETING MINUTES

Meeting Date:	**December 17, 2019**	**Budgeted:**	**N/A**
From:	**David J. Stoldt, General Manager**	**Program/ Line Item No.:**	**N/A**
Prepared By:	**Arlene Tavani**	**Cost Estimate:**	**N/A**

General Counsel Review: N/A
Committee Recommendation: N/A
CEQA Compliance: This action does not constitute a project as defined by the California Environmental Quality Act Guidelines section 15301

SUMMARY: Attached as **Exhibit 1-A**, are draft minutes of the October 31, 2019, committee meeting minutes.

RECOMMENDATION: The Water Demand Committee should review the minutes and approve them by motion.

EXHIBIT
1-A Draft minutes of October 31, 2019, committee meeting

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MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

EXHIBIT 1-A

DRAFT MINUTES
Water Demand Committee of the
Monterey Peninsula Water Management District
October 31, 2019

Call to Order
The meeting was called to order at 3:45 pm in the MPWMD conference room.

Committee members present:	Alvin Edwards, Chair Jeanne Byrne Molly Evans
Committee members absent:	None
Staff members present:	David Stoldt, General Manager Stephanie Locke, Water Demand Division Manager Arlene Tavani, Executive Assistant
District Council present:	David Laredo
Comments from the Public:	No comments.

Action Items

1. **Consider Adoption of July 11, 2019 Committee Meeting Minutes**
   On a motion by Evans and second of Byrne, the minutes were adopted on a unanimous vote of 3 – 0 by Evans, Byrne and Edwards.

Discussion Items

2. **Discuss Proposals – Water for Affordable/Workforce Housing**
   The committee reviewed information presented in the staff note. It was determined that the Technical Advisory Committee would be convened and asked to advise the District as to their water allocation needs for the next three or four years. Staff will move forward on developing an ordinance. During the discussion the following comments were made. (a) Property owners should be advised that their water credits are due to expire. (b) It could be advantageous to set a monetary value on water credits so that property owners would surrender unused water credits. (c) The District should not tell the jurisdictions how to allocate water to projects. (d) If water is developed for affordable housing, but the jurisdictions can use the water for any project, this will do nothing to create water for affordable housing. (e) School districts are interested in developing affordable housing for their teachers. For districts that span across multiple jurisdictions, should they be considered as separate entities from the jurisdictions? (f) If water credits or an allocation were to be created, transfers should be only within the jurisdictions – not jurisdiction to jurisdiction. (g) Rules should be changed to require that the District conduct CEQA review on water credit transfers. (h) Could ask Community Hospital of the Monterey Peninsula if any of its unused allocation could be given back to the District for other projects.

3. **Discuss Updates to Non-Residential Water Use Factors**
No discussion.

4. **Update on Ordinance re Residential/Commercial Grey Water Systems**
Locke provided an update on rules regarding permitting grey water systems. Staff will provide the regulations to the Technical Advisory Committee.

5. **Discuss Draft MPWMD Testimony – Laguna Seca Moratorium**
Stoldt provided an update to the committee. He stated that the District has taken a strong position of opposition to the expansion of service in the Laguna Seca Subarea. In regards to California American Water Company Application No. 19-07-005 to the California Public Utilities Commission, he submitted page 4 of his testimony in the proceeding that outlined the District's position on the application.

Adjournment: The meeting was adjourned at 4:55 pm.

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WATER DEMAND COMMITTEE

DISCUSSION ITEM

2. CONSIDER ADOPTION OF UPDATED WATER DEMAND FORECASTS RELATED TO ASSOCIATION OF MONTEREY BAY AREA GOVERNMENT 2018 REGIONAL GROWTH FORECAST AND REGIONAL HOUSING NEEDS ALLOCATION PLAN: 2014-2023, AND INCLUSION OF 2019 WATER YEAR

Meeting Date:	**December 17, 2019**	**Budgeted:**	**N/A**
From:	**David J. Stoldt General Manager**	**Program/ Line Item No.:**	**N/A**
Prepared By:	**David J. Stoldt**	**Cost Estimate:**	**N/A**

General Counsel Approval: N/A
Committee Recommendation: N/A
CEQA Compliance: Action does not constitute a project as defined by the California Environmental Quality Act Guidelines section 15378.

SUMMARY: At its September 16, 2019 meeting, the Board accepted a report titled *"Supply and Demand for Water on the Monterey Peninsula"*, which was Exhibit 9-A of the Board packet. The report has now been available 3 months and has been reviewed by members of the public, local organizations, and state agencies. While now publicly vetted, only three sets of comments were received: (a) California American Water provided a comment letter October 15, 2019, (b) The Coalition of Peninsula Businesses provided letters September 15, 2019 and September 24, 2019. All three comment letters argued that the findings in the report contradict those of the California Public Utilities Commission, but did not provide any substantive alternate assumptions or facts. The District's General Manager has encouraged the parties to provide their own forecast of growth and/or market absorption of water demand, but they have failed to do so.

At the November 14, 2019 Coastal Commission hearing former Pacific Grove mayor Bill Kampe did raise two substantive issues regarding the report: (a) pre-Cease and Desist Order (CDO) market absorption of water demand may have been constrained in some jurisdictions due to a lack of water allocation, and (b) newstatewide focus on housing will require water.

Additionally, subsequent to the release of the report the 2019 water year was completed, providing an additional data point on current customer demand.

This agenda item provides an update intended to address three items:

1. What is average current demand with the additional water year in the data?
2. What water will be required to meet future housing needs?
3. What might be the market absorption of water based on an objective third-party growth forecast?

As a result, certain figures or tables from the September 2019 *Supply and Demand for Water on the Monterey Peninsula* report were updated and included as **Exhibit 2-A**, attached.

RECOMMENDATION: It is recommended the Committee adopt the revisions to the September report and forward it to the Board for adoption.

DISCUSSION:

Current Demand: The 2019 water year showed actual demand (production for customer service) of 9,738 AF (acre-feet), a decline of almost 300 AF from 2018. As a result, the recent 3-year and 5-year averages are within 8 AF of each other, as shown in the table below:

Period	Amount	Difference to CPUC/Cal-Am #
CPUC/Cal-Am Assumption	12,350	
10-Year Average - Actual	10,863	1,487
5-Year Average - Actual	9,825	2,525
3-Year Average - Actual	9,817	2,533

Water for Housing: **Exhibit 2-E** shows the Association of Monterey Bay Area Governments (AMBAG) Regional Housing Needs Allocation (RHNA.) Over the next twenty years, using two similar 10-year RHNA allocations, total water required for housing in the six Peninsula cities is 380 AF over twenty years, or 395 – 405 AF including an estimate for unincorporated County. See **Exhibit 2-D**. The RHNA is expected to be updated soon and the allocation could change.

The water for housing can be thought of as captured within the population growth component of the third-party growth forecast discussed below.

Water to meet an objective third-party growth forecast: Rather than to rely on pre-CDO absorption of water demand or alternative theoretical future demand scenarios, as was done in the September report, it is instructive to instead look at a regional growth forecast by an objective third-party. Here we evaluated AMBAG's 2018 Regional Growth Forecast (see **Exhibit 2-C**), specifically the subregional population forecast as a proxy for residential water demand, and the subregional employment forecast, using job growth as a proxy for commercial water demand. (Certainly, other factors could be considered.) Using this methodology, the total water demand increase in the 20 year study period is 984 AF or 49.2 AFY (see **Exhibit 2-B**.) Applying the 49.2 AFY linearly across a 30-year horizon results in the revised Figure 3, shown in **Exhibit 2-A**.

EXHIBITS

2-A Supply and Demand for Water on the Monterey Peninsula – Revisions
2-B Water Required to Meet AMBAG 2018 Regional Growth Forecast
2-C AMBAG 2018 Regional Growth Forecast – Table 7 and Table 8
2-D Water Required to Meet AMBAG Regional Housing Needs Allocation Plan: 2014-2023
2-E AMBAG Regional Housing Needs Allocation Plan: 2014-2023 – Page 15

EXHIBIT 2-A

Supply and Demand for Water on the Monterey Peninsula[1]

Figure 1 - Revised
Annual Water Production for Customer Service (Demand)
Last 21 Years
(Acre-Feet)

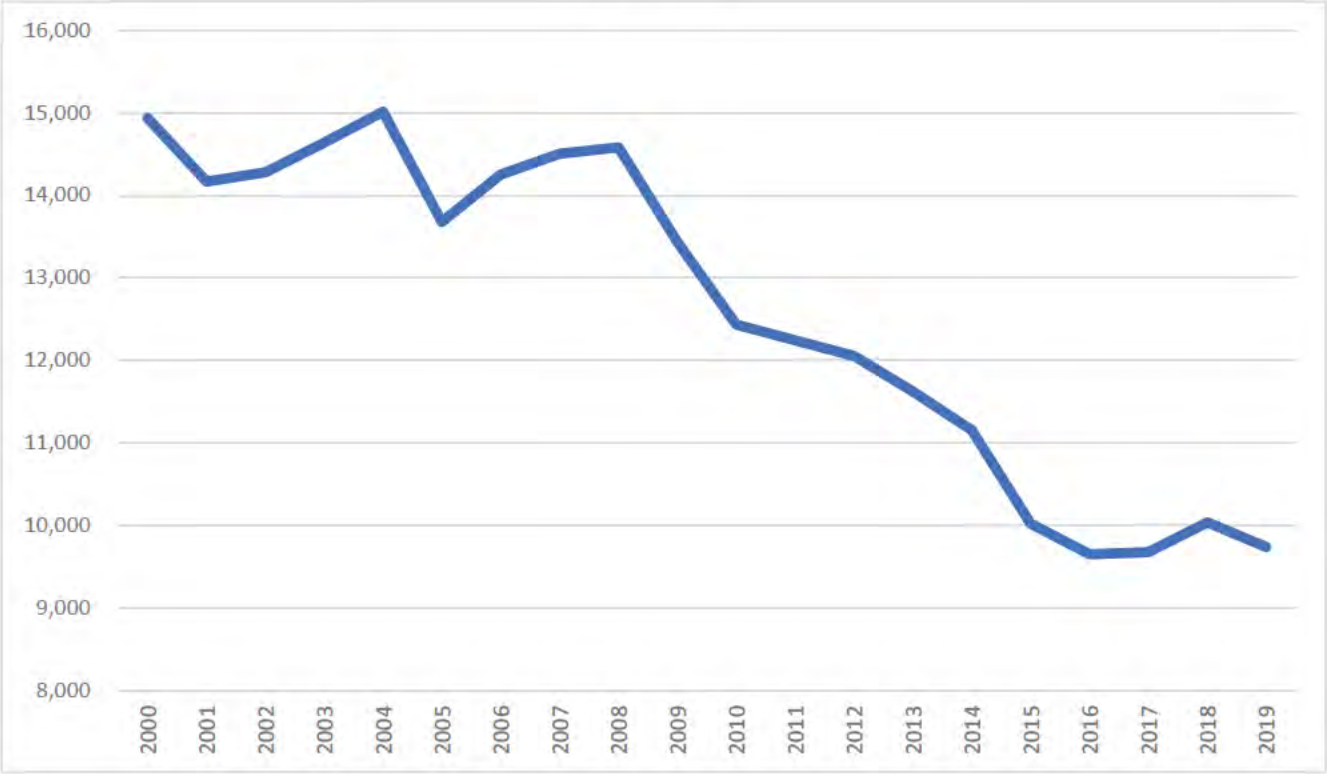


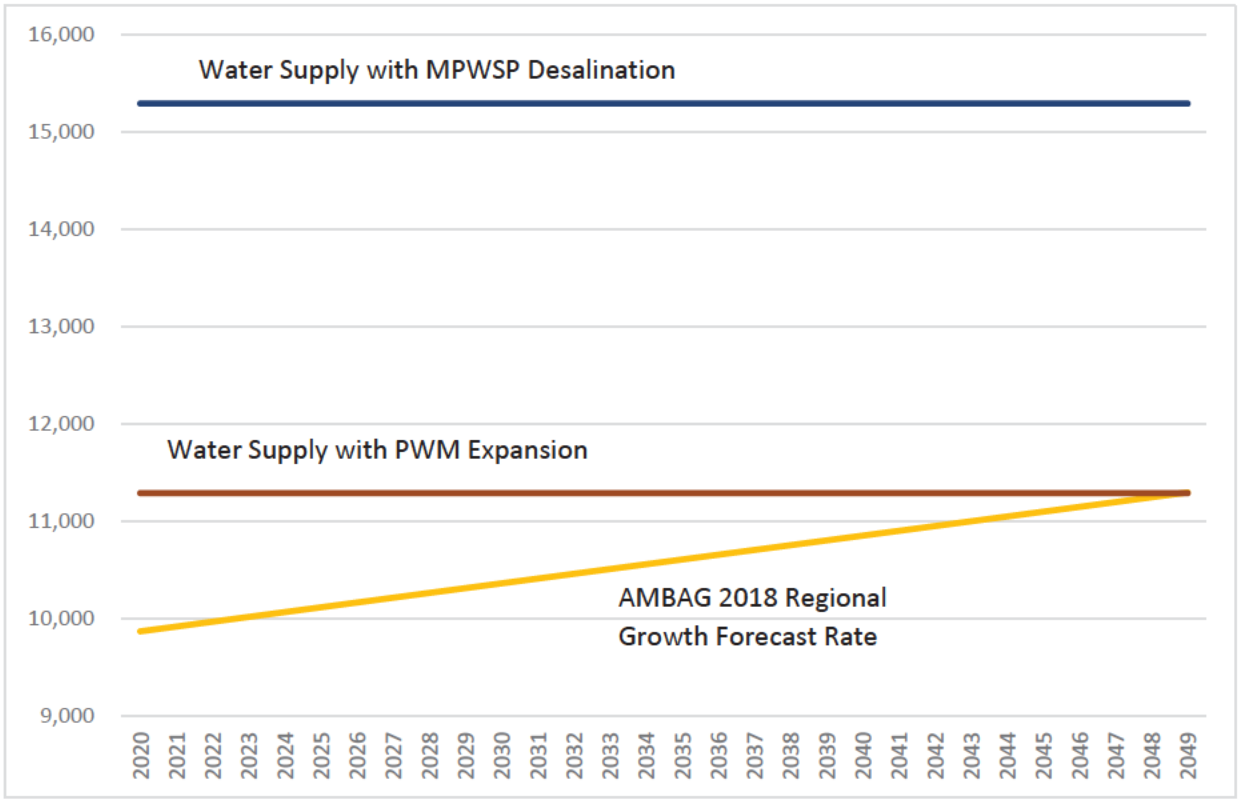
Table 3 shows how the 10-, 5-, and 3-year average demand compares to Cal-Am's most recent 12,350 AFA assumption.

Table 3 - Revised
Alternate Average Current Customer Demand Assumptions
Updated for 2019 Water Year
(Acre-Feet)

Period	Amount	Difference to CPUC/Cal-Am #
CPUC/Cal-Am Assumption	12,350	
10-Year Average - Actual	10,863	1,487
5-Year Average - Actual	9,825	2,525
3-Year Average - Actual	9,817	2,533

[1] Originally published September 2019. Updated for 2019 water year data. Prepared by David J. Stoldt, General Manager, Monterey Peninsula Water Management District 12-3-19

Figure 3 - Revised
Market Absorption of Water Demand Compared to Water Supply
Current Demand at 5-Year Average
AMBAG 2018 Regional Growth Forecast
(Acre-Feet)



This chart shows that, assuming a starting current demand at the 5-year average (inclusive of water year 2019), both water supply alternatives meet 30-year market absorption at the AMBAG 2018 Regional Growth Forecast rate.

EXHIBIT 2-B

Water Required to Meet
AMBAG 2018 Regional Growth Forecast

Prepared by David J. Stoldt, General Manager, Monterey Peninsula Water Management District

Water Required for Population Growth[1]

	Monterey	Pacific Grove	Carmel-by-the-Sea	Sand City	Seaside	Del Rey Oaks	County[2]	TOTAL
Population in 2020	28,726	15,349	3,833	544	34,301	1,949	7,182	**91,884**
Population in 2040	30,976	16,138	3,876	1,494	37,802	2,987	7,541	**100,814**
Increase	2,250	789	43	950	3,501	1,038	359	**8,930**
GPCD[3]	56.8	56.8	56.8	56.8	56.8	56.8	56.8	**56.8**
Acre-Feet per Year	143 AF	50 AF	3 AF	60 AF	223 AF	66 AF	23 AF	**568 AF**

*: Likely overstates population growth in Cal-Am service area due to some growth attributable to the Fort Ord build-out.

Water Required for Employment Growth[4]

	Monterey	Pacific Grove	Carmel-by-the-Sea	Sand City	Seaside	Del Rey Oaks	County[5]	TOTAL
Jobs in 2020	34,434	5,093	2,998	1,569	10,161	371	4,300	**58,926**
Jobs in 2040	40,173	5,808	3,378	1,810	11,299	432	4,845	**67,745**
Increase	16.7%	14.0%	12.7%	15.4%	11.2%	16.4%	12.7%	
Commercial Consumption In 2019[6]	1,371 AF	248 AF	203 AF	54 AF	282 AF	21 AF	651 AF	**2,830 AF**
Commercial Consumption In 2040[7]	1,600 AF	283 AF	229 AF	62 AF	314 AF	24 AF	734 AF	**3,246 AF**
Increase	229 AF	35 AF	26 AF	8 AF	32 AF	3 AF	83 AF	**416 AF**

Using this methodology, total water demand increase in 20 year period is 984 AF or 49.2 AFY.

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[1] Association of Monterey Bay Area Governments. 2018. "2018 Regional Growth Forecast." Table 8, page 32

[2] Uses Cal-Am service area population reported in SWRCB June 2014 – September 2019 Urban Water Supplier Monthly Reports (Raw Dataset), minus urban areas, escalated at 5%.

[3] SWRCB June 2014 – September 2019 Urban Water Supplier Monthly Reports (Raw Dataset); Average gallons per capita per day for August 2018 – July 2019; www.waterboard.ca.gov

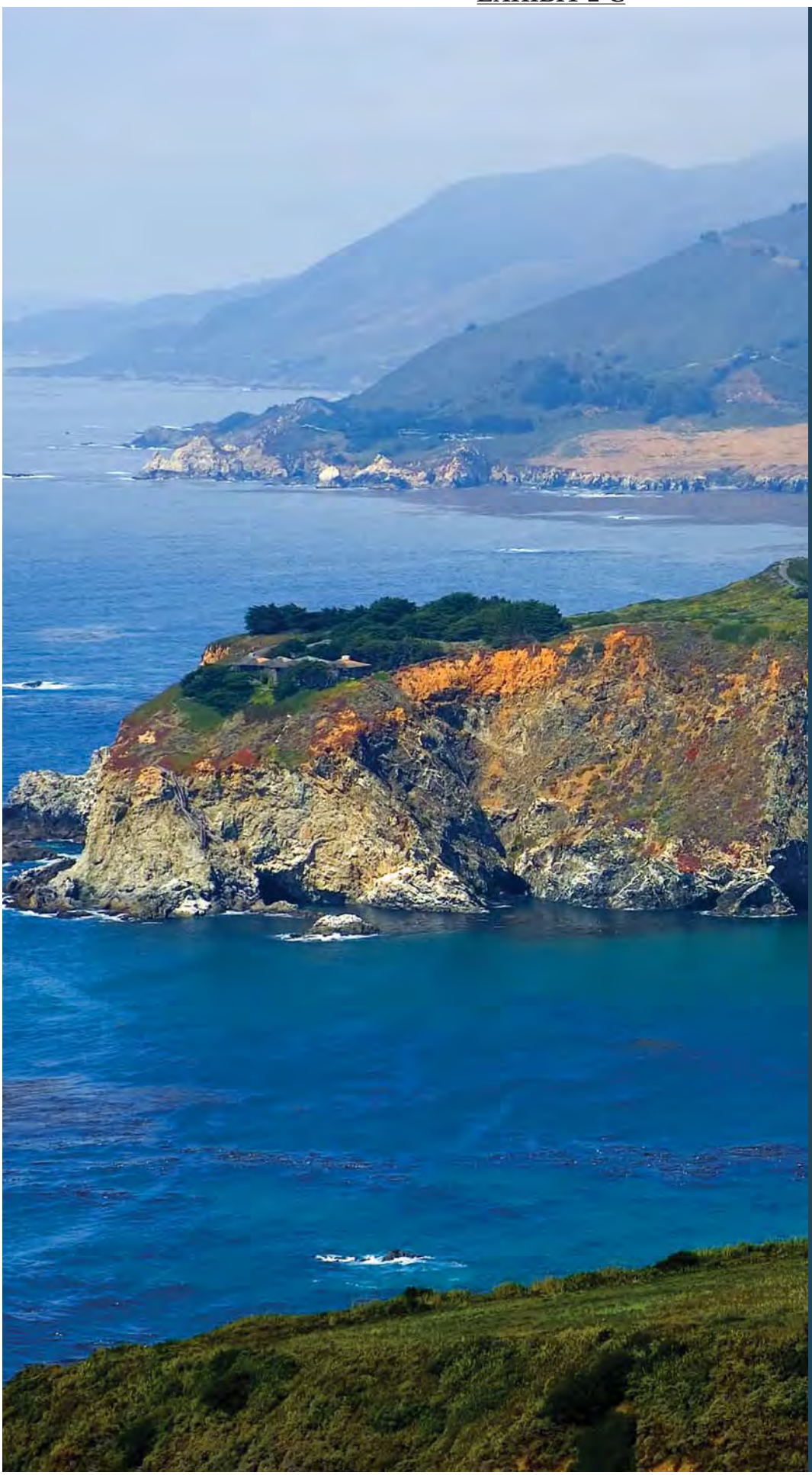
[4] Association of Monterey Bay Area Governments. 2018. "2018 Regional Growth Forecast." Table 7, page 30

[5] California Employment Development Department, Monthly Labor Force Data for Cities and Census Designated Places. November 15, 2019. Sum of Carmel Valley Village CDP and Del Monte Forest CDP. Escalated at same rate as Carmel-by-the-Sea.

[6] Cal-Am. 2019. "Customers and Consumption by Political Jurisdiction"

[7] Assumes escalation at same rate as job growth 2020 to 2040

EXHIBIT 2-C



A Regional Growth Forecast

Table 7: Subregional Employment Forecast

							Change 2015-2040	
Geography	2015	2020	2025	2030	2035	2040	Numeric	Percent
AMBAG Region	337,600	351,800	363,300	374,100	384,800	395,000	57,400	17%
Monterey County	203,550	211,799	218,203	224,207	230,212	235,822	32,272	16%
Carmel-By-The-Sea	2,935	2,998	3,096	3,195	3,289	3,378	443	15%
Del Rey Oaks	359	371	387	404	418	432	73	20%
Gonzales	4,477	4,963	5,064	5,166	5,278	5,371	894	20%
Greenfield	7,024	7,552	7,729	7,813	7,911	7,982	958	14%
King City	4,441	4,692	4,862	5,013	5,154	5,287	846	19%
Marina	6,340	6,649	6,886	7,140	7,373	7,620	1,280	20%
Monterey	34,030	34,434	35,970	37,405	38,814	40,173	6,143	18%
Pacific Grove	5,000	5,093	5,272	5,466	5,637	5,808	808	16%
Salinas	64,396	67,270	69,660	71,958	74,160	76,294	11,898	18%
Sand City	1,517	1,569	1,633	1,698	1,758	1,810	293	19%
Seaside	9,650	10,161	10,455	10,726	11,020	11,299	1,649	17%
Soledad	3,442	3,584	3,694	3,786	3,885	3,978	536	16%
Balance Of County	59,939	62,503	63,497	64,438	65,516	66,390	6,451	11%
San Benito County	18,000	19,240	19,957	20,617	21,264	21,913	3,913	22%
Hollister	13,082	14,035	14,608	15,132	15,650	16,172	3,090	24%
San Juan Bautista	559	591	615	639	662	685	126	23%
Balance Of County	4,359	4,614	4,734	4,846	4,951	5,056	697	16%
Santa Cruz County	116,050	120,761	125,141	129,275	133,324	137,265	21,215	18%
Capitola	7,062	7,199	7,464	7,727	7,979	8,228	1,166	17%
Santa Cruz	40,986	43,090	44,647	46,153	47,616	49,085	8,099	20%
Scotts Valley	7,475	7,612	7,820	8,004	8,180	8,349	874	12%
Watsonville	22,644	23,482	24,382	25,200	26,008	26,772	4,128	18%
Balance Of County	37,883	39,339	40,826	42,191	43,541	44,831	6,948	18%

Sources: Data for 2015 from InfoUSA and the California Employment Development Department. Forecast years were prepared by AMBAG and PRB.

Table 8: Subregional Population Forecast

Geography	2015	2020	2025	2030	2035	2040	Change 2015-2040 Numeric	Change 2015-2040 Percent
AMBAG Region	762,676	791,600	816,900	840,100	862,200	883,300	120,624	16%
Monterey County	432,637	448,211	462,678	476,588	489,451	501,751	69,114	16%
Carmel-By-The-Sea	3,824	3,833	3,843	3,857	3,869	3,876	52	1%
Del Rey Oaks	1,655	1,949	2,268	2,591	2,835	2,987	1,332	80%
Gonzales	8,411	8,827	10,592	13,006	15,942	18,756	10,345	123%
Greenfield	16,947	18,192	19,425	20,424	21,362	22,327	5,380	32%
King City	14,008	14,957	15,574	15,806	15,959	16,063	2,055	15%
Marina	20,496	23,470	26,188	28,515	29,554	30,510	10,014	49%
Marina balance	19,476	20,957	22,205	22,957	23,621	24,202	4,726	24%
CSUMB (portion)	1,020	2,513	3,983	5,558	5,933	6,308	5,288	518%
Monterey	28,576	28,726	29,328	29,881	30,460	30,976	2,400	8%
Monterey balance	24,572	24,722	25,324	25,877	26,456	26,972	2,400	10%
DLI & Naval Postgrad	4,004	4,004	4,004	4,004	4,004	4,004	0	0%
Pacific Grove	15,251	15,349	15,468	15,598	15,808	16,138	887	6%
Salinas	159,486	166,303	170,824	175,442	180,072	184,599	25,113	16%
Sand City	376	544	710	891	1,190	1,494	1,118	297%
Seaside	34,185	34,301	35,242	36,285	37,056	37,802	3,617	11%
Seaside balance	26,799	27,003	27,264	27,632	28,078	28,529	1,730	6%
Fort Ord (portion)	4,450	4,290	4,340	4,490	4,690	4,860	410	9%
CSUMB (portion)	2,936	3,008	3,638	4,163	4,288	4,413	1,477	86%
Soledad	24,809	26,399	27,534	28,285	29,021	29,805	4,996	20%
Soledad balance	16,510	18,100	19,235	19,986	20,722	21,506	4,996	30%
SVSP & CTF	8,299	8,299	8,299	8,299	8,299	8,299	0	0%
Balance Of County	104,613	105,361	105,682	106,007	106,323	106,418	1,805	2%
San Benito County	56,445	62,242	66,522	69,274	72,064	74,668	18,223	32%
Hollister	36,291	39,862	41,685	43,247	44,747	46,222	9,931	27%
San Juan Bautista	1,846	2,020	2,092	2,148	2,201	2,251	405	22%
Balance Of County	18,308	20,360	22,745	23,879	25,116	26,195	7,887	43%
Santa Cruz County	273,594	281,147	287,700	294,238	300,685	306,881	33,287	12%
Capitola	10,087	10,194	10,312	10,451	10,622	10,809	722	7%
Santa Cruz	63,830	68,381	72,091	75,571	79,027	82,266	18,436	29%
Santa Cruz balance	46,554	49,331	51,091	52,571	54,027	55,266	8,712	19%
UCSC	17,276	19,050	21,000	23,000	25,000	27,000	9,724	56%
Scotts Valley	12,073	12,145	12,214	12,282	12,348	12,418	345	3%
Watsonville	52,562	53,536	55,187	56,829	58,332	59,743	7,181	14%
Balance Of County	135,042	136,891	137,896	139,105	140,356	141,645	6,603	5%

Sources: Data for 2015 are from the U.S. Census Bureau and California Department of Finance. Forecast years were prepared by AMBAG and PRB.

EXHIBIT 2-D

Water Required to Meet Regional Housing Needs Allocation Plan: 2014-2023

Prepared by David J. Stoldt, General Manager, Monterey Peninsula Water Management District

2014-2023 RHNA Goals by Local Jurisdiction[1]

	Monterey	Pacific Grove	Carmel-by-the-Sea	Sand City	Seaside	Del Rey Oaks	TOTAL
Total Allocation	650	115	31	55	393	27	1,271
Very Low (24.1%)	157	28	7	13	95	7	307
Low (15.7%)	102	18	5	9	62	4	200
Moderate (18.2%)	119	21	6	10	72	5	233
Above Moderate (42%)	272	48	13	23	164	11	531

*: Does not include unincorporated Monterey County, which might be 15-25 additional AFY to full build-out

Estimated Water Required to Meet RHNA Goals on the Monterey Peninsula

	TOTAL RHNA GOAL	Water Required (AFY)[2]	Factor Used
Very Low (24.1%)	307	37	0.12 AFA (multi-family)
Low (15.7%)	200	24	0.12 AFA (multi-family)
Moderate (18.2%)	233	37	0.16 (half single family/half multi-family)
Above Moderate (42%)	531	92	0.173 (2/3 single family/1/3 multi-family)
Total Allocation/Water Required	**1,271**	**190**	

Over two similar 10-year periods, total water required for housing calculated with this methodology is 380 AF over twenty years, or 395 – 405 AF including estimate for unincorporated County (footnote above.)

[1] Association of Monterey Bay Area Governments. ND. "Regional Housing Needs Allocation Plan: 2014-2023." Available at: https://ambag.org/sites/default/files/documents/RHNP%202014-2023_Final_revised.pdf.

[2] Calculated based on the RHNA goals for the six cities in the Monterey Peninsula and MPWMD's water use factors for single family units (0.2 AFA) and multi-family units (0.12 AFA).

EXHIBIT 2-E

REGIONAL HOUSING NEEDS ALLOCATION PLAN: 2014 - 2023

ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

RHNA Allocation

Geography	Total Allocation	Very Low (24.1%)	Low (15.7%)	Moderate (18.2%)	Above Moderate (42.0%)
AMBAG Region	10,430	2,515	1,640	1,900	4,375
Monterey County	**7,386**	**1,781**	**1,160**	**1,346**	**3,099**
Carmel-By-The-Sea	31	7	5	6	13
Del Rey Oaks	27	7	4	5	11
Gonzales	293	71	46	53	123
Greenfield	363	87	57	66	153
King City	180	43	28	33	76
Marina	1,308	315	205	238	550
Monterey	650	157	102	119	272
Pacific Grove	115	28	18	21	48
Salinas	2,229	538	350	406	935
Sand City	55	13	9	10	23
Seaside	393	95	62	72	164
Soledad	191	46	30	35	80
Balance Of County	1,551	374	244	282	651
Santa Cruz County	**3,044**	**734**	**480**	**554**	**1,276**
Capitola	143	34	23	26	60
Santa Cruz	747	180	118	136	313
Scotts Valley	140	34	22	26	58
Watsonville	700	169	110	127	294
Balance Of County	1,314	317	207	239	551

EXHIBIT G

NEWS > LOCAL NEWS

Pure Water Monterey finishes key water tests, delivery date delayed again

Construction continues on the Pure Water Monterey advanced wastewater treatment plant in Marina on Wednesday. (Vern Fisher – Monterey Herald)

By JIM JOHNSON | jjohnson@montereyherald.com | Monterey Herald
PUBLISHED: January 10, 2020 at 3:11 pm | UPDATED: January 13, 2020 at 1:06 pm

Pure Water Monterey has completed critical water tests and is now poised to deliver a report to state regulators as part of an effort to seek the final thumbs-up before beginning to deliver water to the Seaside basin. But the recycled water project has again been delayed.

According to Monterey One Water general manager Paul Sciuto, the best-case scenario now is the much-anticipated $126 million recycled water project would be able to start delivering water to the basin by early February, about a month later than the most recent previous estimate and representing the latest in a series of delays that have stretched on for more than six months.

Meanwhile, California American Water and the agencies backing the project — Monterey One Water and the Monterey Peninsula Water Management District — have already exchanged letters this year regarding the ongoing project delay that Cal Am noted now includes two events of default on a water purchase agreement between the Peninsula's private water provider and the agencies.

Sciuto told The Herald on Friday that the Pure Water Monterey advanced water purification facility completed a required 14-day water quality test on Dec. 30, and also conducted a UV challenge test and received the lab test results this week. He said both tests took longer than expected and blamed the holiday period for the delay. While Sciuto said he had not yet seen the test results he assumed they were positive because he had not been told differently. The project consultant team is planning to write up a report to deliver to the state Division of Drinking Water by Wednesday next week, which would be followed by a state review expected to take about three weeks, Sciuto said.

According to Sciuto, the treatment plant has been operating since the 14-day water test began.

State regulators are now scheduled to visit on Feb. 4 for a final inspection, and Sciuto said the expectation is to begin delivering recycled water to the basin shortly afterward. After storing an initial 1,000 acre-feet in operational reserve in the basin, the project is expected to begin producing water for extraction and use by Peninsula customers in May, according to Sciuto, though he noted the entire timeline will depend on state regulators and other factors.

In its latest letter to the project backers dated Jan. 2, Cal Am President Rich Svindland pointed out that the project was contractually obligated to begin producing water for use by Jan. 1 and the failure to do so represented the second default on the water purchase agreement following the failure to meet the July 1, 2019, water delivery start date. Svindland noted that Cal Am is entitled to terminate the agreement due to the defaults but has chosen not to do so, and called the project an "essential component" of a new water supply for the Peninsula while noting its benefits including "diversification of water supply sources and more efficient use of our limited resources."

Svindland also noted that the agencies had failed to respond to Cal Am's Dec. 12 request for a project status update within two weeks.

In a reply letter sent Thursday, Sciuto and water management district general manager Dave Stoldt said the agencies appreciate Cal Am had not exercised its right to terminate the agreement, adding that "given the regional and diverse benefits of the project, in addition to how close the agency is to producing water to be injected into the Seaside Groundwater Basin, we respectfully request some additional leeway as we conclude the start-up activities and regulatory approval."

At the same time, the reply letter did not mention either a projected water delivery date nor when water could be available for extraction from the Seaside basin for use by customers.

The letter did acknowledge the project's capital cost has increased as a result of the delays, and that the total per acre-foot cost of water is still being determined. Last summer, the agencies acknowledged that the project water's cost was already expected to exceed the $1,760 per acre-foot "soft cost cap" in the water purchase agreement and would more likely cost about $2,000 per acre-foot.

The project is designed to provide up to 3,500-acre feet of water per year for use on the Peninsula, and is expected to allow Cal Am to cut its pumping from the Carmel River by a corresponding amount even before the state's river pumping cutback order takes full effect at the end of next year.

While the project is currently expected to supplement Cal Am's proposed desalination plant to provide a new Peninsula water supply, the agencies are also working on a proposed expansion of the project that could add up to 2,250 acre-feet of recycled water, which supporters have argued would be sufficient to replace the desal plant portion of the new water supply for at least for the next 20-plus years.

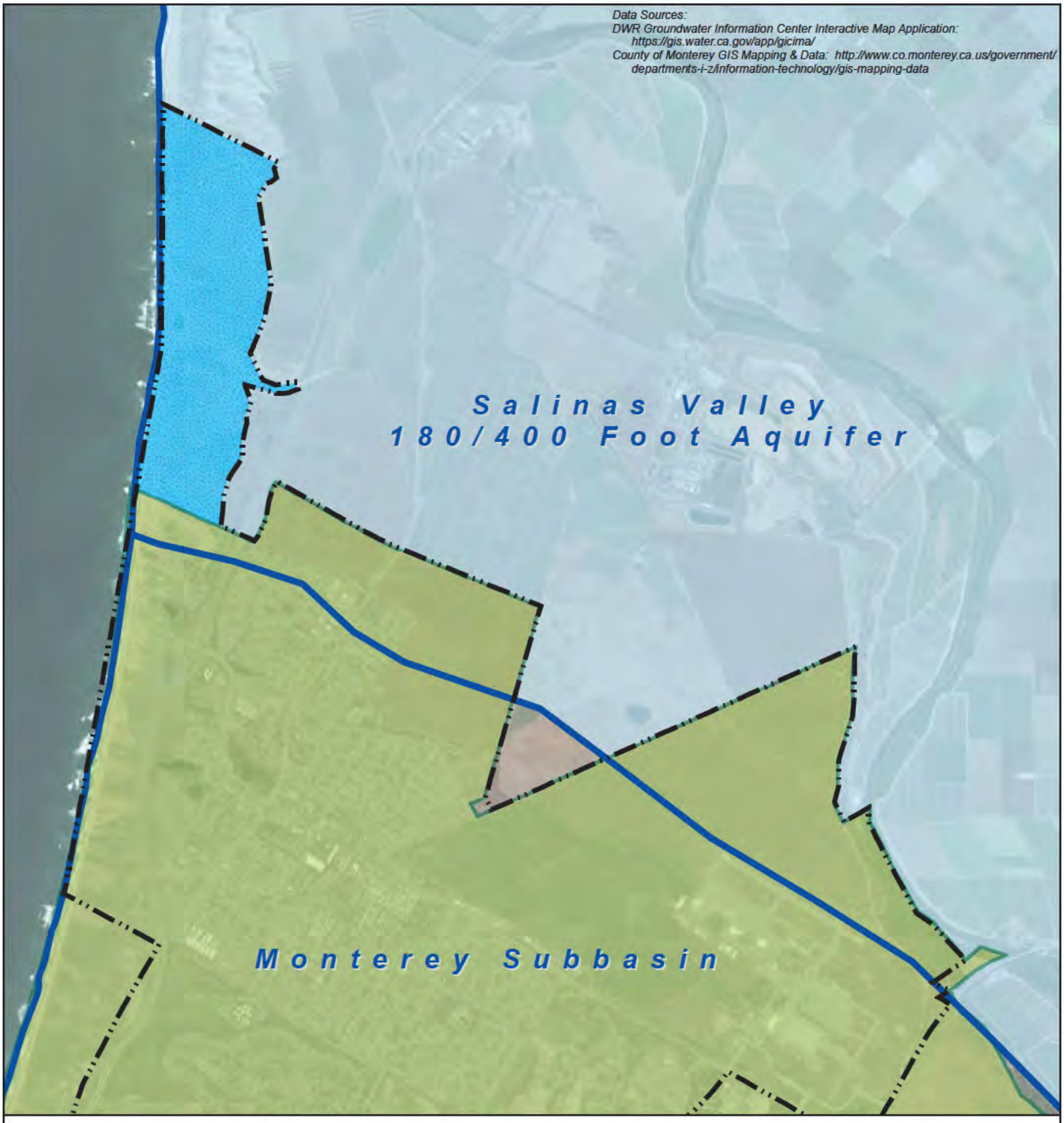
Tags: **Email Alert**, **Newsletter**

Jim Johnson

Jim Johnson covers Monterey County government and water issues for the Monterey Herald.

Follow Jim Johnson @JimJohnson_MCH

EXHIBIT H



Proposed City of Marina Groundwater Sustainability Agency

- Proposed City of Marina GSA (overlaps existing SVBGSA)
- Existing Salinas Valley Basin GSA
- Existing Marina Coast Water District GSA
- Bulletin 118 Groundwater Basin Boundary
- City of Marina Limits

4-503

N

0 1,500 3,000 Feet

1 inch = 3,000 feet

CITY OF MARINA

Map Date: April 2018

EXHIBIT I

Before the Board of Supervisors in and for the County of Monterey, State of California

Resolution No. 19-_____)
Approving the formation of a Groundwater Sustainability Agency Pursuant to Water Code Section 10724 for a portion of the 180/400 Foot Aquifer Subbasin, commonly referred to as the CEMEX property, and authorizing the filing of Groundwater Sustainability Agency Formation information and documents with the Department of Water Resources (DWR); and B) finding that this action is not a project under CEQA pursuant to section 15379 of Title 14 of the California Code of Regulations)

WHEREAS, on September 16, 2014, Governor Jerry Brown signed into law the Sustainable Groundwater Management Act ("SGMA"), which became effective on January 1, 2015, and which has been amended since that time;

WHEREAS, the intent of SGMA is to, among other things, provide for the sustainable management of medium and high-priority groundwater basins, to enhance local management of groundwater, to establish minimum standards for sustainable groundwater management, and to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater at the local level;

WHEREAS, SGMA requires the formation of one or more groundwater sustainability agencies ("GSAs") in a basin that will develop one or more groundwater sustainability plans ("GSPs") to sustainably manage groundwater in the basin;

WHEREAS, for any groundwater basin or subbasin designated pursuant to Water Code Section 10720.7 as being subject to critical conditions of overdraft, a GSP or GSPs must be adopted covering the entire basin or subbasin by January 31, 2020, to avoid being designated as a probationary basin by the State Water Resources Control Board ("SWRCB");

WHEREAS, if two or more GSAs attempt to form for the same area of a basin, the Department of Water Resources ("DWR") and/or the SWRCB may find that overlap exists in the area, and that any such unresolved overlap creates an unmanaged area;

WHEREAS, in situations where an unmanaged area exists in a basin after July 1, 2017, Water Code section 10724 authorizes the county within which the unmanaged area lies to become the GSA for the area;

WHEREAS, the area depicted in **Exhibit A** is located within the County of Monterey ("County") and includes Monterey County Assessor Parcel Numbers 203-011-001, 203-011-011, 203-011-019, 203-011-020;

WHEREAS, the area depicted in **Exhibit A** lies within the 180/400- Foot Aquifer Subbasin depicted on **Exhibit B** ("180/400 Subbasin");

WHEREAS, the 180/400 Subbasin is located within the County;

WHEREAS, the 180/400 Subbasin has been designated as being subject to critical conditions of overdraft;

WHEREAS, on April 27, 2017, DWR posted the Salinas Valley Basin Groundwater Sustainability Agency's ("SVBGSA") GSA notice to become the GSA for the entire 180/400 Subbasin (including the area depicted in **Exhibit A**), excluding a small area covered by a GSA notice filed by Marina Coast Water District ("MCWD") for which MCWD is the exclusive GSA;

WHEREAS, on April 26, 2018, DWR posted the City of Marina's ("Marina") GSA notice to become the GSA for the area depicted in **Exhibit A**;

WHEREAS, DWR takes the position that there is overlap in the 180/400 Subbasin for the area depicted in **Exhibit A** created by the GSA notice filed by the SVBGSA and the GSA notice filed by Marina, and that such overlap creates an unmanaged area;

WHERAS, the overlap was caused by Marina's late filed notice for the area in Exhibit A, and the overlap would not exist but for Marina's filing;

WHEREAS, SVBGSA is a joint powers authority and a separate legal entity from the County and while the County is a voting member of the SVBGSA, the County represents only one (1) vote out of the eleven (11) member Agency;

WHEREAS, the SVBGSA's action to establish its jurisdictional boundaries, including the area in Exhibit A, predated Marina's filing by approximately one (1) year; and, there is no evidence that either the County or SVBGSA intentionally caused the overlap.

WHEREAS, the SVBGSA and Marina have not resolved the overlap created by their filings for the area depicted in Exhibit A;

WHEREAS, the County finds that it is in the best interest of the County and the 180/400 Subbasin for the County to exercise its right under Water Code section 10724 to become the GSA for the area depicted in **Exhibit A** and for any other unmanaged areas in the 180/400 Subbasin;

WHEREAS, the SVBGSA has prepared a GSP for the entire 180/400 Subbasin, including the area depicted in **Exhibit A**, and is collecting fees under SGMA to fund SGMA implementation in the 180/400 Subbasin;

WHEREAS, after the SVBGSA GSP prepared for the 180/400 Subbasin, is finalized, the County intends to adopt this GSP for management of the area depicted in **Exhibit A**,

WHEREAS, the County intends to enter into an agreement with the SVBGSA wherein the County, as the GSA for the area depicted in **Exhibit A,** will delegate SGMA management of such areas to the SVBGSA pursuant to the SVBGSA's GSP for the entire 180/400 Subbasin;

WHEREAS, the County finds that the adoption of this Resolution, is not a project under Title 14 California Code of Regulations, section 15378 as they will not result in any reasonably foreseeable environmental impacts, and neither the County, nor any other permitting authority is divested of future discretionary review or approval of any use of the area depicted in Exhibit A as a result of these actions. Moreover, in the event that this action is determined to constitute a project under CEQA, the action(s) would be exempt from environmental review under CEQA pursuant to CEQA Guidelines 15061(b)(3), 15307, 15308 and Water Code section 10728.6.

WHEREAS, the County noticed a public hearing as required by SGMA and Government Code section 6066 on _____, 2019, and _____, 2019;

WHEREAS, the County held a public hearing as required by SGMA on December 11, 2019 to consider becoming the GSA for the area depicted in Exhibit A

NOW, THEREFORE, BE IT RESOLVED, by the Board of Supervisors of the County of Monterey, as follows:

Section 1. The Board hereby finds and determines that the foregoing recitals are true and correct.

Section 2. The County hereby elects pursuant to Water Code section 10724 to be the GSA for the area of the 180/400 Subbasin depicted in **Exhibit A**, which is incorporated herein.

Section 3. The CAO or his designee is hereby authorized and directed to file a notice of formation of GSA with DWR.

Section 4. The CAO or his designee is hereby authorized and directed to submit the notice of adoption of the proposed Resolution and all information required by the Sustainable Groundwater Management Act, including but not limited to, all information required under Water Code sections 10723.8, and 10724, to DWR, and to support the development and maintenance of an interested persons list as described in Water Code section 10723.4 and a list of interested parties as described in Water Code section 10723.8(a)(4).

Section 5. Staff is authorized and directed to take any such additional actions that may be

necessary and appropriate to effectuate the County's decision to be the GSA for the area of the 180/400 Subbasin depicted in **Exhibit A**.

Section 6. The County finds that the adoption of this Resolution, is not a project under Title 14 California Code of Regulations, section 15378 as they will not result in any reasonably foreseeable environmental impacts, and neither the County, nor any other permitting authority is divested of future discretionary review or approval of any use of the area depicted in Exhibit A as a result of these actions. Moreover, in the event that this action is determined to constitute a project under CEQA, the action(s) would be exempt from environmental review under CEQA pursuant to CEQA Guidelines 15061(b)(3), 15307, 15308 and Water Code section 10728.6.

Section 7. This Resolution shall take effect immediately upon its adoption.

PASSED AND ADOPTED on this ___th/rd day of _____ 2019, by the following vote,

to wit: AYES:

NOES:

ABSENT:

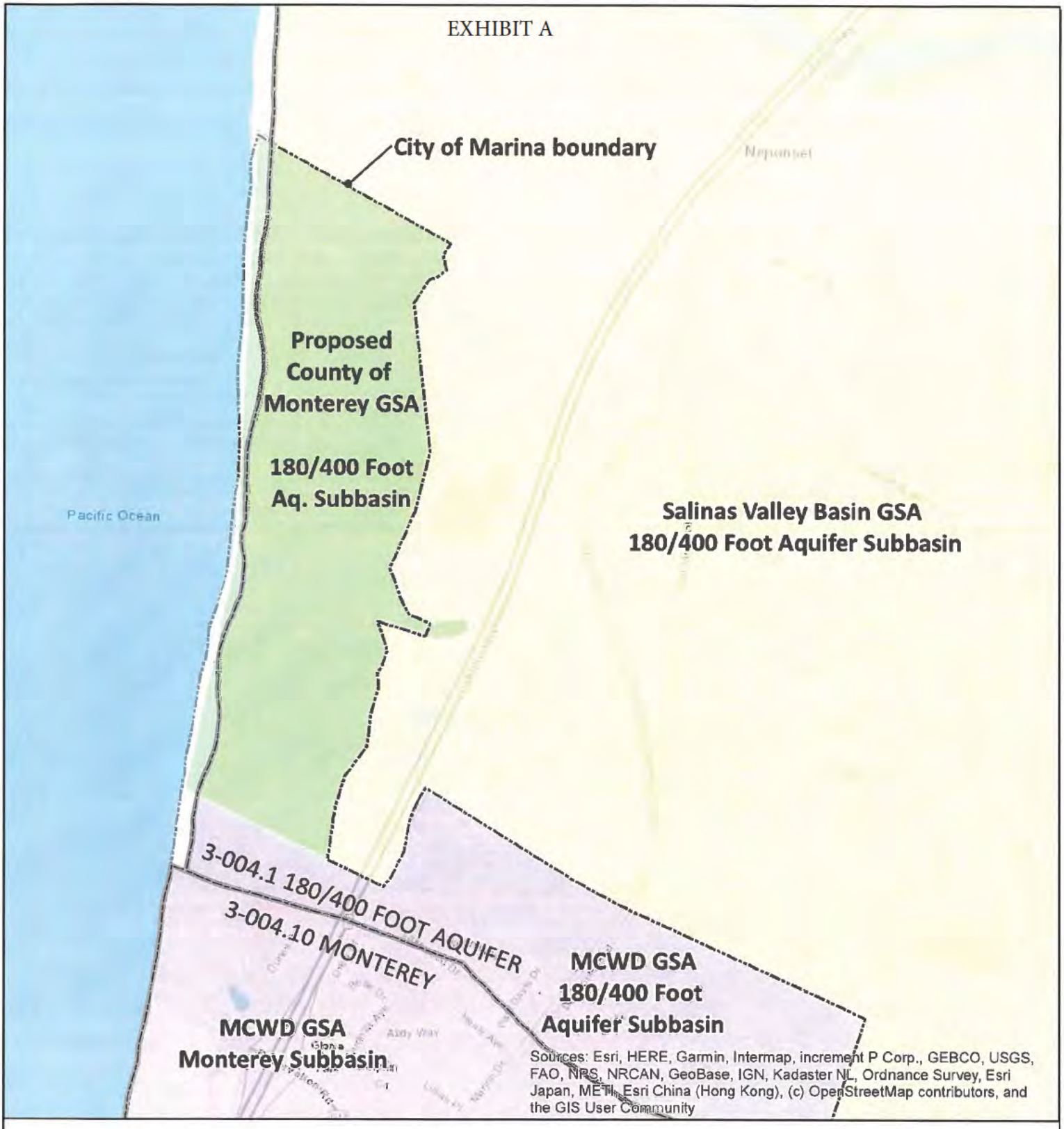
I, Valerie Ralph, Clerk of the Board of Supervisors of the County of Monterey, State of California, hereby certify that the foregoing is a true copy of an original order of said Board of Supervisors duly made and entered in the minutes thereof at page_of Minute Book_____, on_ _____.

Dated:

Valerie Ralph, Clerk of the Board of Supervisors
County of Monterey, State of California

By:_____
Deputy

EXHIBIT A



Proposed County of Monterey GSA

- Groundwater Basin Boundary (DWR B118)
- Marina City Limits
- Proposed County of Monterey GSA
- Marina Coast Water District GSA
- Salinas Valley Basin GSA

N

0 0.125 0.25 0.5 Miles

1:20,000

Map date: November 25, 2019

4-509

EXHIBIT J

CALIFORNIA DEPARTMENT OF WATER RESOURCES
SUSTAINABLE GROUNDWATER MANAGEMENT OFFICE
901 P Street, Room 313-B | Sacramento, CA 95814 | P.O. Box 942836 | Sacramento, CA 94236-0001

November 5, 2019

Charles J. McKee
Monterey County Administrative Officer
168 West Alisal St., 3rd Floor
Salinas, Calif. 93901-5792

Dear Mr. McKee,

This is in response to your letter of October 9, 2019, in which you raised several issues related to a possible assumption by Monterey County of unmanaged area in the 180/400 Foot Aquifer subbasin. We have paraphrased questions to which the Department is able to respond as follows:

> **May the County become the Groundwater Sustainability Agency (GSA) for an area that is unmanaged due to overlap that was created in part by SVBGSA of which it is a member?**
>
> **May the County become the GSA for some of the unmanaged area within the basin, or must it become the GSA for all unmanaged areas?**
>
> **Would the County immediately become the exclusive GSA for any area for which it provided notice, or would the County only become exclusive after a 90-day period?**

Our response below does not address other issues discussed in the letter, including methods of adoption of the Groundwater Sustainability Plan (GSP) or a possible agreement between the County and the Salinas Valley Basin GSA regarding management of the 450-acre parcel within the City of Marina referred to as the CEMEX property. As we indicated in a phone conversation on October 21, 2019, these are separate from questions related to GSA formation and the resolution of overlap and should be addressed by the local agencies. Please bear in mind, however, that submitted GSP's must purport to cover the entire basin and demonstrate that the legal authority necessary to implement the GSP exists.

May the County become the GSA for an area that is unmanaged due to overlap that was created in part by SVBGSA of which it is a member?

The Department believes that Monterey County can exercise the authority granted by Water Code Section 10724 to become the GSA for an area that is unmanaged due to overlap, provided that the County did not cause the overlap.

If an area within a high- or medium-priority basin is not within the management area of a GSA, Water Code Section 10724 presumes the county within which that unmanaged area lies will be the GSA for that area. Section 10724 specifies that if a county has notified the Department of its intent to be the GSA for unmanaged areas of a basin within its jurisdiction, those areas will not be subject to the groundwater reporting requirements of Water Code Section 5200 et seq. As such, Section 10724 appears designed to prompt counties to serve as the "backstop" to prevent the existence of unmanaged areas that would be required to report groundwater extractions after June 30, 2017. Although the law clearly covers situations in which no other agency has formed a GSA for part of the basin, unmanaged areas may be created as a result of overlap pursuant to Section 10723.8, and the Department understands Section 10724 to allow a county to take responsibility for those areas when appropriate. However, the Department determined that it would be inappropriate to accept a Section 10724 notice from a county that had deliberately created the overlap that led to the existence of an unmanaged area with the purpose of doing so, and simply waited out other actual or potentially overlapping agencies. But this narrow exception does not apply if the county is not the cause of the overlap.

Thus far, twenty-two counties have filed fifty-eight separate GSA notices, in many cases claiming areas that would otherwise have been unmanaged but doing so before the 2017 deadline. However, only two counties relied on Section 10724. One declared itself to be the GSA for unmanaged areas no other GSA had claimed, the other claimed areas left unmanaged due to overlap. In the second case, the local agencies that filed overlapping notices support the county's action. No county has yet sought to use Section 10724 to form a GSA against the wishes of agencies within their jurisdiction.

Although the Department does not recognize as valid a Section 10724 notice from a county to become the GSA for an unmanaged area when the county itself deliberately prevented the area from being managed by filing an overlapping GSA notice, your letter indicates that County staff do not believe that the County was responsible for the overlap. Information supporting that contention should be made part of the official findings and included in the resolution submitted to the Department. The Department requests that the County provide information related to the decision-making role of the County as part of the SBVGSA, and the intent of the SBVGSA in filing the notice that resulted in overlap.

May the County become the GSA for some of the unmanaged area within the basin, or must it become the GSA for all unmanaged areas?

The Department agrees with the County that there is no requirement to become the GSA for all unmanaged areas in a basin. Section 10724 presumes that a county will be the GSA for all unmanaged areas in a high- or medium-priority basin, but nothing in the law specifies that a county is required to form a GSA for all of the area for which it is presumed to be the GSA. Furthermore, the county must still elect to become the GSA and notify the Department of its decision. Section 10724 thus allows a county to serve as the GSA for all unmanaged area in a basin within its jurisdiction or none, and

nothing in the law appears to prevent the county from managing some of that area. As a result, the Department agrees that the County need not become the GSA for the entire 180/400 Foot Aquifer subbasin. However, the Department requests that the County indicate which areas of the subbasin for which it does not intend to become a GSA, in accord with Section 10724(b).

Would the County immediately become the exclusive GSA for any area for which it provided notice, or would the County only become exclusive after a 90-day period?

If the County decides to become the GSA for an unmanaged area, the Department will post that notice upon determining that the notice is complete and that the County has demonstrated that it did not cause the overlap creating the unmanaged area. Upon posting, the Department will immediately categorize the GSA as exclusive. Water Code Section 10723.8 establishes a 90-day window after the initial submission of a GSA notice during which time other agencies may file overlapping notices. The Department does not believe the 90-day period to apply in certain circumstances, as when an agency that has been deemed exclusive pursuant to Water Code Section 10723 notifies the Department of its intention to serve as the GSA. Because no other agency is eligible to overlap the area of an exclusive GSA the 90-day waiting period served no purpose, and so the Department posts such notices upon determining that they are complete and immediately identifies the GSA as exclusive. Likewise, when a county files a notice pursuant to Water Code Section 10724 to serve as the GSA for an unmanaged area after June 30, 2017, the Department practice has been to immediately declare the GSA exclusive. The Department adopted that practice on the assumption that counties would be taking responsibility for areas in which no other agency had any interest, but the same logic applies for notices filed in areas that are unmanaged as a result of the overlapping GSA notices of other entities.

If you have any questions, please contact me at (916) 653-4781.

Sincerely,

Taryn Ravazzini
Deputy Director

cc: Monterey County Board of Supervisors
SVBGSA Board of Directors
Gary Peterson, SVBGSA GM
Layne Long, City Manager, City of Marina
Wendy Strimling, SVBGSA Counsel
Brian Briggs, Monterey County Deputy County Counsel
Robert Donlon, Ellis & Schneider
Eileen Sobeck, State Water Resources Control Board

EXHIBIT K

EXHIBIT 2-D

Water Required to Meet Regional Housing Needs Allocation Plan: 2014-2023

Prepared by David J. Stoldt, General Manager, Monterey Peninsula Water Management District

2014-2023 RHNA Goals by Local Jurisdiction[1]

	Monterey	Pacific Grove	Carmel-by-the-Sea	Sand City	Seaside	Del Rey Oaks	TOTAL
Total Allocation	650	115	31	55	393	27	1,271
Very Low (24.1%)	157	28	7	13	95	7	307
Low (15.7%)	102	18	5	9	62	4	200
Moderate (18.2%)	119	21	6	10	72	5	233
Above Moderate (42%)	272	48	13	23	164	11	531

*: Does not include unincorporated Monterey County, which might be 15-25 additional AFY to full build-out

Estimated Water Required to Meet RHNA Goals on the Monterey Peninsula

	TOTAL RHNA GOAL	Water Required (AFY)[2]	Factor Used
Very Low (24.1%)	307	37	0.12 AFA (multi-family)
Low (15.7%)	200	24	0.12 AFA (multi-family)
Moderate (18.2%)	233	37	0.16 (half single family/half multi-family)
Above Moderate (42%)	531	92	0.173 (2/3 single family/1/3 multi-family)
Total Allocation/Water Required	**1,271**	**190**	

Over two similar 10-year periods, total water required for housing calculated with this methodology is 380 AF over twenty years, or 395 – 405 AF including estimate for unincorporated County (footnote above.)

[1] Association of Monterey Bay Area Governments. ND. "Regional Housing Needs Allocation Plan: 2014-2023." Available at: https://ambag.org/sites/default/files/documents/RHNP%202014-2023_Final_revised.pdf.

[2] Calculated based on the RHNA goals for the six cities in the Monterey Peninsula and MPWMD's water use factors for single family units (0.2 AFA) and multi-family units (0.12 AFA).

EXHIBIT L

Appendix B rev

Source Water Assumptions Memorandum

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Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS

3 Quail Run Circle, Suite 101
Salinas, CA 93907-2348
831-883-4848
FAX 831-758-6328
asterbenz@swsv.com

MEMORANDUM

TO:	Bob Holden, MRWPCA Larry Hampson, MPWMD	DATE:	March 26, 2015 Updated Sept. 23, 2015
CC:	Alison Imamura, Denise Duffy & Assoc.		
FROM:	Andrew Sterbenz, PE	JOB #:	MRWP.01.14
SUBJECT:	Pure Water Monterey Groundwater Replenishment Project – Proposed Source Water Availability, Yield, and Use		

The purpose of this memorandum is to summarize the source water availability and yield estimates for the Pure Water Monterey Groundwater Replenishment Project (Proposed Project), to explain the seasonal storage yield estimates, and to provide the proposed maximum and typical (or normal) water use estimates for the Proposed Project. The Proposed Project will develop various source waters and convey them to the MRWPCA Regional Treatment Plant (RTP) where they will undergo primary and secondary treatment with the current municipal wastewater flows, and then undergo Advanced Water Treatment before being conveyed for injection in the Seaside Groundwater Basin. Source waters conveyed to the RTP which are not required for injection into the Seaside Basin will undergo tertiary treatment at the Salinas Valley Reclamation Plant (SVRP) and be used to increase the recycled water supply provided to the Castroville Seawater Intrusion Project (CSIP).

A number of technical documents were prepared to analyze and confirm available source supplies for the Proposed Project. Source waters for the Proposed Project include new surface water diversions, agricultural wash water, urban stormwater runoff and unused secondary-treated effluent from the RTP which would otherwise be discharged to the ocean as further described, below. The source water availability studies that have been used as the basis for estimating yield are cited throughout this report. These reports and studies include:

1. Schaaf & Wheeler, Reclamation Ditch Yield Study, March 2015
2. Schaaf & Wheeler, Blanco Drain Yield Study, December 2014
3. Data on Source Water Estimates provided by Bob Holden, MRWPCA, February 2014
4. Todd Groundwater, *Memorandum: Pure Water Monterey Groundwater Replenishment Project: Impacts of Changes in Percolation at the Salinas Industrial Wastewater Treatment Facility on Groundwater and the Salinas River,* February 2015
5. Schaaf & Wheeler, *Groundwater Replenishment Project, Salinas River Inflow Impacts,* February 2015
6. Schaaf & Wheeler, *Groundwater Replenishment Project, Urban Runoff Capture at Lake El Estero,* April 2014
7. Data from *Monterey County Water Recycling Projects/Salinas Valley Water Project/Salinas River Diversion Facility Update,* MCWRA Board Packet, February 24, 2014

Among the Proposed Project's objectives is to provide high quality replacement water to allow California American Water Company (CalAm) to extract 3,500 acre-feet per year (AFY) more water from the

Seaside Basin for delivery to its customers in the Monterey District service area and reduce Carmel River system water use by an equivalent amount. To meet this objective, the Proposed Project would include features that would create a reliable source of water supply by using source waters described below to produce purified recycled water using existing secondary treatment processes and a new Advanced Water Treatment (AWT) Facility at the MRWPCA Regional Treatment Plant. After treatment by the AWT Facility, the purified recycled water would be conveyed to the Seaside Groundwater Basin for subsurface injection using a series of shallow and deep wells. In the Seaside Groundwater Basin, the treated water would mix with the groundwater present in the aquifers and be stored for future urban use. CalAm would use existing wells and improved potable water supply distribution facilities to extract and distribute the water produced by the Proposed Project, enabling CalAm to reduce its diversions from the Carmel River system by this same amount.

Another purpose of the Proposed Project is to provide additional water to the Regional Treatment Plant that could be recycled at the existing tertiary treatment facility (the Salinas Valley Reclamation Plant) and used for crop irrigation using the CSIP system. The Salinas Valley Reclamation Plant produces tertiary-treated, disinfected recycled water for agricultural irrigation within the CSIP service area. Municipal wastewater and certain urban dry weather runoff diversions treated at the Regional Treatment Plant are currently the only sources of supply for the Salinas Valley Reclamation Plant. Municipal wastewater flows have declined in recent years due to aggressive water conservation efforts by the MRWPCA member entities. The new sources of water supply developed for the GWR Project would increase supply available at the Regional Treatment Plant for use by the Salinas Valley Reclamation Plant during the peak irrigation season (April to September). In addition, the Proposed Project would include Salinas Valley Reclamation Plant modifications to allow tertiary treatment at lower daily production rates, facilitating increased use of recycled water during the late fall, winter and early spring months when demand drops below 5 million gallons per day (MGD).

Source waters for the Proposed Project include new surface water diversions, agricultural wash water, urban stormwater runoff and unused secondary-treated effluent from the RTP which would otherwise be discharged to the ocean.

Agricultural Wash Water

The City of Salinas owns and operates an industrial wastewater collection and treatment system, which serves approximately 25 agricultural processing and related businesses located in the southeast corner of the City. This wastewater collection system is separate from the Salinas municipal sewage collection system. These flows, referred to as agricultural wash water, are conveyed in a network of gravity pipelines to the Salinas Industrial Wastewater Treatment Facility (SIWTF), where it is treated using aeration and disposed of using evaporation and percolation. These flows would be redirected into the municipal wastewater system for conveyance to the RTP as a source of supply for the GWR Project.

Annual inflows to the SIWTF were analyzed and a projection of year 2017 flows was prepared by the MRWPCA[1], as shown in the first row of Table 1, below. Recorded monthly inflows for calendar years 2007-2013 were tabulated and the annual averaged plotted (see Figure 1). A linear trend line was used to estimate future flows, and the projected annual average of 3.37 mgd in 2017 was used to scale the 2013 monthly inflow values. As expected, the recorded agricultural wash water flows in 2014 (included on Figure 1) fell on the trend line.

The SITWF consists of an aeration basin, three storage/percolation ponds covering 108 acres, drying beds coving 67 acres and three rapid infiltration basins covering 1.3 acres. To assess the effects of diverting

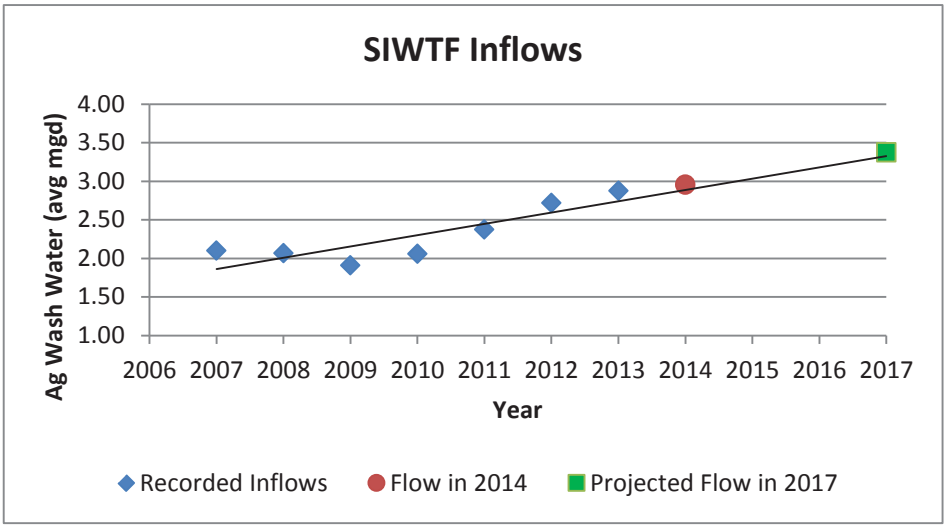
[1] Estimation by Bob Holden, MRWPCA, February 2014

flows treated at the SIWTF, Todd Groundwater[2] estimated the percentages of flows disposed as evaporation, percolation from the main ponds, and disposal through the drying beds and rapid infiltration basins (RIBs). These values are show in Table 1, below, and are used in the estimation of seasonal storage losses discussed later in this memorandum. The State Water Resources Control Board has clarified that this diversion will require a wastewater change petition for the SIWTF.

Table 1: Agricultural Wash Water (acre-feet)

Source \ Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Ag. Wash Water - 2017	156	158	201	307	311	391	435	444	367	410	329	223	3,732
Rainfall	26.4	23.7	21.3	11.1	3.0	0.8	0.2	0.4	1.7	5.7	14.2	23.7	132
Evaporation	-12	-16	-29	-41	-46	-52	-45	-43	-32	-28	-15	-12	-372
Percolation from ponds 1, 2, and 3	-143	-129	-143	-138	-143	-138	-143	-143	-138	-143	-138	-143	-1,680
RIBs/Drying Beds	-28	-37	-51	-139	-125	-202	-247	-258	-198	-245	-190	-92	-1,812

Figure 1: Agricultural Wash Water Projection



Urban Stormwater Runoff

Urban stormwater runoff from two communities would be captured and used for the Proposed Project. Stormwater and urban runoff from the southern portion of the City of Salinas is pumped to the Salinas River (the rest of the City drains into the Reclamation Ditch system). Schaaf & Wheeler[3] estimated the amount of stormwater flow which could be diverted to the municipal wastewater system or the SIWTF for use in the Proposed Project. The estimated average annual yield is provided in Table 2, below.

[2] Todd Groundwater, *Memorandum: Pure Water Monterey Groundwater Replenishment Project: Impacts of Changes in Percolation at the Salinas Industrial Wastewater Treatment Facility on Groundwater and the Salinas River*, February 2015

[3] Schaaf & Wheeler, *Groundwater Replenishment Project, Salinas River Inflow Impacts*, February 2015

Stormwater and urban runoff from 2,400 acres within the City of Monterey flow to Lake El Estero, which is maintained as part of El Estero Park. Excess stormwater is pumped to a discharge point on Del Monte State Beach. Schaaf & Wheeler[4] estimated the amount of stormwater flow which could be diverted to the municipal wastewater system for use in the Proposed Project. The estimated average annual yield is provided in Table 2. Diverting from Lake El Estero will require a water rights permit.

Table 2: Urban Runoff Sources (acre-feet)

Source \ Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
South Salinas	52	41	34	16	2	0	0	0	2	8	23	47	225
Lake El Estero	24	15	14	5	1	0	0	0	1	4	10	13	87

Surface Water Rights for Stream Flows

The Proposed Project would use three new surface water diversion sites to provide new source waters for recycling. The first two are from the Reclamation Ditch system, which has a drainage area of 157 square-miles. The Reclamation Ditch carries seasonal stormwater flows, urban runoff from the City of Salinas and agricultural tile drainage flows. Diversion points are proposed on the Reclamation Ditch at Davis Road, and on the Tembladero Slough at Castroville, based on the proximity of the channel to existing wastewater conveyance facilities. Schaaf & Wheeler[5] estimated the yield from this system, assuming a maximum 6 cfs diversion rate at Davis Road, maximum 3 cfs diversion rate at Castroville, and leaving an in-stream flow of 2 cfs at Davis Road in the winter, 0.7 cfs in the summer, and 1 cfs at Castroville year-round. The average annual yields from these diversions are shown in Table 3, below.

The third diversion is from the Blanco Drain, just above its confluence with the Salinas River. The Blanco Drain conveys seasonal stormwater flows and agricultural tile drainage from 6,400 acres. Schaaf & Wheeler[6] estimated the yield from this system, assuming a maximum diversion rate of 6 cfs, as shown in Table 3.

All of these diversions would require water rights permits from the State Water Resources Control Board (SWRCB), as would the Lake El Estero diversion discussed under Urban Stormwater Runoff.

Table 3: Surface Water Sources (acre-feet)

Source \ Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Reclamation Ditch	162	143	165	162	97	132	129	121	80	87	98	146	1,522
Tembladero Slough	131	117	142	154	145	67	66	62	41	45	50	115	1,135
Blanco Drain	209	223	246	252	225	274	277	244	184	168	133	185	2,620

Secondary Treated Effluent

Secondary treated municipal wastewater from the MRWPCA Regional Treatment Plant (RTP) is used as influent to the Salinas Valley Reclamation Plant (SVRP), which produces recycled water for the CSIP. Average recycled water production for the period 2009-2013 was 12,955 AFY. Average wastewater inflow to the RTP during that period was 21,764 AFY. An average of 8,809 AFY of treated wastewater in excess of what was delivered to the CSIP was discharged to the Monterey Bay through the MRWPCA's ocean outfall. The average monthly inflows and outflows from the RTP are shown in Table 4, below.

[4] Schaaf & Wheeler, *Groundwater Replenishment Project, Urban Runoff Capture at Lake El Estero,* April 2014

[5] Schaaf & Wheeler, *Reclamation Ditch Yield Study*, March 2015

[6] Schaaf & Wheeler, *Blanco Drain Yield Study*, December 2014

Table 4: Average RTP Inflows and Outflows, 2009-2013[7] (acre-feet)

Source/ Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
RTP Inflows	1,798	1,678	1,867	1,796	1,850	1,799	1,893	1,888	1,813	1,844	1,762	1,776	21,764
SVRP Deliveries	13	459	726	1,376	1,763	1,750	1,866	1,854	1,698	984	448	18	12,955
Ocean Outfall	1,785	1,219	1,141	420	88	49	27	34	114	859	1,314	1,759	8,809

The assumption that future CSIP recycled water demands would continue consistent with the recycled water use in this time period is considered conservative, given that this period included one drought year (2013) and that the Salinas River Diversion Facility (SRDF) operated for only four of the five years (the SRDF was not placed into operation until the year 2010).

CSIP use of all water sources are shown in Table 5, below. Under current conditions, CSIP wells are used to meet peak day demands that exceed the available recycled and river water supplies, and also to meet small demands below the lower production limit of the SVRP. The CSIP groundwater use conservatively includes one year when the SRDF didn't operate (similar to a multi-year drought condition such as occurred in 2014 and 2015).

Table 5: Average CSIP Use by Source, 2009-2013[8] (acre-feet)

Source/ Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
CSIP-Wells	448	195	304	412	324	606	519	504	300	75	233	352	4,271
SRDF-River	0	0	0	100	561	819	886	739	266	56	0	0	3,427
SVRP-Recycled	5	483	733	1,383	1,738	1,748	1,843	1,853	1,698	984	452	18	12,939

Note: The SVRP numerical difference between Tables 4 and 5 is due to rounding differences in the source reports.

Proposed Project and CSIP Demands

The Proposed Project goal is to produce 3,500 AFY of highly treated (or purified recycled) water for injection in the Seaside Groundwater Basin to allow CalAm to extract the same amount for treatment and distribution to their customers in their Monterey District service area. To produce that volume, approximately 4,320 AFY of source water inflows are required at the AWT Facility. During wet or normal water years, an additional 200 AFY may be produced and injected in the winter months to develop a drought reserve. This would require an additional 248 AFY of source water. The monthly distribution of this demand is shown in Table 6, below.

Source flows not required for the Proposed Project would be made available to create additional recycled water for the CSIP. Table 6 includes an estimate of new source flows in excess of the AWT inflow needs, assuming seasonal storage of agricultural wash water (discussed below), year-round diversion of surface water, and AWT Facility demands for a normal year building a drought reserve.

[7] Data provided by Bob Holden, MRWPCA, February 2014.

[8] Data from MCWRA *Monterey County Water Recycling Projects/Salinas Valley Water Project/Salinas River Diversion Facility Update*, February, 2014

The CSIP system distributes recycled water, Salinas River water and well water from the Salinas Valley Groundwater Basin to agricultural irrigation demands in the northern Salinas Valley. Under existing conditions, well water is used to meet peak summer demands in excess of the supply available from the other sources, and also to meet low demands below the minimum production capacity of the SVRP (currently 5 MGD). As part of the Proposed Project, the SVRP would be modified to meet recycled water demands as low as 0.5 MGD. This modification would allow the MCWRA to reduce the use of the CSIP wells, particularly in the winter months when secondary treated effluent is available. The average CSIP well use for the period 2009-2013[9] is shown in Table 6. This provides a reasonable estimate of how much additional recycled water could be used by CSIP in average year conditions.

Table 6: Monthly GWR and CSIP Use of New Supplies (acre-feet)

Use \ Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Proposed Project Demand	367	331	367	355	367	355	367	367	355	367	355	367	4,320
Drought Reserve	42	38	42							42	41	42	248
New Supplies in excess of AWT[10]	117	129	158	541	514	709	540	504	320	0	0	50	3,582
CSIP Wells Use	448	195	304	440	324	606	476	504	300	76	233	354	4,260

Seasonal Storage at the SIWTF

To maximize the available supply during the peak irrigation months, the main ponds at the SIWTF would be used for seasonal storage of agricultural wash water and Salinas' urban stormwater. The analysis of source water yield and proposed diversions assumes that during the months of October through March, these flows would be directed to the SIWTF. In addition, for the source water assumptions, the use of the drying beds and infiltration basins would be discontinued, so the only losses would be evaporation and percolation from the main ponds. During the months of April through September, these flows would be diverted to the municipal wastewater collection system for recycling and injection into the Seaside Basin and tertiary treatment for CSIP. Stored water would also be pumped from the SIWTF ponds to the municipal wastewater collection system.

Results of Source Water Availability Analysis

In the attached Table 7: Source Water Analysis, the existing inflows to the RTP are entered in the top line under Sources. The monthly storage balance in the SIWTF ponds is calculated for a normal water year. The inflow, rainfall, evaporation and percolation from Table 1 are shown in rows 1, 3, 4 and 5, respectively. Urban Runoff from South Salinas is carried from Table 2 into line 2. Assuming the ponds are empty at the start of October, they would remain wet for nine months a year, maintaining the operational characteristics of the SIWTF and enabling continued contributions of seepage water to Salinas River flows and recharge to the Salinas Valley Groundwater Basin[11]. The net yield of agricultural wash water and Salinas stormwater for the Proposed Project is shown on line 8. Other source flows from Tables 2 and 3 are shown on lines 9 through 12, and the net new supply is shown on line 13. Under the Demands heading are included the average SVRP deliveries to the CSIP and the average groundwater use by the CSIP, as well as the AWT Facility feed-water demands. Line 21 shows the projected net supply to

[9] Data from *Monterey County Water Recycling Projects/Salinas Valley Water Project/Salinas River Diversion Facility Update,* MCWRA Board Packet, February 24, 2014

[10] Excess supplies are calculated as the total of new water conveyed to the RTP (not including secondary treated effluent) minus the AWT Facility demand

[11] Full diversion of flows was analyzed in the report: *Groundwater Replenishment Project, Salinas River Inflow Impacts*

the CSIP (sum of existing and augmented flows), and Line 26 shows the supply for the Proposed Project while developing a drought reserve. Assuming the agencies divert all of the water shown on this table (i..e, under an assumption that the Proposed Project would divert the maximum available source waters), there would still be approximately 6,300 AFY of secondary-treated municipal wastewater discharged through the ocean outfall (line 28) during normal rainfall years.

Diversion and Use Scenarios

The MRWPCA has a goal of reusing 100% of the secondary treated municipal effluent at the RTP (i.e., having no discharge to the ocean), and operating the system as efficiently as possible to reduce the energy demand. Therefore, rather than divert all waters as described in the last section and in Table 7, the Proposed Project would prioritize the use of secondary treated effluent above the diversion of surface water sources, to the extent possible, which would minimize adverse environmental impacts and maximize system efficiency. The proposed priority of source usage would be:

1. Unused secondary treated effluent
2. Agricultural wash water
3. Salinas storm water
4. Reclamation Ditch
5. Blanco Drain
6. Tembladero Slough
7. Lake El Estero

In the attached scenario tables (Tables 8 through 10), the use of the various sources is reduced to just meet the demands of the AWT Facility and offset the current CSIP groundwater use in the wet season (OCT-MAR). During the dry season (APR-SEP), surface water diversions are shown meeting the monthly AWT Facility demands and providing extra flow for the CSIP, such that the annual use of new sources exceeds the annual AWT Facility demands. In practice, the surface water diversions could be reduced or increased based on the actual CSIP system demands, up to the total yields shown in Table 7. The demand scenarios considered are:

Table 8: A normal water year while developing a drought reserve (AWT Facility producing 3,700 AFY)
Table 9: A normal water year with a full drought reserve (AWT Facility producing 3,500 AFY)
Table 10: A drought year starting with a full reserve (AWT Facility producing 2,700 AFY)

In the normal year with a full reserve scenario, surface water diversions were only required from the Reclamation Ditch and the Blanco Drain. Surface water diversions were only required between April and October in both normal year scenarios.

In the drought year scenario, the stormwater and wastewater availability were reduced. Urban runoff from Salinas was assumed to be one-third of the historic average. Rainfall on the SIWTF ponds used the 2013 rainfall record (critically dry year). The unused secondary treated effluent values from 2013 were used, also the historic low. The CSIP groundwater well use from OCT 2013 to SEP 2014 was used as the CSIP augmentation target. Under this scenario, surface water diversions were required from the Reclamation Ditch, Blanco Drain and Tembladero Slough, and the diversions were needed from March through November.

References:

City of Salinas, Industrial Wastewater Treatment Facility, 2013 Annual Report, January 2014

Monterey County Water Resources Agency, *Monterey County Water Recycling Projects/Salinas Valley Water Project/Salinas River Diversion Facility Update*, MCWRA Board Packet, February 24, 2014

Monterey County Water Resources Agency, *Salinas Valley Water Project, Annual Flow Monitoring Reports for Water Years 2010 – 2013.*

Monterey County Water Resources Agency, Application to Appropriate Water, April 2014.

Monterey Peninsula Water Management District*, Source Water Spreadsheet Analysis, March, 2015.*

Monterey Peninsula Water Management District*, Industrial Ponds Percolation and Evaporation Technical Memorandum 2015-01,* July 2015.

Schaaf & Wheeler, *Groundwater Replenishment Project, Urban Runoff Capture at Lake El Estero*, April 2014

Schaaf & Wheeler, *Blanco Drain Yield Study*, December 2014

Schaaf & Wheeler, *Groundwater Replenishment Project, Salinas River Inflow Impacts*, February 2015

Schaaf & Wheeler, *Reclamation Ditch Yield Study*, March 2015

Todd Groundwater, *Memorandum: Pure Water Monterey Groundwater Replenishment Project: Impacts of Changes in Percolation at the Salinas Industrial Wastewater Treatment Facility on Groundwater and the Salinas River*, February 2015

Table 7: Source Water Analysis for the Pure Water Monterey Groundwater Replenishment Project

Full Surface Water Yields, Normal Water Year, Building a Drought Reserve

All facilities built [1] - average water year conditions - all flows in acre-feet **7/14/2015**

	SOURCES	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
	Existing RTP Inflows (Average 2009 to 2013)	**1,798**	**1,678**	**1,867**	**1,796**	**1,850**	**1,799**	**1,893**	**1,888**	**1,813**	**1,844**	**1,762**	**1,776**	**21,764**
	New Source Water													
	City of Salinas													
1	Salinas Agricultural Wash Water [2]	156	158	201	307	311	391	435	444	367	410	329	223	3,732
	Agricultural Wash Water (AWW) to Ponds [3]	*156*	*158*	*201*	*0*	*0*	*0*	*0*	*0*	*0*	*410*	*329*	*223*	*1,477*
	AWW directly to RTP	*0*	*0*	*0*	*307*	*311*	*391*	*435*	*444*	*367*	*0*	*0*	*0*	*2,255*
2	Salinas Urban Storm Water Runoff [4]	52	41	34	16	2	0	0	0	2	8	23	47	225
	Urban runoff to ponds	*52*	*41*	*34*	*0*	*0*	*0*	*0*	*0*	*0*	*8*	*23*	*47*	*205*
	Urban runoff to RTP	*0*	*0*	*0*	*16*	*2*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*20*
3	Rainfall (on SIWTF, 121 acre pond area) [5]	26	24	21	11	3	1	0	0	2	6	14	24	132
4	Evaporation (from SIWTF, 121 acre pond area) [6]	(12)	(16)	(29)	(41)	(46)	(52)				(28)	(15)	(12)	(251)
5	Percolation [7]	(143)	(129)	(143)	(138)	(143)	(138)				(143)	(138)	(143)	(1,257)
6	SIWTF pond storage balance [8]	684	763	847	647	362	0	0	0	0	253	466	605	
7	Recovery of flow from SIWTF storage ponds to RTP	0	0	0	32	100	172	0	0	0	0	0	0	304
8	AWW and Salinas Runoff to RTP	0	0	0	355	413	563	435	444	369	0	0	0	2,579
	Water Rights Applications to SWRCB													
9	Blanco Drain [9]	209	223	246	252	225	274	277	244	184	168	133	185	2,620
10	Reclamation Ditch at Davis Road [10]	162	143	165	162	97	132	129	121	80	87	98	146	1,522
11	Tembladero Slough at Castroville [11]	131	117	142	154	145	67	66	62	41	45	50	115	1,135
12	City of Monterey - Diversion at Lake El Estero	24	15	14	5	1	0	0	0	1	4	10	13	87
13	**Subtotal New Waters Available**	**526**	**498**	**567**	**928**	**881**	**1,036**	**907**	**871**	**675**	**304**	**291**	**459**	**7,943**
	Total Projected Water Supply	**2,324**	**2,176**	**2,434**	**2,724**	**2,731**	**2,835**	**2,800**	**2,759**	**2,488**	**2,147**	**2,053**	**2,235**	**29,707**

	DEMANDS	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
	Average SVRP deliveries to CSIP (2009-2013)	13	459	726	1,376	1,763	1,750	1,866	1,854	1,698	984	448	18	12,955
14	FIVE YEAR AVERAGE CSIP AREA WELL WATER USE (2009-2013)	448	195	304	412	324	606	519	504	300	75	233	352	4,272
	TOTAL CSIP Demand	**461**	**654**	**1,030**	**1,788**	**2,087**	**2,356**	**2,385**	**2,358**	**1,998**	**1,059**	**681**	**370**	**17,227**
16	FEEDWATER AMOUNT AT RTP TO GWR PROJECT AWTF	367	331	367	355	367	355	367	367	355	367	355	367	4,320
17	FEEDWATER TO ESTABLISH CSIP AREA DROUGHT RESERVE (200 AFY AWTF PRODUCT WATER) [14]	42	38	42							42	41	42	248
18	**TOTAL TO GWR ADVANCED WATER TREATMENT FACILITY**	**409**	**369**	**409**	**355**	**367**	**355**	**367**	**367**	**355**	**409**	**396**	**409**	**4,568**
	Total Projected Water Demand	**870**	**1,024**	**1,439**	**2,143**	**2,454**	**2,711**	**2,752**	**2,725**	**2,353**	**1,468**	**1,077**	**779**	**21,795**

	Use of Source Water	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
19	Secondary effluent to SVRP for CSIP [12]	461	654	1,030	1,788	1,850	1,799	1,893	1,888	1,813	1,059	681	370	15,287
20	New sources available to CSIP [13]	0	0	0	573	514	681	540	504	320	0	0	0	3,132
21	**Total Supply to CSIP**	**461**	**654**	**1,030**	**2,361**	**2,364**	**2,480**	**2,433**	**2,392**	**2,133**	**1,059**	**681**	**370**	**18,419**
	Net CSIP Increase													**5,463**
23	Surface waters at RTP to AWT	409	369	409	0	0	0	0	0	0	304	291	409	2,191
24	Secondary effluent to AWT	0	0	0	0	0	0	0	0	0	105	105	0	210
25	AWW and Salinas urban runoff to AWT	0	0	0	355	367	355	367	367	355	0	0	0	2,166
26	**Feedwater to AWT**	**409**	**369**	**409**	**355**	**367**	**355**	**367**	**367**	**355**	**409**	**396**	**409**	**4,567**
	Subtotal- all waters (including secondary effluent)	**870**	**1,024**	**1,439**	**2,716**	**2,731**	**2,835**	**2,800**	**2,759**	**2,488**	**1,468**	**1,077**	**779**	**22,986**

27	FIVE YEAR AVERAGE WASTE WATER EFFLUENT TO OCEAN OUTFALL (2009-2013)[15]	1,785	1,219	1,141	420	88	49	27	34	114	859	1,314	1,759	8,809
28	WASTE WATER EFFLUENT TO OCEAN OUTFALL WITH PROPOSED DIVERSIONS TO CSIP/AWT/RUWAP [16]	1,337	1,024	837	8	0	0	0	0	0	679	976	1,407	6,267
29	NEW SUPPLIES IN EXCESS OF AWT DEMANDS [17]	117	129	158	573	514	681	540	504	320	(105)	(105)	50	3,375
30	AWT BRINE TO OCEAN OUTFALL	78	70	78	67	70	67	70	70	67	78	75	78	868

Notes

1 Presumes all facilities associated with diversions are completed.

2 Table 2-1, p. 5, Schaaf & Wheeler Consulting Engineers. Revised Draft, Groundwater Replenishment Project, Salinas River Inflow Impacts, Prepared for Denise Duffy & Associates, February 2015.

3 Volume of effluent from City of Salinas agricultural wash water to be directed into ponds 1,2,3, and the aeration pond for storage.

4 Average monthly flow from Revised Draft, Groundwater Replenishment Project, Salinas River Inflow Impacts, Prepared for Denise Duffy & Associates, February 2015.

5 Rainfall from Revised Draft, Groundwater Replenishment Project, Salinas River Inflow Impacts, Prepared for Denise Duffy & Associates, February 2015. Pond area presumed to be Ponds 1,2, 3 + Aeration lagoon. No rainfall/evaporation or storage assigned to drying beds.

6 Table 3, Todd Groundwater, Draft Memorandum, Pure Water Monterey Groundwater Replenishment Project Impacts of Changes in Percolation at the Salinas Industrial Wastewater Treatment Facility on Groundwater and the Salinas River, February 11, 2015.

7 Table 4, Ibid. Also confirmed in MPWMD Industrial Ponds Percolation and Evaporation Technical Memorandum 2015-01, July 2015.

8 Ponds 1,2,3 and aeration basin hold up to 1,065 acre-feet (one foot of freeboard). If flow to ponds would exceed the maximum volume, it is presumed that excess flow can be diverted to the RIBs or drying beds or flow can be diverted to the RTP. Presume that pond storage goes to zero sometime during the year (shown here starting in July).

9 Max diversion 6 cfs diversion. See REVISED DRAFT BLANCO DRAIN YIELD STUDY, Schaaf and Wheeler, December 2014.

10 Max. diversion 6 cfs. See REVISED DRAFT RECLAMATION DITCH YIELD STUDY, Schaaf and Wheeler, March 2015. Note that flow figures shown here are a combination of flow estimates in the S&W analysis made for the 2 cfs instream requirement Jan-May and 1 cfs instream requirement for June-Dec.

11 Max. diversion 3 cfs. See REVISED DRAFT RECLAMATION DITCH YIELD STUDY, Schaaf and Wheeler, March 2015. Figures shown here are the difference between the combined Davis Road/TS diverison with Seasonal Bypass. This presumes the preference is to remove flow at Davis Road first, rather than bypass flow to Tembaldero Slough.

12 Unused secondary effluent waste water currently discharged to Monterey Bay would be used in conjunction with improvements at the RTP to provide additional flow to the Salinas Valley Reclamation Project (SVRP) during periods of low demand (i.e., < 5 mgd).

13 New source waters not used by AWT in the summer months will be available to SVRP for CSIP.

14 A drought reserve of up to 1,000 AF would be created over five years by producing 200 AFY additional product water from the GWR Project AWTF during winter months and storing the water in the Seaside Basin. This would establish a "water bank" that the CSIP can draw on in droughts. The drought reserve would allow flow at the RTP for the GWR Project to be temporarily reduced during critically dry periods, thus freeing up more of the newly available inflows to the RTP to be sent to the CSIP area. Extraction from the Seaside Basin would continue at the average rate to supply the Monterey Peninsula.

15 Average monthly RTP discharge, 2009-2013 (reported by MRWPCA).

16 Secondary treated municpal effluent not used for SVRP/CSIP or the AWT.

17 Excess is calculated as Line 13 minus Line 23

Table 8: Source Water Analysis for the Pure Water Monterey Groundwater Replenishment Project

Diversion Patterns for a Normal Water Year, Building a Drought Reserve

All facilities built [1] - average water year conditions - all flows in acre-feet 7/15/2015

	SOURCES	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
	Existing RTP Inflows (Average 2009 to 2013)	**1,798**	**1,678**	**1,867**	**1,796**	**1,850**	**1,799**	**1,893**	**1,888**	**1,813**	**1,844**	**1,762**	**1,776**	**21,764**
	New Source Water													
	City of Salinas													
1	Salinas Agricultural Wash Water [2]	156	158	201	307	311	391	435	444	367	410	329	223	3,732
	Agricultural Wash Water (AWW) to Ponds [3]	*156*	*158*	*201*	*0*	*0*	*0*	*0*	*0*	*0*	*410*	*329*	*223*	*1,477*
	AWW directly to RTP	*0*	*0*	*0*	*307*	*311*	*391*	*435*	*444*	*367*	*0*	*0*	*0*	*2,255*
2	Salinas Urban Storm Water Runoff [4]	52	41	34	16	2	0	0	0	2	8	23	47	225
	Urban runoff to ponds	*52*	*41*	*34*	*0*	*0*	*0*	*0*	*0*	*0*	*8*	*23*	*47*	*205*
	Urban runoff to RTP	*0*	*0*	*0*	*16*	*2*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*20*
3	Rainfall (on SIWTF, 121 acre pond area) [5]	26	24	21	11	3	1	0	0	2	6	14	24	132
4	Evaporation (from SIWTF, 121 acre pond area) [6]	(12)	(16)	(29)	(41)	(46)	(52)				(28)	(15)	(12)	(251)
5	Percolation [7]	(143)	(129)	(143)	(138)	(143)	(138)				(143)	(138)	(143)	(1,257)
6	SIWTF pond storage balance [8]	684	763	847	647	362	0	0	0	0	253	466	605	
7	Recovery of flow from SIWTF storage ponds to RTP	0	0	0	32	100	172	0	0	0	0	0	0	304
8	AWW and Salinas Runoff to RTP	0	0	0	355	413	563	435	444	369	0	0	0	2,579
	Water Rights Applications to SWRCB													
9	Blanco Drain [9]	0	0	0	252	225	274	277	244	184	0	0	0	1,456
10	Reclamation Ditch at Davis Road [10]	0	0	0	162	97	132	129	121	80	0	0	0	721
11	Tembladero Slough at Castroville [11]	0	0	0	154	145	67	66	62	41	0	0	0	535
12	City of Monterey - Diversion at Lake El Estero	0	0	0	0	0	0	0	0	0	0	0	0	0
13	**Subtotal New Waters Available**	**0**	**0**	**0**	**923**	**880**	**1,036**	**907**	**871**	**674**	**0**	**0**	**0**	**5,291**
	Total Projected Water Supply	**1,798**	**1,678**	**1,867**	**2,719**	**2,730**	**2,835**	**2,800**	**2,759**	**2,487**	**1,844**	**1,762**	**1,776**	**27,055**

	DEMANDS	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
	Average SVRP deliveries to CSIP (2009-2013)	13	459	726	1,376	1,763	1,750	1,866	1,854	1,698	984	448	18	12,955
14	FIVE YEAR AVERAGE CSIP AREA WELL WATER USE (2009-2013)	448	195	304	412	324	606	519	504	300	75	233	352	4,272
	TOTAL CSIP Demand	**461**	**654**	**1,030**	**1,788**	**2,087**	**2,356**	**2,385**	**2,358**	**1,998**	**1,059**	**681**	**370**	**17,227**
16	FEEDWATER AMOUNT AT RTP TO GWR PROJECT AWTF	367	331	367	355	367	355	367	367	355	367	355	367	4,320
17	FEEDWATER TO ESTABLISH CSIP AREA DROUGHT RESERVE (200 AFY AWTF PRODUCT WATER) [14]	42	38	42							42	41	42	248
18	**TOTAL TO GWR ADVANCED WATER TREATMENT FACILITY**	**409**	**369**	**409**	**355**	**367**	**355**	**367**	**367**	**355**	**409**	**396**	**409**	**4,568**
	Total Projected Water Demand	**870**	**1,024**	**1,439**	**2,143**	**2,454**	**2,711**	**2,752**	**2,725**	**2,353**	**1,468**	**1,077**	**779**	**21,795**

	Use of Source Water	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
19	Secondary effluent to SVRP for CSIP [12]	461	654	1,030	1,788	1,850	1,799	1,893	1,888	1,813	1,059	681	370	15,287
20	New sources available to CSIP [13]	0	0	0	568	513	681	540	504	319	0	0	0	3,125
21	**Total Supply to CSIP**	**461**	**654**	**1,030**	**2,356**	**2,363**	**2,480**	**2,433**	**2,392**	**2,132**	**1,059**	**681**	**370**	**18,412**
	Net CSIP Increase													**5,456**
23	Surface waters at RTP to AWT	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Secondary effluent to AWT	409	369	409	0	0	0	0	0	0	409	396	409	2,401
25	AWW and Salinas urban runoff to AWT	0	0	0	355	367	355	367	367	355	0	0	0	2,166
26	**Feedwater to AWT**	**409**	**369**	**409**	**355**	**367**	**355**	**367**	**367**	**355**	**409**	**396**	**409**	**4,567**
	Subtotal- all waters (including secondary effluent)	**870**	**1,024**	**1,439**	**2,711**	**2,730**	**2,835**	**2,800**	**2,759**	**2,487**	**1,468**	**1,077**	**779**	**22,979**

27	FIVE YEAR AVERAGE WASTE WATER EFFLUENT TO OCEAN OUTFALL (2009-2013)[15]	1,785	1,219	1,141	420	88	49	27	34	114	859	1,314	1,759	8,809
28	WASTE WATER EFFLUENT TO OCEAN OUTFALL WITH PROPOSED DIVERSIONS TO CSIP/AWT/RUWAP [16]	928	655	428	8	0	0	0	0	0	375	685	998	4,076
29	NEW SUPPLIES IN EXCESS OF AWT DEMANDS [17]	(409)	(369)	(409)	568	513	681	540	504	319	(409)	(396)	(409)	724
30	AWT BRINE TO OCEAN OUTFALL	78	70	78	67	70	67	70	70	67	78	75	78	868

Notes

1 Presumes all facilities associated with diversions are completed.

2 Table 2-1, p. 5, Schaaf & Wheeler Consulting Engineers. Revised Draft, Groundwater Replenishment Project, Salinas River Inflow Impacts, Prepared for Denise Duffy & Associates, February 2015.

3 Volume of effluent from City of Salinas agricultural wash water to be directed into ponds 1,2,3, and the aeration pond for storage.

4 Average monthly flow from Revised Draft, Groundwater Replenishment Project, Salinas River Inflow Impacts, Prepared for Denise Duffy & Associates, February 2015.

5 Rainfall from Revised Draft, Groundwater Replenishment Project, Salinas River Inflow Impacts, Prepared for Denise Duffy & Associates, February 2015. Pond area presumed to be Ponds 1,2, 3 + Aeration lagoon. No rainfall/evaporation or storage assigned to drying beds.

6 Table 3, Todd Groundwater, Draft Memorandum, Pure Water Monterey Groundwater Replenishment Project Impacts of Changes in Percolation at the Salinas Industrial Wastewater Treatment Facility on Groundwater and the Salinas River, February 11, 2015.

7 Table 4, Ibid. Also confirmed in MPWMD Industrial Ponds Percolation and Evaporation Technical Memorandum 2015-01, July 2015.

8 Ponds 1,2,3 and aeration basin hold up to 1,065 acre-feet (one foot of freeboard). If flow to ponds would exceed the maximum volume, it is presumed that excess flow can be diverted to the RIBs or drying beds or flow can be diverted to the RTP. Presume that pond storage goes to zero sometime during the year (shown here starting in July).

9 Max diversion 6 cfs diversion. See REVISED DRAFT BLANCO DRAIN YIELD STUDY, Schaaf and Wheeler, December 2014.

10 Max. diversion 6 cfs. See REVISED DRAFT RECLAMATION DITCH YIELD STUDY, Schaaf and Wheeler, March 2015. Note that flow figures shown here are a combination of flow estimates in the S&W analysis made for the 2 cfs instream requirement Jan-May and 1 cfs instream requirement for June-Dec.

11 Max. diversion 3 cfs. See REVISED DRAFT RECLAMATION DITCH YIELD STUDY, Schaaf and Wheeler, March 2015. Figures shown here are the difference between the combined Davis Road/TS diverison with Seasonal Bypass. This presumes the preference is to remove flow at Davis Road first, rather than bypass flow to Tembaldero Slough.

12 Unused secondary effluent waste water currently discharged to Monterey Bay would be used in conjunction with improvements at the RTP to provide additional flow to the Salinas Valley Reclamation Project (SVRP) during periods of low demand (i.e., < 5 mgd).

13 New source waters not used by AWT in the summer months will be available to SVRP for CSIP.

14 A drought reserve of up to 1,000 AF would be created over five years by producing 200 AFY additional product water from the GWR Project AWTF during winter months and storing the water in the Seaside Basin. This would establish a "water bank" that the CSIP can draw on in droughts. The drought reserve would allow flow at the RTP for the GWR Project to be temporarily reduced during critically dry periods, thus freeing up more of the newly available inflows to the RTP to be sent to the CSIP area. Extraction from the Seaside Basin would continue at the average rate to supply the Monterey Peninsula.

15 Average monthly RTP discharge, 2009-2013 (reported by MRWPCA).

16 Secondary treated municpal effluent not used for SVRP/CSIP or the AWT.

17 Excess is calculated as Line 13 minus Line 23

Table 9: Source Water Analysis for the Pure Water Monterey Groundwater Replenishment Project

Diversion Pattern for a Normal Water Year when the Drought Reserve is Full

All facilities built [1] - average water year conditions - all flows in acre-feet 7/15/2015

	SOURCES	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
	Existing RTP Inflows (Average 2009 to 2013)	**1,798**	**1,678**	**1,867**	**1,796**	**1,850**	**1,799**	**1,893**	**1,888**	**1,813**	**1,844**	**1,762**	**1,776**	**21,764**
	New Source Water													
	City of Salinas													
1	Salinas Agricultural Wash Water [2]	156	158	201	307	311	391	435	444	367	410	329	223	3,732
	Agricultural Wash Water (AWW) to Ponds [3]	*156*	*158*	*201*	*0*	*0*	*0*	*0*	*0*	*0*	*410*	*329*	*223*	*1,477*
	AWW directly to RTP	*0*	*0*	*0*	*307*	*311*	*391*	*435*	*444*	*367*	*0*	*0*	*0*	*2,255*
2	Salinas Urban Storm Water Runoff [4]	52	41	34	16	2	0	0	0	2	8	23	47	225
	Urban runoff to ponds	*52*	*41*	*34*	*0*	*0*	*0*	*0*	*0*	*0*	*8*	*23*	*47*	*205*
	Urban runoff to RTP	*0*	*0*	*0*	*16*	*2*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*20*
3	Rainfall (on SIWTF, 121 acre pond area) [5]	26	24	21	11	3	1	0	0	2	6	14	24	132
4	Evaporation (from SIWTF, 121 acre pond area) [6]	(12)	(16)	(29)	(41)	(46)	(52)				(28)	(15)	(12)	(251)
5	Percolation [7]	(143)	(129)	(143)	(138)	(143)	(138)				(143)	(138)	(143)	(1,257)
6	SIWTF pond storage balance [8]	684	763	847	647	362	0	0	0	0	253	466	605	
7	Recovery of flow from SIWTF storage ponds to RTP	0	0	0	32	100	172	0	0	0	0	0	0	304
8	AWW and Salinas Runoff to RTP	0	0	0	355	413	563	435	444	369	0	0	0	2,579
	Water Rights Applications to SWRCB													
9	Blanco Drain [9]	0	0	0	252	225	274	277	244	184	0	0	0	1,456
10	Reclamation Ditch at Davis Road [10]	0	0	0	162	97	132	129	121	80	0	0	0	721
11	Tembladero Slough at Castroville [11]	0	0	0	0	0	0	0	0	0	0	0	0	0
12	City of Monterey - Diversion at Lake El Estero	0	0	0	0	0	0	0	0	0	0	0	0	0
13	**Subtotal New Waters Available**	**0**	**0**	**0**	**769**	**735**	**969**	**841**	**809**	**633**	**0**	**0**	**0**	**4,756**
	Total Projected Water Supply	**1,798**	**1,678**	**1,867**	**2,565**	**2,585**	**2,768**	**2,734**	**2,697**	**2,446**	**1,844**	**1,762**	**1,776**	**26,520**

	DEMANDS	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
	Average SVRP deliveries to CSIP (2009-2013)	13	459	726	1,376	1,763	1,750	1,866	1,854	1,698	984	448	18	12,955
14	FIVE YEAR AVERAGE CSIP AREA WELL WATER USE (2009-2013)	448	195	304	412	324	606	519	504	300	75	233	352	4,272
	TOTAL CSIP Demand	**461**	**654**	**1,030**	**1,788**	**2,087**	**2,356**	**2,385**	**2,358**	**1,998**	**1,059**	**681**	**370**	**17,227**
16	FEEDWATER AMOUNT AT RTP TO GWR PROJECT AWTF	367	331	367	355	367	355	367	367	355	367	355	367	4,320
17	FEEDWATER TO ESTABLISH CSIP AREA DROUGHT RESERVE (200 AFY AWTF PRODUCT WATER) [14]	0	0	0							0	0	0	0
18	**TOTAL TO GWR ADVANCED WATER TREATMENT FACILITY**	**367**	**331**	**367**	**355**	**367**	**355**	**367**	**367**	**355**	**367**	**355**	**367**	**4,320**
	Total Projected Water Demand	**828**	**985**	**1,397**	**2,143**	**2,454**	**2,711**	**2,752**	**2,725**	**2,353**	**1,426**	**1,036**	**737**	**21,547**

	Use of Source Water	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
19	Secondary effluent to SVRP for CSIP [12]	461	654	1,030	1,788	1,850	1,799	1,893	1,888	1,813	1,059	681	370	15,287
20	New sources available to CSIP [13]	0	0	0	414	368	614	474	442	278	0	0	0	2,590
21	**Total Supply to CSIP**	**461**	**654**	**1,030**	**2,202**	**2,218**	**2,413**	**2,367**	**2,330**	**2,091**	**1,059**	**681**	**370**	**17,877**
	Net CSIP Increase													**4,921**
23	Surface waters at RTP to AWT	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Secondary effluent to AWT	367	331	367	0	0	0	0	0	0	367	355	367	2,154
25	AWW and Salinas urban runoff to AWT	0	0	0	355	367	355	367	367	355	0	0	0	2,166
26	**Feedwater to AWT**	**367**	**331**	**367**	**355**	**367**	**355**	**367**	**367**	**355**	**367**	**355**	**367**	**4,320**
	Subtotal- all waters (including secondary effluent)	**828**	**985**	**1,397**	**2,557**	**2,585**	**2,768**	**2,734**	**2,697**	**2,446**	**1,426**	**1,036**	**737**	**22,197**

27	FIVE YEAR AVERAGE WASTE WATER EFFLUENT TO OCEAN OUTFALL (2009-2013)[15]	1,785	1,219	1,141	420	88	49	27	34	114	859	1,314	1,759	8,809
28	WASTE WATER EFFLUENT TO OCEAN OUTFALL WITH PROPOSED DIVERSIONS TO CSIP/AWT/RUWAP [16]	970	693	470	8	0	0	0	0	0	417	726	1,040	4,323
29	NEW SUPPLIES IN EXCESS OF AWT DEMANDS [17]	(367)	(331)	(367)	414	368	614	474	442	278	(367)	(355)	(367)	436
30	AWT BRINE TO OCEAN OUTFALL	70	63	70	67	70	67	70	70	67	70	67	70	821

Notes

1 Presumes all facilities associated with diversions are completed.

2 Table 2-1, p. 5, Schaaf & Wheeler Consulting Engineers. Revised Draft, Groundwater Replenishment Project, Salinas River Inflow Impacts, Prepared for Denise Duffy & Associates, February 2015.

3 Volume of effluent from City of Salinas agricultural wash water to be directed into ponds 1,2,3, and the aeration pond for storage.

4 Average monthly flow from Revised Draft, Groundwater Replenishment Project, Salinas River Inflow Impacts, Prepared for Denise Duffy & Associates, February 2015.

5 Rainfall from Revised Draft, Groundwater Replenishment Project, Salinas River Inflow Impacts, Prepared for Denise Duffy & Associates, February 2015. Pond area presumed to be Ponds 1,2, 3 + Aeration lagoon. No rainfall/evaporation or storage assigned to drying beds.

6 Table 3, Todd Groundwater, Draft Memorandum, Pure Water Monterey Groundwater Replenishment Project Impacts of Changes in Percolation at the Salinas Industrial Wastewater Treatment Facility on Groundwater and the Salinas River, February 11, 2015.

7 Table 4, Ibid. Also confirmed in MPWMD Industrial Ponds Percolation and Evaporation Technical Memorandum 2015-01, July 2015.

8 Ponds 1,2,3 and aeration basin hold up to 1,065 acre-feet (one foot of freeboard). If flow to ponds would exceed the maximum volume, it is presumed that excess flow can be diverted to the RIBs or drying beds or flow can be diverted to the RTP. Presume that pond storage goes to zero sometime during the year (shown here starting in July).

9 Max diversion 6 cfs diversion. See REVISED DRAFT BLANCO DRAIN YIELD STUDY, Schaaf and Wheeler, December 2014.

10 Max. diversion 6 cfs. See REVISED DRAFT RECLAMATION DITCH YIELD STUDY, Schaaf and Wheeler, March 2015. Note that flow figures shown here are a combination of flow estimates in the S&W analysis made for the 2 cfs instream requirement Jan-May and 1 cfs instream requirement for June-Dec.

11 Max. diversion 3 cfs. See REVISED DRAFT RECLAMATION DITCH YIELD STUDY, Schaaf and Wheeler, March 2015. Figures shown here are the difference between the combined Davis Road/TS diverison with Seasonal Bypass. This presumes the preference is to remove flow at Davis Road first, rather than bypass flow to Tembaldero Slough.

12 Unused secondary effluent waste water currently discharged to Monterey Bay would be used in conjunction with improvements at the RTP to provide additional flow to the Salinas Valley Reclamation Project (SVRP) during periods of low demand (i.e., < 5 mgd).

13 New source waters not used by AWT in the summer months will be available to SVRP for CSIP.

14 A drought reserve of up to 1,000 AF would be created over five years by producing 200 AFY additional product water from the GWR Project AWTF during winter months and storing the water in the Seaside Basin. This would establish a "water bank" that the CSIP can draw on in droughts. The drought reserve would allow flow at the RTP for the GWR Project to be temporarily reduced during critically dry periods, thus freeing up more of the newly available inflows to the RTP to be sent to the CSIP area. Extraction from the Seaside Basin would continue at the average rate to supply the Monterey Peninsula.

15 Average monthly RTP discharge, 2009-2013 (reported by MRWPCA).

16 Secondary treated municpal effluent not used for SVRP/CSIP or the AWT.

17 Excess is calculated as Line 13 minus Line 23

Table 10: Source Water Analysis for the Pure Water Monterey Groundwater Replenishment Project

Diversion Pattern for a Drought Year Starting with a Full Reserve

All facilities built [1] - average water year conditions - all flows in acre-feet 7/15/2015

	SOURCES	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
	Minimum Year RTP Inflows (2013)	***1,725***	***1,494***	***1,645***	***1,657***	***1,722***	***1,675***	***1,748***	***1,773***	***1,715***	***1,690***	***1,634***	***1,612***	**20,090**
	New Source Water													
	City of Salinas													
1	Salinas Agricultural Wash Water [2]	156	158	201	307	311	391	435	444	367	410	329	223	3,732
	Agricultural Wash Water (AWW) to Ponds [3]	*156*	*158*	*201*	*0*	*0*	*0*	*0*	*0*	*0*	*410*	*329*	*223*	*1,477*
	AWW directly to RTP	*0*	*0*	*0*	*307*	*311*	*391*	*435*	*444*	*367*	*0*	*0*	*0*	*2,255*
2	Salinas Urban Storm Water Runoff [4]	17	14	11	5	1	0	0	0	1	3	8	16	76
	Urban runoff to ponds	*17*	*14*	*11*	*0*	*0*	*0*	*0*	*0*	*0*	*3*	*8*	*16*	*69*
	Urban runoff to RTP	*0*	*0*	*0*	*5*	*1*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*7*
3	Rainfall (on SIWTF, 121 acre pond area) [5]	11	6	4	3	0	0	0	0	1	2	5	4	36
4	Evaporation (from SIWTF, 121 acre pond area) [6]	(12)	(16)	(29)	(41)	(46)	(52)				(28)	(15)	(12)	(251)
5	Percolation [7]	(143)	(129)	(143)	(138)	(143)	(138)				(143)	(138)	(143)	(1,257)
6	SIWTF pond storage balance [8]	550	584	628	452	163	(27)	0	0	0	245	433	521	
7	Recovery of flow from SIWTF storage ponds to RTP	0	0	0	0	100	0	0	0	0	0	0	0	100
8	AWW and Salinas Runoff to RTP	0	0	0	312	412	391	435	444	368	0	0	0	2,362
	Water Rights Applications to SWRCB													
9	Blanco Drain [9]	0	0	246	252	225	274	277	244	184	168	133	0	2,003
10	Reclamation Ditch at Davis Road [10]	0	0	165	162	97	132	129	121	80	87	98	0	1,071
11	Tembladero Slough at Castroville [11]	0	0	142	154	145	67	66	62	41	45	50	0	772
12	City of Monterey - Diversion at Lake El Estero	0	0	0	0	0	0	0	0	0	0	0	0	0
13	**Subtotal New Waters Available**	**0**	**0**	**553**	**880**	**879**	**864**	**907**	**871**	**673**	**300**	**281**	**0**	**6,208**
	Total Projected Water Supply	**1,725**	**1,494**	**2,198**	**2,537**	**2,601**	**2,539**	**2,655**	**2,644**	**2,388**	**1,990**	**1,915**	**1,612**	**26,297**

	DEMANDS	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
	Max Year SVRP deliveries to CSIP (2013)	*0*	*692*	*1,558*	*1,669*	*1,799*	*1,675*	*1,786*	*1,803*	*1,725*	*1,548*	*1,127*	*88*	15,469
14	PEAK CSIP AREA WELL WATER USE (10/2013-09/2014)	*509*	*9*	*221*	*242*	*1,197*	*1,261*	*1,303*	*1,025*	*453*	*165*	*35*	*730*	7,150
	TOTAL CSIP Demand	**509**	**701**	**1,779**	**1,911**	**2,996**	**2,936**	**3,089**	**2,828**	**2,178**	**1,713**	**1,162**	**818**	**22,619**
16	FEEDWATER AMOUNT AT RTP TO GWR PROJECT AWTF	367	331	367	**133**	**137**	**133**	**137**	**137**	**133**	367	355	367	2,963
17	FEEDWATER TO ESTABLISH CSIP AREA DROUGHT RESERVE (200 AFY AWTF PRODUCT WATER) [14]	0	0	0							0	0	0	0
18	**TOTAL TO GWR ADVANCED WATER TREATMENT FACILITY**	**367**	**331**	**367**	**133**	**137**	**133**	**137**	**137**	**133**	**367**	**355**	**367**	**2,963**
	Total Projected Water Demand	**876**	**1,032**	**2,146**	**2,044**	**3,133**	**3,069**	**3,226**	**2,965**	**2,311**	**2,080**	**1,517**	**1,185**	**25,583**

	Use of Source Water	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
19	Secondary effluent to SVRP for CSIP [12]	509	701	1,645	1,657	1,722	1,675	1,748	1,773	1,715	1,623	1,162	818	16,747
20	New sources available to CSIP [13]	0	0	186	747	742	731	770	734	540	0	0	0	4,451
21	**Total Supply to CSIP**	**509**	**701**	**1,831**	**2,404**	**2,464**	**2,406**	**2,518**	**2,507**	**2,256**	**1,623**	**1,162**	**818**	**21,197**
	Net CSIP Increase													**5,728**
23	Surface waters at RTP to AWT	0	0	367	0	0	0	0	0	0	300	281	0	948
24	Secondary effluent to AWT	367	331	0	0	0	0	0	0	0	67	74	367	1,206
25	AWW and Salinas urban runoff to AWT	0	0	0	133	137	133	137	137	133	0	0	0	809
26	**Feedwater to AWT**	**367**	**331**	**367**	**133**	**137**	**133**	**137**	**137**	**133**	**367**	**355**	**367**	**2,963**
	Subtotal- all waters (including secondary effluent)	**876**	**1,032**	**2,198**	**2,537**	**2,601**	**2,539**	**2,655**	**2,644**	**2,388**	**1,990**	**1,517**	**1,185**	**24,161**
27	*DRY YEAR WASTEWATER EFFLUENT TO OCEAN OUTFALL (2013)* [15]	*1,725*	*802*	*87*	*0*	*0*	*0*	*0*	*0*	*0*	*142*	*507*	*1,607*	4,870
28	WASTE WATER EFFLUENT TO OCEAN OUTFALL WITH PROPOSED DIVERSIONS TO CSIP/AWT/RUWAP [16]	849	462	0	0	0	0	0	0	0	0	398	427	2,137
29	NEW SUPPLIES IN EXCESS OF AWT DEMANDS [17]	(367)	(331)	186	747	742	731	770	734	540	(67)	(74)	(367)	3,244
30	AWT BRINE TO OCEAN OUTFALL	70	63	70	25	26	25	26	26	25	70	67	70	563

Notes

1 Presumes all facilities associated with diversions are completed.

2 Table 2-1, p. 5, Schaaf & Wheeler Consulting Engineers. Revised Draft, Groundwater Replenishment Project, Salinas River Inflow Impacts, Prepared for Denise Duffy & Associates, February 2015.

3 Volume of effluent from City of Salinas agricultural wash water to be directed into ponds 1,2,3, and the aeration pond for storage.

4 Assume dry year at 1/3 the average monthly values from Revised Draft, Groundwater Replenishment Project, Salinas River Inflow Impacts, Prepared for Denise Duffy & Associates, February 2015.

5 Rainfall from Revised Draft, Groundwater Replenishment Project, Salinas River Inflow Impacts, Prepared for Denise Duffy & Associates, February 2015. Pond area presumed to be Ponds 1,2, 3 + Aeration lagoon. No rainfall/evaporation or storage assigned to drying beds.

6 Table 3, Todd Groundwater, Draft Memorandum, Pure Water Monterey Groundwater Replenishment Project Impacts of Changes in Percolation at the Salinas Industrial Wastewater Treatment Facility on Groundwater and the Salinas River, February 11, 2015.

7 Table 4, Ibid. Also confirmed in MPWMD Industrial Ponds Percolation and Evaporation Technical Memorandum 2015-01, July 2015.

8 Ponds 1,2,3 and aeration basin hold up to 1,065 acre-feet (one foot of freeboard). If flow to ponds would exceed the maximum volume, it is presumed that excess flow can be diverted to the RIBs or drying beds or flow can be diverted to the RTP. Presume that pond storage goes to zero sometime during the year (shown here starting in July).

9 Max diversion 6 cfs diversion. See REVISED DRAFT BLANCO DRAIN YIELD STUDY, Schaaf and Wheeler, December 2014.

10 Max. diversion 6 cfs. See REVISED DRAFT RECLAMATION DITCH YIELD STUDY, Schaaf and Wheeler, March 2015. Note that flow figures shown here are a combination of flow estimates in the S&W analysis made for the 2 cfs instream requirement Jan-May and 1 cfs instream requirement for June-Dec.

11 Max. diversion 3 cfs. See REVISED DRAFT RECLAMATION DITCH YIELD STUDY, Schaaf and Wheeler, March 2015. Figures shown here are the difference between the combined Davis Road/TS diverison with Seasonal Bypass. This presumes the preference is to remove flow at Davis Road first, rather than bypass flow to Tembaldero Slough.

12 Unused secondary effluent waste water currently discharged to Monterey Bay would be used in conjunction with improvements at the RTP to provide additional flow to the Salinas Valley Reclamation Project (SVRP) during periods of low demand (i.e., < 5 mgd).

13 New source waters not used by AWT in the summer months will be available to SVRP for CSIP.

14 A drought reserve of up to 1,000 AF would be created over five years by producing 200 AFY additional product water from the GWR Project AWTF during winter months and storing the water in the Seaside Basin. This would establish a "water bank" that the CSIP can draw on in droughts. The drought reserve would allow flow at the RTP for the GWR Project to be temporarily reduced during critically dry periods, thus freeing up more of the newly available inflows to the RTP to be sent to the CSIP area. Extraction from the Seaside Basin would continue at the average rate to supply the Monterey Peninsula.

15 Monthly RTP discharge during critically dry year (2013), reported by MRWPCA

16 Secondary treated municpal effluent not used for SVRP/CSIP or the AWT.

17 Excess is calculated as Line 13 minus Line 23

Comment Document VV: Latham & Watkins, LLP for California American Water Company

VV-1 See Master Response #4: Comments on Adequacy of Scope and Range of Cumulative Impacts Disclosed, and Master Response #5: Comments on Adequacy and Scope of Range of Alternatives.

VV-2 The introductory comment summarizes points which are made in the body of commenter's letter, and which are addressed fully in individual responses below as well as in Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, MPWMD Response to Hazen & Sawyer and **Appendix O** to this Final SEIR, MPWMD Supply and Demand Report.

VV-3 See Master Response #4: Comments on Adequacy of Scope and Range of Cumulative Impacts Disclosed.

VV-4 See Master Response #5: Comments on Adequacy of Scope and Range of Alternatives. Table 5-1 compares water supplies under the Proposed Modifications and the MPWSP to show that the growth inducing impacts of the Proposed Modifications could be similar to the growth inducing impacts of the MPWSP. This comparison was not intended to indicate that these projects are alternatives to one another. Both projects can be constructed and operated. The approved PWM/GWR Project would operate at the same time as the CalAm desalination project and would be supplemental to the desalination project. By contrast, the expanded amount of water associated with the Proposed Modifications would not be treated and delivered at the same time as the CalAm desalination project is operating to treat and deliver the same amount of water. The Proposed Modifications would only proceed if the CalAm desalination project faced delays and would only operate if the MPWSP desalination project is not built or operating at the same time.

VV-5 Planning, design and permitting of the Proposed Modifications can occur in parallel with any ongoing work on the approved PWM/GWR Project, which is currently operational. Resources are available to timely proceed with both projects. The ability of the Proposed Modifications to meet the stated project objectives is unrelated to any construction delays of the remaining components of the approved and operational PWM/GWR Project. The M1W Source Water Technical Memorandum prepared for the Proposed Modifications conservatively assumes that only those source waters that currently are available for treatment at the AWPF would continue be available for the PWM/GWR Project and the Proposed Modifications. See Master Response #3: Comments on Water Supply and Source Water Availability and **Appendix O** to the Final SEIR. See also Master Response #6: Comments on Timing of the Proposed Modifications.

VV-6 The funding, construction, and operation of the brine mixing structure and modifications to the Salinas Valley Reclamation Plant components of the approved PWM/GWR Project would not affect the Proposed Modifications, nor would the Proposed Modifications affect those unchanged project components. See Master Response #3: Comments on Water Supply and Source Water Availability. The Proposed Modifications can achieve the stated project objectives regardless of

whether the brine mixing structure or modifications to the Salinas Valley Reclamation Plant are constructed and operational.

The purpose of the Draft SEIR is to disclose any new significant impacts of the Proposed Modifications in comparison to the impacts for the PWM/GWR Project disclosed in that project's PWM/GWR Final EIR. Any failure to fund or complete the brine mixing structure and modifications to the Salinas Valley Reclamation Plant would be independent from the Proposed Modifications and would not be a consequence of the Proposed Modifications nor would it adversely affect the yields for CalAm under the approved PWM/GWR Project with or without the Proposed Modifications.

VV-7 See Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, which provides MPWMD's response to the Hazen & Sawyer memorandum dated January 20, 2020 Exhibit E of this letter, and **Appendix O,** MPWMD Supply and Demand Report.

VV-7a The MPWMD Supply and Demand Analysis provides the factual basis for updating the demand calculations that the CPUC relied upon in support of its findings to approve the MPWSP. The CPUC's findings were based upon older information presented to the CPUC during its administrative hearings; more recent information is now available. See Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, MPWMD Response to Hazen & Sawyer, and **Appendix O,** MPWMD Supply and Demand Report.

VV-7b **Appendix N** to this Final SEIR, MPWMD Response to Hazen & Sawyer, specifically "Note 1," responds to commenter's suggestion that the methodology used to develop the MPWMD Supply and Demand Report does not meet the requirements of California law.

VV-7c **Appendix N** to this Final SEIR, MPWMD Response to Hazen & Sawyer, specifically "Note 2," responds to commenter's suggestion that the MPWMD Supply and Demand Report underestimates projected demand due to a methodological error.

VV-7d **Appendix O** to this Final SEIR, the MPWMD Supply and Demand Report, provides the factual basis for determining water usage demand from current and future CalAm customers during non-drought years.

VV-7e **Appendix O** to this Final SEIR, the MPWMD Supply and Demand Report, uses the same assumptions regarding availability of supplies as CalAm used in its presentations to the CPUC.

VV-7f See Master Response #3: Comments on Water Supply and Source Water Availability for an explanation why M1W may elect to rely on the MPWMD Supply and Demand Report.

VV-7g The updated MPWMD Supply and Demand Report is included in this Final SEIR as **Appendix O**. The changes to the Report were made to respond to comments by CalAm and others. The updated MPWMD Supply and Demand Report continues to

support the conclusions of the Draft SEIR that the Proposed Modifications could induce growth in a similar manner, and to a similar extent, as the MPWSP.

VV-8 See responses to comments VV-5, VV-7, VV-8a, VV-8b, and VV-8c.

VV-8a The CPUC did not prepare its own evaluation of supply and demand. For this SEIR, M1W has relied upon the expertise of the Monterey Peninsula Water Management District, including the MPWMD Supply and Demand Report dated September 2019 that David Stoldt prepared prior to the Draft SEIR, and which was finalized March 13, 2020 (see **Appendices O** and **N** to this Final SEIR) to respond to comments made by the public, the city managers, and a critique by Hazen & Sawyer dated January 22, 2020 (which was Exhibit E of this letter VV), and to include an additional growth forecast as requested. See also Master Response #3: Comments on Water Supply and Source Water Availability.

VV-8b See response to comment VV-5.

VV-8c M1W has included assumptions about the required federal permits in its preliminary project planning and published schedule for implementation. Due to the requests from CalAm and MCWRA and resulting M1W Board approval to extend the public review period from 49 days to 88 days, the critical path schedule for full implementation has been delayed as discussed in the response to comment I-3. This delay does not create a delay in the ability of the Proposed Modifications to help meet CalAm's requirements to reduce unauthorized diversions, nor does the delay result in the Proposed Modifications being considered infeasible. The Proposed Modifications would not require approval by the National Parks Service and would not result in any significant impacts on recreational resources related to the Fort Ord National Monument as described in the Draft SEIR in section 4.16.4.3 that starts on page 4.16-4. See also Response to Comment J-10.

VV-9 See Master Response #3: Comments on Water Supply and Source Water Availability regarding changes in future benefits to the CSIP.

VV-10 See Master Response #4: Comments on Adequacy of Scope and Range of Cumulative Effects Disclosed, which explains that M1W would cease treating and delivering the expanded quantities of water associated with operation of the Proposed Modifications once CalAm's MPWSP operates to deliver the same amount of water to the CalAm Monterey District service area. An analysis of the reduction in secondary effluent discharges with the Proposed Modifications is provided in Appendix I (see Tables 8 through 11).

VV-11 See Master Response #3: Comments on Water Supply and Source Water Availability; Master Response #5: Comments on Adequacy of Scope and Range of Alternatives. See also response to comment VV-5.

VV-12 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum. See also response to comment VV-5.

VV-13 As elaborated in responses to comments VV-14 through VV-29, below, the disclosure of potential air quality and greenhouse gas impacts is based on a technical analysis included in **Appendix F** of the Draft SEIR by Illingworth and Rodkin, Inc. **Appendix F** has been revised and attached to this Final SEIR. CEQA Guidelines Section 15384 states: "(a) 'Substantial evidence' as used in these guidelines means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. …. (b) Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts. An agency has discretion in selecting the methodology to be used in evaluating an environmental impact" (*South of Market Community Action Network v. City and Cty. of San Francisco* (2019) 33.Cal.App.5th 321, 337.) and when an agency is faced with conflicting evidence on an issue, it is permitted to give more weight to some of the evidence and to favor the opinions of some experts over others. (Ch*ico Advocates for a Responsible Coalition v. City of Chico* (2019) 40 Cal.App.5th 839, 851.) A disagreement among experts does not make an EIR inadequate (CEQA Guidelines § 15151) but the EIR should summarize the main points of disagreement among the experts, which this Final SEIR does in the responses to comments VV-14 through VV-29, below.

VV-14 The California Emissions Estimator Model, CalEEMod, is a land use emissions model that is used to predict emissions from land use projects. For construction, the model estimates construction activity from land use projects in terms of project type and size. The Proposed Modifications do not fit any of the categories of land use types identified by CalEEMod. Therefore, the CalEEMod model alone is not the appropriate model to predict emissions from this type of project. While CalEEMod can be used to compute construction emissions from land use projects, the approved PWM/GWR Project and Proposed Modifications emissions were computed without CalEEMod using the same emission factors that the latest version of CalEEMod utilizes. CalEEMod computes construction emissions by multiplying construction activity by the emissions factors, equipment horsepower, and load factors obtained from the California Air Resources Board's OffRoad database. The emission rates used in the Draft SEIR analysis are the same as those used in CalEEMod. Instead of relying on CalEEMod to generate the construction activity information, which it is not capable for this type of project, the project design team provided the project-specific information. For vehicle activity, the emission factors from CalEEMod were used. These are based on the California Air Resources Board's EMFAC2014 model. The emission factors used were from CalEEMod and the latest version of CalEEMod has not been updated to include EMFAC2017 emission factors.

Note that M1W concurs with recommendations by MBARD to include construction equipment that conform with newer, Tier 3 and Tier 4 engines standards for diesel equipment. These mitigation measures also apply to all construction activity conducted for the CalAm components, as indicated under Mitigation Measures 4.10-1a: Equipment with High-Tiered Engine Standards and Mitigation Measure 4.10-1b: Idling Restrictions. The effect of these mitigation measures was not factored into the Draft SEIR analysis; therefore, the Draft SEIR analysis overestimates the emissions from the Proposed Modifications.

VV-15 See response to comment VV–14. The project is not a typical land use project (e.g., residential, commercial or industrial project) that can be accurately modeled using CalEEMod. MBARD reviewed the Draft SEIR analysis and had no comments with

respect to using CalEEMod. The analysis presented in the Draft SEIR includes calculations of direct emissions from project construction and operation, as well as indirect GHG emissions.

VV-16 See response to comment VV–14. The analysis that is presented in the Draft SEIR is based on the CalEEMod model emissions factors applied to more accurate projections of construction activity and does not need to be updated.

VV-17 The commenter states that EMFAC2017 should be used to calculate vehicle emissions rather than EMFAC2014. See response to comment VV–14. The current version of CalEEMod uses EMFAC2014 emission rates. As noted above, the analysis prepared for the Draft SEIR uses the same emission rates as CalEEMod. An update to CalEEMod to utilize EMFAC2017 has not been developed. Note that EMFAC2017 was only approved for projects in August 2019 and there is always a grace period to implement the newer model into analyses. This project falls within this grace period.

Most of the emissions associated with construction result from equipment exhaust, vehicle exhaust and fugitive dusts (from ground disturbances). The emissions analysis presented in the Draft SEIR indicates that construction equipment exhaust is the primary source of ROG and NOx emissions. Vehicle exhaust emissions (which were developed using EMFAC2014) contribute a small amount of the total and daily project construction emissions.

A comparative analysis of emissions rates between CalEEMod, which uses EMFAC2014, and the EMFAC2017. In this analysis, EMFAC2014 and EMFAC2017 were run for Monterey County in year 2020 for large trucks (Category MHHDT and HHDT). This analysis indicates the following:

Table 4-C:
Comparison of Running Exhaust Emissions Rates for Heavy-Duty Diesel Trucks using EMFAC2017 and EMFAC2014 (in grams per mile)

Pollutant:	NOx	ROG	PM exhaust	PM10 total without fugitive dust	PM2.5 total without fugitive dust
EMFAC2014:	3.93	0.14	0.04	0.15	0.08
EMFAC2017:	4.36	0.18	0.08	0.20	0.12
Difference:	*+11%*	*+28%*	*+119%*	*+31%*	*+55%*
Source: CARB EMFAC2014 and EMFAC2017 (see https://www.arb.ca.gov/emfac/2017/ and https://www.arb.ca.gov/emfac/2017/)					

NOx running emission rates are slightly higher (11% higher) with EMFAC2017 than EMFAC2014. A large majority of the NOx emissions from construction are associated with construction equipment usage during well construction. During these peak days, truck traffic accounts for less than 10 percent of the emissions. The difference in predicted NOx emissions using EMFAC2017 emission rates would have little effect on the outcome of the analysis for NOx emissions.

ROG emissions were 28 percent higher with EMFAC2017. As with NOx, a large portion of the ROG emissions are associated with construction equipment operation. Therefore, the effect of the higher emission rates would not affect the emissions

modeling substantially. Note that ROG emissions were found to be well below the significance thresholds.

Exhaust particulate matter (PM) emissions are substantially higher with EMFAC2017 than compared to EMFAC2014. However, a majority of the PM emissions (PM10 and PM2.5), estimated at about 90 percent, are from fugitive dust and particulates emitted from tire and brake wear. Furthermore, most PM exhaust emissions are emitted by construction equipment rather than trucks. In terms of on-site emissions, truck traffic exhaust produces less than 1 percent of the PM emissions for extraction well construction. The effect of higher exhaust PM emission rates modeled using EMFAC2017 would not have a measurable change in the outcome of the PM emissions modeling or a health risk assessment.

VV-18 See response to comment VV-17.

VV-19 This is a general comment critiquing the air quality analysis. See responses to comments VV-20 and VV-21.

VV-20 The Draft SEIR air quality analysis used the average trench width of 6 feet that was provided by the project team. While trench widths will vary, M1W engineers reviewed the project pipeline in response to this comment and confirmed the 6-foot average trench width for pipeline construction used in the air quality analysis. While a maximum 12-foot wide trench could be constructed in some locations, other trench locations would be less than 6 feet in width.

VV-21 Use of the CalEEMod default vehicle trip lengths in lieu of other precise information is appropriate for use of CalEEMod and is applied to projects as general practice. CalEEMod default construction parameters allow estimates of short-term construction air pollutant and GHG emissions based upon empirical data collected and analyzed by California air pollution control districts and use of the model's default construction emissions data is accepted by MBARD where actual project specific information is not available. The model construction trip default values were utilized for trip length, consistent with the air district's guidance for modeling construction GHG emissions. The CalEEMod hauling trip length default is set at 20 miles, thus, the Draft SEIR analysis uses the average one-way haul length of 20 miles. As described above under response to comment VV-17, the contribution of emissions from truck trips is relatively small compared to construction equipment emissions. Varying the truck trip lengths either shorter or longer would not substantially change the outcome. Because the various trip lengths are not known, the CalEEMod default one-way trip lengths were appropriately applied as a reasonable construction assumption for truck traffic hauling.

VV-22 This comment suggests that a new health risk assessment (HRA) should be conducted to evaluate the effects of Extraction Wells EW-1 and EW-2, rather than relying on the HRA that was previously completed by CalAm as part of the MPWSP EIR for wells EW-3 and EW-4. In response, M1W had an HRA conducted by Atmospheric Dynamics for EW-- and EW-2 (see New **Appendix L**). This HRA, supports the Draft SEIR's conclusion of less-than-significant health risks. See also **Chapter 5, Changes to the Draft SEIR,** on pages 4.3.2 and 7-4.

The HRA used the well construction emissions from the CalAm Monterey Peninsula Water Supply Project Final EIR/EIS conducted by ESA. This is appropriate because the construction activity to construct extraction wells EW-1 and EW-2 would be the same as the construction activity to construct EW-3 and EW-4. Those emissions were input to the USEPA's AERMOD dispersion model. A receptor grid with 50-meter resolution was used, extending out 500 meters and covering the Seaside Middle School and all other sensitive receptors nearby. This included receptors placed throughout the school grounds including the play fields. Meteorological data collected at the Monterey Airport, which are representative of the area, were used. The maximum modeled concentrations from construction of EW-1 and EW-2 were converted to cancer and chronic health risks based on the most recent health risk assessment guidance issued by the California Office of Environmental Health Hazard Assessment. Results of this analysis confirmed the Draft SEIR conclusion that less than significant cancer risks would occur at the Seaside Middle School (maximum child cancer risk of 0.7 per million on the playfields) and at the closest residence (maximum infant cancer risk of 3.4 per million). These cancer risks are well below the MBARD CEQA Air Quality Guidelines threshold that considers exposure of sensitive receptors to air pollutant levels that result in an unacceptable cancer risk or hazard to be significant if they exceed a cancer risk of 10 per million. The predicted chronic hazard index is 0.01 also is well below the MBARD-recommended threshold of a chronic or acute hazard index of 1.0.

It should be noted that the construction emissions were estimated based on unmitigated conditions. The project is incorporating recommendations by MBARD to include, to the extent feasible, construction equipment that conforms with newer, Tier 3 and Tier 4 engines standards for diesel equipment or that uses alternative fuels. The effect of these mitigation measures was not factored into the Draft SEIR analysis or the HRA prepared by Atmospheric Dynamics; therefore, the Draft SEIR analysis conservatively overestimates the emissions from the Proposed Modifications.

VV-23 See response to comment VV-22.

VV-24 See response to comment VV-22. Note that the majority of on-site emissions that could contribute to localized health risks are from construction equipment and not trucks. As noted above, the effect of added exhaust emission using EMFAC2017 would not have a measurable change in the outcome of the PM emissions modeling or the health risk assessment.

VV-25 See response to comment VV-22. The HRA, performed in response to comment VV-22, is based on the planned well sites and places receptors throughout the school. The HRA conservatively addressed increased cancer risks at receptors on the playfields, even though children would spend a relatively small amount of time in that location. The assumptions included in the HRA conservatively include almost continuous exposure.

VV-26 See response to comment VV-22.

VV-27 The commenter states there are inconsistencies between the Air Quality and Greenhouse Gases section of the Draft SEIR and **Appendix F**, which contains the calculations. These are responded individually below.

VV-27A The commenter questions why the SEIR section states that the maximum daily PM10 emissions would be 57.3 pounds per day, while the Technical Report states that the maximum daily PM_{10} emissions would be 64 pounds per day. The commenter incorrectly is comparing the *unmitigated* PM10 emissions for the maximum day for any single component of 63 pounds per day in **Appendix F** to the *mitigated* maximum daily emissions that could occur during project construction for all components combined, assuming some overlapping activities and mitigation applied.

VV-27B The MPWSP Final EIS/EIR (p. 4.10-8 & p. 4.12-29) states that the nearest residences are located 50 feet from the proposed location for ASR Wells 5 & 6 (EW-3 and EW-4 of the Proposed Modifications). The Draft SEIR accurately references the 50-foot distance between the proposed wells and the nearest residences. The Technical Report (**Appendix F**) reference to a 25-foot distance is to a boundary line and is not inconsistent with the reference to the nearest distance to the residences themselves. The reference to less than 100 feet and the text to clarify the 25-foot distance noted above has been revised. See **Chapter 5, Changes to the Draft SEIR,** on pages 4.3-12 and 4.3.13, and **Appendix F**.

VV-27C While the exact locations of all pipelines are not finalized, pipelines and facilities are shown schematically on Figures 2-7 and 2-8 of the Draft SEIR. The MPWSP Final EIR stated that conveyance pipelines would be within 250 feet of Seaside Middle School, and within 50 to 100 feet of residences in the Fitch Park military housing area along Hatten Road and Ardennes Circle. See **Chapter 5, Changes to the Draft SEIR** for revisions to Draft SEIR, page 4.3-12 to correct Table 4.3-7 to note CalAm Conveyance Facilities pipelines would be 50-100 feet from residences and within 250 feet from schools. **Appendix F**, Technical Report indicates CalAm Conveyance Facilities pipelines would be 50-100 feet from residences. **Appendix F** has been corrected to show the distance from pipelines to schools to be 250 feet rather than 300 (see **Chapter 5, Changes to the Draft SEIR**, **Appendix F**, p. 12, Table 4.) The correction to the distance between the pipeline and schools does not affect the conclusions in the Draft SEIR.

VV-28 Further explanation of emissions reported in Tables 4.3-5 “Maximum Daily Construction Emissions by Proposed Modification” and Table 4.3-6 “Daily PM10 Pollutant Emissions” is provided as follows:

The commenter points out that maximum daily PM10 emissions reported in the Draft SEIR Table 4.3-6 are not the same as the sum of the maximum daily emissions from each individual component of the Proposed Modifications that is reported in Table 4.3-5. This is because all of the components of the Proposed Modifications would not be under construction at the same time. The total maximum daily emissions reported in Table 4.3-6 is based upon a reasonable set of assumptions as to which construction activities would be expected to overlap with one another, resulting in a combined maximum daily quantity of emissions.

The commenter questions whether the maximum daily emissions reported in Table 4.3-6 included PM10 from construction equipment and vehicle exhaust. The maximum daily emissions from the Proposed Modifications reported in Table 4.3-6 include the fugitive dust emissions of 163.8 pounds unmitigated and 57.8 pounds per day mitigated, shown on the last page of Appendix F, Attachment 1 plus the exhaust and on-site travel-related emissions shown on page 1 of the Attachment.

The commenter questions whether vehicle travel on paved roads was properly considered. In citing the 0.10-mile travel distance, the commenter is referring to the fugitive emissions of PM10 and PM2.5, since those are the only computations that include the 0.10-mile trip lengths on unpaved roads. The 0.10-mile distance was considered the estimate of off-road travel (dirt roads) that was on a project component site, when computing PM10 emissions. Note that some construction sites would have no on-site travel.

VV-29 See responses to comments VV-13-VV-28 above.

VV-30 See Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, M1W Source Water Technical Memorandum, and **Appendix O** to this Final SEIR, MPWMD Supply and Demand Report.

VV-31 See Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, M1W Source Water Technical Memorandum, and **Appendix O** to this Final SEIR, MPWMD Supply and Demand Report. See also response to comment I-11.

If the Monterey Peninsula were to experience drought during the "buildup period" following the completion of new water supply and the lifting of the CDO, ASR would arguably be delayed in building up a drought reserve. However, the comment overlooks that an expanded PWM/GWR Project would provide new capacity without an immediate offsetting demand. The additional 2,250 AFY would provide the necessary approximately 800 AFY to offset unauthorized Carmel River diversions and lift the CDO. That would leave 1,450 AFY for which there is no immediate present-day demand, and which can instead be delivered for customer service in the early years if ASR's drought reserve has not yet built up. Just a few years of this expansion water could also provide drought-resilience to the Monterey Peninsula.

Finally, the comment states the average yield of ASR water is 1,300 AFY. Based on long-term historical precipitation and streamflow data, ASR is designed to produce 1,920 AFY on average. The MPWSP assumes a lesser amount of 1,300 AFY to be conservative.

As detailed in Appendices N and O, and as the Benito/Williams technical memorandum demonstrates, ASR is drought-resilient, and the Proposed Modifications would provide an additional factor of safety against drought impacts to ASR.

VV-32 See Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, M1W Source Water Technical Memorandum,

Appendix O to this Final SEIR, MPWMD Supply and Demand Report, and response to comment VV-31 above.

VV-33 The Proposed Modifications would not cause unauthorized Carmel River withdrawals by CalAm. Such unauthorized withdrawals constitute an ongoing, baseline condition that is occurring independent of the Proposed Modifications. By supplying expanded quantities of water to CalAm, the Proposed Modifications necessarily would reduce the need for CalAm to perform unauthorized Carmel River withdrawals compared the current baseline and compared to conditions without the Proposed Modifications. The MPWMD Supply and Demand Analysis indicates that the Proposed Modifications would enable CalAm to achieve the CDO [WR2016-0016] applicable diversion limits and the adjudication requirements without the CalAm desalination project built and operating. See Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, M1W Source Water Technical Memorandum, and **Appendix O** to this Final SEIR, MPWMD Supply and Demand Report.

VV-34 The Draft SEIR discloses that the Proposed Modifications would result in the reduction of diversion of water from the Carmel River, which would have a beneficial impact on river flows and fishery habitat. Similar to the PWM/GWR Project, the Proposed Modifications would have a net beneficial effect on special-status species in the Carmel River System. As the Draft SEIR discusses, these are anticipated beneficial effects of the Proposed Modifications. The Proposed Modifications would not divert more source water than the worst-case analysis already presented in the certified 2015 Final EIR. Diversion of stormwater and irrigation water included in the approved PWM/GWR Project is entitled. See Master Response #3: Comments on Water Supply and Source Water Availability.

VV-35 See responses to comments VV-36 through VV-39 for detailed responses to this general introductory comment.

VV-36 The Proposed Modifications would require permit amendments as identified in the Draft SEIR (Section 2.7, page 2-33). Included in the list of potential permit amendments are the City of Seaside Use Permit, as well as the City of Seaside Grading and Ordinance Permit. Amendment of these permits would require coordination with the City of Seaside. This coordination would define the precise, final location of well facilities after consideration of any sensitive biotic material that may require removal as a result of well location. The other terrestrial biology mitigation measures in the Draft SEIR address specific avoidance requirements for each of the relevant species.

VV-37 Mitigation Measure BT-1d states that the legless lizard management plan will be prepared in coordination with CDFW and will include, but is not limited to, the protocols for pre-construction surveys, construction monitoring, and salvage and relocation. MM BT-1d does not limit the CDFW, as the Responsible Agency with jurisdiction over this species, from requiring legless lizard habitat restoration, as a component of the management plan, if such restoration is deemed necessary by CDFW. Additionally, as stated in response to comment D-5, through implementation of the Fort Ord HMP, impacts to Fort Ord HMP species and habitats occurring within the designated development parcels were anticipated and mitigated through the establishment of

habitat reserves and corridors, and the implementation of habitat management requirements within habitat reserve parcels on former Fort Ord.

VV-38 MM BT-1f requires the project proponents retain a qualified biologist to conduct protocol-level surveys for special-status plant species. Protocol-level surveys are described on page 11 in Appendix G of the Draft SEIR. The timing of protocol-level botanical surveys is dependent upon the blooming period of species with the potential to occur and the duration of time for the legitimacy of the survey results is described within the survey protocols. MM BT-1f also requires a report describing the results of the surveys be provided prior to any ground disturbing activities. For the preceding reasons, including specific timing requirements within the Mitigation Measure for these surveys to occur, is not necessary.

VV-39 The Proposed Modifications Proponent will incorporate the additional provisions of the Mitigation Measures identified above. Inclusion of these additional provisions does not result in additional significant impacts. The additional provisions merely clarify and/or amplify existing measures. See **Chapter 5, Changes to the Draft SEIR** page 4.5-20.

VV-40 The commenter asserts that the Draft SEIR's mitigation measures for cultural resources, specifically Mitigation Measure CR-2b, contain improperly deferred mitigation. The Draft SEIR discloses that the archaeological sensitivity of the Area of Potential Effects and immediate vicinity is low, primarily due to extensive surface and subsurface disturbance associated with infrastructure construction and previous military use. Only three recorded resources within or adjacent to the APE were identified; of these, one resource had been destroyed, one had been removed and replaced during work at Blackhorse Reservoir, and one was deemed not eligible. See **Chapter 5, Changes to the Draft SEIR** to page 4.6-9 of the Draft SEIR, which contains updated language for Mitigation Measure CR-2b. to address comments regarding specificity of mitigation language.

VV-41 See response to comment VV-40 and **Chapter 5, Changes to the Draft SEIR** to page 4.6-9.

VV-42 The estimated construction fuel consumption has been added to page 4.7-6 of the Draft SEIR in response to this comment. See **Chapter 5, Changes to the Draft SEIR**.

VV-43 The requested specificity to the mitigation measure has been added in response to this comment. See **Chapter 5, Changes to the Draft SEIR**, detailing changes to page 4.7-7.

VV-44 See responses to comments VV-45 through VV-48 below.

VV-45 See **Chapter 5, Changes to the Draft SEIR,** detailing changes to pages 4.8-3 to 4.8-5 and 4.8-7; **Figures 4.8-1 to 4.8-4** have been revised to label the individual components of the PWM Expansion.

VV-46 See **Chapter 5, Changes to the Draft SEIR,** detailing changes to page 4.8-6 of the Draft SEIR; a reference to the PWM/GWR Final EIR where information about the soil characteristics can be found has been added.

VV-47 See response to comment VV-48 below.

VV-48 See **Chapter 5, Changes to the Draft SEIR** to page 4.8-12 of the Draft SEIR; a reference to the PWM/GWR Final EIR where specific BMP requirements as well as other applicable state and federal laws can be found has been added.

VV-49 See responses to comments VV-50 through VV-52 below.

VV-50 See **Chapter 5, Changes to the Draft SEIR** to page 4.9-11 of the Draft SEIR; text has been added to further clarify why the PWM Expansion would not interfere with emergency access.

VV-51 The commenter suggests that the SEIR should include a mitigation measure requiring compliance with regulations applicable to the potential hazard associated with unexploded ordinance. A mitigation measure requiring compliance with applicable regulatory requirements is unnecessary. As explained in the Draft SEIR and consistent with the project approval findings of the PWM/GWR Project Final EIR, compliance with existing regulations for construction work at the former Fort Ord would reduce the potential impact of encountering unexploded ordinance by construction workers to less-than-significant.

VV-52 The purpose of the Supplemental EIR is not to reevaluate the impacts of the portions of the project that already have been fully approved and are not proposed for modification. The purpose of the SEIR is to evaluate the *changes* to the project to determine whether those changes will result in new impacts or necessitate new mitigation. The Draft SEIR considers whether the Proposed Modifications will result in any new or increased risk of wildfire hazards compared to the approved PWM/GWR Project and determines that the Proposed Modifications would not do so. Similar to the analysis for the PWM/GWR Project, the Draft SEIR discloses that the Proposed Modifications would be constructed in fire prone areas and explains that compliance with existing regulations governing the use of construction equipment in fire prone areas would minimize the risk of wildland fires during construction activity and ensure that impacts would be less than significant. These regulations include restricting the use of equipment that may produce a spark, flame or fire; require the use of spark arrestors on construction equipment tools in fire hazard areas; and specify fire suppression equipment that must be provided onsite for various types of work in fire prone areas. The Proposed Modifications would also include construction of access roads and electrical facilities near fire prone areas, and the Draft SEIR concludes that following all applicable safety regulations including the California Fire Code would ensure no increase in the potential for wildfire risk at the Proposed Modifications Site. See Draft SEIR Section 4.9.4.3, discussing Impact HH-5.

VV-53 See response to comment VV-52.

VV-54 This comment has been addressed by updating the relevant text of the Draft SEIR as requested. See **Chapter 5, Changes to the Draft SEIR** for changes to pages Page 4.10-5 (2nd paragraph) under Section 4.10.3.3. This background information does not necessitate any change to the analysis in the Draft SEIR or result in any changes in conclusions.

VV-55 See response to comment VV-54.

VV-56 Treatment and delivery of the expanded quantities of water associated with operation of the Proposed Modifications would cease if the MPWSP desalination project operates to deliver the same amount of water to the CalAm Monterey District service area. The Draft SEIR assumed that the Proposed Modifications would only deliver expanded quantities of water to the Seaside Groundwater Basin for CalAm if the MPWSP is not doing so. The Proposed Modifications are proposed as a backup to the MPWSP not as a project to displace the MPWSP desalination project. See Master Response #4: Adequacy of Scope and Range of Cumulative Impacts Disclosed and Master Response #5: Adequacy of Scope and Range of Alternatives. Failure to construct and operate the MPWSP is not a potential impact of the Proposed Modifications.

It also bears noting that the baseline for determining CEQA impacts is the conditions that physically exist at the time of environmental review. Here, the MPWSP desalination project has not been constructed and is not providing any water to address seawater intrusion in the Salinas Valley Groundwater Basin and in fact, the MPWSP is not intended to address Salinas Valley Groundwater Basin seawater intrusion. The Proposed Modifications would not reduce water injected into the Salinas Valley Groundwater Basin compared to existing conditions. The Proposed Modifications are intended to serve as a backup to the CalAm MPWSP desalination project to provide additional water to CalAm prior to the MPWSP desalination project being built or operated.

VV-57 See response to comment VV-56.

VV-58 See response to comment VV-34 and Master Response #3: Comments on Water Supply and Source Water Availability.

VV-59 This comment accurately states one of the significance criteria for evaluating potential Land Use and Planning impacts pursuant to CEQA Guidelines Appendix G. No response is necessary.

VV-60 The MPWMD Supply and Demand Analysis in Appendix O provides several demand scenarios based upon updated water usage rates by current CalAm customers, forecasts published by AMBAG, and post-drought growth projections. The Supply and Demand Analysis shows that under each scenario, the Proposed Modifications would be capable of enabling CalAm to meet the Monterey District demands while still enabling CalAm to achieve the CDO [WR2016-0016] applicable effective diversion limits and the Seaside adjudication requirements over the next 24 to 30 years. The Draft SEIR discloses the possibility that more water than would be provided by the Proposed Modifications might be needed to meet demand for water on the Monterey

Peninsula. Unmet demand and resulting need for water would not be a consequence or adverse physical environmental effect of the Proposed Modifications. See also response to comment VV-56 and Master Response #3: Comments on Water Supply and Source Water Availability.

VV-61 See Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, M1W Source Water Technical Memorandum, and **Appendix O** to this Final SEIR, MPWMD Supply and Demand Report.

VV-62 The comment acknowledges a difference in the projections of future water demand from local jurisdictions within CalAm's Monterey Peninsula service territory made by the MPWSP Final EIR/EIS and by the MPWMD Supply and Demand Report. The MPWMD Supply and Demand Report, included as **Appendix O** to this Final SEIR, explains the basis for its projections, namely, the estimated number of legal lots of record, regional housing needs, and the average water use factors driving the water needed for those lots of record. See Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, M1W Source Water Technical Memorandum.

VV-63 See responses to comments VV-56 and VV-60 and Master Response #3: Comments on Water Supply and Source Water Availability. The Proposed Modifications would *increase* water supplies compared to existing conditions, which would further each of the General Plan policies citied by the comment. The Proposed Modifications would not conflict with local agencies' plans to promote orderly development, including public facilities and market rate and affordable housing. The commenter suggests that, rather than comparing conditions with the Proposed Modifications to existing baseline conditions, the CEQA analysis should compare conditions with the Proposed Modifications to future conditions with the MPWSP to assess which of these two projects might better further local plans and policies. That is not the proper comparison for purposes of CEQA. Decisions as to when and whether to construct the MPWSP desalination project are outside the control of M1W. The Proposed Modifications are intended to enable water supplies to be increased until the MPWSP desalination project is built or operated.

VV-64 See response to comment VV-60 and Master Response #3: Comments on Water Supply and Source Water Availability.

VV-65 See response to comment VV-60 and Master Response #3: Comments on Water Supply and Source Water Availability.

VV-66 The commenter suggests that the Draft SEIR's marine biological resources analysis should be updated to reflect additional monitoring and sampling. The impacts were determined to be less than significant based on the same methodologies that resulted in this same finding in both the California Public Utilities Commission's certified joint Environmental Impact Statement (EIS)/ Environmental Impact Report (EIR) for the Monterey Peninsula Water Supply Project and the certified PWM/GWR Final EIR, which supported the adoption of M1W's current NPDES permit (Order No. R3-2018-0017, NPDES CA00485512). See responses to comments VV-67 through VV-69.

VV-67 The commenter states that the latest source water monitoring was conducted between July 2013 and June 2014, and that more recent monitoring data should be used. Appendix J, the primary source of wastewater for the Proposed Modifications would be secondary effluent (64 – 100% of the source water). The data used for the California Ocean Plan compliance analysis included results through 2018. Ammonia was found to be the constituent closest to the California Ocean Plan objective (82% of the objective per Table 4 of Appendix J), and secondary effluent has the highest concentrations of ammonia (i.e., more new source waters as influent to the RTP would dilute high nitrogen-containing municipal wastewater and thus is expected to reduce ammonia concentrations). The 6-month median result used in the Appendix J analysis was calculated using monthly data collected from January 2000 through June 2019. Additionally, M1W's current NPDES permit requires regular monitoring of the wastewater that will be discharged to the Monterey Bay, and these monitoring requirements would continue to apply if the RWQCB issues an amendment to the M1W NPDES permit for the Proposed Modifications to the PWM/GWR Project.

VV-68 Farmworker Housing discharges residential wastewater similar to the municipal sewage that is treated by the RTP without the commercial and industrial components. Salinas River diversion backwash water is a small contribution to the total flow treated by the RTP and consists of Salinas River surface water containing higher solids that cannot pass through the screens. Salinas diversion backwash water typically has lower pollutant concentrations than urban or agricultural run-off stormwater and substantially lower levels of biological oxygen demand than municipal wastewater. This source has been treated for years at the RTP so the secondary effluent data used in the analysis described in Appendix J accounts for its contribution. See also response to comment VV-67.

VV-69 The analysis described in Appendix J followed all guidelines specified in the California Ocean Plan. Neither the treated secondary effluent nor reverse osmosis concentrate create a buoyant or rising plume, and, therefore, would not have a significant adverse impact on marine species within the zone of initial dilution. The ZID volume represents less than 0.0001% of the Monterey Bay volume and based on the comparable analysis in the CPUC/NOAA Office National Marine Sanctuaries, CalAm MPWSP at page 4.5-62, this small volume relative to total habitat would represent negligible impacts on marine species.

VV-70 The Draft SEIR's description of the environmental setting for the PWM Expansion Project with respect to existing noise and vibration conditions describes the nearest sensitive receptors and ambient noise measurements on pages 6 and 7 in Appendix K; this is summarized below. See also response to VV-72 through VV-77, below.

Ambient noise measurements were based upon documentation from the PWM/GWR Final EIR and MPWSP EIR/EIS. The PWM/GWR Final EIR and MPWSP EIR/EIS both included noise measurements that were used to establish ambient noise levels at receptors along the alignments of the Proposed Modifications. Supplementary noise measurements taken for the Draft SEIR are identified in Figure 1 of Appendix K as LT-1 and ST-2. Traffic along General Jim Moore Boulevard is the predominant noise source in the area of the proposed CalAm Extraction Wells, and hourly average noise levels typically ranged from 57 to 66 dBA Leq during the day and from 47 to 56 dBA Leq at night at a distance of 65 feet from the center of the roadway. General Jim Moore

Boulevard traffic produced noise levels ranging from 47 to 48 dBA Leq at ST-2, which was made at a distance of 315 feet from the center of General Jim Moore Boulevard to represent residences that are set back from the roadway by this same distance. Noise measurement S4, depicted on this same figure in Appendix K, was taken for the MPWSP EIR/EIS. Ambient noise levels at measurement site S4 averaged 54 dBA Leq during the daytime and averaged 52 dBA Leq at night. No changes in conditions have occurred since preparation of the MPWSP EIR/EIS that would necessitate updating the noise measurements at site S4. These prior data were used in this analysis to establish baseline conditions at receptors near the proposed CalAm Extraction Wells.

VV-71 The introductory statement is noted. The Draft SEIR's disclosure of potential impacts related to noise and vibration is based on a technical analysis included in Appendix K of the Draft SEIR by Illingworth & Rodkin, Inc. CEQA Guidelines Section 15384 states: "(a) 'Substantial evidence' as used in these guidelines means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. …. (b) Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts. An agency has discretion in selecting the methodology to be used in evaluating an environmental impact (*South of Market Community Action Network v. City and Cty. of San Francisco* (2019) 33.Cal.App.5th 321, 337.) and when an agency is faced with conflicting evidence on an issue, it is permitted to give more weight to some of the evidence and to favor the opinions of some experts over others. (Ch*ico Advocates for a Responsible Coalition v. City of Chico* (2019) 40 Cal.App.5th 839, 851.) A disagreement among experts does not make an EIR inadequate (CEQA Guidelines § 15151) but the EIR should summarize the main points of disagreement among the experts, which this Final SEIR does in responses to comments VV-72 through VV-77, below.

VV-72 The commenter states that noise levels produced by daytime construction would exceed the applicable noise threshold and result in a significant impact that has not been disclosed. EW-1 and EW-2 construction activities would occur at least 600 feet north of the nearest classroom building at Seaside Middle School and 700 feet southwest of residences on Hatten Road. Maximum noise levels resulting from trenching and pipeline construction activities would reach 89 dBA Leq at a distance of 50 feet. At the nearest receptors 600 to 700 feet away, noise levels would be reduced by 27 to 29 dBA because of hemispherical spreading losses. Trenching and pipeline construction activities associated with EW-1 and EW-2 would produce noise levels that would reach 62 dBA Leq at the Seaside Middle School and 60 dBA Leq at the Hatten Road residences. The maximum source noise level associated with drilling operations is estimated to be 85 dBA Leq at a distance of 50 feet, or 4 dBA less than the noise levels estimated for trenching and pipeline construction activities. Therefore, construction noise levels associated with drilling operations would be 58 dBA Leq at the Seaside Middle School and 56 dBA Leq at the Hatten Road residences. Noise levels resulting from EW-1 and EW-2 construction activities would not exceed the daytime threshold of 70 dBA Leq at Seaside Middle School and Hatten Road residences or the nighttime threshold of 60 dBA Leq at Hatten Road residences.

VV-73 The commenter questions the Draft SEIR's significance criteria, which recognize that construction noise exceeding daytime standards would not be significant unless the construction activity were to extend longer than two weeks. As explained in Appendix K, on page 2, the duration of noise exposure at any given noise-sensitive

receptor is one consideration in determining an impact's significance. The noise analysis recognized that temporary construction that occurs during the day over a relatively short period of time would not cause a nuisance or result in significant environmental noise impact unless the construction noise lasted more than two weeks. Such short-term construction activities (e.g., street work) regularly occur throughout Monterey County, the City of Marina, and the City of Seaside, do not adversely affect noise-sensitive land uses in the area, and do not require analyses of potential environmental impacts. Most people of average sensitivity that live in suburban or rural agricultural environments are accustomed to a certain amount of construction activity or heavy equipment noise from time to time. Therefore, temporary exposure to construction noise levels that exceed the daytime speech interference threshold were not considered to be substantial unless the increase in ambient noise levels would occur over a period of more than two weeks. This is consistent with the two-week threshold for temporary construction noise impacts which was used in PWM/GWR Final EIR and the threshold used in the MPWSP Final EIR/EIS in 2018. This threshold is also consistent with other communities and with standard professional practice in the noise industry. Many communities throughout the greater Bay Area (e.g., San Jose) do not consider construction noise impacts to be substantial, regardless of the overall noise level, until the construction period exceeds one year.

VV-74 As discussed in response to comment VV-73, the two-week threshold for temporary construction noise has been used on past projects and all significant impacts related to temporary construction noise have been disclosed.

VV-75 The commenter states that nighttime noise from construction CalAm Extraction Wells EW-3 and EW-4 could be as high as 80 dBA Leq at sensitive receptors, and therefore would result in a significant impact. The Draft SEIR discloses on Page 4.14-10 that, "…the proposed modifications would result in a new significant and unavoidable noise impact at the sites of CalAm Extraction Wells EW-3 and EW-4. Significant impacts related to temporary increases in daytime noise levels (emphasis added) would be reduced to less-than-significant levels with implementation of the mitigation below. However, significant nighttime (emphasis added) noise impacts during construction of this component would remain significant and unavoidable, even with implementation of mitigation measures." The impact due to the nighttime construction of CalAm Extraction Wells EW-3 and EW-4 is correctly identified as significant and unavoidable at several locations throughout the document including Table S-1 on Page S-11 of the Draft SEIR.

MM NV-1a has been revised to clarify that the impact from nighttime construction would be reduced to a less-than-significant level only at CalAm Extraction Wells EW-1 and EW-2:

MM NV-1a: Drilling Contractor Noise Measures. (Applies to CalAm Extraction Wells). Contractor specifications shall include a requirement that drill rigs located within 700 feet of noise-sensitive receptors shall be equipped with noise reducing engine housings or other noise reducing technology and the line of sight between the drill rig and nearby sensitive receptors shall be blocked by portable acoustic barriers and/or shields to reduce noise levels such that drill rig noise levels are no more 75 dBA at 50 feet. This would reduce the nighttime noise level to less than 60 dBA Leq at the nearest residence <u>from CalAm Extraction Wells EW-1 and EW-2.</u>

See **Chapter 5, Changes to the Draft SEIR** to page 4.14-11 of the Draft SEIR.

VV-76 As discussed in response to comment VV-75, the Draft SEIR states that, "…the proposed modifications would result in a new significant and unavoidable noise impact at the sites of CalAm Extraction Wells EW-3 and EW-4." The significant impact has been disclosed. MM NV-1a would reduce noise impacts from CalAm Extraction Wells EW-1 and EW-2 to a less-than-significant level.

VV-77 The commenter questions the significance standards used in the Draft SEIR, as well as data regarding existing environmental conditions. The technical noise and vibration memorandum (Appendix K) prepared for the Proposed Modifications utilized the same significance thresholds as were identified in the PWM/GWR Final EIR. Applicable regulations and ordinances of Monterey County, the City of Marina, and the City of Seaside were incorporated by reference after confirming that the criteria had not materially changed since the publication of the PWM/GWR Final EIR. The intent when preparing the technical noise and vibration memorandum was to not reproduce valid information contained in the PWM/GWR Final EIR unless necessary. Similarly, only brief summaries of ambient noise levels were provided in the technical noise and vibration memorandum. This is appropriate when preparing supplemental EIRs. In this context, the noise memorandum and Noise Section relied on the PWM/GWR Final EIR and MPWSP EIR/EIS and summarized information from these documents where applicable to provide context. The Environmental Setting section on page 4.14-2 of the Noise section states: The PWM/GWR Final EIR described the noise environment of the project area and the existing noise level measurements. The locations of sensitive receptors in proximity to the Proposed Modifications is presented in the noise and vibration study in Appendix K. The general description of these conditions contained in the PWM/GWR Final EIR is applicable to the Proposed Modifications and remains unchanged since certification of the PWM/GWR Final EIR.

Appendix K has been modified to clearly indicate that all monitoring wells would be located 850 feet or further from nearby receptors. All predicted noise levels remain the same and impact conclusions do not change as a result of the modification. See **Chapter 5, Changes to the Draft SEIR,** detailing changes to page 4.14-2.

VV-78 The Draft SEIR's population and housing analysis relies on the most recent census data from 2010 as well as data from the Department of Finance. Draft SEIR Table 4.15-3 compares the population and housing data from the years 2010 and 2014. Draft SEIR Table 4.15-2 provides population totals by jurisdiction through 2019 and identifies the population increase and percent change to 2019, relying on the most recent data. Although the Draft SEIR Table 4.15-3 does not include updated 2019 data, the 2019 data are included in other tables and discussion in the Section.

In response to the commenter's request, an updated Table 4.15-3, located on pages 4.15-2 and 4.15-3 of the Draft SEIR has been prepared to provide available 2019 data from the California Department of Finance. Please see **Chapter 5, Changes to the Draft SEIR**.

The revisions to Table 4.15-3 do not significantly change the projections nor do any revisions change the analysis or conclusions reached in the Draft SEIR. Between the

years 2010 and 2019, the population within the Project Area Jurisdictions increased by 0.6 percent, a total increase of 19,997 persons. Additionally, the Project Area Jurisdictions experienced an increase of 1,416 housing units. Previously, between the years 2010 and 2014, the table presented a population increase of 0.03 percent (10,318 persons), and a decrease of 325 housing units within the Project Area Jurisdictions.

VV-79 The Proposed Modifications have been designed to serve as a back-up mechanism if the MPWSP is delayed; the Proposed Modifications would provide a defined increment of water during this period of delay. Agencies approving any development projects that might increase water demand would need to take into account the water supply that would be available through the Proposed Modifications, and any information available at the time of project approval as to whether sufficient water from all available sources would be available to serve the development project at issue. See Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, M1W Source Water Technical Memorandum, and **Appendix O** to this Final SEIR, MPWMD Supply and Demand Report.

VV-80 See responses to comments VV-56, VV-63 and VV-79 and Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, M1W Source Water Technical Memorandum, and **Appendix O** to this Final SEIR, MPWMD Supply and Demand Report.

VV-81 See responses to comments VV-56, VV-63 and VV-79 and Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, M1W Source Water Technical Memorandum, and **Appendix O** to this Final SEIR, MPWMD Supply and Demand Report.

VV-82 See responses to comments VV-56, VV-63 and VV-79 and Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix N** to this Final SEIR, M1W Source Water Technical Memorandum, and **Appendix O** to this Final SEIR, MPWMD Supply and Demand Report.

VV-83 The Draft SEIR considers data, including recently published and collected data, in its analysis of the water supply and wastewater system impacts. The changes to water supplies and wastewater systems referenced in this comment ("climate conditions and agricultural and municipal water conservation") were incorporated into the analysis in Section 4.18. The Greater Monterey County and the Monterey Peninsula Integrated Regional Water Management Plans both describe climate conditions to result in the following:

- California's mean temperature may rise 1.5°F to 5.0°F by 2050 and 3.5°F to 11°F by the end of the century.
- Average annual precipitation may show little change, but more intense wet and dry periods can be expected with more floods and more droughts.
- Flood peaks will become higher and natural spring/summer runoff will become lower.

- Global sea level projections suggest possible sea level rise of approximately 14 inches (36 cm) by 2050 and a high value of approximately 55 inches (140 cm) by 2100.

Figure 4-B, Precipitation in Greater Monterey County below, from the Greater Monterey County Integrated Regional Water Resource Management Plan provides on overview of projected changes in precipitation for the region over the next 80 years.

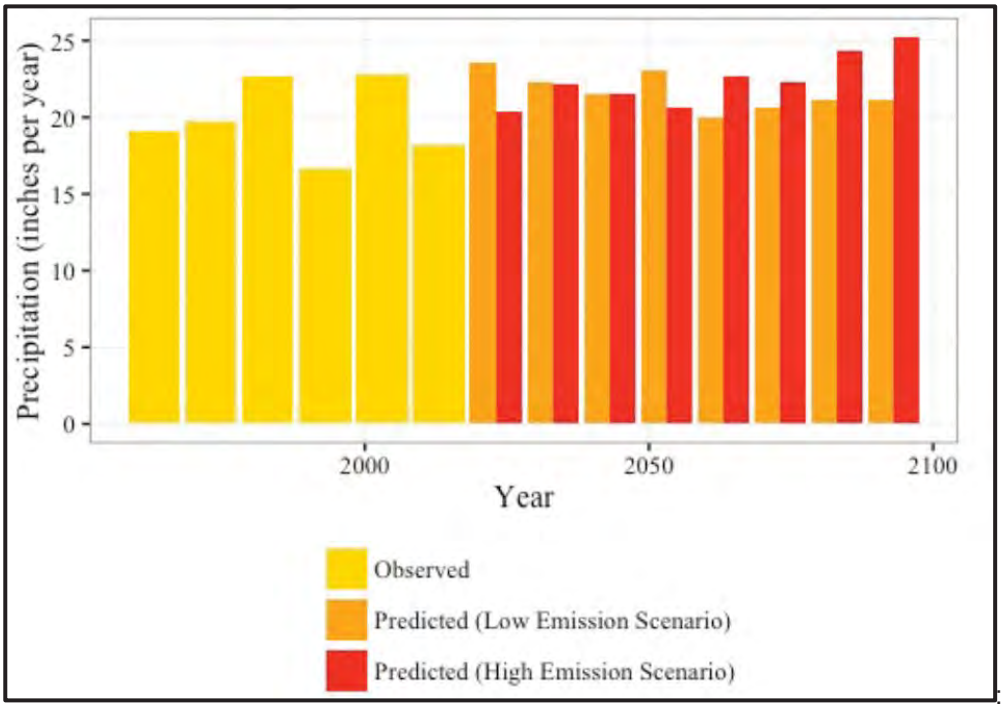


Figure 4-B: Precipitation in Greater Monterey County
(Source: Source: Cal-Adapt web tool (http://cal-adapt.org/))

More specifically, the analysis for the Draft SEIR assumes that some years (or in multiple years occurring consecutively) droughts would occur and other years would be normal or wet. In addition, the Draft SEIR assumes that flooding would occur in some years. Over the long-term, average precipitation is unlikely to change according to CalAdapt. The analysis also assumes waters from the City of Salinas, the Reclamation Ditch, and Blanco Drain would not be available during flood events. The environmental setting in the 2015 PWM/GWR Final EIR similarly assumed these conditions. As CEQA requires, the Draft SEIR focuses on disclosure of the potential environmental impacts of the project (in this case, the Proposed Modifications) on water supplies, and not of climate change impacts on the project. (*California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, Case No. S213478.) See Master Response #3: Comments on Water Supply and Source Water Availability. The amount of influent to the Regional Treatment Plant would not decrease in any year type such that the analysis and conclusions of Section 4.18.4.4 (Impact WW-3) would change.

The 2015 and 2017 EIR analyses assume less flow is available within the Reclamation Ditch and within the City of Salinas' stormwater conveyance system during drought

years compared the flow that is available during normal years (see Table 11 of Appendix I). Irrigation practices within the Blanco Drain watershed have not changed during drought years (i.e., the same or more water is applied to farmland to grow crops in dry or drought years as is applied in wet years) (M1W, historian/SCADA data, 2020) due to the use of supplemental wells and Salinas industrial Agricultural Wash Water in years when less water is available in the Salinas River. The PWM/GWR Project influent needs (for the approved PWM/GWR Project or for the Proposed Modifications) to achieve AWPF yields do not rely upon the Salinas River as water rights to Salinas River water are exclusively designated for beneficial uses within the CSIP system (SWRCB Water Rights Permits 10137, 21089 and 12261 for water diversion and storage in San Antonio and Nacimiento Reservoirs, with authorized points of rediversion at the Salinas River Diversion Facility).

MCWRA also acknowledges that use of the Blanco Drain and Reclamation Ditch as source waters are drought resilient (see https://www.co.monterey.ca.us/government/government-links/water-resources-agency/projects-facilities/blanco-drain-and-reclamation-ditch-water-rights-diversion-projects , accessed March 24, 2020). Based on the above information, the analysis in the Draft SEIR adequately considers that more frequent and severe drought conditions would occur and even so, water for influent to the RTP will continue be available. The USGS is preparing a detailed surface and groundwater model for the Salinas Valley, however, it is not complete. The model, as directed by a diverse group of stakeholders in Monterey County, will quantify changes to the Salinas River and groundwater due to climate and population change (See https://totalwatermanagement.org/reports-documents/). However, the Proposed Modifications do not rely on the Salinas River nor on the groundwater as influent to the RTP for AWPF feed water, so findings from that study will not change the data which is relied upon in the environmental setting for source water availability for the Proposed Modifications, which supported the conclusions in Section 4.18 of the Draft SEIR.

See also Appendix C of **Appendix O** of this Final SEiR regarding drought resiliency of ASR and the PWM/GWR Projects.

VV-84 The analyses for source water availability for the Draft SEIR use the same baseline as the prior SEIR in order to compare the two analyses. The assumptions for each source water presented in the spreadsheet analysis are explained in their supporting memorandum. Namely, the source water memoranda prepared by Schaaf & Wheeler including (in order of publication):

- Pages 2-Appendix B and BB in the PWM/GWR Final EIR (M1W/DD&A, Consolidated Final EIR, Jan. 2016) (found at: https://purewatermonterey.org/reports-docs/cfeir/).
- Appendix F in the 2017 Addendum No. 3 to the PWM/GWR Final EIR (M1W/DD&A, Addendum No. 3 to the PWM/GWR EIR, October 2017) (found at: https://purewatermonterey.org/reports-docs/cfeir/), and
- Appendix I of the Draft SEIR (found at: https://purewatermonterey.org/reports-docs/).

VV-85 As documented in Appendix I of the Draft SEIR, the State Water Resources Control Board water rights process for Blanco Drain and Reclamation Ditch resulted in

elimination of the Tembladero Slough diversion as part of the approved PWM/GWR Project. Since that time, M1W has eliminated pursuing this diversion location under any separate projects (as would be required) due to the poor water quality at the previously proposed diversion site. Research supporting the analysis in the PWM/GWR Final EIR found that the water in the Tembladero Slough experiences intermittently high salinity and total dissolved solids that could adversely affect crops in the CSIP area if it were to be diverted to the RTP as influent and become part of the influent to the SVRP. The poor water quality peaks occur at that site during the dry seasons when the tide is high due to seawater backwater effects from the Moss Landing harbor, through the slide gates at Potrero Road. This site is also subject to further influx of seawater and higher salinity with time as sea level rise caused by global climate change increases. The analyses of source water availability for the Proposed Modifications, including in **Appendices I** and **M**, do not assume any water would be diverted from Tembladero Slough.

VV-86 The environmental setting for the source water analysis was updated to the extent that the new information would create new significant impacts or would increase the severity of previously identified significant impacts of the approved PWM/GWR Project. Additional source water analysis has now been prepared, namely an "Operational Plan" to address the possibility that MCWRA will not be funding the new source waters as influent to the RTP for the benefit of CSIP. That analysis supports the determination that adequate new source water and existing municipal wastewater is available as influent to the RTP to meet the project objectives of the Proposed Modifications and to provide benefits to the CSIP area in terms of augmenting recycled water yields for irrigation. See Master Response #3: Comments on Water Supply and Source Water Availability.

VV-87 See Master Response #3: Comments on Water Supply and Source Water Availability. This comment is incorrect in stating the that conditions listed are necessary for the ARWRA to become effective. In actuality, Section 16.15 of the ARWRA states: "The portions of this Water Recycling Agreement applicable to the New Source Water Facilities (see Section I) shall not become effective until the following conditions are met." The remainder of the ARWRA is in effect. Further, the two agencies entered into an amendment to the ARWRA to extend the deadline for MCWRA to fund the new source waters and complete the conditions precedent to June 30, 2020. The amendment provides that "M1W has the right to utilize the New Source Water in full until such time the conditions set forth in Section 16.15 have been satisfied, and in connection therewith, and until such time, the provisions of Section 16.16 shall not be in operation or effect." According to the General Managers of the MCWRA and M1W, the agreement amendment is likely going to be extended again before June 30, 2020 (Brent Buche, MCWRA General Manager, and Paul Sciuto, M1W General Manager, personal communication, February 28, 2010).

VV-88 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum. The Draft SEIR source water analysis for Section 4.18, including details in Appendices B, C, and I, assumes that any excess "new source water" not used for the approved PWM/GWR Project or for the Proposed Modifications (if those are implemented) would be available for use by CSIP. M1W, MCWD, and MCWRA rights to secondary effluent depend upon the origin of those flows. Namely, pursuant to the ARWRA if a wastewater flow originates from within the M1W 2001 service area, MCWRA holds rights to those flows,

except as allocated to MCWD in the 1996 Annexation Agreement and in the ARWRA. If the conditions precedent are not met, then rights to use new source waters are as specified in Section 16.16 of the ARWRA. **Appendix M**, referenced above, provides an analysis to show that even if conditions precedent in Section 16.15 are not satisfied, there would result still be plenty of source water with which to expand production volumes from an expanded AWPF and additional flows.

VV-89 See Master Response #3: Comments on Water Supply and Source Water Availability, and response to comment V-88. The completion of conditions precedent in Section 16.15 of the ARWRA is not a pre-requisite to the agreement being in effect, and in fact Amendment No. 1 to the ARWRA provides "M1W has the right to utilize the New Source Water in full until such time the conditions set forth in Section 16.15 have been satisfied, and in connection therewith, and until such time, the provisions of Section 16.16 shall not be in operation or effect."

VV-90 See Master Response #3: Comments on Water Supply and Source Water Availability; **Appendix M**, M1W Source Water Technical Memorandum; and Master Response #6: Comments on Timing of the Proposed Modifications.

VV-91 See Master Response #3: Comments on Water Supply and Source Water Availability. The completion of conditions precedent is not a pre-requisite to the implementation of the Proposed Modifications, would not impact feasibility of the Proposed Modifications, would not impair the ability of the Proposed Modifications to increase water supplies for CalAm to assist with the ability of CalAm to comply with the CDO. Analyses of water supply reliability have been provided in the PWM/GWR Final EIR, in the Draft SEIR, and in this Final SEIR, which demonstrate that there is more than enough source water to implement the Proposed Modifications, whether or not the conditions precedent have been met.

VV-92 See Master Response #3: Comments on Water Supply and Source Water Availability; **Appendix M**, M1W Source Water Technical Memorandum.

VV-93 See Master Response #3: Comments on Water Supply and Source Water Availability; **Appendix M**, M1W Source Water Technical Memorandum, the latter of which analyzes source waters assuming that section 16.16 of the ARWRA to be in effect and thus, the Agricultural Wash Water to only be available for use by the CSIP system.

VV-94 See Master Response #3: Comments on Water Supply and Source Water Availability; **Appendix M**, M1W Source Water Technical Memorandum.

VV-95 Although municipal wastewater has declined in recent years, the analysis in the Draft SEIR appropriately uses the 2009-2013 average for estimating the amount of secondary effluent produced by the RTP in normal and wet years (without new source waters). This is a valid assumption given that the Proposed Modifications would develop a new supply of water for the Monterey Peninsula increasing water available for new urban development as described in Section 5.2 of the Draft SEIR. Urban development would increase wastewater flows from all areas of M1W service area. As documented in Appendix O, growth in urban development and thus increased wastewater flows is projected by AMBAG throughout M1W's service area. In addition,

the source water technical memo in Appendix I uses the year 2013 (an extreme drought year) for the analysis of flows available in dry/drought conditions (see Table 11). See Master Response #3: Comments on Water Supply and Source Water Availability; **Appendix M**, M1W Source Water Technical Memorandum.

VV-96 The ability of M1W to implement the Lake El Estero source water diversion has not changed since the PWM/GWR Final EIR; M1W intends to implement that component of the approved PWM/GWR Project if demand exists for the use of that water and financing is available. See Master Response #3: Comments on Water Supply and Source Water Availability; **Appendix M**, M1W Source Water Technical Memorandum. The analysis in **Appendix M** does not assume that any water would be provided by the Lake El Estero water diversion component.

VV-97 The use of Salinas Storm Water Collection System water would be limited if the City of Salinas refuses to allow M1W to operate its diversion structure that would enable the water to flow to the City's Industrial Wastewater Treatment Facility and thence to be pumped to the RTP after treatment and storage in the ponds at the Industrial Wastewater Treatment Facility. For this reason, M1W has conducted an analysis that assumes that this new source water is not available to CSIP nor to use as AWPF influent after primary and secondary treatment at the RTP. **Appendix M**, M1W Source Water Technical Memorandum provides an analysis that shows that M1W could use existing volumes of wastewater in its system and its rights for Blanco Drain and Reclamation Ditch to meet the yield of the Proposed Modifications without the use of Salinas Storm Water.

VV-98 See response to comment VV-97 and Master Response #3: Comments on Water Supply and Source Water Availability; **Appendix M**, M1W Source Water Technical Memorandum.

VV-99 If the SVRP modifications component of the approved PWM/GWR Project is funded and constructed and the Proposed Modifications to the PWM/GWR Project are implemented, there may be a demand and funding mechanism to divert and treat the Salinas storm water for beneficial reuse (i.e., increased winter time demands that exceed municipal wastewater flows),[8] In this case, M1W would approach the City and negotiate an amendment to existing agreements or a new agreement to enable M1W to divert stormwater and put it to beneficial use. The City would benefit from M1W use of its stormwater by complying with the terms of the State Water Resources Control Board Proposition 1 Storm Water Grant (Prop 1 Grant) and the terms of its MS4 municipal stormwater permit, both of which require reduction of pollutant loads to surface waters downstream of urban areas including by diverting storm water to the Industrial Wastewater Treatment Facility that would otherwise flow untreated to the Salinas River. M1W would not divert the storm water to its RTP unless and until there is a recycled water demand for it. This demand is not anticipated to occur until the City

[8] Presently, the Salinas Storm Water Collection System water is not needed to meet projected demands due to its availability primarily during winter months when there are low recycled water demands. The participation by MCWRA in funding the new source water facilities would demonstrate that additional demands may require increased influent flows.

of Salinas or one or more recycled water customers commits to funding the costs of treatment/operations and maintenance.

VV-100 See response to comment VV-83; see also Master Response #3: Comments on Water Supply and Source Water Availability; **Appendix M**, M1W Source Water Technical Memorandum.

VV-101 See response to comment VV-84; see also Master Response #3: Comments on Water Supply and Source Water Availability; **Appendix M**, M1W Source Water Technical Memorandum.

VV-102 The 2015 Final EIR (Volume I) provide clear and detailed information about the source water for the approved PWM/GWR Project and for the Proposed Modifications to the PWM/GWR Project (with proposes to use the same suite of source waters), including on pages 2-19 through 2-28 and 2-38 through 2-59 with more detailed technical information in Appendices B-Rev, C-Rev, N, O-Rev, P, Q-Rev, and R. When the PWM/GWR Project was modified to include joint use of the MCWD RUWAP conveyance pipeline and to provide irrigation supplies to MCWD customers, updated information about use of municipal wastewater was presented in Addendum No. 3 to the EIR (M1W/DD&A, October 2017). The Draft SEIR presents a summary of the analysis on pages 4.18-10 through 4.18-13 and the technical memorandum in Appendix I summarizes the information in the Tables in Appendix I. See also Master Response #3: Comments on Water Supply and Source Water Availability; **Appendix M**, M1W Source Water Technical Memorandum.

VV-103 The Draft SEIR provides the information requested in the comment in section 4.18 and in Appendices B and I. This information has been supplemented with the Source Water Operational Plan in **Appendix M** of this Final SEIR, which looks at a condition in the future if section 16.16 of the ARWRA is in effect. In all cases, this SEIR demonstrates that excess wastewaters are available to meet the yield requirements of the Proposed Modifications. See Master Response #3: Comments on Water Supply and Source Water Availability; **Appendix M**, M1W Source Water Technical Memorandum; and Master Response #6: Comments on Timing of Proposed Modifications.

VV-104 Table 4.18-3 accurately reflects the current status of contracts and agreements for source water rights in relevant agreements. Relative to the volumes, Appendix I of the Draft SEIR and Appendix M of this Final SEIR, show that excess volumes are physically available to meet the yield objectives of the Proposed Modifications if conditions precedent in sections 16.15 are completed and if those conditions are not and section 16.16 of the ARWRA is in effect. See also Master Response #3: Comments on Water Supply and Source Water Availability; **Appendix M**, M1W Source Water Technical Memorandum.

VV-105 See Master Response #3: Comments on Water Supply and Source Water Availability; Master Response #5: Comments on Adequacy of Scope and Range of Alternatives; and **Appendix M**, M1W Source Water Technical Memorandum.

VV-106 The commenter disagrees with the water supply and demand analysis that was prepared by MPWMD. The supply and demand analysis provided by MPWMD and

used for the Draft SEIR presents the factual assumptions upon which the District's expert opinion is based. MPWMD has since updated and finalized the analysis (see **Appendix O** of this Final SEIR, MPWMD Supply and Demand Report) and this analysis further supports the analysis and conclusions in the growth inducement section of Chapter 5 of the SEIR at pages 5-4 through 5-7 as amended in this Final SEIR. See responses to comment VV-7, Master Response #3: Comments on Water Supply and Source Water Availability, **Appendix O,** MPWMD Supply and Demand Report, and **Appendix N**, MPWMD Response to Hazen & Sawyer.

VV-107 The commenter reiterates its disagreement with the conclusions of the MPWMD Supply and Demand Report. By including the comments and supporting information, including materials developed by commenter's consultants, in this Final SEIR, the Final SEIR has presented the disagreement to the M1W decisionmakers and to the public. Ultimately, M1W, as CEQA lead agency, can choose to rely on facts, data, and analysis provided by experts, including the experts at MPWMD. The MPWMD Water Supply and Demand Report identifies the relevant facts, reasonable assumptions predicated on those facts, and the MPWMD's expert opinion based upon facts. The MPWMD analysis including the September 2019 Memorandum and the Final MPWMD Supply and Demand Report dated March 13, 2020 (see **Appendix O** of this Final SEIR) constitute substantial evidence. A difference of opinion among experts does not indicate a deficiency in an EIR. See Master Response #3: Comments on Water Supply and Source Water Availability.

VV-108 See Master Response #4: Comments on Adequacy of Scope and Range of Cumulative Impacts Disclosed.

VV-109 See Master Response #4: Comments on Adequacy of Scope and Range of Cumulative Impacts Disclosed.

VV-110 See Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

VV-111 See Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

VV-112 See Master Response #5: Comments on Adequacy of Scope and Range of Alternatives. The commenter criticizes the analysis of the No Project/ No Modifications Alternative but does not identify any specific defect or inaccuracy in the analysis. The Draft SEIR explains that the Proposed Modifications would be a backup to the MPWSP desalination project. Therefore, the MPWSP desalination project properly is considered to be part of the No Project conditions. As explained by the Draft SEIR, if the MPWSP desalination project is delayed and if the Proposed Modifications are not implemented, there would be no backup water supply to enable CalAm to meet the Monterey District demands while still enabling CalAm to achieve the CDO [WR2016-0016] applicable effective diversion limits and the Seaside adjudication requirements without the CalAm desalination plant built or operating.

VV-113 See Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

VV-114 The objectives described in the Draft SEIR are the objectives of M1W, which is the CEQA Lead Agency for the Proposed Modifications. CEQA does not require an agency to conform its objectives to those of the commenter. See Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

VV-115 See response to comment VV-114 and Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

VV-116 The CEQA Guidelines provide that a Draft EIR needs to be recirculated only if significant new information is added to an EIR after notice of public review has been given, but before certification of the Final EIR. (Pub. Res. Code, Section 21092.1; CEQA Guidelines Section 15088.5; *Vineyard Area Citizens for Resp. Growth Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412,447.) The critical issue in this inquiry is whether any new information added is "significant"; if so, recirculation is required. (Pub. Res. Code, Section 21092.1). CEQA Guidelines, Section 15088.5(a) states "new information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement."

In four situations, recirculation is required: a) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented. b) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of less than significant. c) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it. d) The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

Responses to comments provided in this document address significant environmental issues raised by commenting public agencies, organizations and individuals. New information provided in response to comments on the Draft SEIR contained in this document clarifies or amplifies information in the Draft SEIR. The new information does not reveal that the project would cause new significant impacts not previously identified in the Draft SEIR, or a substantial increase in the severity of impacts identified in the Draft SEIR. Also, no significant new information has been added that changes the Draft SEIR in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement.

The information added to the Draft SEIR supports the existing analysis and conclusions. Changes to the Draft SEIR and responses in this Final SEIR do not constitute "significant new information" as defined in Section 15088.5 of the CEQA Guidelines. Therefore, in accordance with CEQA Guidelines Section 15088.5 (b), no recirculation of the Draft SEIR is required.

VV-117 See response to comment VV-116.

VV-118 See response to comment VV-116.

VV-119 This comment is substantially the same as Comment VV-4. See responses to comment VV-4**,** above**.** As noted, the Draft SEIR explains that the Proposed Modifications would move forward only if it is not feasible to timely construct and implement the MPWSP. (Draft SEIR at 2-3.) See also Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

VV-120 See Master Response #5: Comments on Adequacy of Scope and Range of Alternatives. See also responses to comments VV-4 through VV-12, and VV-119, above.

VV-121 The definitions provided in the comment do not accurately define the manner in which the Proposed Modifications would serve as a backup to the MPWSP. See Responses to comments VV-4 and VV-19. See also Master Response #4: Comments on Adequacy of Scope and Range of Cumulative Impacts Disclosed and Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

VV-122 Per CEQA Guidelines, the definition and objectives of the project are determined by the project proponent, in this case, M1W. As addressed in previous responses to comments VV-4 and VV-119, the MPWSP does not meet CEQA's criteria for an alternative to the Proposed Modifications. See also Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

VV-123 The Draft SEIR discloses the growth that could be induced by the Proposed Modifications and recognizes that this conclusion differs from the conclusion of the PWM/GWR Project Final EIR. The inclusion of Table 5-1 in the Draft SEIR was not intended to lead to the conclusion that the Proposed Modifications and the MPWSP should be considered as alternatives "to one another." Rather, the analysis was included to characterize the extent of the growth that could be induced by the Proposed Modifications. See responses to comment VV-4, VV-110, VV-114 and also Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

VV-124 See response to comment VV-123**.** See also Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

VV-125 See Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

VV-126 See Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

VV-127 See response to comment VV-114. See also Master Response #3: Comments on Water Supply and Source Water Availability.

VV-128 See Master Response #3: Comments on Water Supply and Source Water Availability.

VV-129 See responses to comments VV-4 through VV-12, above.

VV-130 See Master Response #3: Comments on Water Supply and Source Water Availability and Master Response #5: Comments on Adequacy of Scope and Range of Alternatives.

VV-131 See Master Response #3: Comments on Water Supply and Source Water Availability.

VV-132 See Master Response #3: Comments on Water Supply and Source Water Availability.

VV-133 See Master Response #3: Comments on Water Supply and Source Water Availability.

VV-134 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-135 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-136 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-137 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-138 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-139 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-140 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-141 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-142 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-143 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-144 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-145 See responses to comments VV-11, VV-104 and VV-105 and Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-146 See responses to comments VV-4 through VV-12 and VV-90; Master Response #3: Comments on Water Supply and Source Water Availability.

VV-147 See response to comment VV-91 and Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-148 See Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-149 See response to comment VV-9 and Master Response #3: Comments on Water Supply and Source Water Availability; see also **Appendix M**, M1W Source Water Technical Memorandum.

VV-150 See response to comment VV-69.

VV-151 See response to comments VV-66 through VV-69.

VV-152 See response to comment VV-14 and VV-17.

VV-153 See response to comment VV-20.

VV-154 See response to comment VV-21.

VV-155 This comment refers to comments VV-156 through VV-158. See responses to comments VV-156 through VV-158.

VV-156 See response to comment VV-28.

VV-157 See response to comment VV-28.

VV-158 See response to comment VV-28.

VV-159 See response to comment VV-28. All calculations are provided in the Draft SEIR and supported by a Technical Report in **Appendix F** which has been revised in this Final SEIR. See response to comment VV-14 regarding the use of CalEEMod to compute emissions.

VV-160 See responses to comments VV-22 through VV-26.

VV-161 Comment provides guidelines for preparation of health risk assessments. See responses to comments VV-22 through VV-26.

VV-162 See responses to comments VV-22 through VV-26.

For emissions from construction of wells EW-1 and EW-2, the emissions would be the same as those computed for EW-3 and EW-4, as computed by ESA for the CalAm Monterey Peninsula Water Supply Project (MPWSP). The emissions computed in the MPWSP EIR/EIS were the basis of the emissions used in the HRA that was conducted for wells EW-1 and EW-2.

Surface conditions and topographic features generate turbulence, modify vertical and horizontal winds, and change the temperature and humidity distributions in the boundary layer of the atmosphere" are similar at well locations EW-1 and EW-2 as they are at EW-3 and EW-4. This is supported by the HRA for these wells that support the conclusion in the Draft SEIR.

Meteorological conditions at EW-3 and EW-4 are not different from meteorological conditions at EW-1 and EW-2 with respect to the appropriate application of meteorological data used in the dispersion modeling. The provided HRA used data from Monterey Airport. The well sites EW-1, EW-2, EW-3 and EW-4 are exposed to similar meteorological conditions as those at the Monterey Airport where meteorological data were collected and used in the dispersion modeling. All sites are exposed to the general northwest wind flow that is not obstructed by any substantial features.

The HRA incorporated the latest OEHHA guidance used for assessing cancer risk to school children for toxicity values, breathing rates, exposure durations, and, conservatively applied those to school fields where children would have relatively short duration exposures. The predicted cancer risks provided in the HRA are consistent with the conclusions provided in the Draft SEIR.

To: Pure Water Monterey staff & officials

From: Dr Fred Watson & Dr Scott Waltz, FORTAG co-founders

Re: Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project (Draft Supplemental EIR).

31 January 2020

We request that you incorporate into your process a formal and written requirement to staff and consultants that relevant steps in project design, engineering, and approval be coordinated with the Fort Ord Regional Trail and Greenway (FORTAG) project.

FORTAG is proposed as a 31-mile multipurpose trail and greenway system within and around the former Fort Ord. Under TAMC as Lead Agency, the proposal has secured around $32M in funding to date along with various milestones of formal support and approval by elected bodies and Monterey County voters. The FEIR for FORTAG is scheduled for approval in March 2020.

A key goal of FORTAG is that the paved trail will have a wheelchair accessible gradient. Achieving this requires careful geospatial design involving switchbacks in steep terrain, such as exists in the general area of the PWM well fields.

Since 2014, the public FORTAG proposal has included trail segments that directly overlap locations where the PWM has subsequently proposed and constructed injection wells and associated infrastructure. FORTAG representatives have met with PWM representatives on a number of occasions with positive outcomes toward an intent to coordinate the location of our respective infrastructural elements so that they complement and do not conflict with each other. Nevertheless – probably because it is understandably difficult for everyone to keep track of everything all the time - PWM infrastructure has been built in locations that tend to unnecessarily constrain FORTAG's goal of providing a trail with an accessible gradient and minimal **environmental impact**. With the newly proposed well sites, the possibility remains that well siting will displace trail alignment in a manner that could lead to **additional environmental impact** if not carefully coordinated.

WW-1

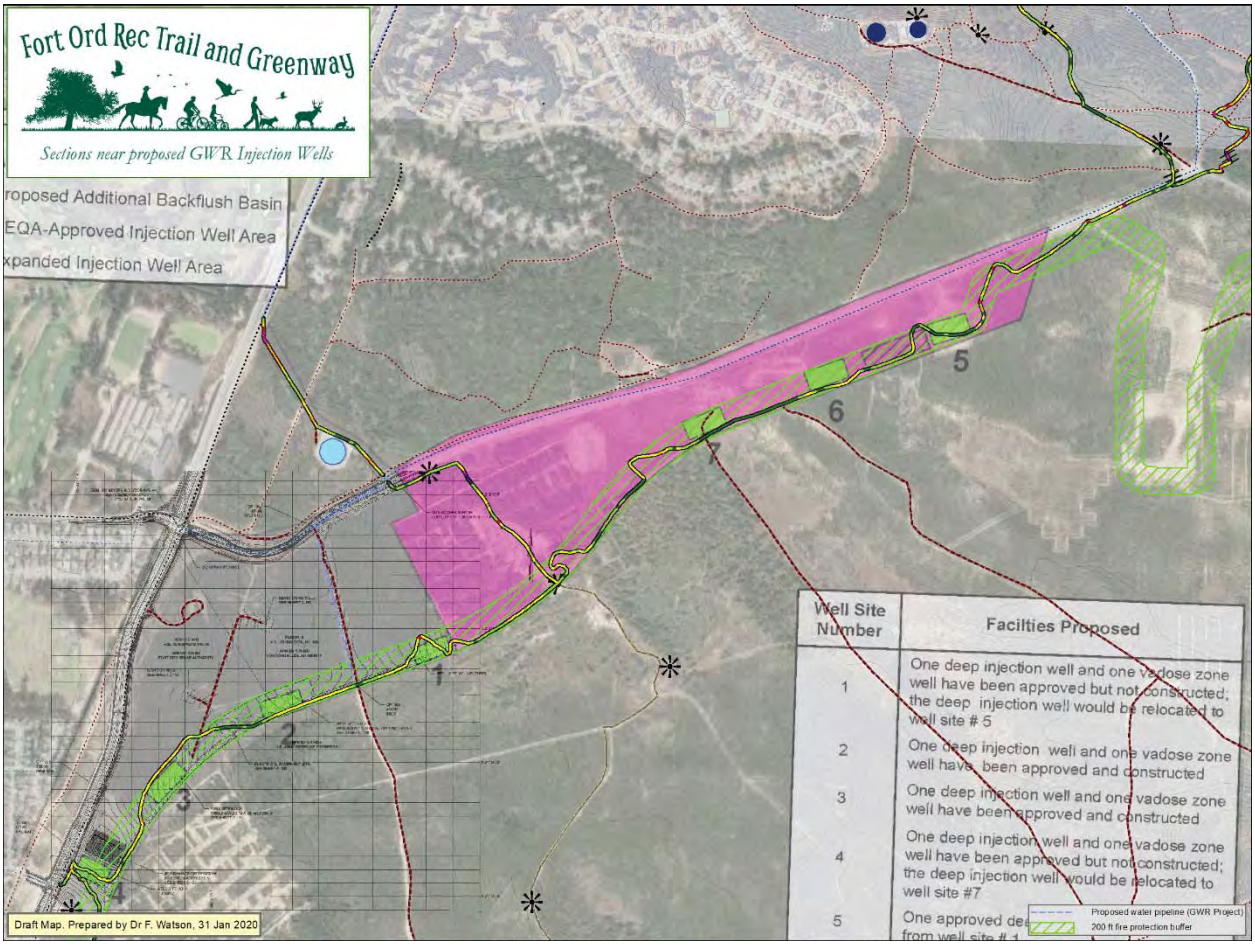
We believe that coordination ahead of time can lead to slight adjustments that do not significantly impact either project, and enable both projects to completely achieve their respective goals. There may also be opportunities to overlap infrastructure in complementary ways that **reduce environmental impact** – by having the trail and the well access roads be the same thing.

The attached map depicts the general way in which the currently proposed FORTAG alignment overlaps proposed injection well sites. The FORTAG alignment is depicted in colors that indicate the steepness of the trail – red being the steepest.

Sincerely,

Fred Watson & Scott Waltz, FORTAG co-founders

See map on next page.


Fort Ord Rec Trail and Greenway
Sections near proposed GWR Injection Wells
roposed Additional Backflush Basin
EQA-Approved Injection Well Area
xpanded Injection Well Area
Draft Map. Prepared by Dr F. Watson, 31 Jan 2020
Well Site Number
Facilties Proposed
1
One deep injection well and one vadose zone well have been approved but not constructed; the deep injection well would be relocated to well site # 5
2
One deep injection well and one vadose zone well have been approved and constructed
3
One deep injection well and one vadose zone well have been approved and constructed
4
One deep injection well and one vadose zone well have been approved but not constructed; the deep injection well would be relocated to well site #7
5
One approved dee
from well site # 1
Proposed water pipeline (GWR Project)
200 ft fire protection buffer

Comment Document WW: Fred Watson and Scott Waltz, Fort Ord Regional Trail and Greenway (FORTAG) Project

WW-1 Commenters represent the Fort Ord Regional Trail and Greenway (FORTAG) project and request that the PWM Project and PWM Expansion project incorporate a formal process whereby the proposed FORTAG trail alignment is considered in the PWM project design, engineering, and approvals. See response to comments, Letter K-1 through K-4, from the Transportation Agency. As noted, M1W intends to work with the Transportation Agency and FORTAG to address this request. Also see **Chapter 5, Changes to the Draft SEIR**; the requested FORTAG mapping has been added to Section 4.17 to pages 4.17-3 to 4.17-5 of the Draft SEIR.

Coalition of Peninsula Businesses

A coalition to resolve the Peninsula water challenge to
comply with the CDO at a reasonable cost

Members Include: Monterey County Hospitality Association, Monterey Commercial Property Owners' Association,
Monterey Peninsula Chamber of Commerce, Carmel Chamber of Commerce, Pacific Grove Chamber of Commerce, Monterey County Association of Realtors, Associated General Contractors-Monterey Division, Pebble Beach Co., Community Hospital of the Monterey Peninsula

January 31, 2020

Rachel Gaudoin, Public Outreach Coordinator
Monterey 1 Water
5 Harris Court, #D
Monterey, California 93942

Transmitted by fax to: 831-372-6178 and by e-mail to:purewatermontereyinfo@my1water.org

Dear Ms Gaudoin:

The Coalition of Peninsula Businesses submits these comments on the draft Supplemental Environmental Impact Report (dSEIR) on the proposed expanded Pure Water Monterey project.

As you know, the Coalition of Peninsula Businesses vigorously has supported the Monterey Peninsula Water Supply Project which includes the Pure Water Monterey water recycling and reuse project.

The Coalition has serious concerns about the availability of source water for the expansion project. Comments recently filed by the City of Salinas address this concern directly. XX-1

City of Salinas notes that the existing agreements for the use of agricultural wash water do not provide a legitimate basis for the contentions in the dSEIR that sufficient source XX-2

water is available and existing agreements cover the use of that water for the expansion. See dSEIR at 4.18.3.4 at page 4.18-4,5,6 and dSEIR at4.18.4.4 at page 4.18-12 at Table 4.18-3. XX-2 Cont.

The Coalition is also concerned that the dSEIR concludes that reduced CSIP benefit of 781 afy is acceptable without revisiting this issue with ag interests, Monterey County Water Resources Agency and other parties and without amendment of several legal agreements and contracts – specifically, the Amended and Restated Water Recycling Agreement (ARWRA) and the 2015 Conveyance and Treatment Agreement. XX-3

We note the recent delivery of letters to Monterey One Water by Monterey County Farm Bureau (January 10) and Salinas Valley Water Coalition (January 17) that both address the issue of changing perceptions about Salinas Valley Basin water use and water reclamation and reuse prompted, in large part, by the development of the state-mandated Salinas Valley Basin Groundwater Sustainability Plan. We attach copies of those letters for your reference as you address the issues City of Salinas and we raise in these comments. XX-4

Please revise your expanded Pure Water Monterey SEIR to reflect the reality that sufficient source water agreements may not exist to support the expansion of Pure Water Monterey and that more work needs to be done before the expansion project can be considered adequately studied.

Sincerely,

Jeff Davi, Co-chair

John Tilley, Co-chair

FARM BUREAU
MONTEREY

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January 10, 2020

Monterey One Water
Board of Directors
Ron Stefani, Chair
5 Harris Court, Bldg. D
Monterey, CA 93940

RE: Pure Water Monterey Expansion Project

Dear Chair Stefani and Directors:

Monterey County Farm Bureau represents family farmers and ranchers in the interest of protecting and promoting agriculture throughout our County. Since 1917, Farm Bureau strives to improve the ability of those engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of our local resources.

Over the past nearly eight years, our organization has been actively involved in the water supply solution for the Monterey Peninsula. Our belief is that a healthy Monterey County encompasses all aspects of our community, including water supplies in areas where there are current challenges to meet demand. While the Salinas Valley may not have a supply problem, but more a distribution problem, our involvement in the Monterey Peninsula Water Supply Project (MPSWP) came about due to a number of factors, including the health of our tourism and business community of the Peninsula having a secure, reliable water supply. XX-5

This involvement included support for the initial Pure Water Monterey project, part of the "three-legged stool" of projects proposed in the MPWSP. Combined with aquifer storage and recovery and desalination, this provided the best reliable and drought-proof resource for Peninsula water supplies for generations to come. Monterey County Farm Bureau actively supported this solution at the California Public Utilities Commission and continues to support this approach moving forward.

Since the approval of the initial Pure Water Monterey project, the Salinas Valley has undertaken the implementation of the Sustainable Groundwater Management Act (SGMA), including developing a groundwater sustainability plan for the seawater intruded portion of the basin (Pressure sub-basin). This process has altered the perceptions of water sources, reclamation and reuse, including the discharges of water from storm events, processing and manufacturing facilities, and effluent from farm fields.

FARM BUREAU
MONTEREY

1140 Abbott Street, Suite C, Salinas, CA 93901 • PO BOX 1449, Salinas, CA 93902
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This changed perception of all waters of the basin has caused farmers and ranchers to reconsider all water use and how much is extracted annually, as well as the quality of any water discharged from a farm or processing facility into a conveyance or collection pond.

While we find there is still enthusiasm for reclaiming as much of these discharges for reuse, the paradigm shift in focus is now seeking to fulfill the needs of a new sustainability mandate; the reuse of water should be for the benefit of those who discharged the water from its original use.

The proposed expansion of Pure Water Monterey is to benefit the needs of users outside of the Salinas Valley basin, and thus we express wavering support for the expanded project that will benefit another water constituency. More farmers and landowners are concerned that waters discharged in the Salinas Valley basin should be returned to that same basin for reuse and to the benefit of those water users, such as crop production in an expanded Castroville Seawater Intrusion Project (CSIP) area or groundwater replenishment in the coastal zone or eastside sub-basin trough.

XX-5
Cont.

Since the implementation of SGMA and the change in attitudes towards all water use, Monterey County Farm Bureau recommends that the expansion of the Pure Water Monterey project be held off until more clarity on reclaimed water use in the Salinas Valley basin can be explored. The adoption of the groundwater sustainability plan includes a number of projects that may require additional water sources to comprehensively bring the Pressure sub-basin into balance, or to at least halt the progression of seawater intrusion, a threat to all water users in Monterey County.

We request a deferment of any decision to approve the expansion of Pure Water Monterey until there is more data on overall water sustainability and use in the greater Salinas Valley groundwater basin.

Sincerely,

Norman C. Groot
Executive Director

cc: Brent Buche, General Manager, Monterey County Water Resources Agency

Salinas Valley Water Coalition

33 El Camino Real • Greenfield, CA 93927
(831) 674-3783 • FAX (831) 674-3835

TRANSMITTED VIA EMAIL

Board of Directors
Ron Stefani, Chair
Monterey One Water
5 Harris Court, Bldg. D
Monterey, CA 93940

17 January, 2020

RE: Pure Water Monterey Expansion Project

Dear Chair Stefani and Directors:

The Salinas Valley Water Coalition is a non-profit organization comprised primarily of agriculture and ag-related business and individual members, whose members own and/or manage approximately 150,000 irrigated acres and land mass and water right holders within the Salinas Valley. The SVWC has operated for almost 30 years to specifically address our local water issues.

We became a party to the MPWSP's California Public Utilities Commission (CPUC) proceeding in 2012, and actively participated in that proceeding. We were concerned that Cal-Am's proposed desal project would be pumping a significant amount of groundwater from the Salinas River Groundwater Basin and as such would have an adverse impact on the Basin; both as to seawater intrusion and the overlying water rights of the basin's landowners. While wanting to be good neighbors and wanting to see the Peninsula be successful in developing a secure and stable water supply to meet their needs, it must not be at the degradation of our basin and its water right holders.

We were also concerned that the proposed desal facility had the potential to export groundwater from the northern end of the Salinas Valley Groundwater Basin (SVGB) to an area outside of the SVGB, contrary to the MCWRA Act and with adverse impacts to the overlying water right holders. The SVWC retained two hydrologists to assist us in the CPUC process to evaluate the potential impacts to the SVGB and to assist in developing a resolution that would protect the Salinas Valley Groundwater Basin and its water right holders. We believe we accomplished this within the CPUC process. XX-6

The communities and ratepayers of the Salinas Valley have spent hundreds of millions of dollars to build two reservoirs, the Castroville Seawater Intrusion Project, the Salinas Valley Reclamation Project and the Salinas Valley Water Project to address its basin's water problems. Stakeholders have worked as neighbors to resolve their differences so these projects could be successfully financed and implemented.

We have made significant progress, but we are not finished – seawater intrusion continues to advance into the SVGB. The overdraft is stable; additional intrusion is substantially reduced. The northern part of our SVGB still has significant water resource problems and needs for us to address.

Water and the reuse of water are critical issues within the agricultural community of Salinas Valley and with the continued advancement of seawater intrusion, the priority of the utilization of our wastewater and recycling project must be for the benefit of the Salinas Valley agricultural community.

As little as three years ago, there was enthusiasm for recycling as much wastewater as possible, and the Salinas Valley agricultural community supported the initial Pure Water

Monterey project, but this was with the understanding that there would remain opportunities for the agricultural community of the Salinas Valley to participate in and utilize the waste water. The current proposed expansion of the recycled water project to meet the needs of the Peninsula's urban uses comes at a time when farmers are rethinking where and how water is used, and particularly, where discharges ultimately end up being used when reclaimed. XX-6 Cont.

In the Salinas Valley there is wavering support for the proposed expansion of Pure Water Monterey for the benefit of Peninsula water users, due to the need for the expanded use of waste waters for the Salinas Valley. More farmers and landowners believe the Salinas Valley should be priority for utilization of the waste waters and that they should stay in the Salinas Valley.

The SVWC wants to be good neighbors and assist the Peninsula in meeting their water needs, but this cannot be at the degradation of the needs of the Salinas Valley. Therefore, we believe that the expansion of Pure Water Monterey as currently proposed not move forward at this time.

Sincerely

Salinas Valley Water Coalition Board
Keith Roberts, Chair
Roger Moitoso, Vice- Chair
Rodney Braga, Director
Lawrence Hinkle, Director
Bill Lipe, Director
David Gill, Director
Steve McIntyre, Director
Brad Rice, Director
Michael Griva, Past-Chair
Nancy Isakson, President

Cc: Brent Buche, MCWRA General Manager

Comment Document XX: Jeff Davi & John Tilley, Coalition of Peninsula Businesses

XX-1 See Master Response #3: Comments on Water Supply and Source Water Availability.

XX-2 See Master Response #3: Comments on Water Supply and Source Water Availability.

XX-3 See Master Response #3: Comments on Water Supply and Source Water Availability for information regarding CSIP benefits.

XX-4 The commenter cites letters from Monterey County Farm Bureau and Salinas Valley Water Coalition that were sent separately. Commenter notes that they have attached copies of these letters for reference. Please see response to Letter AAA and Letter BBB, respectively, in **Chapter 5.**

XX-5 The letter from Monterey County Farm Bureau, dated January 10, 2020, has been added as Letter AAA. Please see responses to Letter AAA.

XX-6 The letter from the Salinas Valley Water Coalition, dated January 10, 2020, has been added as Letter BBB. Please see responses to Letter BBB.

Margaret L. Thum
PO Box 991
Pebble Beach, CA 939353

January 31, 2020

VIAL EMAIL: purewatermontereyinfo@my1water.org

Monterey One Water
Attn: Rachel Gaudoin
5 Harris Court, Building D
Monterey, CA 93940

RE: Comments on Draft Supplemental EIR – Due 5pm January 31, 2020

Dear Ms. Gaudion:

Following are comments on the on the Draft Supplemental EIR ("Draft EIR" or "Report") for Proposed Expansion of GWR Project ("Project").

1. The Draft EIR Does Not Adequately Study the Impact on Health.

The Draft EIR does not study the impact on public health and is indifferent to legitimate public health concerns, which makes the report fatally defective. While the Report superficially appears to review health-related concerns, it fails to address the impact on public health for several reasons, including (i) testing of water samples, which was done 7 years ago, is wholly inadequate, (ii) updated EPA methods for analyzing PFAS in drinking water are completely ignored, (iii) there is no investigation into the impacts of plume migration that are a known risk in light of a recent hydrology study of the Seaside Aquifer, and (iv) the safety of the Project rests almost solely on the assertion that the Project will meet federal and state regulations; regulations alone are insufficient to protect public health and are not justification for the harm, including violation of the fundamental constitutional right to bodily protection and integrity, resulting from inadequate regulations.[1] YY-1

Most important, the Report fails to address the impact on public health because the Project is essentially above all else, a *public health* project - 100,000 Monterey Peninsula residents will be asked to drink, cook with, shower and bathe with and inhale the Project's "finished product" mixed into their drinking water source. Note, however, not one physician was involved in assessing the public health and safety of the Project. This alone shows a complete disregard for the public's health concern and the impact on the public's health. YY-2

Reliance on regulations to protect public health is egregiously misplaced. There are no EPA or California legally enforceable mandates or primary drinking water regulated contaminant lists specific to potable recycle projects. The EPA's Primary Drinking Water standards that includes only approx. 100 regulated individual contaminants is antiquated and furthermore is directed at relatively unpolluted traditional water sources like Hetch Hetchy and Carmel River water. Heavily polluted water sources like Blanco Drain, Reclamation Ditch, and hospital and domestic sewage and urban storm water runoff have YY-3

[1] *See, e.g., City of Flint v. Guertin, et al.* (US S.Ct. Docket No. 19-205)

thousands more chemical constituents and pathogens that are hazardous to public health than Carmel River contains. California regulations are also woefully inadequate by relying on the EPA's Primary Drinking Water Standards. The impacts to public health of the Project, being a first of its kind (Orange County does not mix sewage, agriculture run off and 303d impaired waters), must be more thoroughly investigated and mitigation measures identified before the Report can be finalized. YY-3 Cont.

A. Testing, which was done 7 years ago, does not meet minimum standards necessary to adequately study the existence of PFAS.

According to the Report, the testing for constituents of emerging concern (CECs), e.g., PFAS (both PFOS and PFOA) was performed by Trussell Technologies, Inc. ("Trussell") from samples taken from December 2013 to June 2014.[2] Trussell, which has its own laboratory, was not an NELAC or ELAP certified facility in 2014.[3] Moreover, because California did not provide an ELAP accreditation for analyzing PFAS in 2013, any such testing at that time would have needed to be performed by an NELAC certified facility.[4] NELAC certified facilities must follow required methods for testing that in turn assure the quality of analytical data; there is no assurance of the quality of the analytical data on which the Report relies. YY-4

More important, however, is there has been *no* analysis of PFAS from the RO Permeate.[2] That is, there was no analysis (in 2013 or now) of the "treated" Blanco Drain and Reclamation Ditch waters for PFOS and PFOA, despite the fact that some pesticides degrade into PFAS, e.g., sulfluramid to PFOS. It is unclear why this analysis was never performed; however, it is clear that without this analysis, the Report fails to meet the minimum standards of studying the Project's impact on health. YY-5

Additionally, the Report does not consider that methods for testing PFAS have advanced since the original EIR. Because an ever-so-minute amount of PFAS can have negative health effects, e.g., four grains of sugar in an Olympic-sized swimming pool, standards and methods to detect PFAS in drinking water had not been developed in 2013.[5] It wasn't until 2018 that the EPA released its first standard for testing PFAS in drinking water, namely, Method 537.1, which California adopted last year.[6] And it wasn't YY-6

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[2] See Appendix H, Table 6, Note 1. The Report also does not test for geochemical interactions with multiple bodies of waters convening in the Seaside Basin; Pueblo Resources informed that Seaside Watermaster that it would not be doing any such testing. (see http://www.seasidebasinwatermaster.org/Agenda.pdf/TAC%20Agenda%20B%207-10-19.pdf) Note also that the report to the Watermaster also mentioned that Pure Water Monterey Project would likely not meet water quality standards necessary before water is injected into the Seaside Aquifer. The Report does not include any testing to confirm the impacts of the expansion of the Project on the geochemical interactions or the water quality standards necessary to meet water quality standards.

[3] See https://www.waterboards.ca.gov/drinking_water/certlic/labs/documents/AllELAPCertifiedLabs.pdf.

[4] As of September 2018, there were no certified ELAP facilities in California for testing PFAS, because California did not provide an ELAP accreditation for this. https://www.babcocklabs.com/news/pfoa-amp-pfos-testing-not-why-but-how/2018

[5] See https://www.ocregister.com/2020/01/17/forever-chemicals-in-orange-county-drinking-water-to-force-widespread-well-closures/ (one-third of OCWD's wells are expected to close due to PFAS groundwater contamination)

[6] https://www.waterboards.ca.gov/drinking_water/certlic/labs/documents/pfas_announcement_ddw_final.pdf There are only 9 California laboratories accredited under Method 537.1. https://www.waterboards.ca.gov/pfas/docs/ddw_pfas_120219.pdf

until about a month ago that the EPA released its second standard, namely, Method 533.[7] Before the Draft EIR can adequately study the health impacts of the Project, the water in all aquifers, the source waters and the RO Permeate must be analyzed in accordance with the more recently EPA-approved methods for analyzing PFAS, including Method 537.1 and 533. YY-6 Cont.

B. The Report does not consider the 2018 hydrology report that significantly increases plume migration that can impact public health and the viability of the Marina and Seaside aquifers.

The Report, by relying on incorrect data and conclusions included in the original EIR, also fails to study the impacts of plume migration. In the summer of 2018, the Seaside Watermaster Committee was advised that the previous model which was used for the original EIR was flawed: water levels in Seaside Aquifer were over estimated by as much as 35 feet.[8] Based on this new information, it is no longer correct that the Seaside Aquifer pressure is sufficiently high to create a barrier that protects the Seaside Aquifer from contamination migrating from the groundwater underlying Fort Ord. As a result, PWM's injection wells and CalAm's pumps have greater impacts than initially thought - up to 4 miles north of the location of PWM wells, which could impact the northern regions of Seaside Aquifer. The hydrology company recommended that the Seaside Watermaster Committee be vigilant regarding increased injection/pumping activity and the Seaside Aquifer model might need to be updated sooner, if increased PWM activity took place. Based on this, there can be no certainty about ephemeral water pressure barriers or whether a pollutant plume will remain static, especially when injection and pumping from a major water project gets underway. As a result, the Report should be revised to include the study the groundwater at Fort Ord for contaminates, including chemicals of concern and CECs, and the health and safety impacts to the public and the aquifers in Seaside and Marina (both 400 and 180) of migration of these contaminates into the Seaside and Marina aquifers.[9] The Report should also require continued regular monitoring of the aquifers to ensure the plume has not migrated into the water that ultimately becomes drinking water. YY-7

2. The Report relied on outdated regulations and regulations alone have been shown to be woefully inadequate to protecting the public from harmful effects of contaminated drinking water. YY-8

The Report relies on the regulatory framework in existence at the time of the original EIR, except for California's Sustainable Groundwater Management Act and its Recycle Water Policy.[10] The Report also

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[7] Method 533 was released on December 19, 2019. The next day, Pure Water Monterey announced an extension for comments on the Draft EIR. See https://www.epa.gov/newsreleases/epa-announces-new-method-test-additional-pfas-drinking-water There are no labs in California that are accredited under Method 533.

[8] See http://www.seasidebasinwatermaster.org/Other/HydroMetrics%202018%20Model%20Update%20Memo%20Final%206-28-18.pdf; see also http://www.seasidebasinwatermaster.org/Agenda.pdf/19%200605%20Watermaster%20Board%20Meeting%20Packet_Agenda.pdf (Pueblo Water Resources confirming that it will not do testing of geochemical interaction of

[9] OCWD incorrectly thought a plume was static in one aquifer, and by the time they discovered this wasn't correct, the plume had contamination had spread and more wells were (and will be) required to shut down.

[10] See Section 4.10.3.

mentions that the water produced by the Project will "meet or exceed meet or exceed Federal and State drinking water standards."[11] YY-8 Cont.

Despite these statements, the Report does not mention more recently established methods for testing drinking water for PFAS, including federal EPA Method 537.1, which was adopted by California in 2019, and Method 533. Because of this oversight, the Draft EIR has failed to consider full regulatory framework. And, as a result, the Draft EIR will need to perform testing of the source waters, RO Permeate, and aquifers (Seaside and Marina) to should then be updated with these results, and any mitigation measures. YY-9

Moreover, reliance on regulations alone is insufficient to mitigate the public's legitimate health concerns of the Project that uses source waters – specifically the Blanco Drain and Reclamation Ditch – that are on the EPA's 303d impaired waters list (the most contaminated waters in the US) and that stores drinking water for an entire community in an aquifer that underneath a National Priority Superfund Site that includes contaminates that no doubt leach into the aquifer. YY-10

In upholding the decision of the US Sixth Circuit in *Flint v Guertin*,[12] the Supreme Court recognized there the public has a fundamental constitutional right that is first among equals to "personal security and bodily integrity." In Flint, residents were delivered highly polluted and unsafe drinking water that resulted in a multitude of health calamities, including increased rates of miscarriages, cognitive deficits in children. The Sixth Circuit in the *Flint* case determined that "a government actor violates individuals' right to bodily integrity knowingly and intentionally introducing life-threatening substances into individuals without their consent, especially when such substances have zero therapeutic benefit."[13] YY-11

In order for the Draft EIR in this case to steer clear of the issues in *Flint*, it cannot rely on regulations and cannot avoid a systematic testing for known contaminates; rather it must carefully address the public health concerns by methodically testing the waters at each stage to ensure that the drinking water stored in the aquifer and ultimately delivered to consumers is safe and free from the contaminants that are known to exist in the source waters and aquifers. YY-12

Regards,

Margaret

cc: File

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[11] See Section 2.1.2.2.
[12] See, e.g., *City of Flint v. Guertin, et al.* (US S.Ct. Docket No. 19-205); see also https://www.opn.ca6.uscourts.gov/opinions.pdf/19a0003p-06.pdf
[13] https://www.opn.ca6.uscourts.gov/opinions.pdf/19a0003p-06.pdf

Rachel Gaudoin

From: Margaret Thum <margaret.thum@gmail.com>
Sent: Sunday, February 02, 2020 3:13 PM
To: Pure Water Monterey Info; Rachel Gaudoin
Cc: drinc@waterboards.ca.gov; gama@waterboards.ca.gov; info3@waterboards.ca.gov; Barnard, Randy@Waterboards
Subject: Supplemental Response to Draft EIR for Pure Water Monterey Project - Coronavirus found in Feces
Attachments: 2020-01-31 Comment on Draft EIR.pdf; Coronavirus Latest_ Feces May Be Hidden Risk of Virus's Spread - Bloomberg.pdf; Wuhan Coronavirus Looks Increasingly Like a Pandemic, Experts Say - The New York Times.pdf

Dear Ms. Gaudoin:

In support of my timely submitted comment letter to the Draft EIR on Friday, January 31, 2020 (a copy attached), I am including the attached article (which was posted after the Draft EIR comment deadline) that reinforces the need for stringent mitigation measures before the continued and expanded use of sewage for the Project.

The article (which also may be found via this link: https://www.bloomberg.com/news/articles/2020-02-01/coronavirus-lurking-in-feces-may-reveal-hidden-risk-of-spread) confirms that the deadly coronavirus, which is quickly becoming a global pandemic (see https://www.nytimes.com/2020/02/02/health/coronavirus-pandemic-china.html; copy attached), is found in feces of infected humans. This finding only emphasizes the clear and present danger of using sewage, including from hospitals and residences, for the Project (currently and as proposed to be expanded) without proper mitigation measures that must include ensuring that serious and deadly viruses and pathogens are not in the "treated" water before it is injected into the groundwater; without full assurances, the Project should not use sewage as a source for the Project. YY-13

The attached articles only further support my comments that the Project poses serious and potentially deadly impacts on public health; as mentioned in my comment letter, the Draft EIR should not be approved without implementing strong mitigation measures that protect public health and safety.

Thanks,

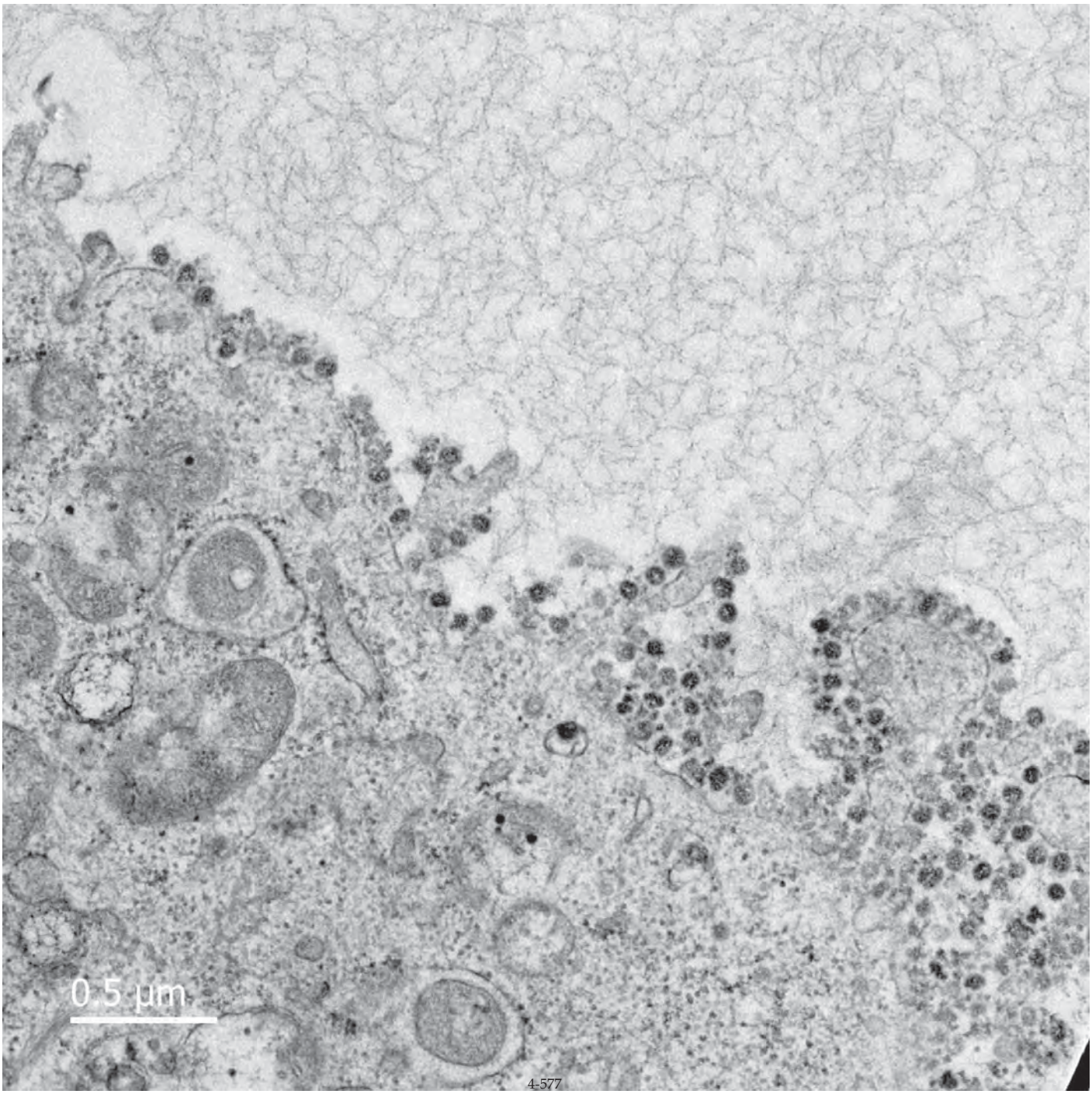
Margaret

Business

Coronavirus Lurking in Feces May Reveal Hidden Risk of Spread

By Jason Gale
January 31, 2020, 10:55 PM PST

- Squat latrines, common in China, may be a virus source
- 2019-nCoV virus was found in loose stool of case in Washington



An electron microscopic image of the 2019 novel coronavirus grown in cells at the University of Hong Kong. *Source: The University of Hong Kong*

While doctors have focused on respiratory samples from pneumonia cases to identify coronavirus patients, they might have ignored a less apparent and hidden source of the spread: diarrhea.

The novel coronavirus was detected in the loose stool of the first U.S. case -- a finding that hasn't featured among case reports from Wuhan, China, the epicenter of the outbreak. However, that doesn't surprise scientists who have studied coronaviruses, nor doctors familiar with the bug that caused SARS.

Diarrhea occurred in about 10-20% of patients afflicted with severe acute respiratory syndrome about 17 years ago and was the source of an explosive SARS outbreak in the Amoy Gardens residential complex in Hong Kong.

SARS and Wuhan viruses bind to the same distinctly shaped protein receptors in the body that are expressed in the lungs and intestines, making these organs the primary targets for both viruses, said Fang Li, an associate professor of veterinary and biomedical sciences at the University of Minnesota.

The discovery of the Wuhan virus, dubbed 2019-nCoV, in the fecal material of the 35-year-old man treated at the Providence Regional Medical Center Everett in Washington is "interesting," said Scott Lindquist, the state epidemiologist for infectious disease at Washington's Department of Health.

"That adds to the knowledge about this," he told reporters on a conference call Friday. "It's not only excreted in your respiratory secretions, it's also secreted in your stool."

Read More: What You Need to Know About the Spreading Coronavirus

Researchers don't yet know how exactly 2019-nCoV spreads from person to person, but suspect it's most likely from coming into contact with virus-containing droplets that could be emitted by an infected person's cough and transferred to their hands or surfaces and objects.

Face Masks

That's led to a run on face masks. But those may be of limited benefit in the event the virus is being transmitted via the fecal-oral route, said John Nicholls, a clinical professor of pathology at the University of Hong Kong.

Squat latrines, common in China, lacking covers and hands that aren't washed thoroughly with soap and water after visiting the bathroom could be a source of virus transmission, said Nicholls, who was part of the research team that isolated and characterized the SARS virus.

Customers stand in line to buy protective masks in Hong Kong on Jan. 31. *Photographer: Paul Yeung/Bloomberg*

A virus-laden aerosol plume emanating from a SARS patient with diarrhea was implicated in possibly hundreds of cases at Hong Kong's Amoy Gardens housing complex in 2003. That led the city's researchers to understand the importance of the virus's spread through the gastrointestinal tract, and to recognize both the limitation of face masks and importance of cleanliness and hygiene, Nicholls said in an interview.

"I think in Wuhan, that would be a very likely place where you might get the transmission" from fecal material, he said. "If it's using the same receptor as for SARS, I can't see why it shouldn't be replicating in the gut."

4-579

Nicholls and colleagues at the University of Hong Kong are testing laboratory models of human tissues and specimens to understand where and how the Wuhan virus replicates, he said.

Emerging Evidence

Doctors have reported diarrhea infrequently in 2019-nCoV patients admitted to Wuhan hospitals, though it's been more prominent among reported cases outside the city, including members of a Shenzhen family infected in Wuhan, and more recently in the first U.S. case in Washington state. That patient experienced a two-day bout of diarrhea from which a sample tested positive.

The lab in Washington didn't attempt to grow the virus from that specimen, said Lindquist, the state epidemiologist, "because it wasn't going to add anything to his care."

Many of the emerging coronaviruses are so-called pneumoenteric viruses, meaning they can replicate both in the respiratory tract and the gastrointestinal system, said Ralph Baric, professor of microbiology and immunology at the Gillings School of Global Public Health at the University of North Carolina at Chapel Hill, who has studied coronaviruses for decades.

Overwhelmed by hundreds of severely sick pneumonia patients, doctors in Wuhan might not have focused on any gastric signs, Baric said in a phone interview.

'So Overwhelmed'

"The Chinese are so overwhelmed at the moment and trying to do a combination of treating patients and dealing with the scope of the outbreak, and then trying to get out papers that describe what's happening," he said.

Any virus in stool is more likely to be present during the acute phase of an infection, occuring before hospitalized patients develop a life-threatening complication known as acute respiratory distress syndrome, Baric said.

"I have also spent most of my time focusing on the respiratory tract symptomology rather than the gut because of the relationship between these different emerging viruses and acute respiratory distress syndrome," he said.

Zijian Feng, deputy director general of Chinese Center for Disease Control and Prevention, and colleagues released a report Wednesday on the first 425 Wuhan cases, and noted that early infections that didn't appear to display typical signs -- such as fever and viral pneumonia -- or had mild symptoms might have been missed.

"The initial focus of case detection was on patients with pneumonia, but we now understand that some patients can present with gastrointestinal symptoms," Feng and co-authors said in their report, which was published in the New England Journal of Medicine.

Emerging evidence of virus-containing diarrhea warrants further investigation, said Peter Collignon, a professor of clinical medicine at the Australian National University Medical School in Canberra, who advises the Australian government on infection control.

"This is something new," Collignon said in an interview. "We presume it's respiratory droplets, but with SARS there was evidence of other routes. We have to keep an open mind."

The New York Times https://nyti.ms/2GOL83q

GLOBAL HEALTH

Wuhan Coronavirus Looks Increasingly Like a Pandemic, Experts Say

Rapidly rising caseloads alarm researchers, who fear the virus may make its way acros how many deaths may result.

By Donald G. McNeil Jr.

Feb. 2, 2020 Updated 4:02 p.m. ET

The Wuhan coronavirus spreading from China is now likely to become a pandemic that circles the globe, according to many of the world's leading infectious disease experts.

The prospect is daunting. A pandemic — an ongoing epidemic on two or more continents — may well have global consequences, despite the extraordinary travel restrictions and quarantines now imposed by China and other countries, including the United States.

Scientists do not yet know how lethal the new coronavirus is, however, so there is uncertainty about how much damage a pandemic might cause. But there is growing consensus that the pathogen is readily transmitted between humans.

The Wuhan coronavirus is spreading more like influenza, which is highly transmissible, than like its slow-moving viral cousins, SARS and MERS, scientists have found.

"It's very, very transmissible, and it almost certainly is going to be a pandemic," said Dr. Anthony S. Fauci, director of the National Institute of Allergy and Infectious Disease.

"But will it be catastrophic? I don't know."

In the last three weeks, the number of lab-confirmed cases has soared from about 50 in China to 14,000 in 23 countries; there have been over 300 deaths, all but one in China.

But various epidemiological models estimate that the real number of cases is 100,000 or even more. While that expansion is not as rapid as that of flu or measles, it is an enormous leap beyond what virologists saw when SARS and MERS emerged.

When SARS was vanquished in July 2003 after spreading for nine months, only 8,098 cases had been confirmed. MERS has been circulating since 2012, but there have been only about 2,500 known cases.

The biggest uncertainty now, experts said, is how many people around the world will die. SARS killed about 10 percent of those who got it, and MERS now kills about one of three.

The 1918 "Spanish flu" killed only about 2.5 percent of its victims — but because it infected so many people and medical care was much cruder then, 20 to 50 million died.

By contrast, the highly transmissible H1N1 "swine flu" pandemic of 2009 killed about 285,000, fewer than seasonal flu normally does, and had a relatively low fatality rate, estimated at .02 percent.

The mortality rate for known cases of the Wuhan coronavirus has been running about 2 percent, although that is likely to drop as more tests are done and more mild cases are found.

It is "increasingly unlikely that the virus can be contained," said Dr. Thomas R. Frieden, a former director of the Centers for Disease Control and Prevention who now runs Resolve to Save Lives, a nonprofit devoted to fighting epidemics.

"It is therefore likely that it will spread, as flu and other organisms do, but we still don't know how far, wide or deadly it will be."

In the early days of the 2009 flu pandemic, "they were talking about Armageddon in Mexico," Dr. Fauci said. (That virus first emerged in pig-farming areas in Mexico's Veracruz State.) "But it turned out to not be that severe."

An accurate estimate of the virus's lethality will not be possible until certain kinds of studies can be done: blood tests to see how many people have antibodies, household studies to learn how often it infects family members, and genetic sequencing to determine whether some strains are more dangerous than others.

Impact in the U.S.

Updated Jan. 31, 2020

- There have been seven confirmed cases in the U.S., but no deaths. Anxi college campuses.
- The 195 Americans who were evacuated from Wuhan to California have as one person tried to flee.
- If you live in California, here's what this means for you.
- President Trump has temporarily suspended entry into the U.S. for any foreign nationals who have traveled to China.

READ MORE

Closing borders to highly infectious pathogens never succeeds completely, experts said, because all frontiers are somewhat porous. Nonetheless, closings and rigorous screening may slow the spread, which will buy time for the development of drug treatments and vaccines.

Other important unknowns include who is most at risk, whether coughing or contaminated surfaces are more likely to transmit the virus, how fast the virus can mutate and whether it will fade out when the weather warms.

The effects of a pandemic would probably be harsher in some countries than in others. While the United States and other wealthy countries may be able to detect and quarantine the first carriers, countries with fragile health care systems will not. The virus has already reached Cambodia, India, Malaysia, Nepal, the Philippines and rural Russia.

"This looks far more like H1N1's spread than SARS, and I am increasingly alarmed," said Dr. Peter Piot, director of the London School of Hygiene and Tropical Medicine. "Even 1 percent mortality would mean 10,000 deaths in each million people."

Other experts were more cautious.

Dr. Michael Ryan, head of emergency responses for the World Health Organization, said in an interview with STAT News on Saturday that there was "evidence to suggest this virus can still be contained" and that the world needed to "keep trying."

Dr. W. Ian Lipkin, a virus-hunter at the Columbia University Mailman School of Public Health who is in China advising its Center for Disease Control and Prevention, said that although the virus is clearly being transmitted through casual contact, labs are still behind in processing samples.

But life in China has radically changed in the last two weeks. Streets are deserted, public events are canceled, and citizens are wearing masks and washing their hands, Dr. Lipkin said. All of that may have slowed down what lab testing indicated was exponential growth in the infection.

It's unclear exactly how accurate tests done in overwhelmed Chinese laboratories are. On the one hand, Chinese state media have reported test kit shortages and processing bottlenecks, which could produce an undercount.

But Dr. Lipkin said he knew of one lab running 5,000 samples a day, which might produce some false-positive results, inflating the count. "You can't possibly do quality control at that rate," he said.

Anecdotal reports from China, and one published study from Germany, indicate that some people infected with the Wuhan coronavirus can pass it on before they show symptoms. That may make border-screening much harder, scientists said.

Epidemiological modeling released Friday by the European Center for Disease Prevention and Control estimated that 75 percent of infected people reaching Europe from China would still be in the incubation periods upon arrival, and therefore not detected by airport screening, which looks for fevers, coughs and breathing difficulties.

But if thermal cameras miss victims who are beyond incubation and actively infecting others, the real number of missed carriers may be higher than 75 percent.

Still, asymptomatic carriers "are not normally major drivers of epidemics," Dr. Fauci said. Most people get ill from someone they know to be sick — a family member, a co-worker or a patient, for example.

The virus's most vulnerable target is Africa, many experts said. More than 1 million expatriate Chinese work there, mostly on mining, drilling or engineering projects. Also, many Africans work and study in China and other countries where the virus has been found.

If anyone on the continent has the virus now, "I'm not sure the diagnostic systems are in place to detect it," said Dr. Daniel Bausch, head of scientific programs for the American Society of Tropical Medicine and Hygiene, who is consulting with the W.H.O. on the outbreak.

South Africa and Senegal could probably diagnose it, he said. Nigeria and some other coun
materials and training they need to perform diagnostic tests, but that will take time.

At least four African countries have suspect cases quarantined, according to an article publ
They have sent samples to France, Germany, India and South Africa for testing.

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At the moment, it seems unlikely that the virus will spread widely in countries with vigorou
Schaffner, a preventive medicine specialist at Vanderbilt University Medical Center.

"Every doctor in the U.S. has this top of mind," he said. "Any patient with fever or respiratory problems will get two questions. 'Have you been to China? Have you had contact with anyone who has?' If the answer is yes, they'll be put in isolation right away."

Assuming the virus spreads globally, tourism to and trade with countries besides China may be affected — and the urgency to find ways to halt the virus and prevent deaths will grow.

It is possible that the Wuhan coronavirus will fade out as weather warms. Many viruses, like flu, measles and norovirus, thrive in cold, dry air. The SARS outbreak began in winter, and MERS transmission also peaks then, though that may be related to transmission in newborn camels.

Four mild coronaviruses cause about a quarter of the nation's common colds, which also peak in winter.

But even if an outbreak fades in June, there could be a second wave in the fall, as has occurred in every major flu pandemic, including those that began in 1918 and 2009.

By that time, some remedies might be on hand, although they will need rigorous testing and perhaps political pressure to make them available and affordable.

In China, several antiviral drugs are being prescribed. A common combination is pills containing lopinavir and ritonavir with infusions of interferon, a signaling protein that wakes up the immune system.

In the United States, the combination is sold as Kaletra by AbbVie for H.I.V. therapy, and it is relatively expensive. In India, a dozen generic makers produce the drugs at rock-bottom prices for use against H.I.V. in Africa, and their products are W.H.O.-approved.

Another option may be an experimental drug, remdesivir, on which the patent is held by Gilead. The drug has not yet been approved for use against any disease. Nonetheless, there is some evidence that it works against coronaviruses, and Gilead has donated doses to China.

Several American companies are working on a vaccine, using various combinations of their own funds, taxpayer money and foundation grants.

Although modern gene-chemistry techniques have made it possible to build vaccine candidates within just days, medical ethics require that they then be carefully tested on animals and small numbers of healthy humans for safety and effectiveness.

That aspect of the process cannot be sped up, because dangerous side effects may take time to appear and because human immune systems need time to produce the antibodies that show whether a vaccine is working.

Whether or not what is being tried in China will be acceptable elsewhere will depend on how rigorously Chinese doctors run their clinical trials.

"In God we trust," Dr. Schaffner said. "All others must provide data."

Comment Document YY: Margaret L. Thum

YY-1 The approved PWM/GWR Project's operating permit issued by the Regional Water Board (Order No. R3-2017-0003, and Monitoring and Reporting Program in Order No. R3-2019-0116) implements requirements to protect groundwater quality for all designated beneficial uses of the Seaside Groundwater Aquifer (i.e., Municipal and Domestic Water Supply, Industrial Service Supply, and Agricultural Supply). Applicable water quality objectives are assigned as recycled water limits and compliance must be demonstrated prior to injection to ensure water quality meets State of California and Federal standards for drinking water quality protective of human health and the environment. Extensive and frequent monitoring is required to evaluate AWPF influent quality, treatment process performance, recycled water quality, and groundwater quality. Accelerated monitoring, notification, source identification, treatment process modifications must be implemented if values are measured above public health goals, notification levels, maximum contaminant levels, and constituents of emerging concern (CEC) thresholds. The Proposed Modifications would not change the source waters that are purified at the AWPF, the treatment process that is used to purify the source waters at the AWPF, the regulatory standards that must be met, or the monitoring that must be implemented. Therefore, the PWM/GWR Project would continue to be protective of water quality with the Proposed Modifications. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

YY-2 As discussed in response to comment YY-1, M1W received a permit in 2017 from the RWQCB including an approval of the Engineering Report and Monitoring and Reporting Program in the permit by the State Water Resources Control Board, Division of Drinking Water, M1W contracted with the National Water Research Institute (NWRI) to form and coordinate an Independent Advisory Panel (IAP) for the Project. The IAP included experts in disciplines related to groundwater replenishment projects including engineering, regulatory criteria, hydrogeology, risk assessment, and public health.

In addition, the State of California utilized Science Advisory Panels to develop the groundwater replenishments regulations and CEC monitoring requirements. The Science Advisory Panels included experts in chemistry, biochemistry, toxicology, environmental microbiology, epidemiology, risk assessment, and engineering. The work of the Science Advisory Panel formed the basis for the State Water Resources Control Board's Recycled Water Policy adopted in 2019 requiring additional monitoring and reporting for constituents of emerging concern and bioanalytical screening requirements. The PWM Project must comply with these requirements. Additional information about these permits and operations plans are found at www.purewatermonterey.org. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

YY-3 Recycled water and downgradient groundwater quality is monitored frequently to evaluate compliance with drinking water MCLs (primary and secondary) and notification levels. In addition, monitoring is conducted for many constituents that are not typically required for drinking water evaluations such as CECs, DDW-specified chemicals, priority pollutants, and bioanalytical screening tools (estrogen receptors, aryl hydrocarbon receptors). If any constituents are found to be present at unsafe

levels, the permit and the DDW-required operations plans provide for additional sampling and if needed, pursuit of alternative water supplies or wellhead treatment to ensure public health is protected. Additional information about these permits and operations plans are found at www.purewatermonterey.org. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

YY-4 Additional sampling for many constituents was conducted in 2018. In addition to the 2013-2014-Source Water Sampling Program (Appendix B-1 of the Water Quality and Statutory Compliance Report (Draft SEIR Appendix E)), results of the 2018 Local Limits Source Water Sampling Program were also included in the 2019 Draft SEIR as Appendix B-2 of the Water Quality and Statutory Compliance Report. CEC analyses were conducted by State Certified and ELAP accredited laboratories. Monterey Bay Analytical Services (Monterey, CA) and Eurofins Eaton Analytical (Monrovia, CA) conducted the majority of the CEC analyses. Eurofins Eaton Analytical conducted the PFAS analyses, not Trussell Technologies, Inc. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

YY-5 Per- and polyfluoroalkyl substances (PFAS) compounds are required to be monitored by M1W for the approved PWM Project as required by the permit. During the 2013-2014 sampling program, perfluorooctanoic acid (PFOA) was not detected in any of the new source waters and perfluorooctanesulfonic acid (PFOS) was only detected in the Salinas Agricultural Wash Water (two of three samples). The treatment train for the AWPF includes Reverse Osmosis (one of the EPA's recommended processes for PFAS treatment) which has been shown to achieve more than 90% removal of PFAS compounds. Under the Project's operating permit, the recycled water will be sampled regularly for all constituents with drinking water regulatory limits (i.e., primary and secondary MCLs), drinking water Notification Levels (which includes PFOS and PFOA), priority pollutants, and CECs. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

YY-6 As required by the Project's operating permit, an Environmental Laboratory Accreditation Program (ELAP) accredited laboratory will be performing the PFOA and PFOS analyses using EPA Method 537.1. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality

YY-7 The plumes within the former Fort Ord are located outside of the Seaside Groundwater Basin and the operations of the approved PWM/GWR Project and the Proposed Modifications evaluated in the Draft SEIR would not result in a significant impact related to the plumes. This issue was addressed in the Draft SEIR on pages 3-6 and 4.9-4 to 4.9-6.

YY-8 Purified recycled water produced at the current 5 MGD AWPF and purified recycled water produced at the Proposed Modifications must meet all requirements specified in the current Title 22 California Code of Regulations for recycled water and drinking water. This regulation is established to protect public health.

YY-9 See responses to comments YY-5 and YY-6.

YY-10 See response to comment L-8 and Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

YY-11 The Project's operating permit includes systematic testing for known contaminants and unknown contaminants (through surrogates) throughout the treatment process. Monitoring is conducted in the RTP secondary effluent (influent to the AWPF), filtered effluent (prior to RO), RO permeate (prior to advanced oxidation), final purified recycled water (after advanced oxidation), and downgradient groundwater (within 30 days and 180 days travel time from the injection wells). Unknown constituents that may be present will also be analyzed using the bioassessment analysis required by the 2019 Recycled Water Policy. See also Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

YY-12 See response to comment YY-11.

YY-13 As required by Title 22 California Code of Regulations, which includes treatment performance standards for protection of public health, the AWPF will provide more than the required 12-log treatment for virus, where 12-log treatment is 99.999999999% removal. For public health protection from viruses and other pathogens, the treatment train includes ozone (a very potent disinfectant), reverse osmosis (removing particles and molecules that are smaller than viruses), and Advanced Oxidation with hydrogen peroxide and ultraviolet light disinfection along with a minimum of almost a year of underground travel time through the aquifer. The purified water will also receive disinfection from chloramines in the pipeline carrying the water from the AWPF to the injection wellfield.

1160 Irving Ave.
Monterey, CA 93940
January 27, 2020

Monterey One Water
5 Harris Ct. Bldg B
Monterey, CA 93940

To Whom It May Concern:

ZZ-1 I wanted to share my feelings with your agency's decision to expand the recycled water program to include agricultural runoff. The thought of drinking treated sewage itself is bad enough. Now adding ag runoff with its poisons and chemicals makes this unacceptable. I feel like a guinea pig. The agency's acknowledgment that ag runoff contains chemicals that upset the treatment plant's process and therefore will monitor and shut off water when chemicals are present seems dangerous and ridiculous.
I would rather drink desalinated water.

Sincerely,
Nancy McCready

Nancy M. McCready
1160 Irving Ave.
Monterey, CA 93940

SAN JOSE CA 950

28 JAN 2020 PM 1 L

FOREVER - USA

Received
FEB 03 2020
Monterey One Water
Administration

Monterey One Water
ATTN: Rachel Gaudoin
5 Harris Ct. Bldg. B
Monterey CA 93940

93940-782674

4-590

Comment Document ZZ: Nancy McCready

ZZ-1 See Master Response #2: Comments on Purified Recycled Water and Seaside Groundwater Basin Quality.

FARM BUREAU
MONTEREY

1140 Abbott Street, Suite C, Salinas, CA 93901 • PO BOX 1449, Salinas, CA 93902
office (831) 751-3100 • www.montereycfb.com

January 10, 2020

Monterey One Water
Board of Directors
Ron Stefani, Chair
5 Harris Court, Bldg. D
Monterey, CA 93940

RE: Pure Water Monterey Expansion Project

Dear Chair Stefani and Directors:

Monterey County Farm Bureau represents family farmers and ranchers in the interest of protecting and promoting agriculture throughout our County. Since 1917, Farm Bureau strives to improve the ability of those engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of our local resources.

Over the past nearly eight years, our organization has been actively involved in the water supply solution for the Monterey Peninsula. Our belief is that a healthy Monterey County encompasses all aspects of our community, including water supplies in areas where there are current challenges to meet demand. While the Salinas Valley may not have a supply problem, but more a distribution problem, our involvement in the Monterey Peninsula Water Supply Project (MPSWP) came about due to a number of factors, including the health of our tourism and business community of the Peninsula having a secure, reliable water supply. AAA-1

This involvement included support for the initial Pure Water Monterey project, part of the "three-legged stool" of projects proposed in the MPWSP. Combined with aquifer storage and recovery and desalination, this provided the best reliable and drought-proof resource for Peninsula water supplies for generations to come. Monterey County Farm Bureau actively supported this solution at the California Public Utilities Commission and continues to support this approach moving forward.

Since the approval of the initial Pure Water Monterey project, the Salinas Valley has undertaken the implementation of the Sustainable Groundwater Management Act (SGMA), including developing a groundwater sustainability plan for the seawater intruded portion of the basin (Pressure sub-basin). This process has altered the perceptions of water sources, reclamation and reuse, including the discharges of water from storm events, processing and manufacturing facilities, and effluent from farm fields.

FARM BUREAU
MONTEREY

1140 Abbott Street, Suite C, Salinas, CA 93901 • PO BOX 1449, Salinas, CA 93902
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This changed perception of all waters of the basin has caused farmers and ranchers to reconsider all water use and how much is extracted annually, as well as the quality of any water discharged from a farm or processing facility into a conveyance or collection pond. AAA-1 Cont.

While we find there is still enthusiasm for reclaiming as much of these discharges for reuse, the paradigm shift in focus is now seeking to fulfill the needs of a new sustainability mandate; the reuse of water should be for the benefit of those who discharged the water from its original use.

The proposed expansion of Pure Water Monterey is to benefit the needs of users outside of the Salinas Valley basin, and thus we express wavering support for the expanded project that will benefit another water constituency. More farmers and landowners are concerned that waters discharged in the Salinas Valley basin should be returned to that same basin for reuse and to the benefit of those water users, such as crop production in an expanded Castroville Seawater Intrusion Project (CSIP) area or groundwater replenishment in the coastal zone or eastside sub-basin trough. AAA-2

Since the implementation of SGMA and the change in attitudes towards all water use, Monterey County Farm Bureau recommends that the expansion of the Pure Water Monterey project be held off until more clarity on reclaimed water use in the Salinas Valley basin can be explored. The adoption of the groundwater sustainability plan includes a number of projects that may require additional water sources to comprehensively bring the Pressure sub-basin into balance, or to at least halt the progression of seawater intrusion, a threat to all water users in Monterey County.

We request a deferment of any decision to approve the expansion of Pure Water Monterey until there is more data on overall water sustainability and use in the greater Salinas Valley groundwater basin.

Sincerely,

Norman C. Groot
Executive Director

cc: Brent Buche, General Manager, Monterey County Water Resources Agency

Comment Document AAA: Farm Bureau Monterey (received 1/10/2020)

AAA-1 The comment describes the Monterey County Farm Bureau's involvement and opinions related to the agricultural industry of the Salinas Valley, the water resource supply solutions, including MPWSP and the PWM/GWR Project, and the Salinas Valley's compliance with the Sustainable Groundwater Management Act. The comment is referred to decisionmakers for their consideration. No response is required.

AAA-2 The comment expresses the Farm Bureau's opinion on the Proposed Modifications to the PWM/GWR Project and is referred to decisionmakers for their consideration. No response is required.

Salinas Valley Water Coalition

33 El Camino Real • Greenfield, CA 93927
(831) 674-3783 • FAX (831) 674-3835

TRANSMITTED VIA EMAIL

Board of Directors
Ron Stefani, Chair
Monterey One Water
5 Harris Court, Bldg. D
Monterey, CA 93940

17 January, 2020

RE: Pure Water Monterey Expansion Project

Dear Chair Stefani and Directors:

The Salinas Valley Water Coalition is a non-profit organization comprised primarily of agriculture and ag-related business and individual members, whose members own and/or manage approximately 150,000 irrigated acres and land mass and water right holders within the Salinas Valley. The SVWC has operated for almost 30 years to specifically address our local water issues.

We became a party to the MPWSP's California Public Utilities Commission (CPUC) proceeding in 2012, and actively participated in that proceeding. We were concerned that Cal-Am's proposed desal project would be pumping a significant amount of groundwater from the Salinas River Groundwater Basin and as such would have an adverse impact on the Basin; both as to seawater intrusion and the overlying water rights of the basin's landowners. While wanting to be good neighbors and wanting to see the Peninsula be successful in developing a secure and stable water supply to meet their needs, it must not be at the degradation of our basin and its water right holders. BBB-1

We were also concerned that the proposed desal facility had the potential to export groundwater from the northern end of the Salinas Valley Groundwater Basin (SVGB) to an area outside of the SVGB, contrary to the MCWRA Act and with adverse impacts to the overlying water right holders. The SVWC retained two hydrologists to assist us in the CPUC process to evaluate the potential impacts to the SVGB and to assist in developing a resolution that would protect the Salinas Valley Groundwater Basin and its water right holders. We believe we accomplished this within the CPUC process.

The communities and ratepayers of the Salinas Valley have spent hundreds of millions of dollars to build two reservoirs, the Castroville Seawater Intrusion Project, the Salinas Valley Reclamation Project and the Salinas Valley Water Project to address its basin's water problems. Stakeholders have worked as neighbors to resolve their differences so these projects could be successfully financed and implemented.

We have made significant progress, but we are not finished – seawater intrusion continues to advance into the SVGB. The overdraft is stable; additional intrusion is substantially reduced. The northern part of our SVGB still has significant water resource problems and needs for us to address. BBB-2

Water and the reuse of water are critical issues within the agricultural community of Salinas Valley and with the continued advancement of seawater intrusion, the priority of the utilization of our wastewater and recycling project must be for the benefit of the Salinas Valley agricultural community.

As little as three years ago, there was enthusiasm for recycling as much wastewater as possible, and the Salinas Valley agricultural community supported the initial Pure Water BBB-3

Mission Statement: The water resources of the Salinas River Basin should be managed properly in a manner that promotes fairness and equity to all landowners within the basin. The management of these resources should have a scientific basis, comply with all laws and regulations, and promote the accountability of the governing agencies.

Monterey project, but this was with the understanding that there would remain opportunities for the agricultural community of the Salinas Valley to participate in and utilize the waste water. The current proposed expansion of the recycled water project to meet the needs of the Peninsula's urban uses comes at a time when farmers are rethinking where and how water is used, and particularly, where discharges ultimately end up being used when reclaimed. BBB -3 Cont.

In the Salinas Valley there is wavering support for the proposed expansion of Pure Water Monterey for the benefit of Peninsula water users, due to the need for the expanded use of waste waters for the Salinas Valley. More farmers and landowners believe the Salinas Valley should be priority for utilization of the waste waters and that they should stay in the Salinas Valley.

The SVWC wants to be good neighbors and assist the Peninsula in meeting their water needs, but this cannot be at the degradation of the needs of the Salinas Valley. Therefore, we believe that the expansion of Pure Water Monterey as currently proposed not move forward at this time.

Sincerely

N Isakson

Salinas Valley Water Coalition Board
Keith Roberts, Chair
Roger Moitoso, Vice- Chair
Rodney Braga, Director
Lawrence Hinkle, Director
Bill Lipe, Director
David Gill, Director
Steve McIntyre, Director
Brad Rice, Director
Michael Griva, Past-Chair
Nancy Isakson, President

Cc: Brent Buche, MCWRA General Manager

Comment Document BBB: Salinas Valley Water Coalition (received 1/17/2020)

BBB-1 The comment describes the Salinas Valley Water Coalition's interest and involvement and opinions related to the water resource supply for agriculture, agricultural-related business and individuals, and the MPWSP. The comment is referred to decisionmakers for their consideration. No response is required.

BBB-2 The comment provides information and expresses the Salinas Valley Water Coalition's opinion about water resource issues of the Salinas Valley and is referred to decisionmakers for their consideration. No response is required.

BBB-3 The comment expresses Salinas Valley Water Coalition's opinion on the Proposed Modifications to the PWM/GWR Project and is referred to decisionmakers for their consideration. No response is required.

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Gavin Newsom
Governor

Kate Gordon
Director

February 3, 2020

Rachel Gaudoin
Monterey One Water
(M1W, formerly Monterey Regional Water Pollution Control Agency)
5 Harris Court, Building D
Monterey, CA 93940

Subject: Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project
SCH#: 2013051094

Dear Rachel Gaudoin:

The State Clearinghouse submitted the above named SIR to selected state agencies for review. The review period closed on 1/31/2020, and the comments from the responding agency (ies) is (are) available on the CEQA database for your retrieval and use. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

CCC-1

Check the CEQA database for submitted comments for use in preparing your final environmental document: https://ceqanet.opr.ca.gov/2013051094/16 . Should you need more information or clarification of the comments, **we recommend that you contact the commenting agency directly.**

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL 1-916-445-0613 state.clearinghouse@opr.ca.gov www.opr.ca.gov

Comment Document CCC: Governor's Office of Planning and Research, State Clearinghouse (received 2/7/2019)

CCC-1 The Comment Document states the State Clearinghouse submitted the Draft SEIR to selected state agencies for review and provided a link to one comment letter that the State Clearinghouse received during the public review period. Specifically, the California Department of Fish and Wildlife submitted the same letter as shown in Comment Document D in this section to the State Clearinghouse. No further response is required. Monterey One Water has complied with the State Clearinghouse review requirements as required pursuant to CEQA.

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, US ARMY GARRISON, PRESIDIO OF MONTEREY
1759 LEWIS ROAD, SUITE 210
MONTEREY, CA 93944-3223

Office of the Garrison Commander

Monterey One Water
Attn: Rachel Gaudoin, Public Outreach Coordinator
5 Harris Court, Building D
Monterey, CA 93940

Dear Ms. Gaudoin,

The United States Army Garrison Presidio of Monterey (USAG Presidio) appreciates the opportunity to comment on the Draft Supplemental Environmental Impact Report (SEIR) for the Expanded Pure Water Monterey Groundwater Replenishment (PWM/GWR) Project, which you prepared in compliance with the California Environmental Quality Act. This Draft SEIR is a supplement to the PWM/GWR Project Final Environmental Impact Report, certified by Monterey One Water (M1W) on October 8, 2015. The SEIR analyzes and discloses the potentially significant environmental effects associated with the construction, operation, and maintenance of M1W's Proposed Modifications to expand the water supply yield of the approved PWM/GWR Project.

As described in the SEIR, the primary objectives of the Proposed Modifications are to reduce discharges of secondary effluent to the Monterey Bay and to replenish the Seaside Groundwater Basin with 2,250 AFY of additional purified recycled water to replace California American Water's (CalAm's) use of existing water sources. These modifications are proposed as a backup to CalAm's Monterey Peninsula Water Supply Project (MPWSP). The USAG Presidio expresses no view on whether the expanded PWM/GWR serves as a backup for the MPWSP or serves in another capacity for supplementing the regional water supply. The USAG Presidio is interested in water augmentation in the Monterey Peninsula area but does not endorse any particular approach.

DDD-1

Components of the Expanded PWM/GWR Project are proposed to be constructed and operated on Army owned and occupied property managed by the USAG Presidio. These components involve the CalAm Distribution System Improvements, including:

- Two groundwater extraction wells, associated appurtenances, electrical works, pipeline tie-ins, access roads, grading, fencing, etc.
- A water disinfection system housed in an approximately 720 square foot building including raw and treated water pipelines and appurtenances, chemical delivery, storage, metering, feed/injection systems, SCADA/electrical instrumentation and controls, and safety and climate controls equipment.
- Conveyance pipelines from the extraction wells and disinfection to CalAm's distribution system.

(Note that Army owned property managed by the USAG Presidio does not include Army owned, former Fort Ord land managed by the Army Base Realignment and Closure (BRAC)).

Enclosed are the USAG Presidio's comments on the Draft SEIR. DDD-1 Cont.

The POC for this letter is Joelle Lobo at 831-242-7829 or joelle.l.lobo.civ@mail.mil.

Sincerely,

Gregory J. Ford
Colonel, US Army
Commanding

General Comment:
The Army has discretionary approval authority over proposed projects on Army lands. Army decision making would require analysis of the proposed action under the National Environmental Policy Act, Federal implementing regulations, other applicable Federal laws, and a contractual real estate agreement as prescribed by Army Regulation 405-80. Recommend that if multiple Federal agencies are involved the Expanded PWM/GWR undergo a consolidated review under NEPA. DDD-2

General Comment:
Coordination with the Army will be required to ensure all of the Army's interests are addressed, including but not limited to, the Traffic Control and Safety Assurance Plan, Roadway Rehabilitation Program, Noise Control Plan, safety measures associated with proposed disinfection system, etc. DDD-3

Section 2.6.5-Modifications to CalAm Facilities for Expanded PWM/GWR Project, Operations and Maintenance, pg. 2-30
The operation and maintenance of the proposed water treatment facility is not mentioned in Section 2.6.5. The only routine maintenance mentioned is backflushing. The amount and types of chemicals to be stored on site should be specified. Storage, handling, and safety measures of hazardous materials and chemicals to be stored on site should be included in the DEIR and in accordance with Army Technical Manual (TM) 38-410. The proposed ground water treatment system at Extraction Well #3 must be operated and maintained by a certified water distribution or treatment operator per Title 22 Section 63770. DDD-4

Section 2.6.5-Modifications to CalAm Facilities for Expanded PWM/GWR Project, Operations and Maintenance, pg. 2-30
Physical security for the proposed disinfection facility must be in compliance with Army Regulation 190-51. DDD-5

Section 4.5.2.6-Special Status Wildlife Species
This section should include reference to protection of birds pursuant to the Migratory Bird Treaty Act (MBTA) 16 United States Code § 703-712. A pre-construction survey for migratory birds during the nesting season will be required for the proposed CalAm distribution system improvements on Army owned property. DDD-6

Section 4.5.2.6-Special Status Wildlife Species, pg. 4.5-5
Analysis and mitigations should include California tiger salamander (Ambystoma californiense), Foothill yellow-legged frog (Rana boylii), and Candidate species Monarch butterfly (Danaus plexippus). DDD-7

Section 4.5.4.3-Construction Impacts and Mitigation Measures, MM BT-1a, pg. 4.5-10
Tree protection associated with CalAm distribution system improvements on Army owned property would require that fencing be located at the edge of the root zone, located out a distance 15 times the diameter at breast height in all directions. Fencing shall be rigidly supported and maintained during the project. Fenced areas shall not be used for storage of materials or equipment. Seed mix for revegetation must be approved by the Army in accordance with the Integrated Natural Resource Management Plan. DDD-8

Section 4.14-Noise and Vibration, Mitigation Measures, pg. 4.14-10

Terms of the Army issued real estate agreement will require that noise mitigation is based on actual noise levels at the residence (receptor), not based on geographical distance from the construction.

DDD-9

Comment Document DDD: U.S. Department of the Army – Presidio of Monterey (Received 2/12/20)

DDD-1 The comment describes the Proposed Modifications, and states the Army has no preferred water supply solutions. No response is required.

DDD-2 M1W understands that the U.S Army may require a NEPA review process prior to their approval of a real property transaction to allow construction of several of the CalAm Facilities modifications (Extraction Wells No. 3, No. 4, pipelines and wellhead treatment system at Extraction Well No. 3). The NEPA review process for these components would likely occur in parallel with preparation of engineering design plans, bid documents, and permitting, similar to the process used by MCWD for receiving Army approval of their RUWAP pipeline for the product water conveyance facilities of the approved PWM/GWR project. The only other known federal nexus is the NOAA MBNMS decision to authorize National Pollutant Discharge Elimination System permits issued by the Regional Water Quality Control Board. As with the approved PWM/GWR Project, the submittal of a request for an amendment to the existing M1W NPDES permit would occur in parallel with other operational permitting processes and would not be a precursor to project construction. The uniqueness of the two federal approvals in terms of geographic scope, timing, and differing actions (U.S. Army for real property transaction for CalAm to build their facilities, and the NOAA MBNMS for their authorization of an operational change to the M1W NPDES permit), would not lend itself to a consolidated review under NEPA. See also response to comment J-10.

DDD-3 The components of the Proposed Modifications referenced by the Army in this comment are facilities that would be constructed by CalAm and therefore, this comment will be referred to CalAm staff for their information prior to moving forward with implementation of those components. The SEIR, provides an impact analysis and where impacts are significant, the SEIR recommends mitigation measures for traffic, noise, and hazards and hazardous materials.

DDD-4 The analysis of impacts related to the use of treatment chemicals at the Extraction Well No. 3 is found on page 4.9-22, which determined that: “Operation of the Extraction Wells would result in a less-than-significant impact resulting from the routine transport, use, or disposal of hazardous materials. Water recovered from the Extraction Wells would be treated prior to being conveyed into the distribution system. The treatment system would be located at EW-3. The chemicals for treatment of extracted water would be stored in a chemical/electrical control building. The proposed treatment building at EW-3 would be approximately 24-feet by 30-feet and 15-feet tall, and would include:

- two tanks; one for chlorination and one for stabilization of water produced from EW 1-4 with chemical containment/heating/ventilation;
- instrumentation and electrical equipment and SCADA panels with interface, and antenna;
- chemical delivery, storage, and feed systems;
- interior above-ground metering and chemical injection; and

- associated appurtenances, analyzers, electrical, excavation, trenching, backfill, pavement, driveway and fencing.

If an accident occurs, conditions could result in inadvertent releases of small quantities of sodium hypochlorite. However, compliance with the various regulations regarding the safe transport, use, and storage of hazardous materials would ensure this impact is less-than-significant, and therefore, no mitigation measures are necessary." To the extent that the Army requires compliance with its Technical Manual, such compliance can be included as a condition of the real property transaction between the Army and CalAm.

DDD-5 The components of the Proposed Modifications referenced by the Army in this comment are facilities that would be constructed by CalAm and therefore, this comment will be referred to CalAm staff for their information prior to moving forward with implementation of those components. The SEIR, provides an impact analysis and where impacts are significant, the SEIR recommends mitigation measures for traffic, noise, and hazards and hazardous materials.

DDD-6 The Proposed Modifications were reviewed in relation to compliance with the Migratory Bird Treaty Act (see pages 4.5-6, 4.5-12 through 4.5-14 of the Draft SEIR, and sections 2.2.3, 2.4, and 3.5.2 of Appendix G) and a complete description of that Act was included in the PWM/GWR Final EIR (see Section 4.5.3.1 of the PWM/GWR Project Final EIR for more information, as referenced on page 4.5-7 of the Draft Supplemental EIR). The recommended mitigation measure is included in the SEIR and will be included in the Mitigation Monitoring and Reporting Program for the Proposed Modifications (see MM BT-1k on page 4.5-21 of the Draft SEIR as modified in this Final SEIR in **Chapter 5, Changes to the Draft SEIR**).

DDD-7 The species identified in this comment were addressed in the Draft SEIR as follows:

- Regarding the foothill yellow-legged frog (*Rana boylii*), see Appendix D in Appendix G, Terrestrial Biological Resources Technical Memorandum in the Draft SEIR, which states that the potential for an occurrence is unlikely because suitable habitat does not exist within or adjacent to the Biological Study Area; there are no permanent water resources within the Biological Study Area.
- Regarding California tiger salamander (*Ambystoma californiense*), see Appendix D in Appendix G, Terrestrial Biological Resources Technical Memorandum in the Draft SEIR, which states that the potential for an occurrence is unlikely because no breeding habitat is present within the Biological Study Area. Several breeding locations are known within Fort Ord; however, all of these are located 2.0 miles or greater from the Biological Study Area, outside of the known dispersal range for this species.
- Regarding the Monarch butterfly (*Danaus plexippus*), see Appendix D in Appendix G, Terrestrial Biological Resources Technical Memorandum in the Draft SEIR, which states that the potential for an occurrence is unlikely because no suitable overwintering habitat within or adjacent to Biological Study Area.

DDD-8 The components of the Proposed Modifications referenced by the Army in this comment are facilities that would be constructed by CalAm and therefore, this comment will be referred to CalAm staff for their information prior to moving forward with implementation of those components. The SEIR, provides an impact analysis and where impacts are significant, the SEIR recommends mitigation measures for impacts to trees in the vicinity of Proposed Modifications Components (see pages 4.5-14 through 4.5-15, Mitigation Measures BT-1a and BT-1b of the Draft SEIR).

DDD-9 The components of the Proposed Modifications referenced by the Army in this comment are facilities that would be constructed by CalAm and therefore, this comment will be referred to CalAm staff for their information prior to moving forward with implementation of those components. The SEIR, provides an impact analysis and where impacts are significant, the SEIR recommends mitigation measures for noise impacts to residents in the vicinity of Proposed Modifications components. The Draft SEIR includes performance standards within Mitigation Measures for noise levels at residences. See pages 4.14-10 through 4.14-11 of the Draft SEIR.

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CHAPTER 5 CHANGES TO THE DRAFT SEIR

The following section provides revisions to the text of the Draft SEIR, in amendment form. The revisions are listed by page number. All additions to the text are presented in underline, and all deletions are shown in ~~strikeout~~.

CHANGES APPLICABLE THROUGHOUT THE DOCUMENT

Replace all references to "State Board" and "SWRCB" to "State Water Board" in response to comment I-1.

CHANGES TO THE SUMMARY OF THE ENVIRONMENTAL IMPACT REPORT

No changes required.

CHANGES TO CHAPTER 1, INTRODUCTION

No changes required.

CHANGES TO CHAPTER 2, PROJECT DESCRIPTION

Page 2-1 Revise the last sentence of Footnote 1 as follows:

"…Specifically, the draft resolution stated that M1W's "prior approval of proceeding with the initial environmental, permitting and design work for the potential expansion of the Pure Water Monterey Project was done specifically as a backup plan to, and not as an option in the place of, the CalAm desalination project, and only to have a ready-to-go alternative plan in place in the event that the CalAm desalination project is delayed beyond the Cease and Desist Order deadline of December 31, 2021~~19~~."

Page 2-3 Revise Footnote 4 as follows to partially respond to comment I-2:

"~~The State Water Resources Control Board's Cease and Desist Order 95-10 required the reduction of CalAm pumping from the Carmel River; Order 2016-16 extended the time period for withdrawals above legal limits from the Carmel River through 2021.~~ See the description of the State Water Board Orders to reduce Carmel River diversions in Section 2.2.1, below."

Page 2-8 Revise Section 2.2.1 as follows to partially respond to comment I-2:

"In 1995, the State Water Board issued Order ~~No.~~ WR 95-10, which found that CalAm was diverting more water from the Carmel River Basin (approx. 14,106 AFY) than it was legally entitled to divert (3,376 AFY). The State Board ordered CalAm to "diligently implement" actions to

terminate its unlawful diversions from the Carmel River and to maximize use of the Seaside Groundwater Basin (to the extent feasible) to reduce diversions of Carmel River water. ~~In addition,~~ In 2009, finding that CalAm's diversion reductions and development of new lawful water sources had "taken far too long" and were "too small to satisfy the requirement for diligence," the State Water Board issued a subsequent Cease and Desist Order (~~SWRCB~~ Order ~~Number~~ WR 2009-0060) ~~issued in 2009 required~~ requiring CalAm to ~~secure replacement water supplies for its Monterey District service area by January 2017 and reduce~~ terminate its unlawful Carmel River diversions ~~to 3,376 AFY~~ no later than December 31, 2016.

"Subsequent to certification of the PWM/GWR Project Final EIR, in July 2016, the ~~SWRCB~~ State Water Board adopted Order WR 2016-0016, which amends Order~~s 95-10 and~~ WR 2009-0060~~. Order 2016-0016~~ and extends the date by which CalAm must terminate all unlawful diversions from the Carmel River from December 31, 2016 to December 31, 2021. The revised Cease and Desist Order ~~set~~ imposes additional conditions and a compliance schedule, including an initial "effective diversion limit" of 8,310 AFY for Water Year 2015-2016 (October 1, 2015 - September 30, 2016) ~~and~~. Order WR 2016-0016's compliance schedule also establishe~~d~~s annual milestones that CalAm must meet in order to maintain the 8,310 AFY diversion limit through 2021. The milestones, which CalAm has met to date, include specified construction progress on the MPWSP no later than September 30, 2020, additional specified construction progress on the MPWSP no later than September 30, 2021, and substantial completion of MPWSP to allow water deliveries no later than December 31, 2021. All volumes of GWR Project water delivered to CalAm result in an equivalent reduction of the effective diversion limit. After December 31, 2021, regardless of whether CalAm has achieved the earlier specified interim milestones, CalAm will be in violation of the State Water Board's cease and desist order if CalAm diverts any Carmel River water in excess of its actual water rights."

Page 2-8 Revise the second paragraph of Section 2.2.2 and Footnote 13 as follows to partially respond to comment I-2:

"The Expanded PWM/GWR Project is proposed as a back-up to the MPWSP, not as an option or alternative to the MPWSP. It would be implemented in the event that CalAm is unable to feasibly implement the MPWSP in a timely fashion, in accordance with the State Board's Cease and Desist Order milestones, specifically, ~~operation~~ substantial completion of the MPWSP to allow water deliveries no later than ~~desalination plant~~ by December 31, 2021. The MPWSP and the Expanded PWM/GWR Project are both designed to provide the replacement water CalAm needs to comply with the Cease and Desist Order and with the Seaside Groundwater Basin Adjudication.[13]"

Footnote 13:

"[13] MPWMD staff has prepared updated water demand estimates, which are provided in **Appendix O** of this Final SEIR. ~~based on "available supplies and their ability to meet current and long-term demand…changing nature of demand on the Monterey Peninsula, the underlying assumptions in the sizing of the water supply portfolio, and indicators of the market's ability to absorb new demand"~~ (MPWMD, March 13, 2020) ~~September 16, 2019), CalAm and other members of the public have contended that additional water supplies would be necessary to address future water demand (i.e., up to 14,400 AFY per CPUC CPCN Decision 18-09-017 and up to 12,948 AFY in 2035 per CalAm's 2015 Urban Water Management Plan).~~ More information is provided in Chapter 5."

Page 2-11 Revise the 2nd paragraph Section 2.6.1 as follows in response to comment B-2:

"As the owner of the regional municipal wastewater collection and treatment system, M1W collects municipal wastewater from communities in northern Monterey County and treats it at its Regional Treatment Plant. Currently, most of that wastewater is recycled for crop irrigation in the dry season at ~~a~~an ~~onsite~~ tertiary treatment plant at the Regional Treatment Plant called the Salinas Valley Reclamation Plant. The tertiary-treated wastewater is delivered to growers through a conveyance and irrigation system called the Castroville Seawater Intrusion Project (CSIP). During wet periods, recycled wastewater is used only intermittently for crop irrigation. The wastewater that is not recycled ~~for crop irrigation~~ is treated to secondary effluent standards and discharged to the ocean through M1W's existing ocean outfall. In 2019, M1W began operating its Advanced Water Purification Facility that also uses secondary effluent as influent and produces purified recycled water for injection into the Seaside Groundwater Basin. Injection operations began in February 2020; although not currently occurring, purified recycled water is also planned to be used for urban irrigation within Marina Coast Water District's service area. The Proposed Modifications would enable more of the ~~municipal wastewater~~ secondary effluent to be recycled than is possible without the modifications; thus, less ~~municipal wastewater~~ secondary effluent would be discharged through the ocean outfall."

Page 2-12 Revise the first full paragraph as follows in response to comment B-2 and comment document H:

"With the Proposed Modifications, the ~~approved~~ PWM/GWR Project would continue to result in additional tertiary recycled water supply for agricultural irrigation in northern Salinas Valley, however approximately 700 to 800 AFY less water would be available for agricultural irrigation than was assumed in the calculations provided in ~~connection with the approved PWM/GWR Project~~ the Amended and Restated Water Recycling Agreement, see Section 2.6.1.1 of the Draft SEIR. Some of this identified reduction in future benefits for CSIP occurred due to Marina Coast Water District's use of its rights to the municipal wastewater for urban irrigation (approved with PWM/GWR Project changes in October 2017) and some yield reduction occurred due to the Settlement Agreements with the National Marine Fisheries Service and with California Department of Fish and Wildlife, which resolved protests on the Blanco Drain and Reclamation Ditch diversion water rights permits. ~~Some of~~ The remainder of this reduction in future increases in tertiary recycled water for agricultural irrigation compared to the amount of water anticipated to be available under the approved PWM/GWR Project is due to M1W's proposal to recycle more of the municipal wastewater to which it is entitled to recycle under its existing water rights under Water Code section 1210 and existing contracts and local agency agreements (described below in section 2.6.1.1). Additional analyses of source water availability and use have been prepared and included in this Final SEIR (see Appendix M) to show that M1W would still hold legal rights to use secondary treated effluent in adequate volumes to meet the yield objectives of the Proposed Modifications even if one of the following future scenarios occurs:

- conditions precedent in section 16.15 of the ARWRA are not completed, or
- new source waters in Blanco Drain and Reclamation Ditch are not available for use by M1W for the Proposed Modifications.

"Currently, the only sources of supply for the existing tertiary recycled water facility are municipal wastewater from within the M1W 2001 service area, half of the municipal wastewaters that flow into the M1W system from outside of the 2001 service area, less rights to those waters given to M1W and Marina Coast Water District, and small amounts of urban dry weather runoff from the City of Pacific Grove. ~~Municipal wastewater flows have declined in recent years due to aggressive water conservation efforts by the M1W member entities.~~ With the approved PWM/GWR Project, the quantity of source waters entering the existing wastewater collection system is expected to

be increased such that additional tertiary recycled water still can be provided for use in the CSIP's agricultural irrigation system. The PWM/GWR Project Final EIR estimated that additional source waters could provide 4,500 to 4,750 AFY of additional recycled water supply, in normal and wet years, for CSIP irrigation purposes. In order to produce enough recycled water to meet the yield objectives of the Proposed Modifications, additional wastewater, to which M1W has the rights to use (as described below), will be diverted to the Advanced Water Purification Facility. ~~This in turn will reduce the amount of wastewater available for use as agricultural irrigation by 700 to 800 AFY compared to the amount anticipated for the approved PWM/GWR Project.~~ The following table summarizes the estimates of total CSIP benefits of the PWM/GWR Project that have been provided to date. The table also identifies the reduction in future CSIP benefits after implementation of the Proposed Modifications based on the most recent analysis by Schaaf & Wheeler in Appendix I of the Draft SEIR:

Table 5-A: Estimated PWM/GWR Project CSIP Augmentation after Previous M1W Board Actions and Proposed Modifications

	Normal Year	Drought Year
PWM/GWR Project Final EIR (2015) *without CSIP and SVRP system constraints*	5,460 AFY	5,728 AFY
PWM/GWR Project Final EIR (2015) *with conservative assumptions of CSIP and SVRP system constraints*	Up to 4,500 to 4,700 AFY	
Assumed CSIP yield in Amended and Restated Water Recycling Agreement section 4.02(1)	4,381 AFY	
PWM/GWR Project EIR Addendum No. 3 (2017) *with MCWD RUWAP Phase 1 & without the CSIP.and SVRP system constraints*	4,970 AFY	5,150 AFY
Settlement Agreement with NMFS & CDFW for Blanco Drain & Reclamation Ditch Diversion Water Rights Permits (2018)	4,250 AFY	2,870 AFY
PWM/GWR Project with Proposed Modifications	3,600 AFY	2,858 AFY
Note: These numbers assume: (1) wastewater and surface water flows per Schaaf & Wheeler (October 2015, October 2017 and November 2019); (2) MCWRA participates in funding capital, operation, maintenance/repair, and replacement, costs of new source water facilities; (3) SVRP modifications are completed, and (4) drought-reserve is available.		

Additional information about the CSIP yields presented above is provided in Chapter 3, under Master Response #3."

Page 2-14 Insert the following new subsection at the end of Section 2.6.1 (after Section 2.6.1.1) in response to comment document H:

"2.6.1.2 New Source Water Supply Study

"In 2017, MCWRA and M1W contracted with Raftelis Financial Consultants, Inc. (Raftelis) to conduct a New Source Waters Study (Study). The purpose of the Study (see page 8) was:

> "*to provide a cost analysis for the operation, maintenance, and capital costs for New Source Water Facilities to determine specific rates and charges for final consideration. Through discussions with MCWRA the new source waters evaluated in this Study were narrowed to Blanco Drain and Reclamation Ditch, including existing source waters of treated wastewater, supplemental wells and IWW. The Salinas Pond Water Return Facilities will be considered independently and are discussed in Section 9 of this report. This report includes capital, operations, maintenance, and repair and replacement costs associated with developing New Source Water Facilities and provides incremental costs for CSIP operations under four different scenarios developed by MCWRA and M1W based on climate conditions and water rights for each water supply*."

"This report did not describe or evaluate environmental impacts, mitigation measures, nor alternatives related to the approved PWM/GWR Project nor related to the Proposed Modifications and only provided estimates of the volumes and cost of capital and operations and maintenance of three of the new source waters; therefore, does not change or add to the environmental impact analysis of the SEIR. As described in comment H-3 and H-10, the Raftelis Study found that CSIP would receive 2,300 AFY of the three new source waters identified above based on the Raftelis assumptions. That report did not consider the volumes or associated costs for the diversion and use of other new source waters (Lake El Estero, Ag Wash Water, Salinas Storm Water, and treated Ag Wash Water mixed with storm water from the Salinas Industrial Wastewater Percolation Ponds); it also separately addressed the CSIP yield from the Salinas Valley Reclamation Plant winter modifications. The changes to CSIP yield identified in the prior section assume implementation of the other new source waters (except Tembladero Slough) and the SVRP winter modifications."

Page 2-19 Revise Section 2.6.3 as follows in response to comment document G and comments S-6 and S-7:

"2.6.3 Modifications to Product Water Conveyance

"The Proposed Modifications include the construction of a new product water conveyance pipeline extending from the existing Blackhorse Reservoir to the Expanded Injection Well Area. See **Figure 2-3~~5~~** for more detail. The northern part of the pipeline would be located within an existing private dirt road, which is maintained by MCWD. The southern portion of the pipeline would be located within the existing paved area of Eucalyptus Road. Eucalyptus Road is closed to vehicles; however, it is frequently used by recreational users. In total, the pipeline would be approximately 1 mile to the first Injection Well (at Well Site #5) and an additional 2,000 feet from Well Site #5 to Well Site #7. The pipeline would be a maximum of 30 inches in diameter. An additional 2,000 feet of pipeline for backflushing wells also be located generally along the same alignment as the product water pipeline between Well Site #5 and Well Site #7.

"The existing product water pump station at the M1W Regional Treatment Plant would need to be upgraded, as described above in **Section 2.6.2**, in order to efficiently convey water produced at the Advanced Water Purification Facility to the new portion of the Product Water Conveyance Pipeline described above.

"The Blackhorse Reservoir and the conveyance pipeline from this reservoir site to the injection wellfield are owned by MCWD and jointly used for the approved PWM/GWR Project. See Figure 2-5A at the end of this chapter for a detailed depiction of the pipeline connection to the lateral pipeline feeding the Blackhorse Reservoir. The existing product water conveyance pipeline from the Product Water Pump Station to the Blackhorse Reservoir is sufficiently sized to handle

the increased total flow rate of 7.6 mgd (an increase of 2.6 mgd above the approved PWM/GWR Project maximum flow rate) in addition to water for foreseeable RUWAP irrigation needs. The peak velocity in the pipeline would be approximately 4 ft/s (Kennedy-Jenks, 2020).

"The pipeline to the Expanded Injection wellfield would branch off the Blackhorse Reservoir lateral near the tank. The MCWD Recycled Water Master Plan identifies the need for a future distribution lateral from the tank site to the corner of Eucalyptus Road and Parker Flats Cut-Off. However, this connection is outside the scope of the Proposed Modifications and this SEIR.

"The 2 million gallon capacity Blackhorse Reservoir provides operational storage for the conveyance and injection requirements of the approved PWM/GWR Project and the Proposed Modifications in addition to the RUWAP irrigation demands and can accommodate the backwashing cycles for all approved and proposed deep injection wells (Kennedy-Jenks, 2020)."

Page 2-30 Revise Section 2.6.5.1 as follows to respond to comment document G:

"New pipelines would be required to connect the new extraction wells with the existing MPWMD and CalAm backwash, treatment, and distribution systems. Under the current ASR system operation, water supply from the Carmel River is conveyed from the CalAm Monterey service area main distribution system through a 30-inch MCWD-owned pipeline in General Jim Moore Blvd to the ASR wells. Water flows north in the 30-inch pipeline during ASR injection and when extraction is occurring from ASR wells, the same pipeline conveys water south to CalAm customers. Under the PWM Expansion, PWM extraction time periods will seasonally overlap with ASR injection time periods (see Figure 8 of the Montgomery & Associates Technical Memorandum in Appendix D of the Draft SEIR). During these periods, separate pipelines for ASR well injection and Seaside Groundwater Basin extraction will be needed and full extraction capabilities from two of the proposed new extraction wells would be needed at a minimum. The Proposed Modifications were conceptually designed to accommodate CalAm needs (peak day demand and total customer demand). Use of all four new extraction wells (EW-1 through EW-4) and full capacity in the conveyance pipelines could occur using only Seaside Groundwater Basin extractions.[1]

"New pipelines to be constructed in General Jim Moore Blvd include:

- A raw water pipeline from EW-1, EW-2, and EW-3 to the treatment system proposed at the EW-3 site.
- A backwash pipeline from the new wells to the percolation basin. This is an extension of the existing pipeline connecting the ASR-3 and ASR-4 site to the ASR-1 and ASR-2 site.
- A potable water pipeline from the treatment facility at the EW-3 site to the CalAm System at Hilby Avenue.

"Pipelines are shown on **Figure 2-7** schematically and on **Figure 2-8** of the Draft SEIR. Locations for these pipelines would be entirely within the roadway (City and U.S. Army right of way) and will

[1] This may occur for short durations during a future peak demand day when all of the following occur simultaneously: CalAm's other water supplies sources are not available, the largest non-ASR well is out of service (Paralta), and ASR 1, 2, 3, and 4 are all unavailable for Seaside Groundwater Basin extractions due to maintenance or rehabilitation, injections, or the resting period between injection and extraction. These facilities are conceptually designed to meet peak demands during this set of conditions.

be designed and constructed to comply with required separations between pipelines and clearances from existing utilities."

Page 2-28 There were two pages labeled as 2-28; the first page 2-28 containing Figure 2-7 was intended to be on page 2-27. The page numbering is hereby changed.

Page 2-33 **Table 2-8** has been updated as follows to respond to comments C-3, G-15, J-10, S-8, and S-9:

Revised Table 2-8:

New or Amended Permits or Approvals for Proposed Modifications

Permit (*=amend existing approval/permit)	Component
Federal	
National Historic Preservation Act (NHPA) Section 106 Compliance*	CalAm Facilities
Endangered Species Act Coordination with U.S. Fish and Wildlife Service (USFWS) regarding Existing Biological Opinion*	Injection Well Facilities and CalAm Facilities
Endangered Species Act Coordination with National Marine Fisheries Services (NMFS)*	Advanced Water Purification Facility
U.S. Army (Army) Land Easement*	CalAm Facilities
National Oceanic and Atmospheric Administration – Office of National Marine Sanctuaries Authorization of the National Pollutant Discharge Elimination System Permit (NPDES) Amendment	Advanced Water Purification Facility
State	
Amendment to Water Recycling Requirements/ Waste Discharge Requirements*	Advanced Water Purification Facility and Injection Well Facilities
Amendment to Waste Discharge Requirements/ NPDES for Regional Treatment Plant Ocean Outfall*	Advanced Water Purification Facility
California Public Utilities Commission relevant approvals for Construction and/or Rate Recovery	CalAm Facilities
Local	
City of Seaside Use Permit	Injection Well Facilities and CalAm Facilities
City of Seaside Grading and Ordnance Ordinance Permit	Injection Well Facilities and CalAm Facilities (Wells only)
Monterey County Use Permit* (Modification of Existing Permit)	Advanced Water Purification Facility
City of Seaside Encroachment Permit	Injection Well Facilities and CalAm Facilities
Fort Ord Reuse Authority (FORA) Right of Entry and Easement	Injection Well Facilities
Seaside Groundwater Basin Watermaster Water Storage Permit*	Injection Well Facilities
Monterey County Health Department Well Drilling Permit	Injection Well Facilities and CalAm Facilities (Wells only)
Marina Coast Water District (ongoing coordination)	Ongoing coordination for implementation of the Pure Water Delivery and Supply Agreement (M1W and MCWD, April 8, 2016, amended Dec. 18, 2017
Monterey Bay Air Resources District Permit to Operate or statewide portable equipment registration	Equipment such as engine generator sets and compressors

CHANGES TO CHAPTER 3, WATER QUALITY, STATUTORY AND REGULATORY COMPLIANCE OVERVIEW

No changes required.

CHANGES TO CHAPTER 4, ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

Changes to 4.1 Introduction

No changes required.

Changes to 4.2 Aesthetics

No changes required.

Changes to 4.3 Air Quality and Greenhouse Gas

Page 4.3-2 Add the following additional text to update information on technical reports to respond to comments VV-22 through VV-26, and VV-160 through VV-162:

"This section was prepared in consultation with Illingworth & Rodkin, who prepared the air quality and greenhouse gas evaluation of the Proposed Modifications. Their report is contained in Appendix F (Illingworth & Rodkin Inc., September 2019, Revised March 2020). This section also relied on the Health Risk Assessment for the Proposed Modifications, prepared for M1W by Atmospheric Dynamics. This report is contained in **Appendix L** (Atmospheric Dynamics., March 2020)."

Page 4.3-12 Add the following to **Mitigation Measure AQ-1** to respond to comments C-2 and G-8:

- "Per Monterey Bay Air Resources District recommendations, when feasible, the project shall use construction and tree remover equipment that conforms to ARB's Tier 3 or Tier 4 emission standards or construction equipment that uses alternative fuels such as compressed natural gas (CNG), propane, electricity or biodiesel to reduce diesel exhaust emissions."

Page 4.3-12 To respond to comments VV-27B and VV-27C, revise **Table 4.3-7**, Nearest Sensitive Receptors and Approximate Distances, to correct or update sensitive receptors locations and approximate distances to the Proposed Modifications sites for the following components:

Table 4.3-7 Revised:
Nearest Sensitive Receptors and Approximate Distances

Project Component	Type of Receptor	Closest Distance from Project
Advanced Water Purification Facility	Farmhouse on Monte Road	One mile
Product Water Conveyance Pipeline	Residences – Ardennes Circle	300 feet
Injection Well Facilities	Residences – Ardennes Circle	850 feet
EW-1 and EW-2	Seaside Middle School	Just north of playfields, >500 feet from classrooms
EW-3 and EW-4	Residences – Ardennes Circle	50 feet
CalAm Conveyance Pipeline	Residences (e.g., Del Monte Boulevard and Marina Drive) and Schools	50-100 from residences, ~~300~~ 250 feet from school

Page 4.3-12 To respond to comments VV-27B and VV-27C, revise the corresponding text as follows below **Table 4.3-7 Revised**:

"As shown in **Table 4.3-7 Revised**, the nearest receptors to pipeline work would be located as close as approximately 50 to 100 feet from the CalAm Conveyance Pipeline. Pipeline construction in residential areas would progress at a rate of about 2,000 feet per day, thus limiting nearby receptors' exposure to diesel particulate matter to several days. Exposure to construction emissions for such a short time period would not result in chronic effects, such as a significant increase in cancer risk. A Heath Risk Assessment (HRA) was conducted for M1W by Atmospheric Dynamics for the construction of Extraction Wells EW-1 and EW-2 (see **Appendix L**). This HRA supports the Draft SEIR's conclusion of less-than-significant health risks."

Changes to 4.4 Biological Resources: Fisheries

No changes required.

Changes to 4.5 Biological Resources: Terrestrial

Page 4.5-20 The mitigation measures identified below have been amended as follows in response to comments on the Draft EIR in comment document VV. The following text is inserted prior to Mitigation Measure Bt-1i:

"Note: MMs BT-1i, BT-1j, and BT-1k require pre-construction surveys for Monterey dusky-footed woodrat, American badger, and protected avian species, respectively. The following provisions and requirements of MMs BT-1i, BT-1j, and BT-1k include the applicable species-specific mitigation measures in the MPWSP Final EIR/EIS (MMs 4.6-1k, 4.6-1j, and 4.6-1i) as shown below."

Page 4.5-20 Mitigation Measures BT-1i, BT-1j, and BT-1k additional text is added as follows in response to comment document VV and comment DD-12:

"MM BT-1i: **Conduct Pre-Construction Surveys for Monterey Dusky-Footed Woodrat. (Applies to Injection Well Facilities and Extraction Wells).** To avoid and reduce impacts to the Monterey dusky-footed woodrat, the project proponents shall retain a qualified biologist to conduct pre-construction surveys in suitable habitat proposed for construction, ground disturbance, or staging within three days prior to construction for woodrat nests within the project area and in a buffer zone 100 feet out from the limit of disturbance. All woodrat nests shall be flagged for avoidance of direct construction impacts and protection during construction, where feasible. Nests that cannot be avoided shall be manually deconstructed prior to land clearing activities to allow animals to escape harm. If a litter of young is found or suspected, nest material shall be replaced, and the nest left alone for two to three weeks before a re-check to verify that young are capable of independent survival before proceeding with nest dismantling.

"The following requirements of MPWSP Final EIR/EIS (MMs 4.6-1k) shall also be required.

"If woodrat nests are found during the preconstruction surveys, the wildlife biologist shall conduct additional surveys throughout the duration of construction activities at the potentially affected facility site to identify any newly constructed woodrat nests.

"If nests are observed outside of the construction area, the qualified biologist shall demarcate a minimum 50-foot buffer area with orange construction fencing and require that all construction activities and disturbance remain outside of the fencing.

"Active woodrat nests located within the anticipated construction disturbance areas shall be relocated. Nests shall be relocated outside of the peak breeding season, (peak breeding season is typically February through November) to minimize disturbance to young woodrats.

"Protocol for relocation of woodrats and/or their nests by qualified biologists shall be followed, as described below:

a. Clear understory vegetation from around the nest using hand tools.

b. After all vegetative cover has been cleared around the nest, the biologist shall gently disturb the nest to encourage the woodrat(s) to abandon the nest and seek cover in adjacent habitat.

c. Once the woodrats have left the nest, the biologist shall carefully relocate the nest sticks to suitable habitat outside of the construction disturbance area, piling the sticks at the base of trees or large shrubs if available. If multiple nests are relocated, the stick piles shall be placed at least 25 feet from one another.

d. The qualified biologist shall ensure potential health hazards to the biologists moving nests are addressed to minimize the risk of contracting diseases associated with woodrats and woodrat nests.

e. If young are encountered during dismantling of the nest, nest material shall be replaced and a 50-foot no- disturbance buffer shall be

established around the active nest. The buffer shall remain in place until young have matured enough to disperse on their own accord and the nest is no longer active. Nesting substrate shall then be collected and relocated to suitable oak woodland habitat outside of the project area."

"MM BT-1j: **Conduct Pre-Construction Surveys for American Badger. (Applies to Injection Well Facilities and Extraction Wells).** To avoid and reduce impacts to the American badger, the project proponents shall retain a qualified biologist to conduct focused pre-construction surveys for badger dens in all suitable habitat proposed for construction, ground disturbance, or staging no more than two weeks prior to construction. Surveys shall be conducted wherever suitable habitat exist within 100 feet of the project area boundary. Vegetation communities in the project area include non-native grasslands. Along pipeline alignments, surveys shall be phased to occur within 14 days prior to disturbance along that portion of the alignment. Game cameras shall be used to record any movements at potentially active dens for no less than three (3) nights. If no potential badger dens are present, no further mitigation is required. If potential dens are observed, the following measures are required to avoid potential significant impacts to the American badger:

1. If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent badgers from re-using them during construction.
2. If the qualified biologist determines that potential dens may be active, the den shall be monitored for a period sufficient (as determined by a qualified biologist) to determine if the den is a maternity den occupied by a female and her young, or if the den is occupied by a solitary badger.
3. Maternity dens occupied by a female and her young shall be avoided during construction and a minimum buffer of 200 feet in which no construction activities shall occur shall be maintained around the den. After the qualified biologist determines that badgers have stopped using active dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction.
4. Solitary male or female badgers shall be passively relocated by blocking the entrances of the dens with soil, sticks, and debris for three to five days to discourage the use of these dens prior to project construction disturbance. The den entrances shall be blocked to an incrementally greater degree over the three to five-day period. After the qualified biologist determines that badgers have stopped using active dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction.

"The following requirements of MPWSP Final EIR/EIS (MM 4.6-1j), Item 6, shall also be required.

"If active badger dens are found during the course of preconstruction surveys, the following measures shall be taken to avoid and minimize adverse effects on American badger:

a. Relocation shall be prohibited during the badger pupping season (typically February 15 to June 1).

b. Construction activities shall not occur within 50 feet of active badger dens observed outside of the project area.

c. The qualified biologist shall contact CDFW immediately if natal badger dens are detected. The 200-foot buffer area identified in 3) above, may be reduced, if approved by CDFW, and if construction would not alter the behavior of the adult or young in a way that would cause injury or death to those individuals.

d. If the biologist determines that potential dens within the project area, and outside the breeding season, may be active, the biologist shall notify the CDFW."

"MM BT-1k: Conduct Pre-Construction Surveys for Protected Avian Species, including, but not limited to, white-tailed kite and California horned lark. (Applies to all Proposed Modifications, except the Advanced Water Purification Facility). Prior to the start of construction activities at each project component site, a qualified biologist shall conduct pre-construction surveys for active nests. Pre-construction surveys shall be conducted no more than 10 days prior to the start of ground disturbance to maximize the probability that nests that could potentially be impacted are detected. Surveys shall cover a sufficient area around the work site to identify nests and determine their status. A sufficient area means any area potentially affected (including direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment) by the project.

1. No preconstruction surveys or avoidance measures are required for construction activities that would be completed entirely during the non-nesting season (September 16 to January 31).

2. For all construction activities scheduled to occur during the nesting season (February 1 to September 15), the qualified biologist shall conduct a preconstruction avian nesting survey no more than 10 days prior to the start of staging, site clearing, and/or ground disturbance.

3. Because some bird species nest early in spring and others nest later in summer, surveys for nesting birds may be required to continue during construction to address new arrivals, and because some species breed multiple times in a season. The necessity and timing of these continued surveys shall be determined by the qualified biologist based on review of the final construction plans.

4. If there is a break of 10 days or more in construction activities during the breeding season, a new nesting bird survey shall be conducted before reinitiating construction.

5. The qualified biologist shall be capable of determining the species and nesting stage without causing intrusive disturbance. The surveys shall cover all potential nesting sites within 500 feet of the project area for raptors and within 300 feet for other birds.

6. If active nests are found in the project area or vicinity (500 feet for raptors and 300 feet for other birds), the nests shall be continuously surveyed for the first 24 hours prior to any construction related activities to establish a behavioral baseline and, once work commences, all nests shall be continuously monitored to detect any behavioral changes as a

result of the project, if feasible. If behavioral changes are observed, avoidance and minimization measures shall be applied to ensure that the construction activities do not cause the adult to abandon an active nest or young or change an adult's behavior so it could not care for an active nest or young.

"If continuous monitoring is not feasible, a no-disturbance buffer (at least 500 feet for raptors and 250 feet for other birds [or as otherwise determined in consultation with CDFW] shall be created around the active nests). These buffers will remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. If the nest(s) are found in an area where ground disturbance is scheduled to occur, the project operator shall require that ground disturbance be delayed until after the birds have fledged. The buffer distance can be reduced with authorization from CDFW if construction activities would not cause an adult to abandon an active nest or young or change an adult's behavior so it could not care for an active nest or young.

~~"suitable nesting habitat within the project area and within a suitable buffer area from the project area. The qualified biologist shall determine the suitable buffer area based on the avian species with the potential to nest at the site.~~

~~"In areas where nesting habitat is present within the component project area or within the determined suitable buffer area, construction activities that may directly (e.g., vegetation removal) or indirectly (e.g., noise/ground disturbance) affect protected nesting avian species shall be timed to avoid the breeding and nesting season. Specifically, vegetation and/or tree removal can be scheduled after September 16 and before January 31. Alternatively, a qualified biologist shall be retained by the project proponents to conduct pre-construction surveys for nesting raptors and other protected avian species where nesting habitat was identified and within the suitable buffer area if construction commences between February 1 and September 15. Pre-construction surveys shall be conducted no more than 14 days prior to the start of construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). Because some bird species nest early in spring and others nest later in summer, surveys for nesting birds may be required to continue during construction to address new arrivals, and because some species breed multiple times in a season. The necessity and timing of these continued surveys shall be determined by the qualified biologist based on review of the final construction plans.~~

~~"If active raptor or other protected avian species nests are identified during the pre-construction surveys, the qualified biologist shall notify the project proponents and an appropriate no-disturbance buffer shall be imposed within which no construction activities or disturbance shall take place until the young have fledged and are no longer reliant upon the nest or parental care for survival, as determined by a qualified biologist.~~

"Note: the above includes requirements of MPWSP Final EIR/EIS (MM 4.6-1k)."

Changes to 4.6 Cultural and Paleontological Resources

Page 4.6-9 Revise Mitigation MM CR-2b, as follows in response to comment VV-41:

"MM CR-2b: **Discovery of Archaeological Resources or Human Remains. (Applies to all Proposed Modifications components).** If archaeological resources or human remains are unexpectedly discovered during any construction, work shall be halted within 50 meters (±160 feet) of the find until it can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, an archaeologist shall inspect the find within 24 hours of discovery. The archaeologist, in consultation with the project proponent and the appropriate Native American Representative, determine whether preservation in place is feasible. Consistent with CEQA Guidelines Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is determined to be infeasible, a qualified archaeologist, in consultation with M1W and the appropriate Native American Representative, shall prepare and implement an Archaeological Research Design and Treatment Plan (ARDTP). Treatment of unique archaeological resources shall follow the applicable requirements of Public Resources Code Section 21083.2 and be implemented with the oversight and concurrence of the Lead Agency. ~~appropriate mitigation measures shall be formulated and implemented, with the concurrence of the Lead Agency (M1W).~~

"Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The ARDTP shall include provisions for analysis of data in a regional context, reporting of results within a timely manner and subject to review and comments by the appropriate Native American representative before being finalized, curation of artifacts and data at a local facility acceptable to the appropriate Native American representative, and dissemination of final confidential reports to the appropriate Native American representative, the Northwest Information Center of the California Historical Resources Information System, the Lead Agency and interested professionals.

"The County Coroner shall be notified in accordance with provisions of Public Resources Code 5097.98-99 in the event human remains are found and the Native American Heritage Commission shall be notified in accordance with the provisions of Public Resources Code Sec. 5097 if the remains are determined to be of Native American origin."

Changes to 4.7 Energy and Mineral Resources

Page 4.7-6 The first paragraph under the section titled "All Proposed Modifications" is amended as follows in response to comment: VV-42:

"Construction of the Project Modifications would result in energy consumption due to construction traffic and the use of construction equipment. The primary energy demand during construction

would occur from use of gasoline and diesel-powered mobile construction equipment and vehicles. Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during site clearing, grading, trenching, and construction. The Proposed Modifications would use additional fossil fuel; however, the additional amount of fossil fuel would be less than 10% more than the amount assumed for the approved PWM/GWR Project. Specifically, the construction for the Proposed Modifications would require approximately 70,000 gallons of diesel fuel and 12,000 gallons of gasoline (Andrew Sterbenz, P.E., Schaaf & Wheeler, email, March 26, 2020)."

Page 4.7-7 **Mitigation Measure MM EN-1: Construction Equipment Efficiency Plan** is amended as follows in response to comment: VV-43:

"MM EN-1: **Construction Equipment Efficiency Plan. (Applies to all Proposed Modification components).** M1W (for all components) or CalAm (for the CalAm Extraction Facilities and Distribution System) shall contract with a qualified professional (i.e., construction manager, planner or energy efficiency consultant) to prepare a Construction Equipment Efficiency Plan that identifies the specific measures that M1W or CalAm (and its construction contractors) will implement as part of project construction to increase the efficient use of construction equipment. Such measures shall include, but not necessarily be limited to: procedures to ensure that all construction equipment is properly tuned and maintained at all times; a commitment to utilize existing electricity sources where feasible rather than portable diesel-powered generators; consistent compliance with idling restrictions of the State; and identification of procedures (including the use of routing plans for haul trips) that will be followed to ensure that all materials and debris hauling is conducted in a fuel-efficient manner. Compliance with reduction of heavy equipment idling onsite to a maximum of 5 minutes per the California Air Resources Board requirement on Heavy Duty Diesel Vehicles shall be enforced by on-site construction monitors. More specifically, the plan will conform to California Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3) Idling, which limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Grading plans shall reference this requirement and a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling. The plan (including the use of routing plans for haul trips) shall be submitted to the permitting agency and/or lead agency (M1W or local jurisdictions responsible for individual permits) at least 20 days prior to the beginning of construction activities."

Changes to 4.8 Geology, Soils, and Seismicity

Page 4.8-3 In response to comment VV-45, **Figure 4.8-1** has been amended to include labels of individual PWM Expansion components and is included at the end of this chapter.

Page 4.8-4 In response to comment VV-45, **Figure 4.8-2** has been amended to include labels of individual PWM Expansion components and is included at the end of this chapter.

Page 4.8-5 In response to comment VV-45, **Figure 4.8-3** has been amended to include labels of individual PWM Expansion components and is included at the end of this chapter.

Page 4.8-6 The paragraph under the Advanced Water Purification Facility heading is amended as follows in response to comment VV-46:

"The Advanced Water Purification Facility is located north of the City of Marina, approximately two miles east of the Monterey Bay shoreline. The geologic site conditions at the Advanced Water Purification Facility were identified in the PWM/GWR Project Final EIR and include eolian deposits that are anticipated to consist of weakly to moderately consolidated, moderately to well-sorted silt and fine- to medium-grained sand. The Advanced Water Purification Facility is located within the Reliz fault zone. The nearest fault, the Reliz fault, is located approximately 2.2 miles to the south. The alluvial materials in the area are mapped as having low liquefaction susceptibility (Rosenberg, 2001d as referenced in Ninyo & Moore, 2014). This component is mapped as having a moderate erosion hazard, see **Figure 4.8-4 REV.**"

Page 4.8-6 The paragraph under the Injection Well Facilities heading is amended as following in response to comment VV-46:

"The Expanded Injection Well Area is northeast of the existing Injection Well Facilities site and south of Eucalyptus Road. This location is underlain by eolian deposits that are anticipated to consist of weakly to moderately consolidated, moderately to well-sorted silt and fine- to medium-grained sand. Groundwater is known to be very deep at approximately 450 feet below ground surface (see **Section 4.10 Hydrology and Water Quality: Groundwater**). The northernmost Ord Terrace fault is mapped beneath eolian deposits in the central portion of the project area approximately ¼ mile south of the Expanded Injection Well Area. This component is mapped as having a moderate erosion hazard, see **Figure 4.8-4 REV.**"

Page 4.8-7: In response to comment VV-45, **Figure 4.8-4** has been amended to include labels of individual PWM Expansion components and is included at the end of this chapter.

Page 4.8-12: The first full sentence on the page is revised as follows to respond to comment VV-48:

"Construction contractors of the Proposed Modifications would be required to adhere to standard construction practices to prevent and minimize construction-related erosion, as well as adhere to the requirements of SWPPPs that are required pursuant to federal and state NPDES regulations and permits for construction on one acre or more. See pages 4.11-31 to 4.11-34 in the Approved PWM/GWR EIR for a description of the specific NPDES requirements, including BMPs."

Changes to 4.9 Hazards and Hazardous Materials

Page 4.9-11: The fourth paragraph has been amended in response to comment VV-50 as follows:

"(f and h) Impair Emergency Access. The Monterey County Emergency Operations Plan provides an overview of agency roles and responsibilities during emergencies (Monterey County Office of Emergency Services, 2014). ~~Project construction would not interfere with the designated agency responsibilities and reporting in the event of an emergency, and no impact would result.~~ Operations of the Proposed Modifications would not interfere with the designated agency responsibilities and reporting in the event of an emergency, and no impact would result. Although construction activities temporarily could impede access for emergency response vehicles, measures to avoid interference with emergency access are addressed in **Section 4.17, Traffic and Transportation**."

Page 4.9-16: The following text is added to the Impact Conclusion for HH-2, in response to comment document C:

"The Proposed Modifications would not result in any new significant impacts or worsen the severity of any previously identified significant impacts. Hazardous materials, such as asbestos, lead, and polychlorinated biphenyls, may occur in older building materials and be released during demolition or renovation of existing facilities. Because the Proposed Modifications do not include demolition or renovation of existing facilities, buildings, or structures, hazardous materials in building debris would not be encountered. There is the potential for hazards from asbestos containing materials in non-building structures, such as subsurface utility lines that could be disturbed during construction activities. MBARD commented anecdotally there could be subsurface transite (asbestos cement) pipes or asbestos coated gas lines that would need abatement prior to starting construction activities in the former Fort Ord. MBARD recommends developing a Standard Operating Procedure to address a situation where unknown subsurface asbestos containing utility lines are exposed during the course of construction work and need to be removed prior to continuing construction. MBARD notification is required under existing regulations at least 10 working days prior to renovation or demolition activities. If old underground piping or other asbestos containing construction materials are encountered during trenching activities, Rule 424 could also apply. M1W will require its contractors to prepare and submit a Standard Operating Procedure for addressing unknown subsurface asbestos-containing material if it is encountered during construction. Per the PWM/GWR Project EIR, although construction of the Proposed Modifications could result in the accidental release of small quantities of hazardous materials, which could pose a risk to construction workers and the environment, through compliance with applicable hazardous and permitting regulations, the impacts from potential releases of hazardous materials during construction would be less-than-significant.

"Consistent with the findings of PWM/GWR Project Final EIR, construction of the Proposed Modifications would not result in a significant impact related to the accidental release of hazardous materials during construction; therefore, no mitigation is necessary."

Changes to 4.10 Hydrology and Water Quality: Groundwater

Page 4.10-5 The text on page 4.10-5 (2nd paragraph) under Section 4.10.3.3 is amended as follows in response to comment VV-54 and H-26:

"Between 2017 and 2020, several local GSAs were formed to implement SGMA. The Salinas Valley Basin GSA covers most of the Salinas Valley, designated in California Department of Water Resources Bulletin 118, including the Advanced Water Purification Facility site. The Marina Coast Water District formed a GSA covering the extent of their service area at the time the GSA was formed. This Marina Coast Water District GSA covers an area where the approved and existing product water conveyance pipeline is located. In 2019, the City of Marina formed a GSA that covers approximately 450 acres of the CEMEX site, located west of the approved PWM/GWR Project facilities and the Proposed Modifications. In January 2020, the County of Monterey also approved its own GSA pursuant to its rights under Water Code section 10724.11 to cover the CEMEX site. No physical components of the approved PWM/GWR Project or the Proposed Modifications are located at the CEMEX site; however, a portion of M1W's ocean outfall pipeline and beach junction structure is located there. No changes to groundwater conditions in the Salinas Valley Groundwater Basin within the Salinas Valley, Monterey County, nor Marina Coast Water District GSA geographic areas would result from the Proposed Modifications to the PWM/GWR Project. The Proposed Modifications would increase purified recycled water injection and CalAm extraction for potable supply in the Seaside Groundwater Basin on a one-to-one basis. The Seaside Groundwater Basin is governed by a court-ordered adjudication and therefore, does not have a GSA. ~~In 2017, several local GSAs were formed in compliance with SGMA to meet the State's deadline. The Salinas Valley GSA covers most of the Salinas Valley, designated in California's Department of Water Resources Bulletin 118, including the Advanced Water Purification Facility site. Other relevant GSAs include the adjudicated area of Seaside Basin within which the approved PWM/GWR Project Injection Well Facilities are located and the Marina Coast Water District and the City of Marina formed their own GSA within a portion of their service area.~~"

Page 4.10-8 The following text has been added after the first paragraph, in response to comment H-28:

"In addition to the groundwater modeling that was completed specifically for the Proposed Modifications, the Seaside Basin Watermaster has identified the need to develop a, "Sustainable Yield Approach." This approach will be created in collaboration with the other local Groundwater Sustainability Agencies as part of the management of the Seaside Basin. See items 3A and 3B the TAC meeting agenda for February 13th, which can be accessed here: http://www.seasidebasinwatermaster.org/TAC/TAC%20Agenda%20%203-13-19%20Reduced%20File%20Size.pdf, the TAC meeting agenda for March 13th 2019, which can be accessed here: http://www.seasidebasinwatermaster.org/TAC/TAC%20Agenda%20%203-13-19%20Reduced%20File%20Size.pdf, and the *Seaside Groundwater Basin 2018 Basin Management Action Plan,* which can be accessed here: http://www.seasidebasinwatermaster.org/Other/BMAP%20Final_07192019.pdf."

Changes to 4.11 Hydrology/Water Quality: Surface Water

Page 4.11-10 The last sentence on this page has been revised as follows in response to J-8:

"Potential marine water quality impacts due to operational discharges of reverse osmosis concentrate from the Advanced Water Purification Facility are addressed in Impact HS-~~4~~5, below.**"**

Changes to 4.12 Land Use, Agriculture, and Forest Resources

No changes required.

Changes to 4.13 Marine Biological Resources

Page 4.13-3 The Section titled "National Marine Sanctuary Program Regulations" has been revised as follows in response to comment J-10:

"National Marine Sanctuary Program Regulations

~~"The MBNMS implements the Water Quality Protection Program for sanctuary and tributary waters. The program is a partnership of 27 local, State, and Federal government agencies (Monterey Bay National Marine Sanctuary, 2008).~~

~~"The National Oceanic and Atmospheric Administration (NOAA) entered into a Memorandum of Agreement (MOA) with the State of California, the EPA, and the Association of Monterey Bay Area Governments regarding the MBNMS regulations relating to water quality within State waters within the Sanctuary (Monterey Bay National Marine Sanctuary, 2008). With regard to regulatory permits, the MOA encompasses:~~

- ~~NPDES permits issued by the State of California under Sec. 13377 of the California Water Code~~
- ~~Waste Discharge Requirements (WDR) issued by the State of California under Sec. 13263 of the California Water Code.~~

~~"The MOA specifies how the review process for applications for leases, licenses, permits, approvals, or other authorizations will be administered within State waters within the MBNMS in coordination with NPDES and waste discharge requirements and permitting processes.~~

"The National Marine Sanctuaries Act (NMSA) regulations identify activities that are prohibited in the sanctuaries and establish a system of permits and/or authorizations to allow the conduct of certain types of activities that are otherwise prohibited. Each sanctuary has unique regulatory prohibitions codified within a separate subpart of Title 15, Code of Federal Regulations, Part 922 (i.e., 15 CFR Part 922). Subpart M contains the regulations specific to MBNMS. Section 922.132 of the regulations lists activities that are prohibited or otherwise regulated within the Sanctuary. Among the listed prohibitions, the following prohibited activities relate to the proposed project and may qualify for an authorization, pursuant to Section 922. 132(e): Discharging or depositing from within or into the sanctuary any material or other matter, except as specified in A - F of this section. (15 CFR § 922.132(a)(2)(i)).

"The term "authorization" is a specific approval tool described in the NMSA regulations at 15 CFR Section 922.49, which provides, in part, that: A person may conduct an activity prohibited by subparts L through P, or subpart R, if such activity is specifically authorized by any valid Federal, State, or local lease, permit, license, approval, or other authorization issued after the effective date of MBNMS designation, provided that: 1) the applicant notifies the Director of the Office of Ocean and Coastal Resource Management, NOAA, or designee, in writing, of the application for such authorization; 2) the applicant complies with the provisions of Section 922.49; 3) the Director notifies the applicant and authorizing agency that he or she does not object to issuance of the authorization, and; 4) the applicant complies with any terms and conditions the Director deems reasonably necessary to protect sanctuary resources and qualities. Upon completion of the review of the application and information received with respect thereto, the Director shall notify both the agency and applicant, in writing, whether he or she has any objection to issuance and what terms and conditions he or she deems reasonably necessary to protect sanctuary resources and qualities (page 19 EA for MBNMS Authorization of M1W NPDES Permit).

"The Office of National Marine Sanctuaries (ONMS) will conduct a separate National Environmental Policy Act (NEPA) review of the Proposed Modifications after M1W submits a request to amend Order No. R3-2018-0017. MBNMS previously prepared and adopted an EA on the approved PWM/GWR Project's NPDES waste discharge permit.[2]"

Page 4.13-6: The first sentence on this page has been revised as follows in response to comment J-9:

"… construction impacts on the marine environment relative to discharges to surface waters that may lead to the ocean are addressed in **Section 4.11~~0~~ Hydrology and Water Quality: Surface Water** and are not repeated here."

Changes to 4.14 Noise and Vibration

Page 4.14-2: Add the following text to Section 4.14.2.2, Existing Noise Levels and Conditions at the Proposed Modifications, in response to comment VV-77:

"The PWM/GWR Project Final EIR described the noise environment of the project area and the existing noise level measurements. The locations of sensitive receptors in proximity to the Proposed Modifications is presented in the noise and vibration study in **Appendix K**. **Figure 4.14.1, Proposed Modifications and Noise Measurement Locations** illustrate the noise measurement locations utilized for each of the Proposed Modifications, including locations of additional noise measurements conducted in March 2020."

Page 4.14-2: Add the following text under Footnote 1 at bottom of page, in response to comment VV-77:

"These noise measurements consist of data from the noise analyses for the PWM/GWR Final EIR and the MPWSP EIR/EIS. This information represents the most recent noise data in the vicinity. Illingworth and Rodkin determined that existing noise measurements were suitable for the

~~[2] ONMS, EA for the Authorization of the National Pollutant Discharge Elimination System Permit for the Monterey One Water Regional Wastewater Treatment Plant and Advanced Water Purification Facility, March 2019.~~

purposes of evaluating the effects of the Proposed Modifications on the existing receptors. Supplemental noise measurements were conducted in March 2020 at the sites of the proposed CalAm Extraction Wells. These are included in **Revised Appendix K.** The measurements and analysis confirm prior reporting of noise sources and noise levels in the vicinity of the proposed extraction well sites."

Page 4.14-6: In response to comment document VV, revise the third sentence in the first full paragraph to state:

"Monitoring wells could be ~~within~~ as close as 850 feet of one or more residences in the Fitch Park neighborhood."

Page 4.14-4: In response to comment document VV, revise the text under the *Conveyance Pipelines* heading to the following:

"CalAm would construct and operate new treatment facilities, and potable and raw water pipelines to convey the water from the new Extraction Wells to treatment facilities and to the existing CalAm distribution system located in the General Jim Moore Boulevard right of way extending approximately 2 ½ miles in length. The nearest sensitive receptors are residences located west and east of General Jim Moore Boulevard and Seaside Middle School. These receptors are shown in the figures in **Revised Appendix K,** included as an attachment to this Final SEIR. (Location of sensitive receptors are shown on figures starting on page 24 through page 36 of **Appendix K** and also under Appendix C to **Appendix K**, identifying noise measurement locations in reference to sensitive receptors.) Noise levels in the area are represented by MPWSP EIR/EIS noise measurement site S4 and PWM/GWR Project Final EIR noise measurement sites LT-1 and ST-2. Noise levels at Site S4 are discussed above. Hourly average noise levels at Site LT 1 typically range from 57 to 66 dBA Leq during the day, and from 47 to 56 dBA Leq at night. General Jim Moore Boulevard traffic produced noise levels ranging from 47 to 48 dBA Leq at ST-2."

Page 4-14-9: In response to comment document VV, revise the second paragraph under the *Injection Well Facilities* heading to the following:

"The PWM/GWR Project Final EIR evaluated monitoring wells between the deep Injection Well Sites and the nearest downgradient Extraction Well. Due to the change in location of the deep Injection Wells, the locations of each associated monitoring well were relocated to the ~~area between General Jim Moore Boulevard and the~~ Injection Well Area. The relocated monitoring wells could be ~~within~~ as close as 850 feet of one or more residences in the Fitch Park neighborhood."

Page 4.14-10: In response to comment document VV, revise the third and fourth paragraphs under the Extraction Wells heading to the following:

"The MPWSP EIR/EIS analyzed noise resulting from construction of ASR-5 and ASR-6 at the same locations as proposed EW-3 and EW-4. The proposed Extraction Wells (EW-3 and EW-4) would be constructed at the intersection of General Jim Moore Boulevard and Ardennes Circle, in the Fitch Park military housing area. The closest residential receptors are located 50 feet away on Ardennes Circle. Each Extraction Well would require 24-hour construction activities for up to 7 days during well drilling. Temporary noise barriers would be installed at each Well Site to reduce construction noise. A 10-foot noise barrier would be constructed to reduce noise levels at the

nearest receptors to EW-3, and a 15-foot noise barrier would be constructed to reduce noise levels at the nearest receptors to EW-4. Accounting for the attenuation provided by the temporary barrier, the resultant daytime and nighttime construction noise levels at the nearest sensitive receptors could be as high as 80 dBA Leq. This level exceeds the speech interference and sleep interference thresholds of 70 dBA and 60 dBA (with windows closed, or 35 dBA with windows open), respectively. This represents a significant impact for nighttime construction because the nighttime noise would disturb sleep. Significant impacts related to temporary increases in *daytime* noise levels would be reduced to less-than-significant levels with implementation of the mitigation, as indicated below. The noise contours for construction of EW-3 and EW-4 with and without mitigation are located in the noise and vibration assessment in **Revised Appendix K**.

"While it is possible that implementation of mitigation identified in the MPWSP EIR/EIS would reduce the daytime noise impact to a less-than-significant level, this mitigation would not be sufficient to reduce noise to below the more stringent nighttime threshold. Therefore, the nighttime noise impact from construction of EW-3 and EW-4 would remain significant and unavoidable for nighttime construction. Significant impacts related to temporary increases in daytime noise levels would be reduced to less-than-significant levels with implementation of the mitigations below."

Page 4.14-11: In response to comment VV-75, revise the first paragraph of Mitigation Measure NV-1a: Drilling Contractor Noise Measures to the following:

"Contractor specifications shall include a requirement that drill rigs located within 700 feet of noise-sensitive receptors shall be equipped with noise reducing engine housings or other noise reducing technology and the line of sight between the drill rig and nearby sensitive receptors shall be blocked by portable acoustic barriers and/or shields to reduce noise levels such that drill rig noise levels are no more 75 dBA at 50 feet. This would reduce the nighttime noise level from CalAm Extraction Wells EW-1 and EW-2 to less than 60 dBA L_{eq} at the nearest residence [2]."

Page 4.14-11: In response to comment VV-75, revise footnote 2 to the following:

"[2] While this mitigation measure also applies to CalAm Extraction Wells EW 3 and 4; even with application of this mitigation, nighttime noise levels during well construction at these extraction wells would remain significant and unavoidable (as noted above)."

Changes to 4.15 Population and Housing

Page 4.15-2-3: Text and **Table 4.15-3** have been revised slightly on this page has been revised as follows in response to VV-78:

"Monterey County has twelve incorporated cities with a total population of approximately 445,414 people. **Table 4.15-2, Monterey County Population Growth by Jurisdiction** shows the population growth by jurisdiction since the 2010 Census. This updates information from the PWM/GWR Project Final EIR which reported Monterey County population in 2010. Additionally, Table 4.15-2 provides population totals by jurisdiction through 2019 and identifies the population increase and percent change. **Table 4.15-3 Revised, Comparison of Monterey County Estimated Population and Housing Units by Jurisdiction (2010 – ~~2014~~ -2019)** breaks down the total population and housing units by jurisdiction according to the most recent census (2010)

and as shown in the 2014 Housing and Community Development data and 2019 State of California Department of Finance data.[3]

"According to the 2010 U.S. Census, unincorporated Monterey County had a population of approximately 415,057 persons in 2010. More recent 2014 and 2019 data on population and housing units are shown in **Table 4.15-2** and **Table 4.15-3 Revised, Comparison of Population and Housing Characteristics (2010, -2014, and 2019) for Project Area Jurisdictions**. This data below is specific only to the jurisdictions within the approved PWM/GWR Project and Proposed Modifications project areas, as shown below.

Table 4.15-3 Revised:
Comparison of Population and Housing Characteristics (2010, 2014, and 2019) for Project Area Jurisdictions

Jurisdiction	2010 Population	2014 Population	2019 Population	2010 Total Housing Units	2014 Total Housing Units	2019 Total Housing Units
Carmel-by-the-Sea**	3,722	3,791	3,987	3,417	3,417	3,432
Del Rey Oaks**	1,624	1,665	1,734	741	741	741
Marina*	19,718	20,268	22,957	7,200	7,201	7,632
Monterey*,**	27,810	28,381	28,448	13,584	13,631	13,694
Pacific Grove*,**	15,041	15,431	15,883	8,169	8,181	8,195
Salinas*	150,441	155,205	162,797	42,651	42,948	43,222
Sand City**	334	343	397	145	146	187
Seaside*,**	33,025	33,534	33,776	10,872	10,913	10,918
Unincorporated Areas*,**	100,213	103,697	107,946	39,434	38,710	39,608
Total	351,928	362,246	371,925	126,213	125,888	127,629

**PWM/GWR areas of approved and proposed modifications components.*
***Jurisdictions within MPWMD/CalAm areas subject to CDO*
Source: U.S. Census Bureau, 2010, and Housing and Community Development (HCD 5th Cycle), Dept of Finance, State of California, 2014 and 2019 data.

"Between the years 2010 and 2014, the area realized a population increase of 0.03 percent (10,318 persons), and a decrease of 325 housing units within the Project Area Jurisdictions. Between the years 2010 and 2019, the population within the Project Area Jurisdictions increased by 0.6 percent, a total increase of 19,997 persons. Additionally, the Projected Area Jurisdictions experienced an increase of 1,416 housing units."

Changes to 4.16 Public Services, Utilities, and Recreation

No changes required.

[3] See Table 4.15-1, Monterey County Estimated Population and Housing Units by Jurisdiction (2010) from the PWM/GWR Project Final EIR.

Changes to 4.17 Traffic and Transportation

Page 4.17-3 In Section 4.17.2.2, add the following text and references to new figures in response to comments K-1 through K-4 and WW-1:

"The Transportation Agency of Monterey County (TAMC) and the Fort Ord Regional Trail and Greenway (FORTAG) request that the PWM Project and PWM Expansion project incorporate a formal process whereby the proposed FORTAG trail alignment is considered in the PWM project design, engineering, and approvals. TAMC requested that M1W allow the FORTAG trail alignment through the proposed expanded injection well area, as shown on attached **New Figure 4.17-1 FORTAG Trail Segments** and **New Figure 4.17-2 FORTAG Regional Map**. M1W intends to work with the Transportation Agency and FORTAG to address shared alignment and siting for Proposed Modifications."

Page 4.17-4 **Figure 4.17-1 FORTAG Trail Segments NEW** is added (shown at the end of this Chapter of the Final SEIR):

Page 4.17-5 **Figure 4.17-2 FORTAG Regional Map NEW** is added (shown at the end of this Chapter of the Final SEIR):

Changes to 4.18 Water Supply and Wastewater Systems

Page 4.18-5 In Section 4.18.3.4, add the following new section after the ARWRA Conditions and Amendment section and before the City of Salinas Agricultural Wash Water section in response to comments G-17, G-18, and S-4:

"Pure Water Monterey Delivery and Supply Agreement and Amendment

"During the approved PWM/GWR Project design, M1W and MCWD entered into the Pure Water Monterey Delivery and Supply Agreement dated April 8, 2016, which outlined joint and mutual responsibilities and roles for implementing the approved PWM/GWR Project and MCWD's Regional Urban Water Augmentation Project (RUWAP). The agreement was amended in December 2017 to address updates to the project that occurred after April 2016 due to final design and State and Fort Ord Reuse Authority (FORA) funding agreements. The agreement as modified by its amendment is hereafter referred to as the Delivery and Supply Agreement. MCWD had previously constructed portions of the RUWAP transmission system (referred to herein as the product water conveyance system), and had designed the remaining portion, so combining the projects reduced the overall cost and schedule of both projects. Under this agreement, MCWD constructed and owns the transmission pipeline and Blackhorse Reservoir, and M1W pays for the conveyance capacity. MCWD intends to purchase purified recycled water from M1W's AWTF for urban irrigation use rather than to use tertiary-treated and disinfected recycled water as was envisioned under the previous RUWAP agreements. MCWD has indicated that it intends to exercise its rights to use wastewater it conveys to M1W as returned recycled water in accordance with agreements in effect, including the 1989 Annexation Agreement between MCWD and M1W, and the Delivery and Supply Agreement described herein. M1W Board approved changes to the PWM/GWR Project made in accordance to this agreement in October 2017 after Addendum 3 to the EIR was approved. The Proposed Modifications would not change M1W's ability to meet the terms of the Delivery and Supply Agreement as amended or the objectives of the MCWD RUWAP

such that a new significant environmental impact would occur or such that a previously identified significant impact would be increased in severity."

Page 4.18-13 In Section 4.18.4.4, the fourth full paragraph (immediately before section titled "Impact Conclusion" is revised as follows in response to comments B-2, H-8, O-1, AA-9, AA-10, TT-1, and UU-1:

"While adequate source waters are available, the Proposed Modifications would result in a reduced project benefit to CSIP as compared to the approved PWM/GWR Project due to M1W's increased use of its rights to municipal wastewater and new source waters under the ARWRA. Under the Proposed Modifications with the ARWRA Section 16.15 satisfied, CSIP would have an increased available SVRP yield of approximately 2,852 AFY in a drought year, and 3,600 AFY in normal and wet years. During normal and wet years, this would represent a reduced maximum benefit by approximately 781 AFY as compared to the approved PWM/GWR Project under the terms of the ARWRA. This reduced future benefit uses the average increased yield for CSIP calculated by Schaaf & Wheeler (see Appendix I) using the CEQA-required baseline assumptions described in the Draft SEIR and assumes MCWRA completes their obligations within the conditions precedent in Section 16.15. Section 4.02(1) on page 14 of 36 assumes a yield of 4,381 AFY for MCWRA; Schaaf & Wheeler found a yield of 3,600 AFY for CSIP. Of the 781 AFY reduction from the ARWRA yield assumption, only 650 AFY would be due to the Proposed Modifications. Additional reductions resulted from the settlement agreements to resolve protests to the water rights permits for Blanco Drain and Reclamation Ditch. While the Proposed Modifications would reduce the overall benefit to CSIP as compared to the approved PWM/GWR Project, the PWM/GWR Project with Proposed Modifications would still result in a substantial benefit to CSIP and to the underlying Salinas Valley Groundwater Basin if the ARWRA conditions in section 16.15 are satisfied. CSIP and the underlying Salinas Valley Groundwater Basin would continue to benefit under the Proposed Modifications. The reduced future benefit does not represent a reduction from existing CSIP yields, but instead a reduction in the PWM/GWR Project future benefits assumed in the ARWRA. ~~the extent of benefits would be less than the approved PWM/GWR Project.~~"

CHANGES TO CHAPTER 5, GROWTH AND IRREVERSIBLE COMMITMENT OF RESOURCES

Page 5-1 Under Section 5.1 Significant and Unavoidable Environmental Effects, text has been clarified as follows, under Noise:

- **"Noise:** The Proposed Modifications would result in a new significant and unavoidable noise-related construction impact associated with the nighttime construction of CalAm Extraction Wells EW-3 and EW-4. As identified in **Section 4.14, Noise,** construction of EW-3 and EW-4 would require 24-hour construction activities for up to seven days during well construction. This would represent a significant noise impact from nighttime construction because the nighttime noise would exceed the sleep interference thresholds. While this Draft Supplemental EIR has identified mitigation measures to minimize potential temporary construction noise, the impact would remain significant and unavoidable. "

Page 5-5: Table 5-1, Monterey Peninsula Available Supply and Demand has been revised in response to comments I-18 and I-19:

Table 5-1 Revised:
Monterey Peninsula Available Supply and Demand

Future Supplies		
Supply Source	**Available Supply (Acre-Feet per Year)**	
	MPWSP	**Proposed Modifications (Back Up Supply)**
MPWSP Desalination Plant[1]	6,252	0
Pure Water Monterey	3,500	3,500
PWM Expansion	0	2,250
Carmel River	3,376	3,376
Seaside Basin	774	774
Aquifer Storage & Recovery ****	1,300	1,300
Sand City Desalination Plant	94	94
Total Available Supply	**15,296**	**11,294**
Other Available Supplies	406	406
Total Available Supply w/Other	**15,702**	**11,700**

Future Demand Projections			
Demand Component	**Demand Projections (Acre-Feet Per Year)**		
	MPWSP Demand Projections*	**MPWMD**** (High)**	**MPWMD**** (Low)**
Average Current Customer Demand	12,350	11,232	9,788
Legal Lots of Record	1,181	1,014	864
Tourism Bounce-Back	500	250	100
Pebble Beach Entitlements	325	160	130
Total Water Demand	**14,356****	**12,656**	**10,882**

Water Supply vs. Demand Summary			
	MPWSP	**MPWMD Revised Demand Projections (High)**	**MPWMD Revised Demand Projections (Low)**
Water Supply	**15,702*****	**11,700**	**11,700**
Total Water Demand	**14,355**	**12,656**	**10,882**
Net Difference	**1,347*****	**(956)**	**818**

Table 5-1 Revised:
Monterey Peninsula Available Supply and Demand

Notes:
1. While the MPWSP Desalination Plant is sized to produce 6,252 AFY, the facility would operate at 85% of the design capacity. The additional capacity would be available to accommodate fluctuations in demand. As a result, for planning purposes the MPWSP Desalination Plant would provide an estimated 5,314 AFY when accounting for the facility operating at 85% of its design capacity. (Source: MPWSP Final EIR/EIS, as supplemented by additional information contained in CPUC Decision 18-09-017)
*estimates obtained from the MPWSP Final EIR/EIS, as supplemented by additional information contained in the CPUC's Decision 18-09-017.
** CPUC concluded that approximately 14,000 AFY represented a reasonable estimate of anticipated future demand for the purposes of sizing the desalination plant. (Source: CPUC Decision 18-09-017)
*** Based on the available supply information and related demand projections, supply would exceed available demand. However, this difference is largely to account for the necessary sizing of the MPWSP, which would operate at 85% of system capacity. This would result in a reduction of available supply by approximately 940 AFY. ~~Moreover, available supply also assumes that the ASR project would capable of delivering all of its stated supply. The ability of ASR to fully achieve its stated available supply is contingent upon a variety of factors, including climatic conditions. During periods of prolonged drought, ASR may not be able to fully realize its total supply.~~ (Source: MPWSP Final EIR/EIS as supplemented by additional information contained in CPUC Decision 18-09-017)
****Estimates of Aquifer Storage & Recovery supply, both under "Future Supplies" and "Water Supply vs. Demand Summary" show that the ASR project would be capable of delivering a long-term average annual yield of 1,300 AFY. Once the CDO is lifted and an additional supply is available to the Monterey District, excess ASR supplies in normal and wet years can be "banked" and carried over to dry or drought years. See Final SEIR Appendix O page for more information.
Source: California Public Utilities Commission (2018), Monterey Peninsula Water Supply Final Environmental Impact Report/Environmental Impact Statement; see also California Public Utilities Commission (2018), Decision 18-09-017; see also Monterey Peninsula Water Management District (2019), Supply and Demand for Water on the Monterey Peninsula.

CHANGES TO CHAPTER 6, ALTERNATIVES TO THE PROPOSED PROJECT

No changes required.

CHANGES TO CHAPTER 7, LIST OF PREPARERS AND REFERENCES

Page 7-2 Add the following additional persons consulted to Section 7.1.5 in response to comment S-10:

- "Mike Wegley, Marina Coast Water District. Telephone conversation with Bob Holden and Alison Imamura, M1W (August 20, 2019).
- "Mike Wegley, Patrick Breen, and Derek Cray, Marina Coast Water District. Telephone conversations and in-person meetings with David Lindow of M1W (May and June 2019)."

Page 7-3 Add the following additional references to each of the "references by section" for this Final SEIR:

"Monterey One Water and Marina Coast Water District, 2016 as amended 2017. Pure Water Delivery and Supply Agreement between Monterey One Water and Marina Coast Water District

"Monterey One Water, 2019, Sewer System Management Plan.

"Monterey Peninsula Water Management District, 2020. Final Supply and Demand for Water on the Monterey Peninsula, March 13."

Page 7-4 Add the following additional reference in response to comments VV-22 through VV-26 and VV-160 through VV-162:

"Atmospheric Dynamics, Inc., 2020. M1W – Health Risk Assessment for the EW-1/EW-2 Extraction Wells, March 2020."

Page 7-6 Add the following additional references in response to comment document D and comments VV-35 through VV-39:

"Fort Ord Reuse Authority, 2019a. Fort Ord Multi-Species Habitat Conservation Plan, September 2019.

"Fort Ord Reuse Authority, 2019b. Fort Ord Multi-Species Habitat Conservation Plan Public Draft Environmental Impact Statement/Environmental Impact Report, October 2019."

Page 7-16 The following reference is amended as follows in response to comments VV-70 through VV-76:

"Illingworth & Rodkin, Inc., 2019. Revised Technical Memorandum entitled "Expanded Pure Water Monterey Groundwater Replenishment Project Noise and Vibration Assessment," ~~October 23, 2019~~Revised March 2020."

Page 7-19 The following references are added in response to comments B-1, H-2, H-4, S-2, and Y-3:

"Montgomery & Associates, Inc., 2020. *Salinas Valley Groundwater Basin 180/400-ft Subbasin Groundwater Sustainability Plan,* Approved by Salinas Valley Basin Groundwater Sustainability Agency Board of Directors on January 9, 2020.

"Raftelis, 2018. *New Source Water Supply Study*, September 28.

"Marina Coast Water District and California-American Water Company, 2009. *Potable Water Wheeling Agreement*, March 10."

CHANGES TO APPENDICES

The Final SEIR includes revisions to **Appendices F** and **K,** with additions presented in underline, and deletions shown in ~~strikeout~~.:

F (Revised) Air Quality and Greenhouse Gas Emission Impacts Technical Memorandum

K (Revised) Noise Assessment Report

In addition, the Final SEIR includes the following new appendices:

L Health Risk Assessment for the EW-1/EW-2 Extraction Wells

M Source Water Operational Plan Technical Memorandum

N Letter from David J. Stoldt to Ian Crooks, RE: California American Water Peer Review of Supply and Demand for Water on the Monterey Peninsula

O	Supply and Demand for Water on the Monterey Peninsula
P	Biographical Information of Key SEIR Contributors
Q	Hydraulic Analysis of Potential Additional Injection Wells – Hydraulic Modelling Parameters and Results)
R	Charts of Source Water for AWPF and SVRP Production

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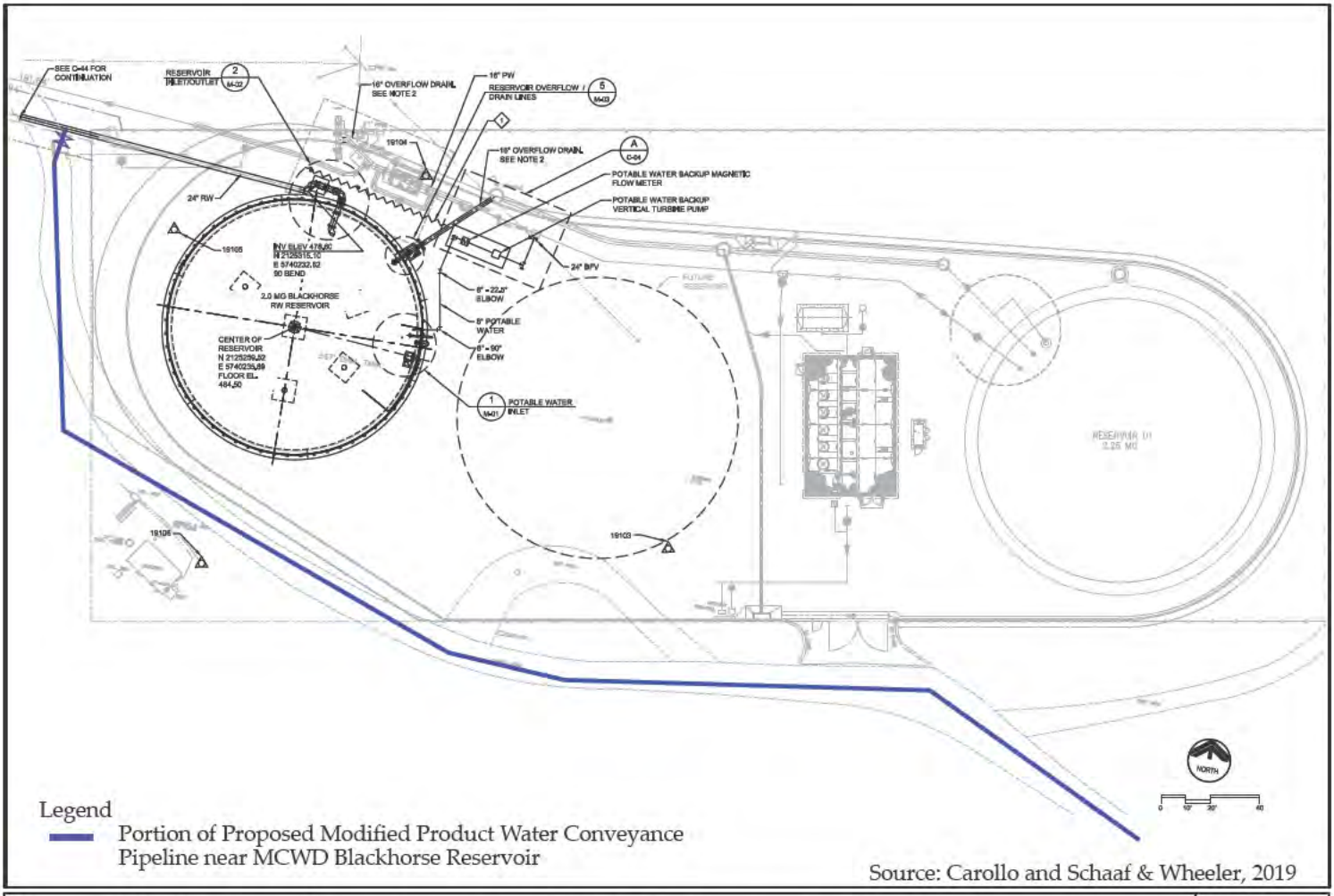
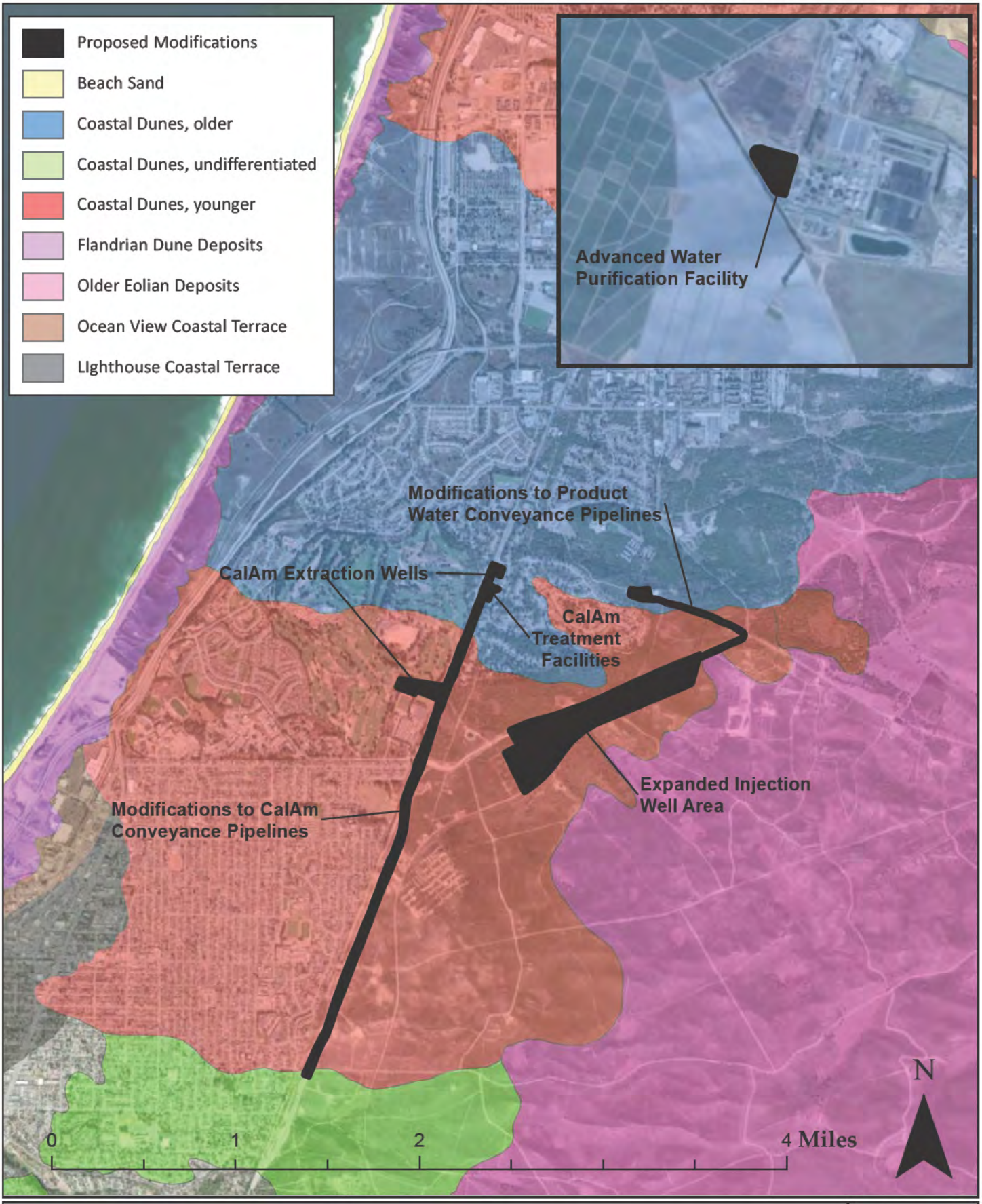


Legend

Portion of Proposed Modified Product Water Conveyance Pipeline near MCWD Blackhorse Reservoir

Source: Carollo and Schaaf & Wheeler, 2019

Proposed Product Water Pipeline Connection to Blackhorse Reservoir Pipeline (new)	Figure 2-5A NEW
April 2020	Expanded PWM/GWR Project Supplemental EIR



Regional Geography Map Revised

March 2020

Expanded PWM/GWR Project
Supplemental EIR

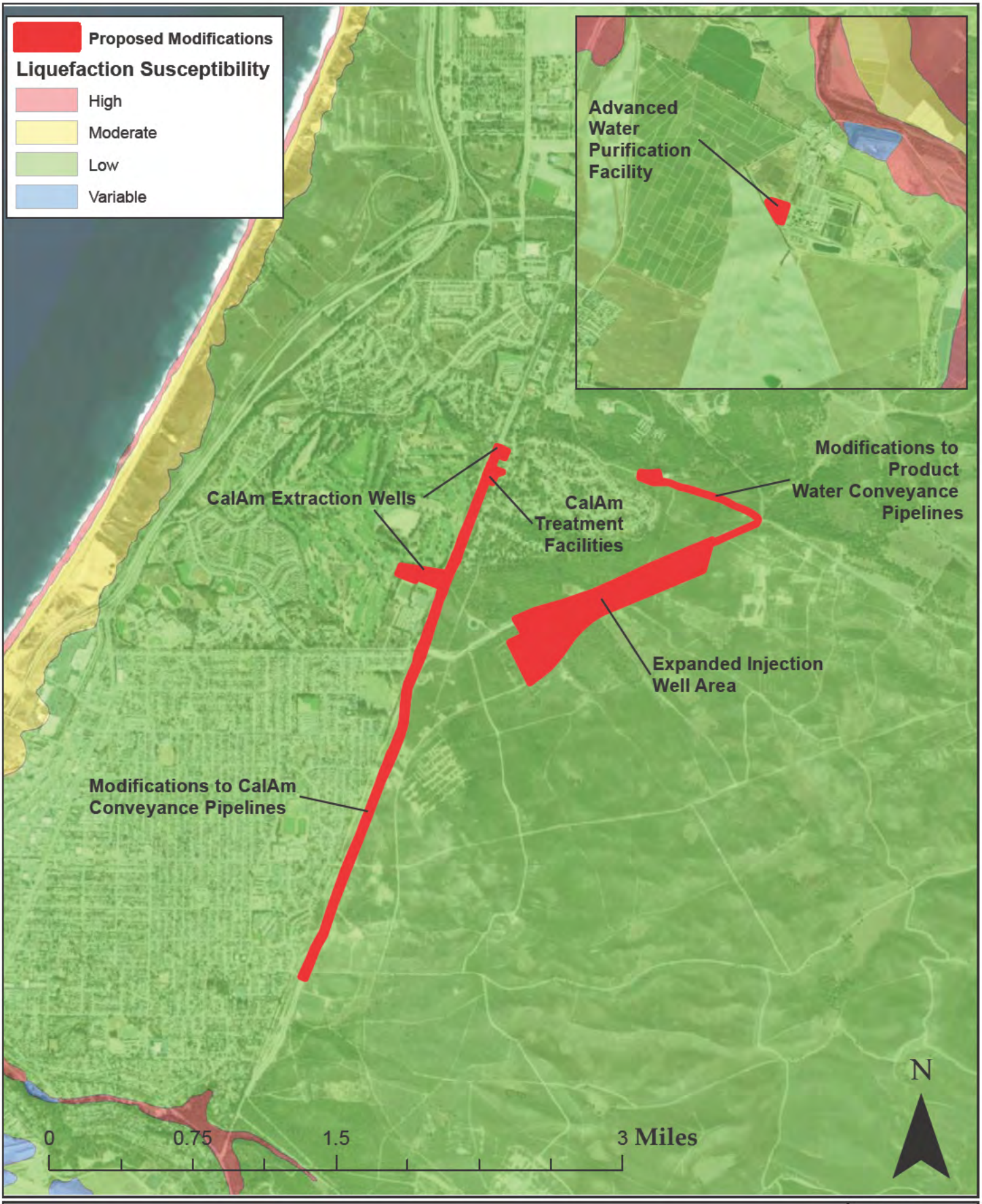
Figure
4.8-1 REV

Detailed Fault Map Revised

March 2020

Expanded PWM/GWR Project
Supplemental EIR

Figure
4.8-2 REV

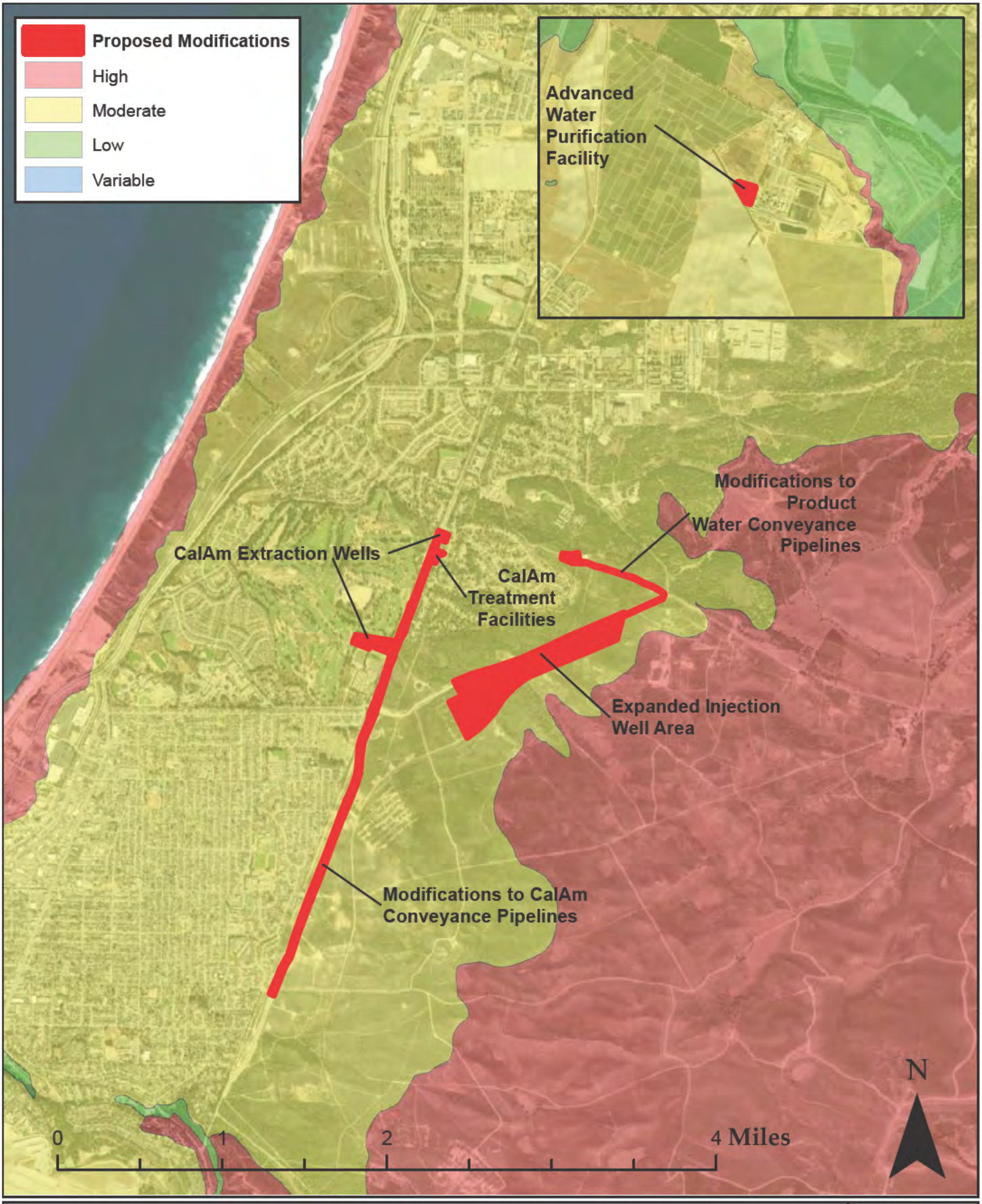


Liquefaction Hazards Revised

March 2020

Expanded PWM/GWR Project
Supplemental EIR

Figure
4.8-3 REV

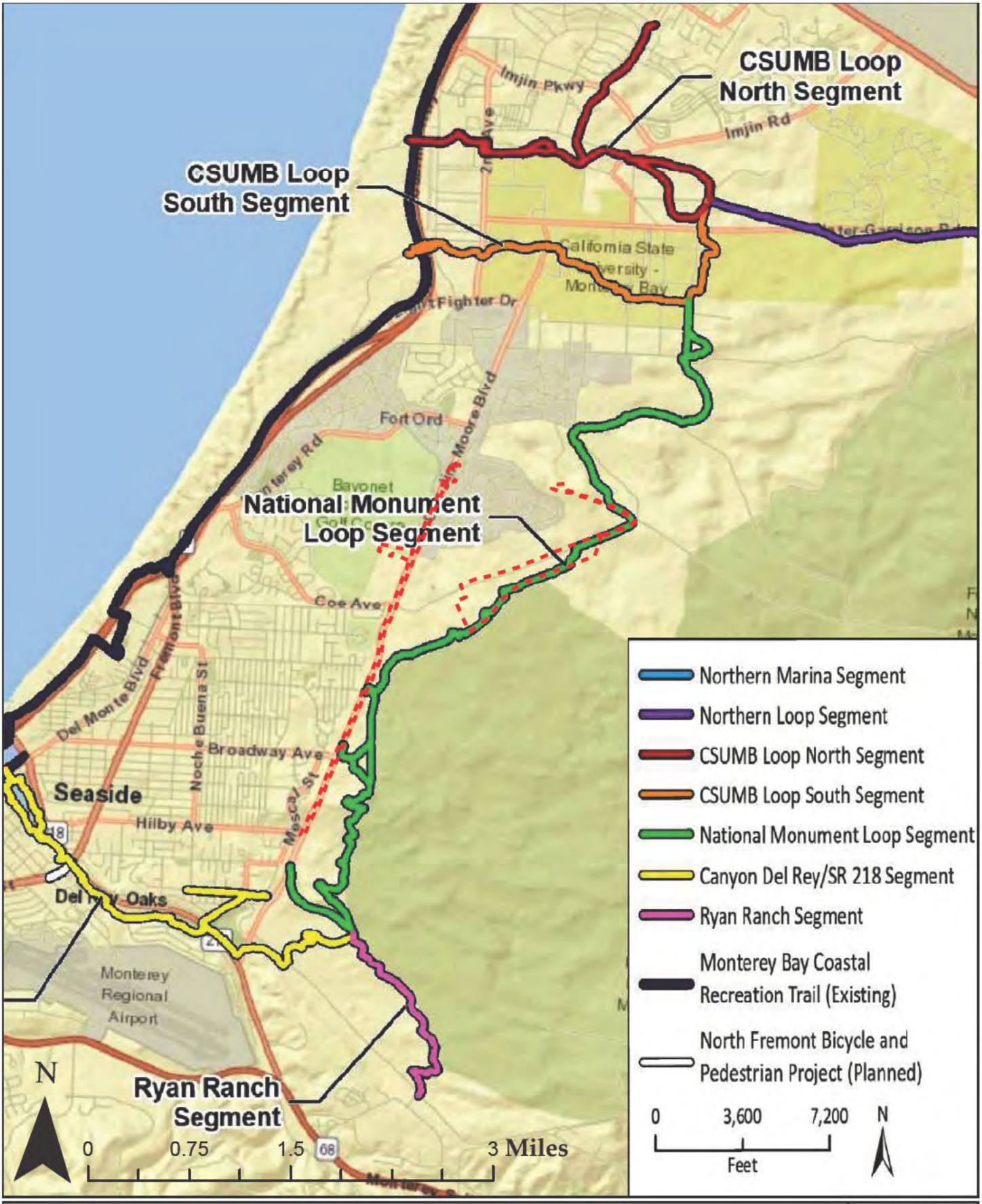


Soil Erosion Hazard Areas Revised

March 2020

Expanded PWM/GWR Project
Supplemental EIR

Figure
4.8-4 REV

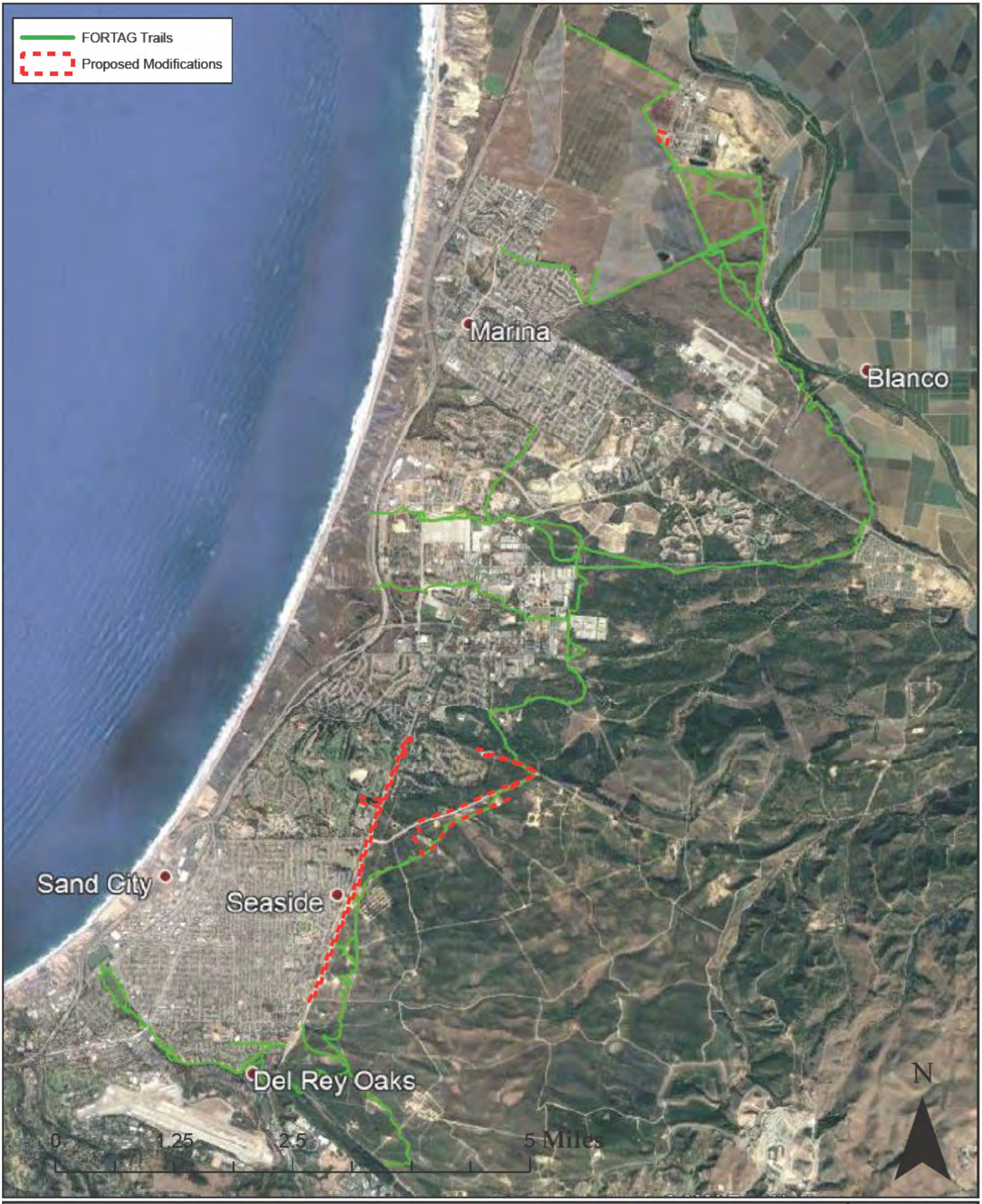


FORTAG Trail Segments NEW

March 2020

Expanded PWM/GWR Project Supplemental EIR

Figure 4.17-1 NEW



FORTAG Regional Map NEW

March 2020

Expanded PWM/GWR Project
Supplemental EIR

Figure
4.17-2
NEW

CHAPTER 6 REFERENCES AND PERSONS CONTACTED

6.1 SOURCES CITED

The following additional references have been added in the preparation of this Final Supplemental EIR:

Monterey One Water and Marina Coast Water District, 2016 as amended 2017. Pure Water Delivery and Supply Agreement between Monterey One Water and Marina Coast Water District

Monterey One Water, 2019, Sewer System Management Plan.

Monterey Peninsula Water Management District, 2019. Water Supply and Demand for the Monterey Peninsula, December 2.

Monterey Peninsula Water Management District, 2020. Water Supply and Demand for the Monterey Peninsula, December 2.

Atmospheric Dynamics, Inc., 2020. M1W – Health Risk Assessment for the EW-1/EW-2 Extraction Wells, March 2020.

Fort Ord Reuse Authority, 2019a. Fort Ord Multi-Species Habitat Conservation Plan, September 2019.

Fort Ord Reuse Authority, 2019b. Fort Ord Multi-Species Habitat Conservation Plan Public Draft Environmental Impact Statement/Environmental Impact Report, October 2019.

Illingworth & Rodkin, Inc., 2019. Revised Technical Memorandum entitled "Expanded Pure Water Monterey Groundwater Replenishment Project Noise and Vibration Assessment," Revised March 2020.

Montgomery & Associates, Inc., 2020. Salinas Valley Groundwater Basin 180/400-ft Subbasin Groundwater Sustainability Plan, Approved by Salinas Valley Basin Groundwater Sustainability Agency Board of Directors on January 9, 2020.

Raftelis, 2018. New Source Water Supply Study, September 28.

Marina Coast Water District and California-American Water Company, 2009. Potable Water Wheeling Agreement, March 10.

6.2 PERSONS CONTACTED

The following additional persons were consulted in the preparation of this Final Supplemental EIR:

- Mike Wegley, Marina Coast Water District. Telephone conversation with Bob Holden and Alison Imamura, M1W (August 20, 2019).
- Mike Wegley, Patrick Breen, and Derek Cray, Marina Coast Water District. Telephone conversations and in-person meetings with David Lindow of M1W (May and June 2019).

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CHAPTER 7 REPORT PREPARATION

7.1 LEAD AGENCY

Monterey One Water

- Paul Sciuto, P.E., General Manager
- Tamsen McNaire, Assistant General Manager
- Robert Holden, P.E., Principal Engineer/Project Manager
- Alison Imamura, P.E., AICP, Associate Engineer
- Jennifer Gonzalez, P.E., Engineering Manager
- Mike McCullough, MPA, Government Affairs Administrator
- David Lindow, P.E. GHD, Pure Water Monterey Program Manager
- Rachel Gaudoin, Public Outreach Coordinator
- Sarah Stevens, Administrative Analyst

7.2 PARTNER AGENCY

Monterey Peninsula Water Management District

- David Stoldt, General Manager
- Larry Hampson, District Engineer
- Jonathan Lear, Water Resources Manager
- Maureen Hamilton, Water Resources Engineer

7.3 EIR CONSULTANTS

Prime Consultant: Denise Duffy and Associates, Inc.

- Denise Duffy, Principal
- Tyler Potter, Project Manager
- Diana Staines, Deputy Project Manager
- Leianne Humble, Senior Planner
- Matt Johnson, Senior Scientist
- Jami Davis, Senior Scientist
- Mary Echevarria, Contracts and Operations Manager
- Robyn Simpson, Assistant Planner/Editor
- Karen Hernandez, Graphics, Assistant Planner

DD&A Subconsultants

Illingworth and Rodkin, Inc.

- Michael Thill, Principal Consultant, Noise
- James Reyff, Principal Consultant, Air Quality/GHG
- Rich Rodkin, Senior Consultant, Noise

7.4 LEAD AND PARTNER AGENCY CONSULTANT TEAM

Kennedy/Jenks Consultants, Inc.

- Todd Reynolds, P.E., Vice President
- Rod Houser, P.E. Conveyance/Injection System Hydraulics Leader
- Sifang Shan, Hydraulic Modeler

Larry Walker Associates, Inc.

- Denise H. Conners, Associate

Montgomery and Associates

- Derrik Williams, P.G., C.H., President
- Pascual Benito, Ph.D., Project Hydrogeologist

Perkins Coie, LLP

- Barbara J. Schussman, Partner
- Laura Zagar, Partner
- Anne Beaumont, Counsel
- Christian Termyn, Associate

Schaaf and Wheeler Consulting Civil Engineers, Inc.

- Andrew Sterbenz, P.E., Project Engineer

Todd Groundwater, Inc.

- Phyllis Stanin, P.G., C.H., C.E.G., Vice President/Principal Geologist
- Edwin Lin, P.G., C.H.G., Senior Hydrogeologist

Trussell Technologies, Inc.

- Elaine Howe, P.E., Principal Engineer
- Brie Post, P.E., Senior Engineer

<u>REVISED</u> Appendix F

Air Quality and Greenhouse Gas Emission Impacts Technical Memorandum

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality
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www.illingworthrodkin.com illro@illingworthrodkin.com

REVISED
Technical Memo – Air Quality and GHG

Date: ~~October 23, 2019~~ March 24, 2020

To: **Denise Duffy**
Denise Duffy & Associates, Inc.
947 Cass St. Suite 5
Monterey, CA. 93940

From: James A. Reyff
Illingworth & Rodkin, Inc.

RE: Expanded Pure Water Monterey Groundwater Replenishment Project - Monterey County, CA

SUBJECT: Air Quality and Greenhouse Gas Emission Impacts Job#19-142

This memo addresses changes to air quality and greenhouse gas emissions associated with the Expanded Pure Water Monterey Groundwater Replenishment Project.

Introduction

The Expanded Pure Water Monterey Groundwater Replenishment Project (PWM/GWR), proposed by MW1, is an expansion of the capacity of the Approved PWM/GWR Project that is currently under construction. As a back-up to the California American (CalAm) Monterey Peninsula Water Supply Project (MPWSP), the Expanded PWM/GWR Project would increase the amount of purified recycled water produced by the PWM/GWR Project. The PWM/GWR Project's Advanced Water Purification Facility (AWPF) would be expanded from the current 5 million gallons per day (mgd) plant to up to a 7.6 mgd maximum capacity plant. The proposed Expanded PWM/GWR Project also includes associated conveyance, injection and extraction facilities.

The PWM/GWR Project Final EIR (certified October 2015) analyzed the air quality and greenhouse gas emissions from the approved project. The CPUC certified the MPWSP EIR/EIS that included an evaluation of air quality and greenhouse gas emissions on September 13, 2018.

Impacts associated with air quality and greenhouse gas emissions were evaluated as part of the PWM/GWR Final EIR; this study is referred to in this memo as the 2015 Air Quality Study. The study identified less-than-significant impacts or less-than-significant impacts with mitigation with respect to both construction and operational period air quality and greenhouse gas emissions. The 2015 Air Quality Study identified Mitigation Measure AQ-1 that is assumed to apply to this project:

> *Mitigation Measure AQ-1: Construction Fugitive Dust Control Plan. (Applies to all Project Component Sites where ground disturbance would occur.)*
>
> *The following standard Dust Control Measures shall be implemented during construction to help prevent potential nuisances to nearby receptors due to fugitive dust and to reduce contributions to exceedances of the state ambient air quality standards for PM10, in accordance with MBUAPCD's CEQA Guidelines.*
>
> *a) Water all active construction areas at least twice daily as required with water (preferably from non-potable sources to the extent feasible); frequency should be based on the type of operation, soil, and wind exposure and minimized to prevent wasteful use of water.*
> *b) Prohibit grading activities during periods of high wind (over 15 mph).*
> *c) Cover all trucks hauling soil, sand, and other loose materials and require trucks to maintain at least 2 feet of freeboard.*
> *d) Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.*
> *e) Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets;*
> *f) Enclose, cover, or water daily exposed stockpiles (dirt, sand, etc.);*
> *g) Replant vegetation in disturbed areas as quickly as possible.*
> *h) Wheel washers shall be installed and used by truck operators at the exits of the construction sites to the AWT Facility site and the Injection Well Facilities.*
> i) *Post a publicly visible sign that specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the*

Many of the PWM/GWR Project components have been constructed. This memo evaluates the potential air quality and greenhouse gas (GHG) emission impacts that could result from the Expanded GWR Project compared to the 2015 project, including temporary impacts during construction and long-term impacts during operation.

Project Description

The Expanded Pure Water Monterey Groundwater Replenishment Project (PWM/GWR), proposed by MW1, is an expansion of the capacity of the Approved PWM/GWR Project that is currently under construction. As a back-up to the California American (CalAm) Monterey Peninsula Water Supply Project (MPWSP), the Expanded PWM/GWR Project would increase the amount of purified recycled water produced by the PWM/GWR Project. The PWM/GWR Project's Advanced Water Purification Facility would be expanded from the current 5 million gallons per

day (mgd) plant to up to a 7.6 mgd maximum capacity plant. The proposed Expanded PWM/GWR Project also includes associated conveyance, injection and extraction facilities. The Expanded PWM/GWR Project would be located within northern Monterey County and would include facilities located within portions of unincorporated Monterey County and the City of Seaside, and near the City of Marina. This proposed project is referred to as the Expanded PWM/GWR Project and includes the following components:

Advanced Water Purification Facility

The AWPF would be expanded to produce up to 7.6 mgd of recycled water. This would require installation of additional treatment and pumping equipment, chemical storage, pipelines and facility appurtenances within the 3.5-acre existing building area. The AWPF would be modified by installing additional equipment. Construction activities would include cutting, laying, and welding pipelines and pipe connections; pouring concrete footings for foundations, tanks, and other support equipment; installing piping, pumps, storage tanks, and electrical equipment; and testing and commissioning facilities. Construction equipment would include excavators, backhoes, graders, pavers, rollers, bulldozers, concrete trucks, flatbed trucks, boom trucks and/or cranes, forklifts, welding equipment, dump trucks, air compressors, and generators.

Expanded Injection Well Facilities

The approved PWM/GWR Project included four (4) well sites; however, only two (2) of the four (4) approved well sites were constructed based on final design. The two (2) remaining well sites would be relocated as part of the Proposed Expansion Project. More specifically, the locations for the remaining two (2) deep injection wells have been modified from the location originally planned and described in the PWM/GWR Project Final EIR. In addition, the Proposed Modifications also include the construction of an additional well site. The proposed modifications include an increase in the amount of injection to achieve an additional 2,250 AFY of injections. Construction would be similar to the same methods discussed in the PWM/GWR Project Final EIR, involving: (1) Well construction (drilling, logging and installation), (2) Testing and equipment installation, (3) Back-flush pipeline facilities construction, (4) Percolation basins construction, and (5)Motor control/electrical conveyance construction.

Product Water Conveyance Pipeline

The Product Water Conveyance Pipeline consist of the construction of a new product water conveyance pipeline extending from the existing Blackhorse Reservoir to the Expanded Injection Well area. In total the pipeline would be approximately 1 mile to the first injection well and an additional 1/4 mile from well site #5 to well site #7. The pipeline would be a maximum of 30 inches in diameter. Additional pipeline for back-flushing wells would include up to 2,000 feet of additional pipeline. The pipeline would be constructed using open trench methods that would typically involve clearing and grading the ground surface along the pipeline alignment; excavating the trench; preparing and installing pipeline sections; installing vaults, manhole risers, manifolds, and other pipeline components; backfilling the trench with non-expansive fills; restoring preconstruction contours; and revegetating or paving the pipeline alignments, as appropriate. A conventional backhoe, excavator, or other mechanized equipment would be used to excavate

trenches. The typical trench width would be 6 feet; however, vaults, manhole risers, and other pipeline components could require wider excavations. Some trench widths may be up to 12 feet.

New CalAm Extraction Wells

The Proposed Modifications include a total of four (4) extraction wells; two at the Seaside Middle School Property (Extraction Well #1 and #2) and two near the Fitch Park Community (Extraction Wells #3 and #4), located southeast of the intersection of General Jim Moore Bouvard and Ardennes Circle. All extraction wells would be constructed with associated appurtenances, electrical works, pipeline tie-ins, access road, and other site works including grading and fencing. Construction of the new facilities for the Extraction Wells would occur using the same methods described in the PWM/GWR Project Final EIR.

Extracted raw water from all four new wells would be conveyed in new raw water pipelines using pipelines in General Jim Moore Boulevard for treatment at the site for Extraction Well #3. The treatment at Extraction Well #3 would include a small building that includes raw and treated water pipelines and appurtenances, chemical delivery, storage, metering, and feed/injection systems, SCADA/electrical instrumentation and controls, and safety and climate control equipment. It is anticipated that construction of the new pipelines would occur using open trench construction methods. Where it is not feasible or desirable to perform open-cut trenching, trenchless methods such as jack-and-bore, drill-and-burst, horizontal directional drilling, and/or microtunneling would be employed. Pipeline segments located within heavily congested underground utility areas would likely be installed using horizontal directional drilling or microtunneling. Jack-and-bore methods may also be used for pipeline segments that cross beneath highways, major roadways, or drainages.

Air Quality Attainment Status and Clean Air Plans

Similar to conditions in 2015, the region is in attainment of all National Ambient Air Quality Standards (NAAQS) and is not subject to any air basin-specific State Implementation Plan (SIP) requirements. The region in considered nonattainment for inhalable Particulate matter (PM10) and Nonattainment-Transitional for ozone with respect to the California Ambient Air Quality standards. As a result, the District continues to document progress toward attaining the State ozone standard through updates to the Air Quality Management Plan (AQMP) first prepared in 1991. The 2016 AQMP (MBARD 2017) is the latest triennial update to the plan. The plan indicates that reducing NOx is "crucial for reducing ozone formation" and that projections indicate lower future NOx emissions both in the air basin and in adjacent air basins where transport of ozone is an issue. The plan also identified fewer exceedances of the ozone standard than in the past.

Significance Thresholds

Appendix G of the CEQA Guidelines published by the California Natural Resources Agency was recently updated in 2019. Under these updated guidelines, a project would have a significant air quality impact if it would:

a) Conflict with or obstruct implementation of the applicable air quality plan;
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality

standard;
c) Expose sensitive receptors to substantial pollutant concentrations;
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people;
e) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
f) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gas emissions.

The Monterey Air Resources District (MBARD), formally the Monterey Bay Unified Air Pollution Control District or MBUAPCD, provides guidance in assessing air quality impacts related to proposed projects. In 2008, MBARD adopted CEQA Air Quality Guidelines that included thresholds of significance to assist in the review of projects under CEQA. The significance thresholds, all of which except GHG emissions are adopted thresholds of the MBUAPCD and used in this analysis, are summarized in Table1 and are the same thresholds used in the 2015 Air Quality Study.

MBUAPCD had not adopted significance thresholds for GHG emissions. Therefore, the 2015 Air Quality Study used an interim threshold. In February 2013, MBARD staff presented threshold options to the MBARD Board and an analysis of the options evaluated. In February 2014, MBARD staff proposed the following options for operational significance thresholds for land use projects: (1) a bright-line threshold of 2,000 metric tons CO2e per year, (2) incorporation of mitigation measures to reduce GHG emissions by 16%, or (3) compliance with an applicable adopted GHG reduction plan/climate action plan (Monterey Bay Unified Air Pollution Control District, 2014). There are no adopted GHG reduction plans or climate action plans that would apply to the Proposed Expansion Project; therefore, the third option would not be applicable to the Expanded PWM/GWR Project. A threshold of 10,000 metric tons CO2e per year was recommended for stationary source projects that are subject to MBARD permitting requirements; however, the Expanded PWM/GWR Project is not considered a stationary source project so this threshold would not be applicable to this analysis.

The evidence supporting the MBARD staff recommendations in February 2013 and February 2014 is considered by MRWPCA to constitute substantial evidence. Based on the evidence provided by the MBUAPCD staff recommendation, this EIR first considers whether the Proposed Expansion Project's GHG emissions would be below 2,000 MT of CO_2e per year including amortized construction emissions. If the GHG emissions are determined to be above 2,000 MT of CO_2e per year, this analysis would then consider whether GHG emissions have been reduced at least 16% below business as usual emissions due to alternative energy use and energy efficiency measures. If project GHG emissions are below 2,000 MT of CO2e per year, or if GHG emissions have been reduced at least 16% below business as usual emissions, the project would be considered to have less-than-significant GHG emissions.

Table 1 Air Quality Significance Thresholds

Criteria Pollutant, Precursor or Contaminant	Construction Thresholds Maximum Daily Emissions (lbs./day)	Operational Thresholds Average Daily Emissions (lbs./day)
Criteria Air Pollutants		
Volatile organic compound (VOC) or Reactive Organic Gases (ROG)	Not applicable1	137
Nitrogen oxides (NOx)	Not applicable1	137
Carbon monoxide (CO)	Not applicable1	550[2]
Particulate matter with aerodynamic diameter < 10 micrometers (PM10)		82 (on site)[2]
Sulfur dioxide (SO2)	Not applicable1	150
Toxic Air Contaminants		
Increased cancer risk due to exposure to toxic air contaminants	Greater than one incident per 100,000 population	
Greenhouse Gas Emissions		
Quantified GHG Annual Emissions	2,000 metric tons of Co2eq per year or failure to reduce GHG emissions by 16% using alternative energy, energy efficiency, or other GHG reduction measures [3]	

[1]MBUAPCD applies the emission threshold of 137 pounds per day of ROG or NOx to construction activities that involve non-typical equipment (i.e., grinders, and portable equipment). The District specifies examples of typical equipment as scrapers, tractors, dozers, graders, loaders, and rollers (MBUAPCD, 2008; see page 5-3 at: http://mbuapcd.org/pdf/CEQA_full%20%281%29.pdf). For this project, well construction was the only construction activity assumed to use non-typical equipment not normally used in the District (e.g., drilling rigs).
[2] Emissions exceeding these thresholds are considered significant if dispersion modeling shows that the ambient air quality standard for that pollutant would be exceeded. Since air pollutant dispersion modeling was not conducted for this project, the emissions thresholds are used to judge the significance. This threshold applies to stationary sources, not indirect sources.
[3] See discussion above. Based on the substantial evidence developed and presented by the MBUAPCD staff in February 2013 and 2014, MRWPCA, as lead agency for this EIR, has elected to use these thresholds to determine if the Expanded PWM/GWR Project would make a considerable contribution to significant cumulative global climate change impacts. The Expanded PWM/GWR Project would not have any direct, stationary sources of greenhouse gas emissions during operations.

Approach to Analysis

As identified in the 2015 Air Quality Study for the PWM/GWR Final EIR, the primary source of air pollutant emissions associated with the Proposed Expansion Project would be construction activities for the various project components. The California Emissions Estimator Model or CalEEMod is typically used to predict project construction, operational, and greenhouse gas emissions[1] for land use development projects. Since the PWM/GWR Project is not a typical land use project, use of CalEEMod was found to be inappropriate, because the model does not predict fugitive emissions from trenching/pipeline construction and well drilling. Therefore, the analysis in the 2015 Air Quality Study and this assessment used a spreadsheet analysis using project-specific construction assumptions and applying the most appropriate published emissions factors for the different types of emission-generating activities. The different emission factors used in the analysis were specific to the proposed construction equipment, vehicle emissions (worker and truck trips), and fugitive dust from ground disturbances. For the purposes of this assessment, ROG

1 CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for lead agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operation from a variety of land use projects.

were assumed to be equivalent for VOC in accordance with MBUAPCD guidance. Due to the low ambient concentrations of CO, SO_2, and lead in the Air Basin and the low potential for these emissions from the Proposed Expansion Project, these emissions were considered to not have a significant impact during construction and operation of the project.

Construction Analysis

Construction of the Proposed Expansion Project would generate emissions of criteria pollutants (ROG, NO_X, CO, PM_{10}, $PM_{2.5}$) that would result in short-term effects on ambient air quality in the air quality study area and GHGs (primarily CO_2 and CH_4) that would add to the existing global GHG emissions that cause climate change. Emissions would originate from mobile and portable construction equipment exhaust, construction worker vehicle exhaust, dust from ground disturbances, and electrical transmission. Most of these emissions would be temporary (i.e., limited to the construction period) and would cease when construction activities are completed. The Proposed Expansion Project includes the construction of several project components at various locations lasting approximately 24 months, with some activities occurring concurrently. In addition, there would be about four months at the end of the construction period for some painting, paving, testing and start-up activities. Assuming an average of 21 workdays per month, there would be about 500 workdays of construction activity.

Construction equipment emissions were computed based on the quantity, types, size, and duration of equipment usage. A worksheet for each project construction component was developed that provided the type of equipment, quantity, size, load factor, number of days in use and average hours of usage. This inventory of construction activity was combined with the equipment emissions factors that are used in the CalEEMod Version 2016.3.2 model. These emissions factors are based on CARB's latest OFFROAD model that is used to develop statewide emissions inventories (by county) for various types of construction-type equipment. The emission factors were obtained from the CalEEMod technical appendix (see Appendix D of the CalEEMod User's Guide at www.caleemod.com). Unless specifically known, the horsepower and load factor for each type of equipment was based on the statewide average used in CalEEMod. Construction equipment exhaust emissions were computed for each construction phase of each proposed modification. CalEEMod emissions factors for year 2020 were used in this analysis.

Emissions from construction-related vehicle traffic were computed using emission factors produced by CalEEMod. The CalEEMod emission factors are based on CARB's EMFAC2014 mobile emissions model. These factors were modeled in the spreadsheet to represent annual conditions in Monterey County. Emission factors, which were generated in terms of grams per mile and vehicle trip end emissions, were applied to projected vehicle travel activity for each project component. In the case of ROG, emission factors also included running losses that account for emissions from evaporating fuel and oil while the vehicle is operating. PM_{10} and $PM_{2.5}$ emission factors also include those from brake and tire wear. Emission rates were developed for light-duty trucks (assumed to be worker trips), light-heavy heavy-duty trucks (assumed to be vendor trips), and heavy-heavy duty truck trips assumed to be soil hauling, equipment delivery and cement truck trips. The average distances used by CalEEMod were applied to these trips to estimate vehicle miles traveled. The vehicle activity in terms of trips and miles traveled for each project component were used with the CalEEMod mobile emission factors to generate emissions.

Emissions associated with ground disturbance were developed for area disturbance (e.g., grading and vehicle activity), trenching for pipeline construction, and vehicle travel on unpaved surfaces. These emissions were computed for the maximum daily projected activity. This maximum day was estimated to occur the peak month of overlapping construction (specifically, when the greatest number of sites involving earth moving activities were anticipated to be occurring simultaneously). Area disturbance emissions are those from general ground disturbance at construction sites. This factor was developed by Midwest Research Institute based on an emission factor of 0.11 tons of PM_{10} per acre of disturbance per day. (CARB, 2013) Since this emission factor assumed some level of construction area watering for dust management, the unmitigated emission factor was computed as twice that factor (i.e., watering was assumed to provide 50% control of emissions). This unmitigated area source emission factor was computed at 20 pounds of PM_{10} emitted per disturbed acre per day.

Emissions for pipeline trenching were based on EPA's AP 42, Fifth Edition Compilation of Air Pollutant Emission Factors (EPA, 2006a). The emission factor is based on the amount of material moved (i.e., excavated and then replaced) in cubic yards, mean wind speed, and material moisture content. The amount of material moved was computed based on the length of pipeline that would be constructed in one day times the assumed width of 6 feet and depth of 6 feet. This amount was then doubled to assume soil would be moved twice, once to excavate, and then to either backfill or load in a truck to export. The wind speed was based on that used by CalEEMod of 7.1 miles per hour. While CalEEMod uses a soil moisture content of 7.9%, a drier moisture content of 2.5% was used since the equation was developed for a range of soil conditions from 0.25% to 4.8%. This is a conservative assumption, since soil excavated for pipeline construction is anticipated to be moist (i.e., probably greater than 4.8%) and drier soil would be more likely to become airborne.

Unpaved roadway travel emissions were computed assuming worker and truck travel at all sites of 0.1 miles. The traffic projections for the maximum daily activity construction period were used to compute daily vehicle miles traveled (VMT) for worker and truck trips. Emission factors were based on the EPA's Unpaved Roadway Emission Factor that is based on silt content and vehicle weight (EPA, 2006b). The silt content of 6.9% used by CalEEMod was applied. The average assumed vehicle weight was 16.4 tons for trucks (i.e., 80% weigh 20 tons and 20% weigh 2 tons).

The construction schedule and equipment usage assumptions and emissions calculations are provided in **Attachment 1**.

Operational Analysis

Operation of the Proposed Expansion Project would generate minor emissions of criteria pollutants (ROG, NO_X, CO, PM_{10}, $PM_{2.5}$) that would result in short-term effects on ambient air quality in the air quality study area and GHGs (CO_2, CH_4, and N_2O) that would add to the existing global GHG emissions that cause climate change. Operational emissions include some vehicle trips associated with any commuting workers, maintenance trips, truck deliveries and increased electrical demand of the Proposed Expansion Project facilities and changes to electricity demand due to modifications to treatment and pumping facilities (such as the Advanced Water Treatment

Plant facility). There would be no new direct, stationary source emissions due to the Proposed Expansion Project; in the unlikely event that emergency back-up power supplies would be needed, the existing emergency generators owned by MRWPCA would likely be used and these are already tested by MRWPCA as part of treatment plant operations. The project has not identified any emergency generators that would be located at any of the well sites or facilities.

Mobile emissions are assumed to be minor as there would only be a few trips added by the project. These were not computed as they are assumed to be negligible, consistent with the findings of the 2015 Air Quality Study.

GHG emissions from changes in electricity demand were computed based on electrical demand of the new and modified facilities and emission factors for electricity generation. Emissions rates associated with electricity consumption were based on Pacific Gas & Electric utilities (PG&E) projected 2020 CO_2 intensity rate (PG&E, 2013). These rates are based, in part, on the requirement of a renewable energy portfolio standard of 33% by the year 2020. The derived 2020 rate for PG&E was estimated at 290 pounds of CO_2 per megawatt of electricity delivered and is based on the California Public Utilities Commission (CPUC) GHG Calculator. Electricity demand for each component of the project was estimated. This included changes to electricity demand at each of the existing facilities whose use would be modified by the Proposed Expansion Project. Note that PG&E's CO2 emissions rate for all of PG&E's delivered electricity, including power purchased from third parties was 294 pounds per megawatt-hour (PG&E 2018 https://www.pgecurrents.com/2018/03/26/independent-registry-confirms-record-low-carbon-emissions-for-pge/).

Impacts

Conflict with or obstruct implementation of the applicable air quality plan (i.e., updates to the AQMP);

The Pure Water Monterey GWR Project Consolidated Environmental Impact Report found no impact associated with the original project because of the following:

- Overall construction emissions associated with the Project would be consistent with the District's 2016 AQMP, and not be considered significant with respect to District-recommended thresholds;

- The Project would not create any new stationary sources of air pollution that would be inconsistent with air quality management and clean air planning efforts;

- The Project would not result in population growth through development of new residential or commercial uses, and would not induce population growth; and

- The Project would not interfere with attainment of the National Ambient Air Quality Standards, as the air basin does not violate standards and is not subject to a federally enforced air quality attainment or maintenance plan.

The Proposed Expansion Project would have the same findings. An evaluation of construction impacts, described later, indicates emissions would be below the significance thresholds recommended by the District, no new stationary sources that would be inconsistent with District rules, regulations or Clean Air Planning projections are proposed, the Project would continue to serve the projected demand in the area and the air basin continues to attain or maintain the NAAQS.

Impact AQ-1: Construction Criteria Pollutant Emissions. Construction of the Proposed Expansion Project would result in emissions of criteria pollutants, specifically PM_{10}, that may conflict with or obstruct implementation of the applicable air quality plan and may violate an air quality standard or contribute substantially to an existing or projected air quality violation in a region that is non-attainment under State ambient air quality standards. (Less-than-significant with Mitigation previously identified)

Construction Emissions

Construction emissions for each project component were computed and the calculations are provided in **Attachment 1**. The expansion project would include construction activities for the following components:

The Advance Water Treatment Facility, which is currently under construction, would be expanded. Construction of this facility, designed to operate at a peak capacity of 5.0 million gallons per day (mgd), was evaluated in the 2015 Air Quality Study. This project proposes to expand the facility to 7.6 mgd.

Extraction well facilities and extracted water conveyance pipelines would be constructed as part of this expansion project. This includes the construction of 800 feet of pipelines, four extraction wells that include small motor/electrical buildings at each site, along with testing activities.

The expansion project would construct injection well facilities. There would be four deep injection wells, two monitoring wells, a small motor/electrical building at each of the four sites, on-site pipelines, a backflush basin and some access roadway grading.

The expansion project would require additional potable and raw water pipelines to convey the water from the new extraction wells to treatment facilities and to the existing CalAm distribution system. An up to 36-inch pipeline that would be up to approximately 2½ miles in length would be installed in the General Jim Moore Boulevard right of way. The pipeline would be constructed on both paved and unpaved areas. This new potable water pipeline was not included in the Approved PWM/GWR Project.

Total emissions for construction of each proposed modification were computed. Daily emissions were then assessed based on the potential for overlapping activities and compared against MBUAPCD thresholds.

Table 2 Daily Construction Emissions by Project Component

Construction Component	Emissions (lbs/day)			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Extraction Wells – 2020 through 2021				
Exhaust	3	33	2	1
Fugitive PM	--	--	25	5
Injection Wells – 2020 through 2021				
Exhaust	2	21	1	1
Fugitive PM	--	--	27	5
Advanced Water Treatment Facility Expansion - 2021				
Exhaust	2	31	1	1
Fugitive PM	--	--	7	1
Extraction Pipeline - 2021				
Exhaust	2	21	1	1
Fugitive PM	--	--	4	1
Testing and Cleanup – late 2021				
Exhaust	2	22	1	1

A credible worst-case scenario was evaluated predicting maximum emissions for each year. In 2020, maximum emissions would under the scenario where one injection well and grading of the Backflush Basin could occur simultaneously. In 2021, the highest daily emissions are anticipated during the simultaneous construction of the Advanced Water Treatment Facility expansion interior building construction, extraction well construction, Injection Well building and pipeline construction. Note that drilling, a 24-hour per day operation, would not occur simultaneously at multiple well sites. only at one well site. In 2022, there would be Extraction Well building construction and on-site pipelines along with Conveyance pipeline construction. Testing and cleanup activities would follow completion of that work.

Table 3 Maximum Daily Construction Emissions by Project Component

Construction Component	Maximum Emissions (lbs/day)			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Injection Well and Back Flush Basin Construction – 2020				
Exhaust and fugitive	9	89	31	9
AWOF Building Interior, Conveyance Pipeline, Extraction Well and Injection Well Building Construction in 2021				
Exhaust and fugitive	12	117	63	15
Extraction Well Building and Pipeline Construction - 2022				
Exhaust and fugitive	3	22	8	2
Testing and Cleanup - 2022				
Exhaust	2	22	1	1

Impact Conclusion

The Expanded PWM/GWR Project construction would not result in a significant impact due to regional emissions of ozone precursors. With implementation of Mitigation Measure AQ-1 identified in the MPWSP EIR/EIS, maximum daily on-site construction PM_{10} emissions were estimated to be 64 pounds per day, which would not exceed the MBUAPCD's threshold of 82 pounds per day.

Impact AQ-2. Construction Exposure of Sensitive Receptors to Pollutant Emissions. Construction of the Expanded PWM/GWR Project would not expose sensitive receptors to substantial pollutant concentrations. (Less than Significant)

Sensitive receptors are locations where an identifiable subset of the general population (such as children, asthmatics, the elderly, and the chronically ill) that are at greater risk than the general population may be exposed to the effects of air pollutants. These locations include residences, schools, playgrounds, childcare centers, retirement homes, hospitals, and medical clinics. Table 4, Nearest Sensitive Receptors and Approximate Distances summarizes the nearest sensitive receptors and approximate distances to each of the Proposed Expansion Project component sites.

Table 4. Nearest Sensitive Receptors and Approximate Distances

Project Component	Type of Receptor	Closest Distance from Project
Advanced Water Purification Facility (AWPF)	Farmhouse on Monte Road	One mile
Product Water Conveyance Pipeline	Residences – Ardennes Circle	250 ~~300~~ feet
Expanded Injection Well Facilities	Residences – Ardennes Circle	850 feet
CalAm Extraction Wells 1 and 2	Seaside Middle School	Just north of playfields, >500 feet from classrooms
CalAm Extraction Wells 3 and 4	Residences – Ardennes Circle	<100 feet
CalAm Pipelines	Residences (e.g., Del Monte Boulevard and Marina Drive) and Schools	50-100 feet

As identified in the 2015 Air Quality Study, the Expanded PWM/GWR Project would expose sensitive receptors to temporary emissions of toxic air contaminants while construction takes place in the vicinity of these receptors. The primary concern for nearby sensitive receptors would be exposure to diesel particulate matter emissions from diesel-powered construction equipment and diesel trucks associated with construction activities. Diesel particulate matter is classified as a toxic air contaminant by CARB for the cancer risk associated with long-term (i.e., 70 years) exposure. As shown in Table 4, the nearest receptors to non-pipeline work would be located as close as approximately 25 feet from the boundary line of the pipeline work, pipeline construction in residential areas would progress at a rate of about 2,000 feet per day, thus limiting nearby receptors' exposure to diesel particulate matter to several days. Construction at the Regional Treatment Plant and New Injection Wells would be over 850 feet from sensitive receptors, and therefore, not have adverse effects. Construction of new Extraction Wells, EW-1 and EW-2, would be near Seaside Middle School. These wells would be slightly over 500 feet from the nearest classrooms. The construction boundary for Extraction Wells EH-3 and EH-4, which would be about 25 feet from residences, were studied under the CalAm Monterey Peninsula Water Supply Project (MPWSP) Final EIR/EIS as ASR Injection Wells (CalAm Project) and found to have less than significant impacts. These findings were based on predictions of increased lifetime cancer risk of less than 10 chances per million.2 The Extraction Wells, EH-1 and EH-2 would be much further from Seaside Middle School receptors, so those same conclusions from the Cal Am Project

[2] See pages 4.10-27 through 4.10-29 of the MPWSP EIR/EIS.

could be applied to support the findings of a less-than-significant impact in terms of effects to sensitive receptors.

Therefore, a significant cancer risk based on lifetime exposure would not occur due to Expanded PWM/GWR Project construction. Specifically, the cancer risk from the Proposed Expansion Project -associated diesel emissions over a 70-year lifetime would be small and below significance thresholds (10 in one million). Therefore, the impacts related to diesel particulate matter exposure and construction health risk would be less than significant and no additional mitigation measures would be required.

Impact AQ-3: Construction Odors. Construction of the Expanded PWM/GWR Project would not create objectionable odors affecting a substantial number of people. (Less than Significant)

As identified in the 2015 Air Quality Study, there may be intermittent odors from construction associated with diesel exhaust that could be noticeable at times to residences in close proximity. However, given the distance of receptors from most construction sites and the limited construction duration at any one location for pipeline installation, potential odors from construction equipment are not anticipated to result in odor complaints and would not affect a substantial number of people. Odor impacts during construction would be less than significant and no mitigation measures would be required.

Impact AQ-4: Construction Greenhouse Gas Emissions. Construction of the Expanded PWM/GWR Project would generate greenhouse gas emissions, either directly or indirectly, but would not make a considerable contribution to significant cumulative impacts due to greenhouse gas emissions and the related global climate change impacts. (Criterion f) (Less than Significant)

Construction GHG emissions in units of metric tons (MT) of carbon dioxide equivalent (CO_2e) per year were estimated (see modeling worksheets included in **Attachment 1**). Construction of the Proposed Expansion Project would result in a one-time emission total of up to 843 MT of CO_2e during the construction period. The MBUAPCD does not have adopted nor recommended quantified thresholds for assessing the significance of GHG emissions during construction. MBUAPCD staff recommended including construction emissions within operational totals based on the 30-year amortization to provide a full analysis of construction and operational GHG emissions (Clymo, 2014). Accordingly, the total construction period emissions from the Expanded PWM/GWR Project were amortized over a 30-year life and the resulting average annual emissions were added to the annual operational emissions and compared to the GHG significance threshold. The annual amortized GHG emissions are 28 MT/year. Note that some of these emissions were identified in the 2015 Air Quality Study. As explained later under Impact AQ-8, the total GHG emissions from the Proposed Expansion Project would not make a cumulatively considerable contribution to significant cumulative impacts associated with GHG emissions and the effects of climate change.

Impact AQ-5: Operational Criteria Pollutant Emissions. Operation of the Expanded PWM/GWR is not expected to increase of criteria pollutants in a cumulatively considerable

manner (Less than Significant)

The Expanded PWM/GWR Project would not result in a new stationary source of emissions. Operational emissions due to maintenance truck trips and employee trips would be negligible. Operation of the Project would have a less-than-significant operational air emissions impact.

In the unlikely event of failure of all power supplies at the Advanced Water Purification Facility or well sites, there are provisions to provide electricity from mobile, stand-by diesel generators that are currently used at the RTP in emergencies and are permitted and tested regularly. The Proposed Project would not include any new fixed or stationary generators, nor increased testing of generators. No significant impact would occur due to emissions of criteria pollutants and therefore, no mitigation measures would be required.

Impact AQ-6: Operational Exposure of Sensitive Receptors to Pollutants. Operation of the Expanded PWM/GWR Project would not expose sensitive receptors to substantial pollutant concentrations. (Less than Significant)

Operation of the Expanded PWM/GWR is not anticipated to result in emissions of TACs that could affect sensitive receptors. The Expanded PWM/GWR Projectwould have no direct sources of operational TAC emissions, and vehicular and truck traffic generated by the project would be negligible and spread across the region. Health risks in terms of excess cancer risk or hazards would be less than significant and no mitigation measures would be required.

Impact AQ-7: Operational Odors. Operation of the Expanded PWM/GWR Project would not create objectionable odors affecting a substantial number of people. (Less than Significant)

The expansion of the Expanded PWM/GWR Project includes modifications to the new AWTF at the existing Regional Treatment Plant where treatment-related odors may already be produced. However, the proposed expansion project would add AWT Facility processes that are not anticipated to result in generation of any additional odors.

Impact AQ-8: Operational Greenhouse Gas Emissions. Operation of the Expanded PWM/GWR Project would generate greenhouse gas emissions, either directly or indirectly. These emissions would not exceed significance thresholds such that they would result in a considerable contribution to significant cumulative impacts of greenhouse gas emissions and the related global climate change impacts. In addition, the Expanded PWM/GWR Project would not conflict with applicable plan, policy or regulation adopted for the purpose of reducing greenhouse gas emissions. (Less than Significant)

Once constructed and operational, the Expanded PWM/GWR Project facilities may require new maintenance and employee vehicle trips; however, these would generate relatively small amounts of GHG emissions and are considered to be negligible. Indirect GHG emissions from energy usage at the proposed facilities would occur. Anticipated electricity demand (mWh/year) was provided by the M1W and used to calculate annual GHG emissions using emissions rates published for PG&E's projected 2020 (the first possible full year of operation would be 2022) CO_2 intensity

rate.

The increase in project electricity demand, without incorporation of new energy-saving features, was computed as a total of 22,915 mega-watt hours per year (mWh/year). This was considered as the "Business as Usual" emissions. The Expanded PWM/GWR Project facilities would include numerous energy saving features in the design and operation that would reduce energy demand, which in turn would reduce GHG emissions. These include electricity production from cogeneration at the Regional Treatment Plant, a reduction of 2,999 mWh/year, a purchase agreement with the Monterey Regional Waste Management District to obtain electricity generated from biogas (a renewable fuel source), a reduction of 19,871 mWh/year. The cogeneration plant receives biogas from the anaerobic digesters and produces power using internal combustion engines that run on the biogas. Power from the cogeneration plant is used at the treatment plant. The cogeneration plant produces enough power to operate the secondary treatment process and also produces heat that is used in the digestion process. The use of variable flow drivers (VFD motors) on AWT and product water pumps are estimated to reduce electricity demand. There are other features indirectly associated with the project that would reduce overall electricity demand and facility operating costs that were not included in this analysis. For example, the Salinas Valley Reclamation Plant obtains about half of its electricity from on-site solar panels that were constructed after the AB32 greenhouse gas emission reduction requirements went into effect. With incorporation of the Expanded PWM/GWR Project's energy saving features and use of electricity generated from renewable sources, the net increase in electricity demand for the Expanded PWM/GWR Project is estimated to be 45 mWh/year.

As described above under Impact AQ-4C, construction emissions of GHG were also included in the assessment. Total project-related construction GHG emissions of 1,031 MT were amortized over 30 years and that annual amount was added to the annual Expanded PWM/GWR Project operational emissions. Table 5 summarizes computed annual GHG emissions. As shown in Table 5, annual GHG emissions would be below the project specific GHG significance threshold of 2,000 MT CO_2e per year. Therefore, the Expanded PWM/GWR Project would not make a cumulatively considerable contribution to any significant global climate change impacts and, thus, would have a less-than-significant impact due to GHG emissions. No mitigation measures would be required to reduce GHG emissions; however, the Expanded PWM/GWR Project would use electricity generated through the purchase of landfill gas (or biogas), include energy efficient pumps and treatment processes to minimize GHG emissions.

Table 5. Annual GHG Emissions from Operation (metric tons/year CO2)

Project Component	Electricity Demand (mWh/year)	CO2e MT/yr
Total Construction Emissions (2020-2022) = 843 MT or amortized over 30 years		28 MT/year
Total Net New Expanded PWM/GWR Project Electricity Demand	22,915	
New Electricity Demand Emissions – using Cogeneration, Biogas and PG&E	Net increase = 2,999 Cogeneration* 19,871 Biogas* 45 PG&E	6
Total Net New Expanded PWM/GWR Project GHG Emissions	-	34
Project-Specific Significance Threshold	2,000 MT/year or 16% below Business as Usual	
Exceed Threshold?	No	
*Emissions from cogeneration and purchased landfill gas (biogas) are considered renewable energy sources.		

REVISED Appendix K
Noise Assessment Report

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Revised Technical Memo – Noise and Vibration

Date: **October 23, 2019**
Revised March 20, 2020

To: **Denise Duffy, Denise Duffy & Associates, Inc.**

From: **Michael Thill, Illingworth & Rodkin, Inc.**

Subject: **Expanded Pure Water Monterey Groundwater Replenishment Project Noise and Vibration Assessment**
Job#19-142

This memo addresses changes to noise and vibration associated with the Expanded Pure Water Monterey Groundwater Replenishment Project. This memo has been updated and revised to include more recent measurements conducted in March, 2020 and provide clarification on language since preparation of the study. New Appendix C attached to this report provides specific locations of new noise measurements taken in relation to project components and sensitive receptors. *Note*: Changes are shown in ~~strikeout~~ and underline to aid the reader.

Introduction

The Expanded Pure Water Monterey Groundwater Replenishment Project (PWM/GWR), proposed by MW1, is an expansion of the capacity of the Approved PWM/GWR Project that is currently under construction. As a back-up to the California American (CalAm) Monterey Peninsula Water Supply Project (MPWSP), the Expanded PWM/GWR Project would increase the amount of purified recycled water produced by the PWM/GWR Project. The PWM/GWR Project's Advanced Water Purification Facility would be expanded from the current 5 million gallons per day (mgd) plant to up to a 7.6 mgd maximum capacity plant. The proposed Expanded PWM/GWR Project also includes associated conveyance, injection and extraction facilities. The Expanded PWM/GWR Project would be located within northern Monterey County and would include facilities located within portions of unincorporated Monterey County and the City of Seaside, and near the City of Marina.

The PWM/GWR Project Final EIR (certified October 2015) analyzed the noise and vibration impacts from the approved project. The CPUC certified the MPWSP EIR/EIS, which included an evaluation of noise and vibration impacts, and approved the project in September 2018. This memo evaluates the potential noise and vibration impacts that could result from the Expanded PWM/GWR Project including temporary impacts during construction and long-term impacts during operation. The memo identifies sensitive receptors to noise and vibration that could be affected by the Expanded PWM/GWR Project, evaluates the potential effects of construction and operation on these receptors, and identifies mitigation measures as appropriate. Refer to the PWM/GWR Project Final EIR for information on the fundamentals of noise and vibration and relevant noise and vibration regulations and Monterey County, the City of Seaside, and the City of Marina that continue to apply to the Expanded PWM/GWR Project.

Assessment of Noise and Vibration Impacts

The Expanded PWM/GWR Project includes the following components: 1) Improvements to Advanced Water Treatment Facility, 2) Product Water Conveyance System, 3) Expanded Injection Well Facilities, and 4) the CalAm Conveyance Pipeline and Extraction Wells. To increase the amount of water available to CalAm under the Expanded PWM/GWR Project, several changes to these PWM/GWR Project components would be required. The significance of noise and vibration impacts during construction and operation of each component are assessed. Measures to mitigate significant impacts are recommended.

Significance Criteria

Significance criteria are those used in the CFEIR for the PWM/GWR. Based on Appendix G of the CEQA Guidelines; applicable plans, policies, and/or guidelines described above; and agency and professional standards, the proposed project would cause a significant impact related to noise and vibration if the results indicate:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

- Generation of excessive groundborne vibration or groundborne noise levels;

- For a project located within the vicinity of a private airstrip or an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, if the project would expose people residing or working in the project area to excessive noise levels.

The project's short-term construction impacts and long-term operational impacts on the ambient noise environment would be considered substantial if it would expose sensitive receptors or other identified land uses to noise levels in excess of regulatory standards or codes. In addition to concerns regarding the absolute noise level that might occur when a new source is introduced into an area, it is also important to consider the existing ambient noise environment. If the ambient

noise environment is quiet and the new noise source greatly increases the noise exposure, even though a criterion level might not be exceeded, an impact may occur.

For both construction and operational noise, a "substantial" noise increase can be defined as an increase in noise levels to that which causes interference with activities normally associated with established nearby land uses during the day and/or night. One indicator that noise could interfere with daytime activities normally associated with residential land uses (for example) would be speech interference; whereas, an indicator that noise could interfere with nighttime activities normally associated with residential uses would be sleep interference. This analysis, therefore, uses the following criteria to define whether a temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the project would be substantial:

Speech Interference. Speech interference is an indicator of an impact on daytime and evening activities typically associated with residential land uses, but which is also applicable to other similar land uses that are sensitive to excessive noise levels. Therefore, a speech interference criterion, in the context of impact duration and time of day, is used to identify substantial increases in ambient noise levels.

Noise generated by construction equipment could result in speech interference in adjacent buildings if the noise level in the interior of the building were to exceed 45 to 60 dBA[1]. A typical building can reduce noise levels by 25 dBA with the windows closed (U.S. Environmental Protection Agency (EPA) 1974). This noise reduction could be maintained only on a temporary basis in some cases, since it assumes windows must remain closed at all times. Assuming a 25 dBA reduction with the windows closed, an exterior noise level of 70 dBA (L_{eq}) adjacent to a building would maintain an acceptable interior noise environment of 45 dBA. It should be noted that such noise levels would be sporadic rather than continuous in nature, because different types of construction equipment would be used throughout the construction process. Therefore, an exterior noise level in excess of 70 dBA L_{eq} during the daytime is used as the threshold for substantial construction noise.

Sleep Interference. An interior nighttime level of 35 dBA is considered acceptable (U.S. EPA 1974). Assuming a 25 dBA reduction from a residential structure with the windows closed, an exterior noise level of 60 dBA adjacent to the building would maintain an acceptable interior noise environment of 35 dBA. An exterior threshold of 60 dBA L_{eq} is a reasonable threshold for short term impacts resulting from construction activities. With windows open, a typical house achieves an approximately 15-dBA reduction and, therefore, an exterior noise level of 50 dBA (L_{eq}) would be required to maintain an acceptable interior noise environment of 35 dBA. An exterior threshold of 60 dBA L_{eq} is a reasonable threshold for short term impacts resulting from long term operation of the Project.

The duration of exposure at any given noise-sensitive receptor is one consideration in determining an impact's significance. For example, this analysis generally assumes that temporary construction

[1] For indoor noise environments, the highest noise level that permits relaxed conversation with 100 percent intelligibility throughout the room is 45 dBA. Speech interference is considered to become intolerable when normal conversation is precluded at three feet, which occurs when background noise levels exceed 60 dBA.

noise that occurs during the day for a relatively short period of time would not be significant. In addition, this analysis assumes that most people of average sensitivity that live in suburban or rural agricultural environments are accustomed to a certain amount of construction activity or heavy equipment noise from time to time. Therefore, for the purposes of this analysis, temporary exposure to construction noise levels that exceed the daytime speech interference threshold would not be considered to result in a substantial temporary increase in ambient noise levels if the duration is two weeks or less.

A numerical threshold to identify the point at which a vibration impact occurs has not been identified by local jurisdictions in the applicable standards or municipal codes. In the absence of local regulatory significance thresholds for vibration from construction equipment, it is appropriate to use the California Department of Transportation (Caltrans) identified PPV thresholds for risk of architectural damage to older residential dwellings, which is 0.30 in/sec. It is also appropriate to use the Caltrans identified PPV thresholds for perceptibility for long term operational vibration, which is 0.10 in/sec (Caltrans, 2013).

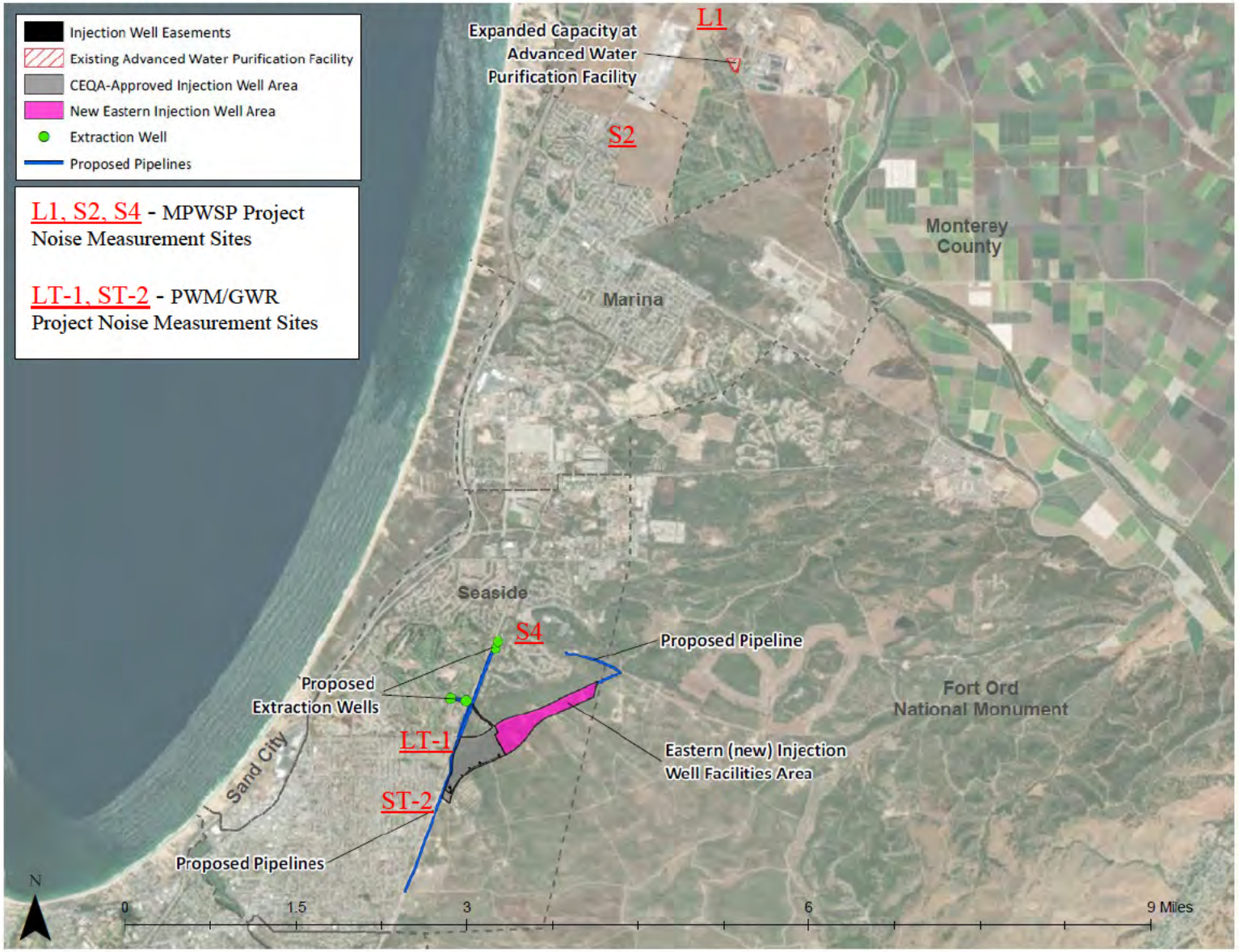
Regarding the last two significance criteria, because the Expanded PWM/GWR Project would not involve the development of noise-sensitive land uses that would be exposed to excessive aircraft noise, there would be no impacts associated with these criteria. Therefore, impacts associated with aviation noise are not addressed further in this memorandum.

This noise and vibration impact assessment evaluates short-term impacts associated with construction of the Expanded PWM/GWR Project. It also assesses long-term operational impacts (i.e., those resulting from operation of the expanded AWPF, injection well/back-flush facilities, and CalAm extraction wells). The impact discussion analyzes substantial increases in ambient noise levels in the vicinity of the facility sites. In addition, this assessment uses local noise standards and applicable daytime exceptions as the basis for significance thresholds related to "established" noise standards. The assessment of potential noise impacts was conducted using information on existing ambient noise levels and the anticipated noise that would be produced during construction and operation of the Project. The assessment of vibration impacts was conducted using information on anticipated vibration during construction and operation of the Project.

For the purposes of this analysis, only construction noise is considered under the criterion that addresses temporary or periodic increase in ambient noise. Periodic noise increases are defined herein as intermittent or short-term and only construction activities are consistent with this definition.

For clarity and efficiency, the following discussion of impacts and mitigation measures is organized by the action that causes the impact, these being construction noise, construction vibration, and operational noise and vibration. Each impact discussion addresses applicable checklist questions and presents measures to mitigate significant impacts that are identified. Figure 2-3 of the Project Description (Figure 1 of this report) is included for reference purposes.

Figure 1: Expanded Pure Water Monterey Project Overview Map and Receptors with Measurements Sites



Sensitive Receptors Near Project Components

The following paragraphs provide summary descriptions of the sensitive receptor locations in the vicinity of the project components.

Improvements to Advance Water Treatment Facility: The design and physical features of the Advanced Water Treatment Facility (AWPF) currently under construction (the Approved PWM/GWR Project) allow operation of the AWPF at a peak capacity of 5.0 mgd. Expanding the AWPF to produce up to 7.6 mgd will require installation of additional treatment and pumping equipment, chemical storage, pipelines, and facility appurtenances within the 3.5-acre existing building area. The AWPF would be designed to produce a seasonal peak of 7.6 mgd. The nearest sensitive receptors are located off Neponset Road in Monterey County located about 5,000 feet to the northwest of the AWPF site, and residences along Cosky Drive in Marina located at a distance of about 5,400 feet to the southwest of the AWPF site. Ambient noise measurements made as part of the CalAm Monterey Peninsula Water Supply Project EIR/EIS[2] indicate that noise levels along Charles Benson Road, to the northwest of the AWPF site, averaged 62 dBA L_{eq} during the daytime and averaged 49 dBA L_{eq} at night (Site L1). Noise levels measured near residences along Cosky Drive (Site S2) averaged 66 dBA L_{eq} during the daytime due to local traffic and a barking dog. At night, average noise levels at the same site were 42 dBA L_{eq}.

Expanded Injection Well Facilities: The Approved PWM/GWR Project includes subsurface groundwater recharge facilities, including shallow (or vadose zone) and deep injection wells located within the Seaside Groundwater Basin in the area. The PWM/GWR Project EIR evaluated four clusters of injection well facilities, each with one deep injection well and one shallow injection well at well sites #1 through #4 (going from northeast to southwest). For the Expanded PWM/GWR Project, M1W plans to complete construction of the remaining two (2) of the four (4) approved deep injection wells. Under the Expanded PWM/GWR Project, the remaining two approved deep injection well sites would be relocated farther to the northeast and one additional new injection well would be constructed northeast of the original injection well facilities area, in a new area called the Expanded Injection Well Area. No new vadose zone wells are proposed compared to the Approved PWM/GWR Project. Each well would be equipped with associated backwash pumps and appurtenances. Under the Approved PWM/GWR Project, monitoring wells were proposed to be installed between the deep injection well sites and the nearest downgradient extraction well. Due to the change in location of the deep injection wells, the location of each associated monitoring well will also need to be updated. Monitoring wells would be located in ~~thearea between General Jim Moore Boulevard and~~ the Expanded Injection Well Area and could be ~~within~~ as close as 850 feet of one or more residences in the Fitch Park neighborhood. This location would be different from the location for the monitoring wells under the Approved PWM/GWR Project. A new electrical building and percolation basin for backwash water disposal (percolation into the vadose zone) would be included at a central location within the Expanded Injection Well Area (east of the current injection well facilities). The Expanded PWM/GWR Project would potentially include increasing the capacity of the approved percolation basin. The nearest sensitive receptors are also Ardennes Circle residences located approximately 850 feet north-northwest of the proposed Injection Well Facilities. The CalAm Monterey Peninsula Water

Supply Project EIR/EIS noise measurement site S4 averaged 54 dBA L_{eq} during the daytime and averaged 52 dBA L_{eq} at night.

The Expanded PWM/GWR Project would require an additional Product Water Conveyance System. To serve new injection well sites, the Expanded PWM/GWR Project would require the addition of up to 2 miles of 24-inch maximum diameter pipeline and appurtenances. The pipeline would be located within existing unpaved and paved roads from the Marina Coast Water District's Blackhorse Reservoir to a new injection well site located in the area on the south side of Eucalyptus Road near the eastern boundary of the City of Seaside. See Figure 1 for the location of this new purified recycled water pipeline that would carry water from the Blackhorse Reservoir to the Expanded Injection Well Area. The nearest sensitive receptors are located on Ardennes Circle, approximately 300 feet southwest from Product Water Conveyance System Pipeline proposed at the Blackhorse Reservoir site. As noted previously, the CalAm Monterey Peninsula Water Supply Project EIR/EIS noise measurement site S4 quantified noise levels averaging 54 dBA L_{eq} during the daytime and 52 dBA L_{eq} at night.

CalAm Distribution System: For CalAm to utilize the additional purified recycled water produced by the Expanded PWM/GWR Project, additional potable water extraction wells, wellhead treatment and pipelines would be required. See Figure 1 for proposed locations of the new CalAm facilities. CalAm would construct and operate four (4) new extraction wells. These new extraction wells are identified as Extraction Wells 1 through 4. Extraction Wells 1 and 2 would be located just north of Seaside Middle School. The Blackhorse Golf Course is located to the north and west of Extraction Well sites 1 and 2. Extraction Wells 3 and 4 would be located just to the east of General Jim Moore Boulevard, near the southeast corner of the intersection of General Jim Moore Boulevard and Ardennes Circle on U.S. Army-owned property in the Fitch Park neighborhood of the Ord Military Community. Extraction Wells 3 and 4 would be designed consistent with the Aquifer Storage and Recovery (ASR) Wells 5 and 6 as analyzed in previous environmental documentation prepared for the MPWSP; however, these wells would only include the capability to extract and treat groundwater, and would not include any above-ground facilities needed to enable injection. Each extraction well would include a well pump and motor, chlorination dosing equipment, and associated electrical equipment, which would be contained on an approximately 100 square foot concrete pad. CalAm may elect to install emergency generators at one or more extraction well sites, depending upon their need for system reliability. No new extraction wells were proposed as part of the Approved PWM/GWR Project, thus these extraction wells were not included in the construction areas of the Approved PWM/GWR Project approved on October 8, 2015.

In addition, for the Expanded PWM/GWR Project CalAm would construct and operate new potable and raw water pipelines to convey the water from the new extraction wells to treatment facilities and to the existing CalAm distribution system. An up to 36-inch pipeline that would be up to approximately 2 ½ miles in length would be installed in the General Jim Moore Boulevard right of way. The pipeline would begin at Extraction Well 4 (the northern most extraction well) and connect to the existing ASR pipe network at ASR Wells 1 and 2 (Santa Margarita site). From that point, water would be distributed to CalAm customers throughout the region. This new potable water pipeline was not included in the Approved PWM/GWR Project. The nearest sensitive receptors are located west and east of General Jim Moore Boulevard, which are represented by

CalAm Monterey Peninsula Water Supply Project EIR/EIS noise measurement site S4 and Pure Water Monterey GWR Project EIR noise measurement sites LT-1 and ST-2. Noise levels at Site S4 are discussed above. Hourly average noise levels at Site LT-1 typically ranged from 57 to 66 dBA L_{eq} during the day, and from 47 to 56 dBA L_{eq} at night. General Jim Moore Boulevard traffic produced noise levels ranging from 47 to 48 dBA L_{eq} at ST-2.

Impact 1: Construction activity would violate standards established in the local general plans or noise ordinances, and/or would adversely affect nearby sensitive receptors.

Construction activities would occur intermittently at several locations throughout northern Monterey County over a period of approximately 24 months. Such activities would result in the generation of noise associated with site preparation and building of each component of the project. The noise levels generated during construction of the project would vary during the construction period, depending upon the construction phase and the types of construction equipment used.

High noise levels would be created by the operation of heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, compactors, cranes, pavers, and other heavy-duty construction equipment. Operating cycles for these types of construction equipment would involve fluctuations in power cycles that result in variations in noise levels, whereas other equipment such as directional drill rigs typically operate at a continuous level.

Construction noise levels were calculated using the Federal Highway Administration's Roadway Construction Noise Model (RCNM). The maximum and hourly average noise levels for each phase of construction at the several project construction components are presented in Table 1. In some instances, maximum instantaneous noise levels are calculated to be slightly lower than hourly average noise levels. This occurs because the model calculates the maximum instantaneous noise level resulting from the single loudest piece of construction equipment operating during each construction phase. Hourly average noise levels add together multiple pieces of construction equipment, which results in hourly average noise levels that can be slightly higher than maximum instantaneous noise levels during construction phases involving several pieces of equipment. Construction equipment noise levels were modeled at a distance of 50 feet from the center of the construction site, typical of the distance that the vast majority of receptors would be located from project construction activities conducted along the project corridor. From these source data, calculations were made to estimate construction noise levels at receptors within 50 feet of the construction site or at more distant receptors assuming that the noise attenuation rate was 6 dBA for each doubling of distance from the source where the distance is over roadways and 7.5 dBA for each doubling of distance from the source where the distance is over fields.

Truck trips generated by project construction would be dispersed throughout the day and over the local road network, and commute trips by construction workers would primarily occur before and after project truck trips occur. Daily transportation of materials and construction workers would not be a substantial source of traffic noise levels along local roadways serving the project area.

Table 1
Construction Equipment Noise Levels Modeled at 50 feet

Project Component	Duration	Construction Phase	L_{max}	L_{eq}
Improvements to Advanced Water Treatment Facility (AWPF)	10 Months	Demolition	90	85
		Site preparation	84	83
		Grading/Excavation	85	87
		Trenching/Pipelines	90	87
		Building Facilities	90	89
		Paving	90	86
Expanded Injection Well Facilities and Product Water Conveyance Pipeline	19 Months	Site Preparation – Access Road Grading	85	85
		Grading/Excavation – Backflush Basin	85	87
		Trenching/Pipelines (1,000 feet/week)	90	89
		Building Facilities – Deep Injection Wells, Monitoring Wells	84	85
		Building Facilities – Electrical Building	90	87
		Paving	85	86
CalAm Extraction Well Facilities	19 Months	Site Preparation – Access Road Grading	85	85
		Trenching/Pipelines (1,000 feet/week)	90	89
		Building Facilities – Extraction Wells	84	85
		Building Facilities – Electrical Building	90	87
		Paving	85	86
CalAm Conveyance Pipeline	7 Months	Pipeline Installation (800 feet/week)	81	84

Improvements to Advanced Water Treatment Facility: Modifications to the approved AWPF facilities are proposed at the RTP site in a northern portion of Monterey County, north of the city limits of Marina. Construction activities would include cutting, laying, and welding pipelines and pipe connections; pouring concrete footings for foundations, tanks, and other support equipment; installing piping, pumps, storage tanks, and electrical equipment; and testing and commissioning facilities. Construction equipment would include excavators, backhoes, graders, pavers, rollers, bulldozers, concrete trucks, flatbed trucks, boom trucks and/or cranes, forklifts, welding equipment, dump trucks, air compressors, and generators. Mechanical components of the pretreatment, membrane filtration systems, reverse osmosis, advanced oxidation, and post-treatment facilities would be prefabricated and delivered to the site for installation. All construction and staging areas would be within the existing 3.5-acre site. Construction activities related to the AWPF are expected to occur over ten months. Potential sensitive receptors include residences approximately 5,000 feet to the northwest of the AWPF on Neponset Road in Monterey County and residences approximately 5,400 feet to the southwest along Cosky Drive in the City

of Marina. Maximum noise levels generated by construction activities at the RTP would reach 90 dBA L_{max} and 89 dBA L_{eq} at a distance of 50 feet. As shown in Table 2, the source noise level would be attenuated due to distance resulting in noise levels up to 39 dBA at a distance of 5,000 feet and up to 39 dBA at 5,400 feet, which are the distances to the closest sensitive receptors. Construction noise levels would not exceed the daytime speech interference or nighttime sleep disturbance thresholds at the nearest residences.

Table 2
Maximum Construction Noise Levels – Improvements to Advanced Water Treatment Facility

Construction Activity Source	Receptors	Distance to Receptor	L_{max}	L_{eq}
Construction of Building Facilities	Monte Road Residence	5,000 feet (northwest)	39	38
	Cosky Drive Residences	5,400 feet (southwest)	39	38

Note: The noise attenuation rate is assumed to be approximately 6 dBA for each doubling of distance from the source where the distance is over and/or along roadways and developed areas and would be approximately 7.5 dBA for each doubling of distance from the source where the distance is over fields.

Expanded Injection Well Facilities Site: The proposed Expanded Injection Well Area would be located east of the existing injection well area in the City of Seaside. There would be one new deep injection well (Wellsite 6), two relocated deep injection wells (Wellsites 5 and 7), monitoring wells, and back-flush facilities. The nearest sensitive receptors are residences located north of the Expanded Injection Well Area along Arloncourt Road, Metz Road, and Ardennes Circle. The deep injection wells would be drilled with rotary drilling methods. To construct the back-flush pipeline, the contractor would excavate pipe trenches, spread spoilage on site, import and install bedding material, and lay pipe, backfill and compact trench. A main electrical power supply/transformer and motor control building would be built for PG&E power supply. The following activities will be required to construct the pump motor control and electrical conveyance facilities:

- Excavation, haul spoilage, import and install bedding material, building foundation, trench, place concrete, backfill and compact trench, and finish concrete floor of electrical building;
- Install exterior electrical control cabinets on the paved area at the four clusters of vadose and deep injection wells; and
- For electrical building, construct block walls, install building windows, doors and louvers, then roof and appurtenances, then interior finishes, lighting and HVAC, and electrical equipment and wiring.

The project is within the boundary of former Fort Ord and receptors are within the city limits of Seaside. Maximum noise levels generated the during the loudest construction phase (i.e., trenching/pipelines) at well sites are calculated to be 90 dBA L_{max} and 89 dBA L_{eq} at a distance of 50 feet. These source noise levels would be attenuated due to distance, resulting in noise levels of up to 59 dBA L_{max} and 58 dBA L_{eq} at a distance of 850 feet, which generally represents the distance

from the majority of construction activities to the closest sensitive receptors (i.e., Ardennes Circle residences).

However, under the Approved PWM/GWR Project, monitoring wells were proposed to be installed between the deep injection well sites and the nearest downgradient extraction well. Due to the change in location of the deep injection wells, the location of each associated monitoring well will also need to be updated. Monitoring wells would be located in ~~the area between General Jim Moore Boulevard and~~ the Expanded Injection Well Area and could be ~~within~~ as close as 850 feet of one or more residences at in the Fitch Park neighborhood for the proposed modifications. This location would be different from the location for the monitoring wells under the Approved PWM/GWR Project.

Well drilling activity was assumed to occur for 24 hours a day at a noise level of 85 dBA L_{eq} at a distance of 50 feet based on noise levels calculated using RCNM. The noise level from drilling would be attenuated due to distance resulting in noise levels up to 54 dBA L_{eq} at a distance of 850 feet. Table 3 shows worst-case noise levels at nearest noise sensitive receptors to Injection Well Facilities site (including back-flush facility).

Table 3
Maximum Construction Noise Levels – Expanded Injection Well Facilities

Construction Activity Source	Receptors	Distance to Receptor	L_{max}	L_{eq}
Construction of Injection Well Facilities – Trenching/Pipelines	Ardennes Circle Residences	850 feet (north)	59	58
Construction of Injection Well Facilities – Deep Injection Wells	Ardennes Circle Residences	850 feet (north)	53	54

Note: The noise attenuation rate is assumed to be approximately 6 dBA for each doubling of distance from the source where the distance is over and/or along roadways and developed areas and would be approximately 7.5 dBA for each doubling of distance from the source where the distance is over fields.

The City of Seaside has not adopted quantitative construction noise limits. Daytime construction activities would not exceed the daytime threshold of 70 dBA L_{eq}. However, drilling activities during nighttime hours would result in noise levels of up to 53 dBA L_{eq} at receiving properties during the construction of deep injection wells. This would be below the sleep disturbance threshold of 60 dBA L_{eq}.

The Expanded Project would include construction of up to two miles of 24-inch maximum pipeline and appurtenances to convey the new purified recycled water from the Blackhorse Reservoir to the Expanded Injection Well Area. The pipeline would be located within existing unpaved and paved roads from the Marina Coast Water District's Blackhorse Reservoir to a new injection well site located in the area on the south side of Eucalyptus Road near the eastern boundary of the City of Seaside. Appendix A shows the location of the proposed Product Water Conveyance Facilities.

For the purpose of modeling construction noise, worst-case construction noise levels would occur when construction activities are located at the connection point of the proposed pipeline to the Blackhorse Reservoir, approximately 300 feet from Ardennes Circle residences. The pipeline would be installed at a rate of about 1,000 feet per week, eventually reaching a distance of 2,300 feet from Ardennes Circle residences, as the pipeline reaches its easternmost point. The pipeline would then return to the southwest toward the Expanded Injection Well Area, approximately 1,400 feet from the nearest Ardennes Circle residences. Table 4 summarizes construction noise levels at receptors within 300 to 2,300 feet of proposed construction areas.

Noise levels resulting from the construction of the Product Water Conveyance Pipeline exceeding 70 dBA L_{eq} for more than two weeks at a sensitive receptor would represent a significant nuisance. Pipeline trenching activities would proceed along the project alignment at a rate of 1,000 feet per five working days; approaching and departing any one receptor location over a fairly short period of time. Assuming a source noise level of up to 89 dBA L_{eq} at a distance of 50 feet, and an attenuation rate of 7.5 dBA per doubling of distance between the noise source and receptor, pipeline construction activities occurring within 290 feet (in either direction) of a sensitive receptor would yield noise levels greater than 70 dBA L_{eq}. The nearest receptors are located 300 feet or further from the pipeline alignment and would, therefore, not be exposed to noise levels greater than 70 dBA L_{eq}. Construction noise resulting from the Product Water Conveyance Pipeline would not exceed the noise level and duration thresholds resulting in a less than significant impact.

Table 4
Maximum Construction Noise Levels – Product Water Conveyance Pipeline

Construction Activity Source	Receptors	Distance to Receptor	L_{max}	L_{eq}
Construction of Product Water Conveyance Pipeline	Ardennes Circle Residences	300 feet (southwest)	67	70
	Ardennes Circle Residences	2,300 feet (west)	44	47
	Ardennes Circle Residences	1,400 feet (northwest)	50	53

Note: The noise attenuation rate is assumed to be approximately 6 dBA for each doubling of distance from the source where the distance is over and/or along roadways and developed areas and would be approximately 7.5 dBA for each doubling of distance from the source where the distance is over fields.

CalAm Distribution System: For CalAm to utilize the additional purified recycled water produced by the Expanded PWM/GWR Project, additional potable water extraction wells, wellhead treatment and pipelines would be required. See Figure 1 for proposed locations of the new CalAm facilities. CalAm would construct and operate four (4) new extraction wells (EW-1 through EW-4). In addition, for the Expanded PWM/GWR Project CalAm would construct and operate new potable and raw water pipelines to convey the water from the new extraction wells to treatment facilities and to the existing CalAm distribution system.

The MPWSP EIR/EIS analyzed noise resulting from construction of new injection/extraction wells (designated ASR-5 and ASR-6) at the same locations as wells EW-3 and EW-4. The construction of the wells is essentially the same, except that the above ground equipment and the 900 s.f. building that would house the equipment associated with an injection well are not required. Each well pump and electrical control system would be housed in a fiberglass enclosure with sound-proofing and ventilation similar to CalAm's Rancho Canada well. The pump motor, switch gear and power panels are installed inside the enclosure. The following discussion for wells EW-3 and EW-4 is based upon the analysis and text from the MPWSP EIR/EIS. The analysis and discussion of wells EW-1 and EW-2 that follows and is based upon the same assumptions.

The proposed extraction wells (EW-3 and EW-4) would be constructed at the intersection of General Jim Moore Boulevard and Ardennes Circle, in the Fitch Park military housing area. The closest residential receptors to the proposed wells are located 50 feet away on Ardennes Circle. Noise monitoring location S4 represents the noise environment at the Fitch Park residential receptors (see MPWSP EIR/EIS Table 4.12-1 and Figure 4.12-1 and Appendix B).

Each proposed extraction well would require 24-hour construction activities for up to 7 days during well drilling. Temporary noise barriers would be installed as part of the project at each well site to reduce construction noise. A 10-foot noise barrier would be constructed to reduce noise levels at the nearest receptors to ASR-5 (EW-3), and a 15-foot noise barrier would be constructed to reduce noise

levels at the nearest receptors to ASR-6 (EW-4). Accounting for the attenuation provided by the temporary barrier, the resultant daytime and nighttime construction noise levels at the Fitch Park residential receptors could be as high as 80 dBA L_{eq} (note: all fractional decibel levels from the MPWSP EIR have been rounded to the nearest whole decibel in this memo)[3]. This level exceeds the speech interference and sleep interference thresholds of 70 dBA and 60 dBA (with windows closed, or 35 dBA with windows open), respectively, and would result in a significant impact. Figures 4.12-2 and 4.12-4 of the MPWSP EIR/EIS illustrate the noise contours for construction of wells EW-3 and EW-4, respectively, without mitigation. While it is possible that implementation of Mitigation Measures 4.12-1a (Neighborhood Notice), 4.12-1b (General Noise Controls for Construction Equipment), 4.12-1d (Additional Noise Controls for ASR-5 and ASR-6 Wells), and 4.12-1e (Offsite Accommodations for Substantially Affected Receptors) would reduce the daytime noise impact to a less-than-significant level, this mitigation would not be sufficient to reduce noise to below the more stringent nighttime threshold. Figures 4.12-3 and 4.12-5 of the MPWSP EIR/EIS illustrate the noise contours for construction of wells EW-3 and EW-4, respectively, with mitigation. The nighttime noise impact would remain significant and unavoidable.

Extraction wells EW-1 and EW-2 would be located just north of Seaside Middle School. The Blackhorse Golf Course is located to the north and west of Extraction Well sites EW-1 and EW-2. The nearest residences are located approximately 700 feet to the northeast along Hatten Road. Assuming a maximum source noise level of 89 dBA L_{eq} at 50 feet for trenching and pipeline construction, daytime noise levels would reach 62 dBA L_{eq} at the Seaside Middle School and 60 dBA L_{eq} at the Hatten Road residences. Daytime well drilling would produce noise levels up to 85 dBA L_{eq} at 50 feet, resulting in noise levels about 4 dBA lower at the Seaside Middle School and Hatten Road residences. Daytime construction activities would not exceed the daytime threshold of 70 dBA L_{eq}. Nighttime well drilling would also produce noise levels up to 85 dBA L_{eq} at 50 feet. Well drilling noise levels are calculated to reach 56 dBA L_{eq} at the Hatten Road residences and would not exceed the nighttime threshold of 60 dBA L_{eq}. Further, 24-hour per day well drilling would only be required for about 7 days per well. This is a less-than-significant impact.

A new 36-inch potable water pipeline would be installed in General Jim Moore (GJM) Boulevard between the well EW-4 and the Monterey Pipeline at General Jim Moore Boulevard and Hilby Avenue. Raw water pipeline (sometimes referred to as a backwash pipeline) construction, including approximately 3,700 linear feet of 16-inch HDPE pipe and appurtenances, and recirculation pipeline construction, including approximately 3,700 linear feet of 30-inch DIP and appurtenances, would occur between the EW-4 site and the current backflush and recirculation pipeline terminations in General Jim Moore near the Seaside Middle School site for EW-1 and EW-2. Nighttime construction work is not proposed for these pipelines; therefore, there would be no impact related to nighttime noise increases.

The potable and raw water pipelines proposed along General Jim Moore Boulevard and associated with the extraction well facilities would be installed as close as 300 feet east of Seaside Middle School. The average noise level produced by construction of the pipelines would be 84 dBA L_{eq} at 50 feet. The

[3] CalAm Monterey Peninsula Water Supply Project 4.12-30 ESA / 205335.01 Final EIR/EIS March 2018

attenuated construction equipment noise level at 300 feet would be 65 dBA L_{eq}. These pipeline alignments are also as close as 100 feet from residential receptors, including residences on Ardennes Circle. The resultant daytime noise level at residential receptors during pipeline construction would be as high as 77 dBA L_{eq}. The construction schedule developed for the Expanded PWM/GWR Project shows these pipelines would be constructed at a rate of 800 feet per week. These receptors would be exposed noise levels at or above the 70 dBA L_{eq} threshold for less than one week, which would be less than the two-week exposure threshold resulting in a less-than-significant impact.

Mitigation Measures:

The following mitigation measures have been extracted from the MPWSP EIR/EIS (Mitigation Measures 4.12-a, 4.12-b, 4.12-d and 4.12-e) and applied to the CalAm Distribution System component of this project. Mitigation Measures 1a and 1b apply to the CalAm Distribution System pipelines along General Jim Moore Boulevard and EW-1 and EW-2. Mitigation Measures 1a – 1d apply to the construction of EW-3 and EW-4:

Mitigation Measure 1a: Neighborhood Notice and Construction Disturbance Coordinator

> The combination of public notice and the establishment of a construction disturbance coordinator can result in a lessening of the adversity of the impact at a given receptor by allowing them to prepare for pending construction activities and providing a contact to report any disturbances or violations to CalAm for appropriate response actions, including additional mitigation. Residents and other sensitive receptors within 300 feet of a daytime construction area and within 900 feet of a nighttime construction area shall be notified of the construction location, nature of activities, and schedule, in writing, at least 14 days prior to the commencement of construction activities. The notice shall also be posted along the proposed pipeline alignments, near the proposed facility sites, and at nearby recreational facilities. CalAm or the contractor(s) shall designate a construction disturbance coordinator who would be responsible for responding to construction complaints. The coordinator shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. CalAm and/or its contractor shall return all calls within 24 hours to answer noise questions and handle complaints. Documentation of the complaint and resolution shall be submitted to the CPUC weekly. A contact number for the construction disturbance coordinator shall be conspicuously placed on construction site fences and included in the notice. Prior to distributing the notice to nearby residences, CalAm or the contractor(s) shall first submit the notice to the respective city planning and services manager for review and approval. This measure shall be implemented in conjunction with the noticing provisions in Mitigation Measure 4.9-1 (Traffic Control and Safety Assurance Plan).

Mitigation Measure 1b: General Noise Controls for Construction Equipment and Activities.

> The construction contractor(s) shall assure that construction equipment with internal combustion engines have sound control devices at least as effective as those provided by the original equipment manufacturer. No equipment shall be permitted to have an unmuffled exhaust.

Impact tools (i.e., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler shall be placed on the compressed air exhaust to lower noise levels by up to approximately 10 dBA. External jackets shall be used on impact tools, where feasible, in order to achieve a further reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible.

Mitigation Measure 1c: Additional Noise Controls for Nighttime Construction of Wells.

In addition to the general noise controls that will be implemented as part of Mitigation Measure 1b (General Noise Controls for Construction Equipment), the construction contractor(s) shall identify feasible noise controls for implementation during well drilling development activities within 500 feet of the Fitch Park military housing community. The construction contractor(s) shall locate all stationary noise-generating equipment as far as possible from nearby noise-sensitive receptors. Drill rigs within 500 feet of noise-sensitive receptors shall be equipped with noise-reducing engine housings or other noise-reducing technology. Additionally, acoustic barriers and/or enclosures shall be used with a goal of reducing noise from well drilling activities to 60 dBA L_{eq} or less at residences. There are a number of options available to achieve this performance standard. Barrier blankets are available with a sound transmission class rating of 32,which can provide 16 to 40 dBA of sound transmission loss, depending on the frequency of the noise source (ENC, 2014). The realized sound transmission reduction of barrier blankets needs to be sufficient to achieve the performance standard of 60 dBA L_{eq} or less at residences.

Mitigation Measure 1d: Offsite Accommodations for Substantially Affected Nighttime Receptors near Wells.

CalAm shall provide temporary hotel accommodations for all residences and any other nighttime sensitive receptors:

1. That would be exposed to 24-hour project construction activities and

2. Where nighttime construction noise would exceed 60 dBA with windows closed or 35 dBA with windows open, even with implementation of acoustic barriers and/or shielding measures.

The accommodations shall be provided for the duration of 24-hour construction activities. CalAm shall provide accommodations reasonably similar to those of the impacted residents in terms of number of beds and amenities. If identified accommodations do not include typical residential kitchen facilities (e.g., cooktop, oven, full size refrigerator), then CalAm shall provide displaced individuals with a per diem allowance to offset costs of meals for the period of relocation.

Significant impacts related to temporary increases in daytime noise levels would result during construction of the wells, but these impacts would be reduced to less-than-significant levels with

implementation of the prescribed mitigation measures. Significant nighttime noise impacts would result during construction of the wells, and the impact would remain significant and unavoidable, even with implementation of mitigation.

Significance after Mitigation: Significant and Unavoidable.

Impact 2: Exposure to, or Generation of, Excessive Groundborne Vibration. Construction related vibration would not be excessive at nearby land uses.

For structural damage, Caltrans recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards, 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.08 in/sec PPV for ancient buildings or buildings that are documented to be structurally weakened. There is the potential for human annoyance when there is sustained exposure to continuous or intermittent vibration, such as at residences near the proposed extraction well sites. For adverse human reaction, consistent with the MPWSP EIR/EIS, the analysis applies the "strongly perceptible" threshold of 0.1 in/sec PPV.

Structural Damage: All buildings in the project vicinity are assumed to be structurally sound, but these buildings may or may not have been designed to modern engineering standards. Vibration impacts would be considered significant if levels from proposed construction activities would exceed 0.3 in/sec PPV at nearby buildings. Vibration levels exceeding 0.3 in/sec PPV could result in cosmetic damage. No ancient buildings or buildings that are documented to be structurally weakened are known to exist along the project corridor.

Open trench construction activities with the potential of generating perceptible vibration levels would include the removal of pavement and soil, and the compacting of backfill after the new pipeline is installed. Extraction well construction activities would include site preparation, trenching/pipelines, well drilling, the construction of buildings, and paving. Equipment with the potential of generating perceptible vibration levels would include the removal of pavement and soil, and the compacting of soil, and well drilling. Table 5 summarizes typical vibration levels associated with varying pieces of construction equipment at a distance of 25 feet. All other proposed construction activities would occur at greater distances where groundborne vibration would not be of concern.

A review of the proposed equipment and the vibration level data provided in Table 5 indicates that, with the exception of impact or vibratory pile driving (not proposed as a construction technique), vibration levels generated by the proposed equipment would be below the 0.3 in/sec PPV criterion used to assess the potential for cosmetic or structural damage to buildings located beyond a distance of 25 feet. The nearest buildings would be a minimum distance of 25 feet from the work areas.

The nearest residential structure to the proposed well sites is located approximately 25 feet from proposed above ground facilities and 50 feet from the well. Vibration levels from vibratory rollers for construction of the above ground facilities would reach 0.21 in/sec PPV at a distance of 25 feet. At a distance of 50 feet, vibration levels from well drilling would be 0.03 in/sec. These levels

would be below the 0.3 in/sec PPV threshold, resulting in a less-than-significant vibration impact related to damage to this building. The nearest structures to the pipelines associated with the extraction wells would be located approximately 50 feet away and are not historic structures. At 50 feet, vibration levels from roller operations would be attenuated to less than 0.1 in/sec PPV, which is below the threshold for non-fragile buildings of 0.3 in/sec PPV, resulting in a less-than significant impact related to damage to buildings.

Human Annoyance: The nearest sensitive land use to the proposed extraction well sites is a residence located approximately 50 feet away from where drilling would occur. The drilling would occur 24-hours per day, which has the potential to cause human annoyance during typical periods of rest. At this distance, drilling vibration would be attenuated to 0.03 in/sec. This level is below the "strongly perceptible" threshold of 0.1 in/sec PPV, resulting in a less-than-significant impact related to human annoyance. Ground vibration resulting from project construction would cause a is a less than significant impact.

Table 5
Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft. (in/sec)
Pile Driver (Impact)	upper range	1.158
	typical	0.644
Pile Driver (Sonic)	upper range	0.734
	typical	0.170
Clam shovel drop		0.202
Hydromill (slurry wall)	in soil	0.008
	in rock	0.017
Vibratory Roller		0.210
Hoe Ram		0.089
Large bulldozer		0.089
Caisson drilling		0.089
Loaded trucks		0.076
Jackhammer		0.035
Small bulldozer		0.003

Source: Transit Noise and Vibration Impact Assessment Manual, United States Department of Transportation, Federal Transit Agency, September 2018.

Mitigation Measures: **None required.**

Impact 3: Operation of the proposed Cal Am facilities associated with the Proposed Project (EW-3 and EW-4) would potentially increase existing noise levels, which could exceed noise level standards and/or result in nuisance impacts at sensitive receptors.

Sources of noise associated with the operation of the Expanded PWM/GWR Project would include new pumps and other equipment at the RTP, the expanded injection well facilities, and the four new extraction wells (Cal Am facilities). Employee traffic and maintenance activities would not be considerable sources of noise.

Improvements to Advanced Water Treatment Facility: Expanding the AWPF (treatment facilities) at the RTP to produce up to 7.6 mgd will require installation of additional treatment and pumping equipment, chemical storage, pipelines, and facility appurtenances within the 3.5-acre existing building area. Noise resulting from new facilities would be generated from proposed stationary sources associated with facility operations, including primarily electric water pumps. Using data from the PWM/GWR Project EIR, the pumps would have an estimated combined noise level of 108 dBA L_{eq} at a distance of 3 feet. Typical operating conditions would result in pump reference noise levels of approximately 85 dBA L_{eq} at 50 feet assuming the pumps were at grade and not inside an enclosure. There are no other known sources of noise that would measurably increase the noise levels generated by the pumps. A residence to the northwest is in Monterey County and residences to the southwest are in the City of Marina. Maximum noise levels generated by operations at the RTP would be 35 dBA L_{eq} at a distance of approximately 1 mile. Due to the long distance between residences in Monterey County of the City or Marina and the AWPF (approximately 5,000 to 5,400 feet), operational noise levels resulting from the expanded AWPF Treatment Facilities at the RTP would not exceed the City of Marina or Monterey County noise standards. Noise levels would be substantially below ambient noise levels in the surrounding area, and plant operations would not result in an increase in ambient noise levels that would exceed local standards.

Expanded Injection Well Facilities:

The primary operational noise source at each injection well would be a well pump to back-flush the well. The estimated motor size for each pump is approximately 400 hp. Based on the experience of the Water Management District in the operation of its nearby Aquifer Storage and Recovery wells, back-flushing of each injection well would occur about weekly and would require discharge of the back-flush water to a percolation pond, or back-flush basin. The pump would operate for about 150 minutes during the daytime.

The 400 hp back-flush pump has an estimated noise level 85 dBA L_{eq} at 50 feet assuming the pumps are at grade and not inside an enclosure. The nearest residences to the back-flush pump are located 1,300 feet to the north along Ardennes Circle in Seaside. The maximum noise level, generated by back-flush operations, is calculated to be 50 dBA L_{eq}. Noise levels as a result of the operation of the back-flush pumps, as well as the remaining wells located further from receptors, would not exceed the City of Seaside noise standard of 65 dBA CNEL.

Extraction Well Facilities:

The EW-3 and EW-4 Wells would be 50 feet west of residences on Ardennes Circle. Each well would be equipped with a permanent 500-hp multistage vertical turbine pump. Each well pump and electrical control system would be housed in a fiberglass enclosure with sound-proofing and ventilation similar to CalAm's Rancho Canada well. The pump motor, switch gear and power panels are installed inside the enclosure.

The MPWSP EIR/EIS states that well pump motors would generate noise levels of up to 76 dBA L_{max} at 50 feet; however, placing the motors in a standard concrete pump house would attenuate noise levels by at least 20 dBA (to 56 dBA L_{max} at 50 feet). The increase in ambient noise levels at the residences on Ardennes Circle would be 5 to 6 dBA L_{eq}, which is above the 5 dBA threshold and thus would be a significant permanent noise increase over existing conditions.

The current design identifies a fiberglass enclosure that may not provide comparable attenuation to the concrete pump house. Furthermore, the fiberglass enclosure may not provide sufficient attenuation to achieve the interior sleep interference noise standard of 35 dBA L_{eq} inside the nearest residences assuming windows are open for ventilation. There is a potential that interior noise levels, that were previously designed to meet the 60 dBA CNEL exterior noise threshold with the use of a concrete block enclosure, would result in interior noise levels of approximately 38 dBA L_{eq} inside the nearest residential units exceeding the 35 dBA L_{eq} sleep interference threshold by 3 dBA.

The EW-1 and EW-2 Wells would be at least 600 feet north of the nearest classroom building at Seaside Middle School and 700 feet southwest of residences on Hatten Road. At 600 to 700 feet, noise levels would be reduced by 27 to 29 dBA respectively, due to distance alone. The pump motors would be enclosed in a standard concrete pump house that would attenuate noise levels by at least 20 dBA, resulting in noise levels of 29 dBA at the Seaside Middle School and 27 dBA at the Hatten Road residences. Operational noise levels related to EW-1 and EW-2 would be well below ambient conditions at the Seaside Middle School and nearest residential receptors.

Mitigation Measures:

The following mitigation measure has been extracted from the MPWSP EIR/EIS (Mitigation Measure 4.12-5), modified, and applied to this project:

Mitigation Measure 2: EW-3 and EW-4 Stationary-Source Noise Controls.

> CalAm shall retain an acoustical engineer to design stationary-source noise controls and ensure the applicable noise standards are met. At a minimum, all stationary noise sources at EW-3 and EW-4 shall be located within enclosed structures and with adequate noise control to maintain noise levels to no greater than 55 CNEL (or 48 dBA L_{eq} assuming 24-hour per day operation), at the property lines of nearby residences. Once the stationary noise sources have been installed, the contractor(s) shall conduct a single long-term (24-hour) monitoring of noise levels to ensure that noise levels resulting from the operation of the well comply recommended noise limits. CalAm shall submit a compliance monitoring report to the CPUC.

The implementation of Mitigation Measure 2 (Stationary Source Noise Controls) would reduce this impact to less than significant by ensuring that sufficient noise insulation or sound-absorbing material is provided to the pump enclosure to provide the additional noise attenuation required to meet City of Seaside noise level thresholds and thresholds to avoid the potential for sleep interference.

Significance after Mitigation: Less than Significant.

Impact 4: Noise levels produced by the operation of the Expanded Project, as compared to the noise levels produced by the PWM Project alone, would not be substantially more severe at sensitive receptors.

The resultant noise level due to project operations at receptors in the project vicinity is due to the closest source of operational noise, as discussed by project component above. The only instance where noise levels would be measurably increased as a result of the Expanded Project would be at receptors nearest to the AWPF Treatment Facilities at the RTP. Maximum noise levels generated by Expanded Project operations would be 35 dBA L_{eq} at a distance of approximately 1 mile due to the long distance between residences in Monterey County of the City or Marina and the AWPF (approximately 5,000 to 5,400 feet). The predicted noise level from Expanded Project operations would add to the operational noise levels produced by treatment facilities at the RTP (37 dBA L_{eq}) to yield an overall noise level of 39 dBA L_{eq}. Overall RTP noise levels would not exceed the City of Marina or Monterey County noise standards at the nearest sensitive receptors. Noise levels would be substantially below ambient noise levels in the surrounding area, and plant operations would not result in an increase in ambient noise levels that would exceed local standards. The impact related to noise generated by operations of the Expanded Project is less than significant.

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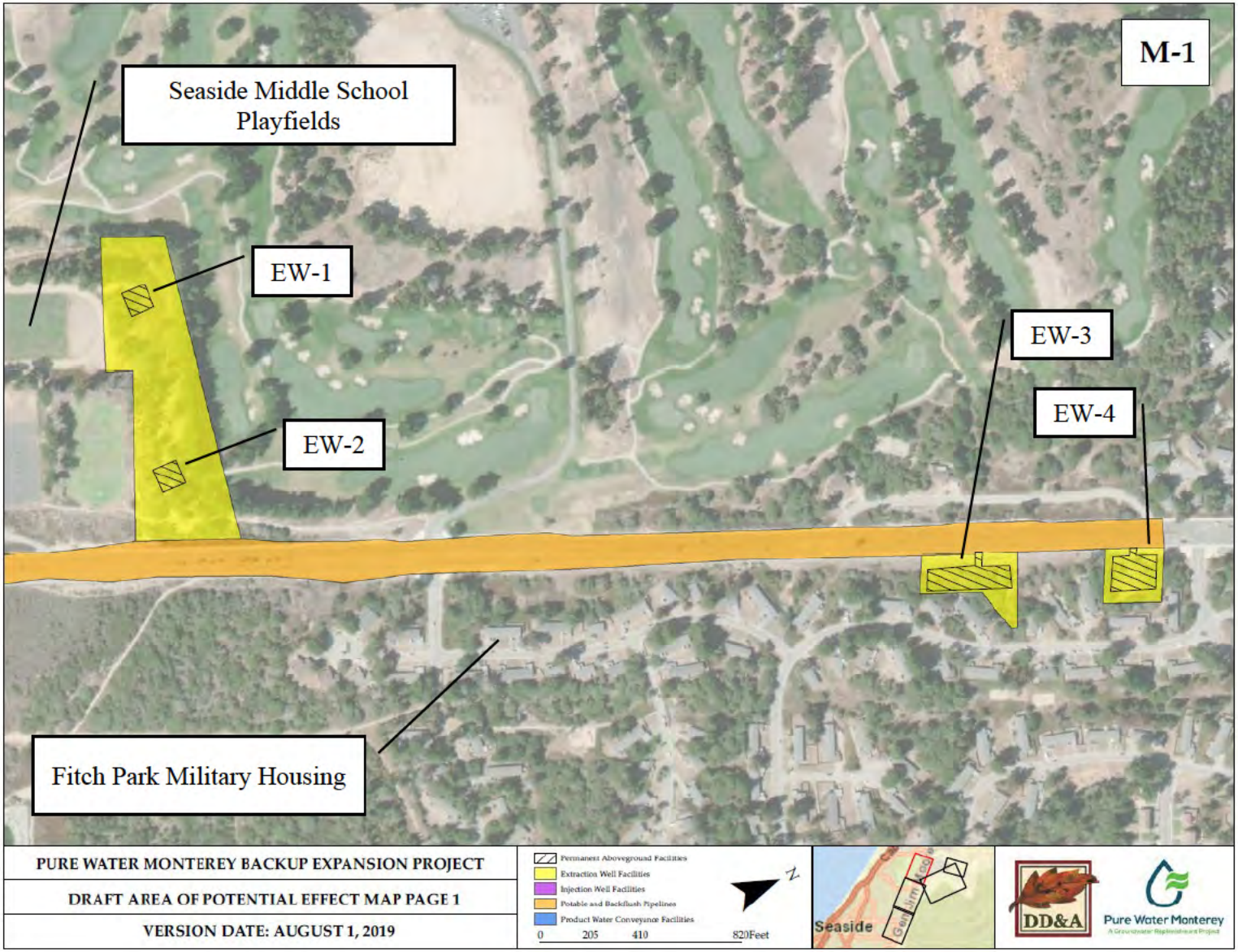
Appendix A

Pure Water Monterey Backup Expansion Project Draft Area of Potential Effect Maps M-1 through M-5

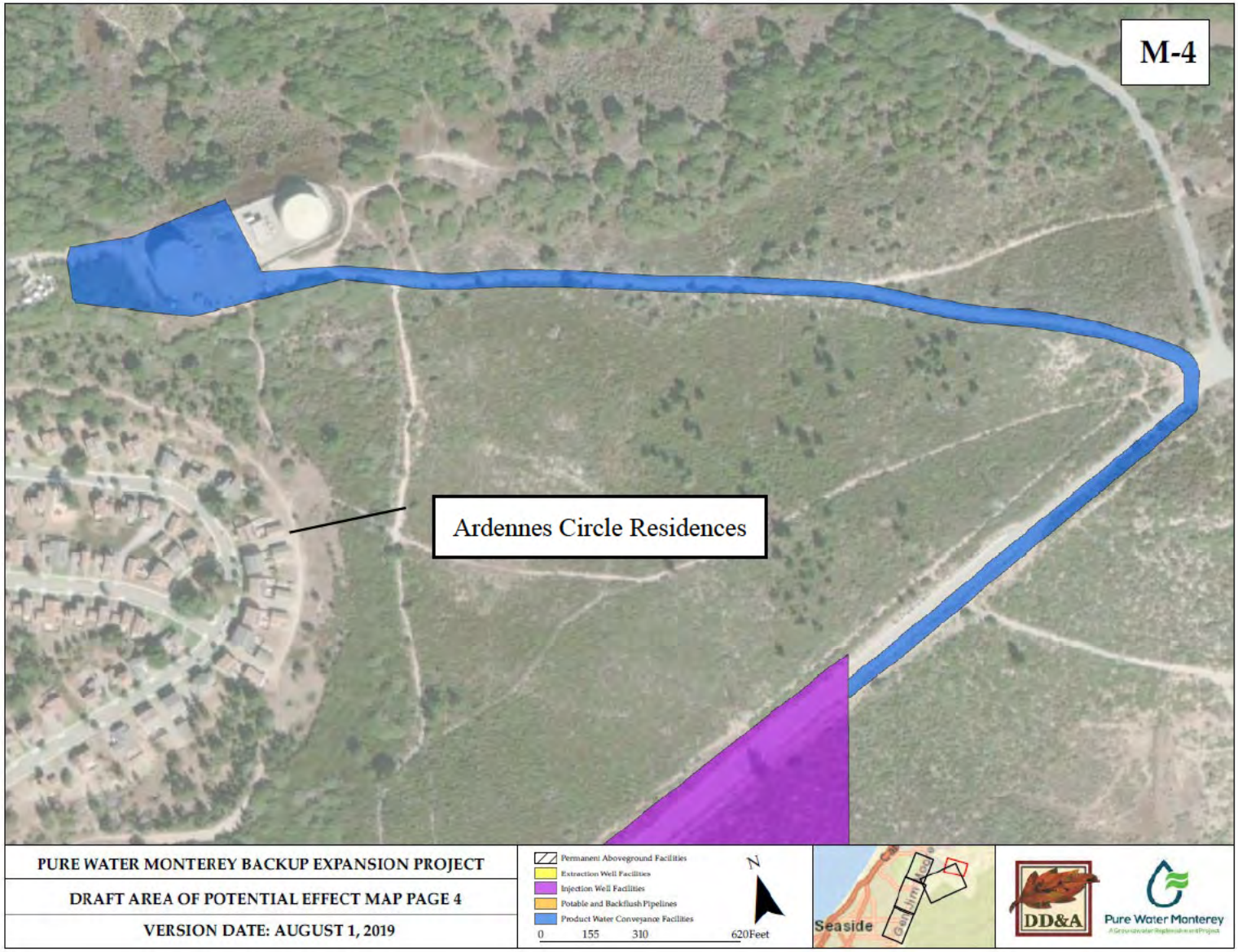
CalAm Conveyance Pipeline and Extraction Wells



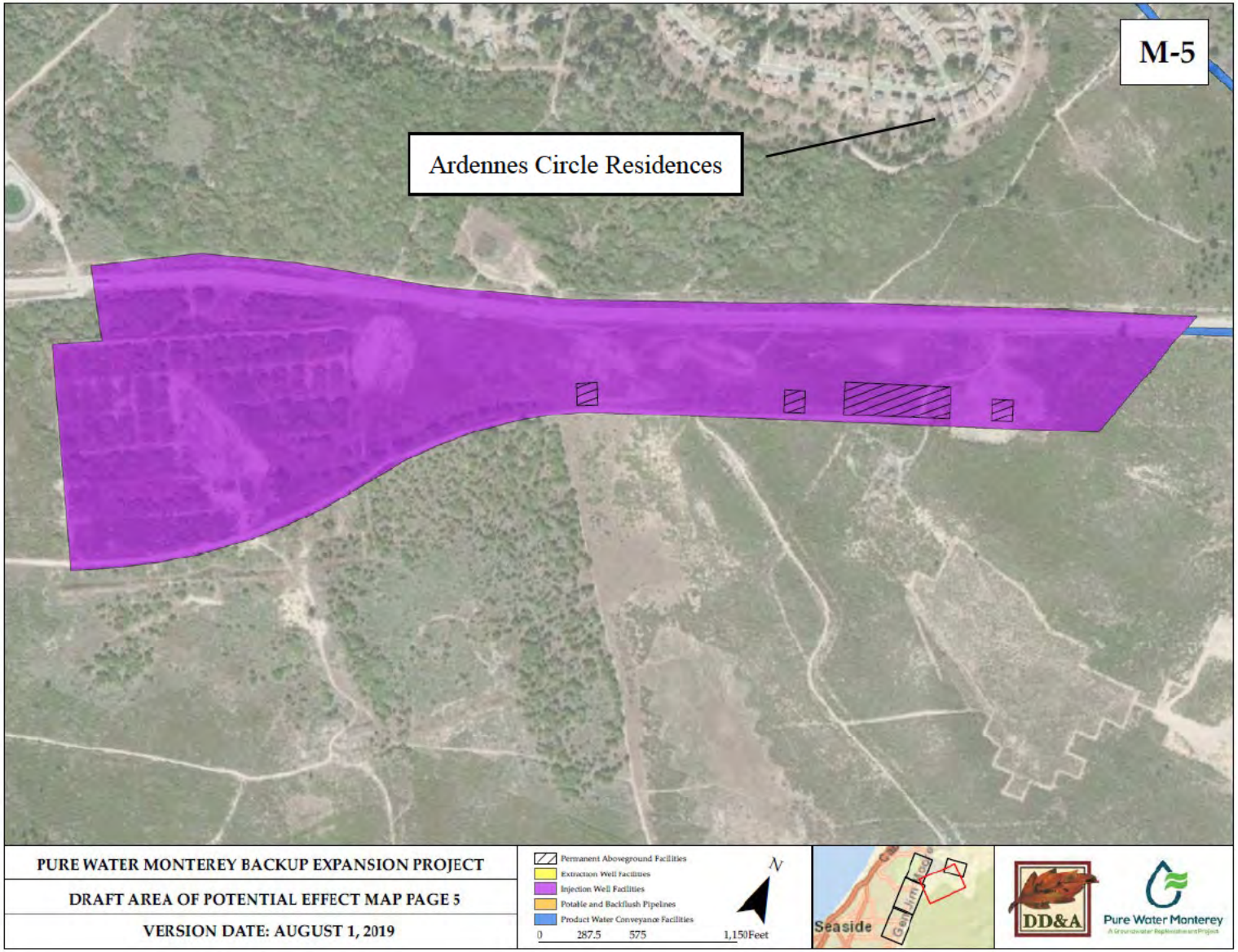
CalAm Conveyance Pipeline

CalAm Conveyance Pipeline

Product Water Conveyance System



Expanded Injection Well Facilities



Appendix B

CalAm Monterey Peninsula Water Supply Project Final EIR/EIS Figures 4.12-1 through 4.12-5

NOTE
*The ASR Pipelines are the ASR Conveyance Pipeline, the ASR Return-to-Waste Pipeline, and the ASR Recirculation Pipeline. See Figure 4.0-4a for the individual pipeline alignments.

SOURCE: ESA, 2016

205535.01 Monterey Peninsula Water Supply Project

Figure 4.12-1
Noise Monitoring Locations

SOURCE: ESA, 2017

205335.01 Monterey Peninsula Water Supply Project

Figure 4.12-2

Construction Noise Contours for Well ASR-5

SOURCE: ESA, 2017

205335.01 Monterey Peninsula Water Supply Project

Figure 4.12-3

Construction Noise Contours for Well ASR-5 with10-foot barrier

SOURCE: ESA, 2017

205335.01 Monterey Peninsula Water Supply Project

Figure 4.12-4

Construction Noise Contours for Well ASR-6

SOURCE: ESA, 2017

205335.01 Monterey Peninsula Water Supply Project

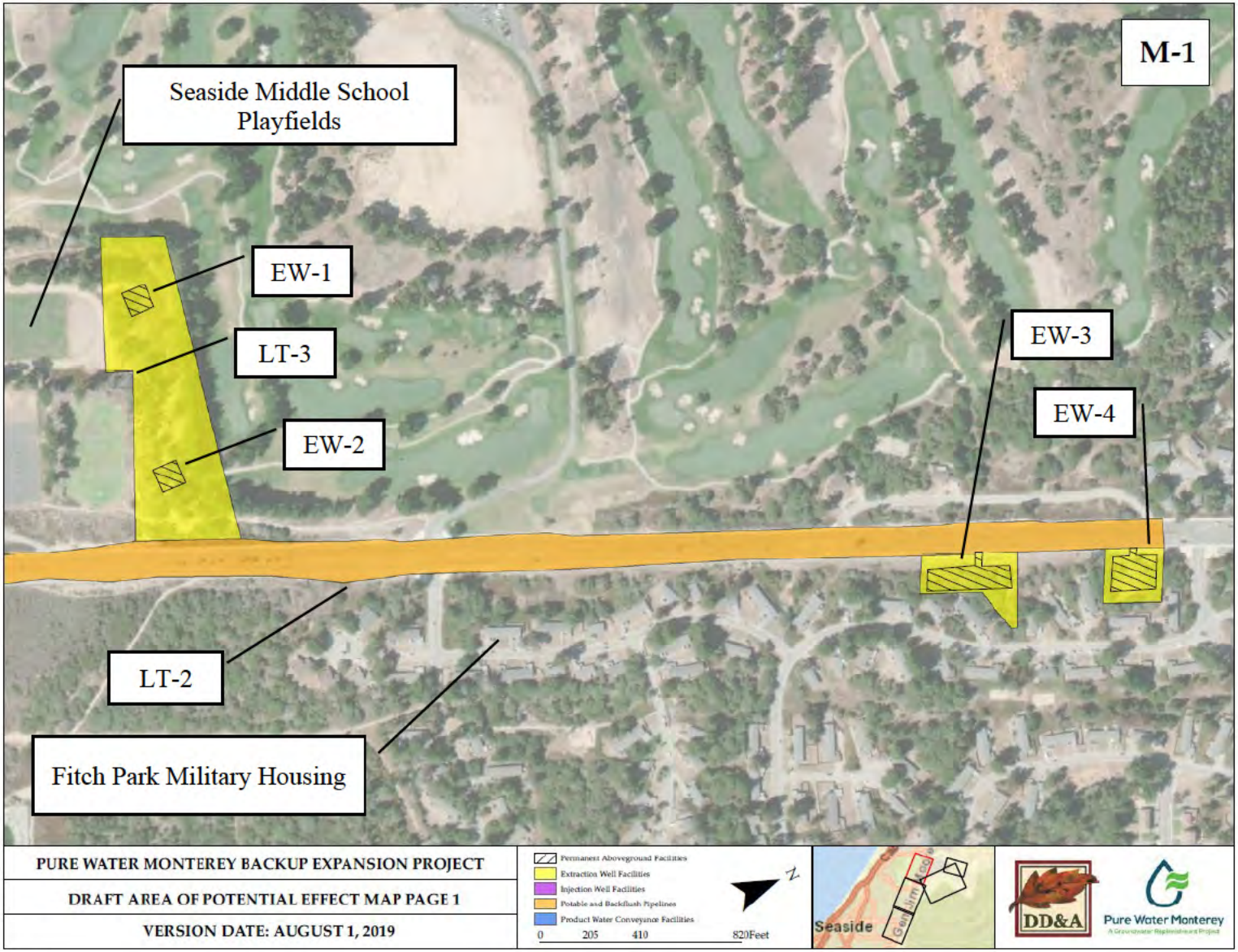
Figure 4.12-5

Construction Noise Contours for Well ASR-6 with 15-foot barrier

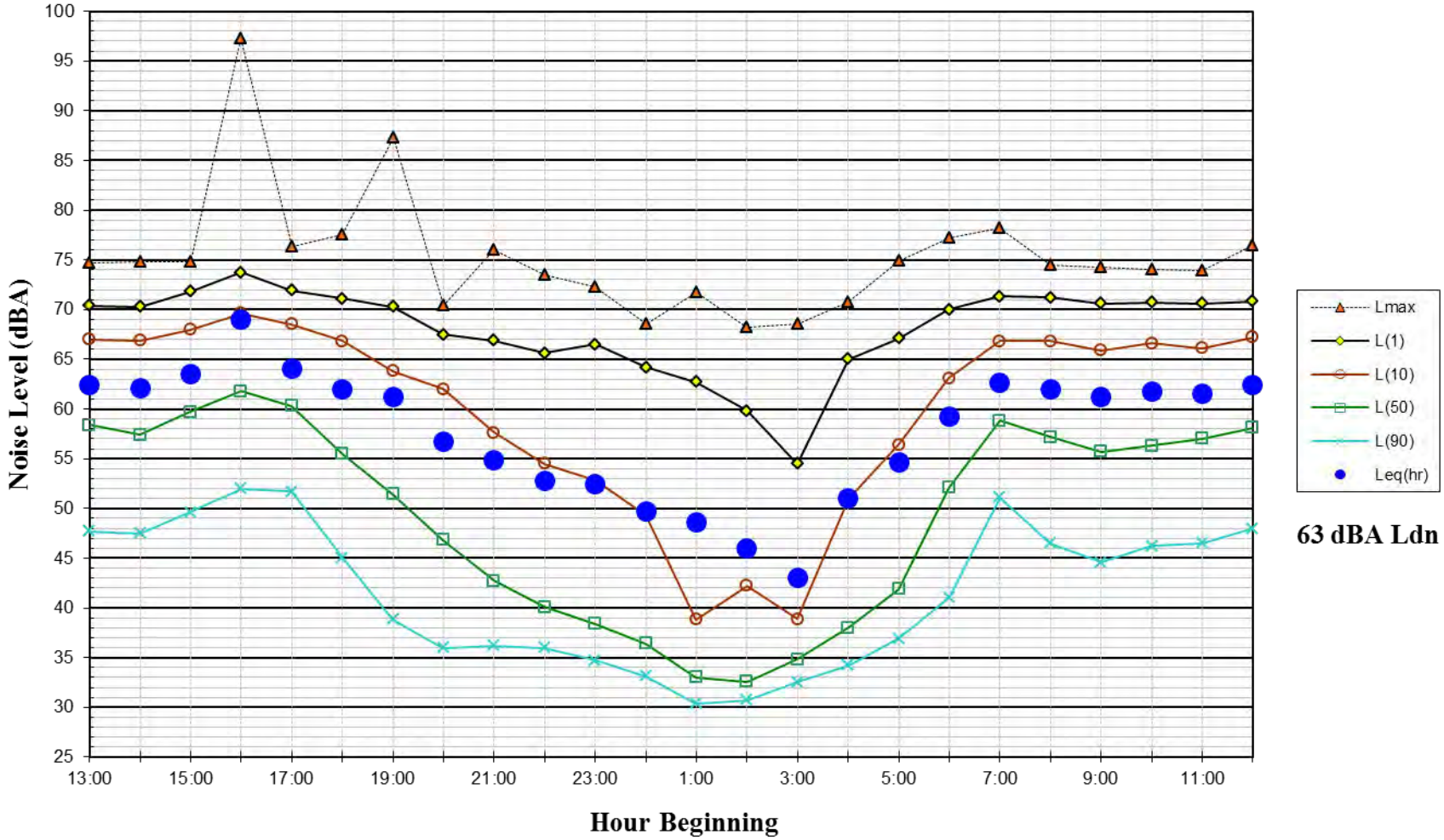
New Appendix C

March 2020 Noise Data

CalAm Conveyance Pipeline, Extraction Wells, Land Uses, and March 2020 Noise Monitoring Locations

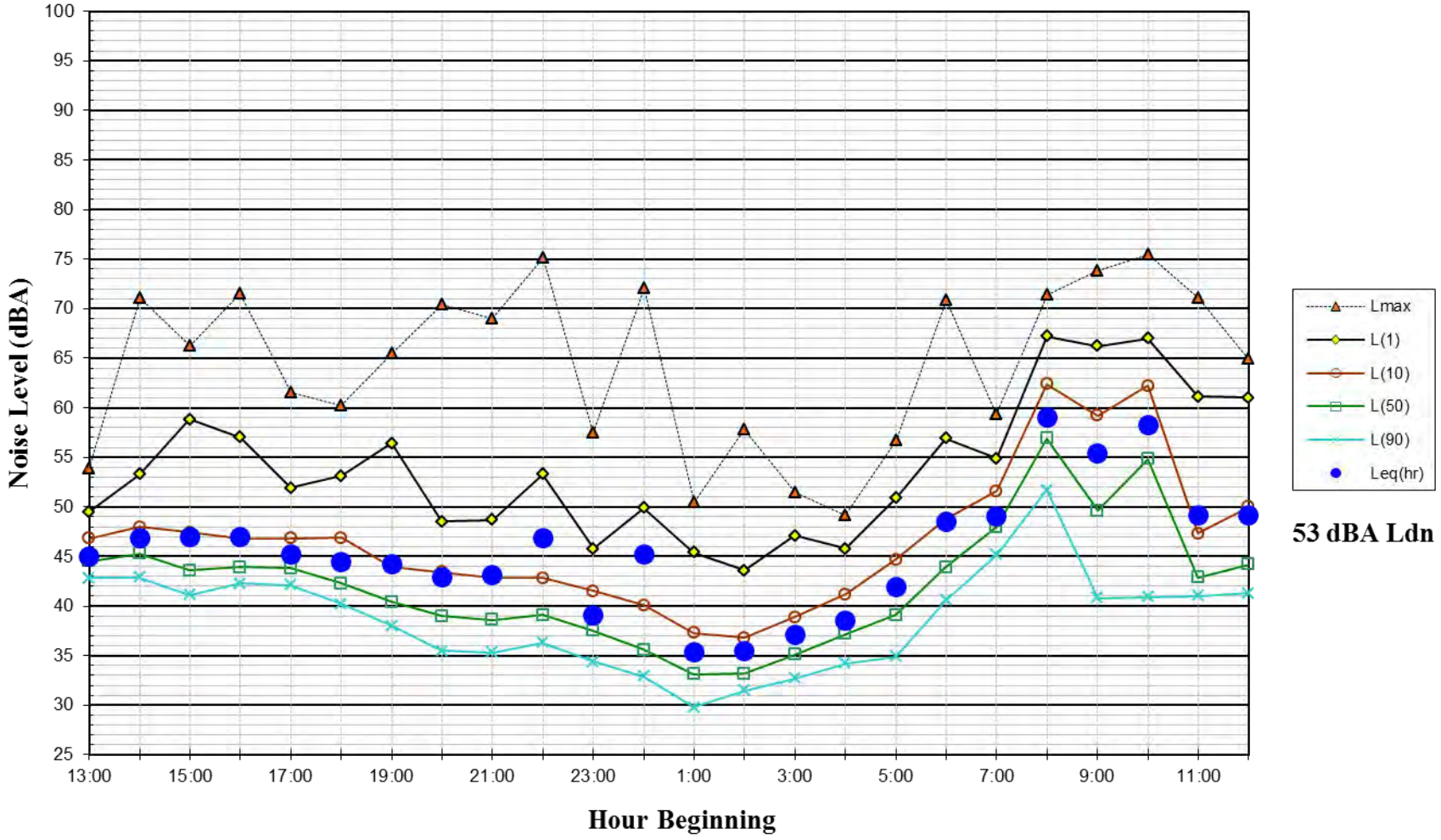


Noise Levels at LT-2 - Near Hatten Road Residences
~80 feet from the center of General Jim Moore Blvd., Seaside, CA
Wednesday, March 18, 2020 - Thursday, March 19, 2020



63 dBA Ldn

Noise Levels at LT-3 - Near Seaside Middle School Playfields
~580 feet from the center of General Jim Moore Blvd., Seaside, CA
Wednesday, March 18, 2020 - Thursday, March 19, 2020



53 dBA Ldn

March 2020 Noise Survey Results

In response to comments on the DSEIR, additional noise measurements were conducted to confirm the prior noise data and to document current noise levels at Hatten Road residences and Seaside Middle School, which adjoin the proposed EW-1 and EW-2 extraction well sites. The first long-term noise measurement was made 80 feet from the centerline of General Jim Moore Boulevard near Hatten Road residential land uses. Noise levels produced by traffic along General Jim Moore Boulevard were similar to those measured previously at Site LT-1, ranging from 53 to 69 dBA L_{eq} during the day, and from 43 to 59 dBA L_{eq} at night. The day-night average noise level was 63 dBA L_{dn}. The second long-term measurement was made 580 feet from the centerline of General Jim Moore Boulevard near the Seaside Middle School playfields. Noise levels produced by traffic along General Jim Moore Boulevard typically ranged from 43 to 49 dBA L_{eq} during the day, and from 35 to 49 dBA L_{eq} at night. A small, nearby construction project to the west elevated noise levels on the morning of March 19, 2020 to between 55 to 59 dBA L_{eq}. The day-night average noise level was 53 dBA L_{dn}.

The results of the additional noise measurements confirmed that the predominant noise source in the vicinity of the proposed EW-1 and EW-2 extraction wells continues to be traffic along General Jim Moore Boulevard and that prior noise data used in the analysis were valid.

Appendix L

Health Risk Assessment for the EW-1 / EW-2 Extraction Wells

Technical Report

Final Submittal

M1W – Health Risk Assessment for the EW-1/EW-2 Extraction Wells

Monterey, California

Prepared for

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Prepared by

Atmospheric Dynamics, Inc.

ATMOSPHERIC DYNAMICS, INC
Meteorological & Air Quality Modeling

April 2020

The following presents the results of preparing a health risk assessment (HRA) for the CalAm Monterey Peninsula Water Supply Project (MPWSP) injection/extraction wells EW-1 and EW-2. The HRA methods and risk data are based on the Office of Environmental Health Hazard Assessment's *Air Toxics Hot Spots Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments*. Based on information provided by Monterey One Water (M1W), the well drilling activity diesel particulate matter (DPM) emissions at EW-1 and EW-2 are identical in magnitude and duration to the activities at well sites EW-3 and EW-4. However, the closer proximity of EW-1 and EW-2 to the Seaside Middle School was the primary reason for assessing the potential for health risk at the school (sensitive receptor). The EW-1 and EW-2 drilling location would be within 200 meters of closest Seaside Middle School classroom and residential receptor location(s) and within 40 meters of the school track/soccer field.

EW-1 and EW-2 Injection/Extraction Well Drilling Phase Methodology

The proposed drilling activities would be a source of DPM emissions during. The Monterey Bay Air Resources Board (MBARD) CEQA Air Quality Guidelines considers exposure of sensitive receptors to air pollutant levels that result in an unacceptable cancer risk or hazard to be significant if they exceed the significance thresholds in Table 1.

Table 1 Health Risk Significance Thresholds

Risk Category	Significance Thresholds		
	MBARD Project Risk	MBARD Net Project Risk	State of California
Cancer Risk	10 in one million	10 in one million	<=10 in a million
Chronic Hazard Index	1.0	1.0	1.0
Acute Hazard Index	1.0	1.0	1.0
Cancer Burden	NA		1.0

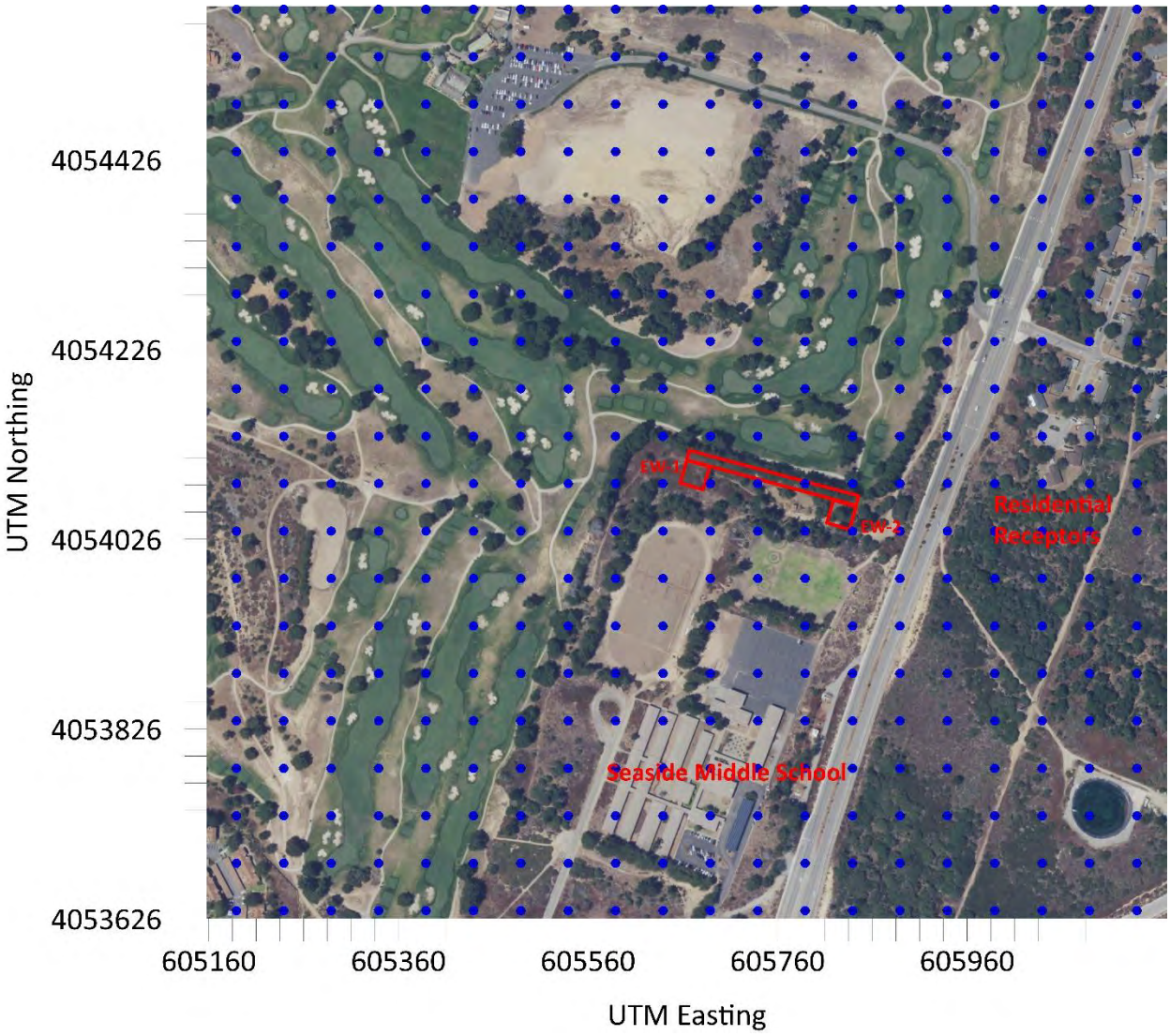
The injection/extraction wells EW-1 and EW-2 DPM emissions and source parameters are identical to EW-3 and EW-4 in terms of type, magnitude of DPM emissions and the duration of the drilling activity. This assessment used the DPM emissions based on PM10 exhaust emissions data from the CalEEMod model from the Project EIR. DPM concentrations for the site was modeled using the USEPA's AERMOD dispersion model (version 19101). The AERMOD modeling relied on the previous assumptions and inputs including:

- Rural dispersion coefficients
- Five years of meteorological data collected at the Monterey Airport from 2009 through 2013
- PM10 emission rates for onsite construction exhaust estimated using CalEEMod
- Area sources representing the construction area.

A receptor grid with 50-meter resolution was created around the EW-1 and EW-2 activity areas and extended outwards 500 meters in all directions, covering both the Seaside Middle School

and the nearest residential locations. Figure 1 presents the receptors and EW-1 and EW-2 injection/extraction well locations.

Figure 1
EW-1 and EW-2 Locations and Receptor Grids



The maximum concentrations were converted to cancer and chronic health risks based on the health risk assessment guidance issued by the California Office of Environmental Health Hazard Assessment (OEHHA, 2015) and the anticipated construction durations for each of the project facilities. As with the Project EIR, for the residential receptors, the EW-1 and EW-2 sites utilized a one-year DPM exposure period with three (3) months of exposure in the third trimester of pregnancy and nine (9) months in the 0 to 2 year age category (infant exposure). The HRA also assumed for the third trimester, a daily breathing rate of 361 liters of air per kilogram of body weight, a child risk factor of 10, and 100 percent of the time spent at home. The health risk for the 0 to 2-year age category assumed a daily breathing rate of 1,090 liters of air per kilogram of

body weight, a child risk factor of 10, and 100 percent of the time spent at home. For the Seaside Middle School, the health risk was assessed for the 5 to 13 age category and assumed a eight (8) hour breathing rate of 520 liters of air per kilogram of body weight, 180 day exposure duration and an age sensitivity factor of three (3).

EW-1 and EW-2 Injection/Extraction Well Drilling Phase Impact Results

Health risks were evaluated for all receptors to identify the maximum school and residential impact locations. The tabular results are presented in Table 2 for the maximum residential receptor and Table 3 for the Seaside Middle School receptor. Figure 2 presents the locations of the maximum health risk impacts. The HRA calculations for both receptor types are included in Attachment A.

Table 2 Health Risk Assessment Summary		
EW-1/EW-2		
Risk Category – Residential/Sensitive Receptor	**Project Impact**	**Applicable Significance Threshold**
Cancer Risk	3.4 in a Million	10 in a Million
Chronic Hazard Index	0.01	1
Acute Hazard Index	NA	NA
Cancer Burden	NA	NA

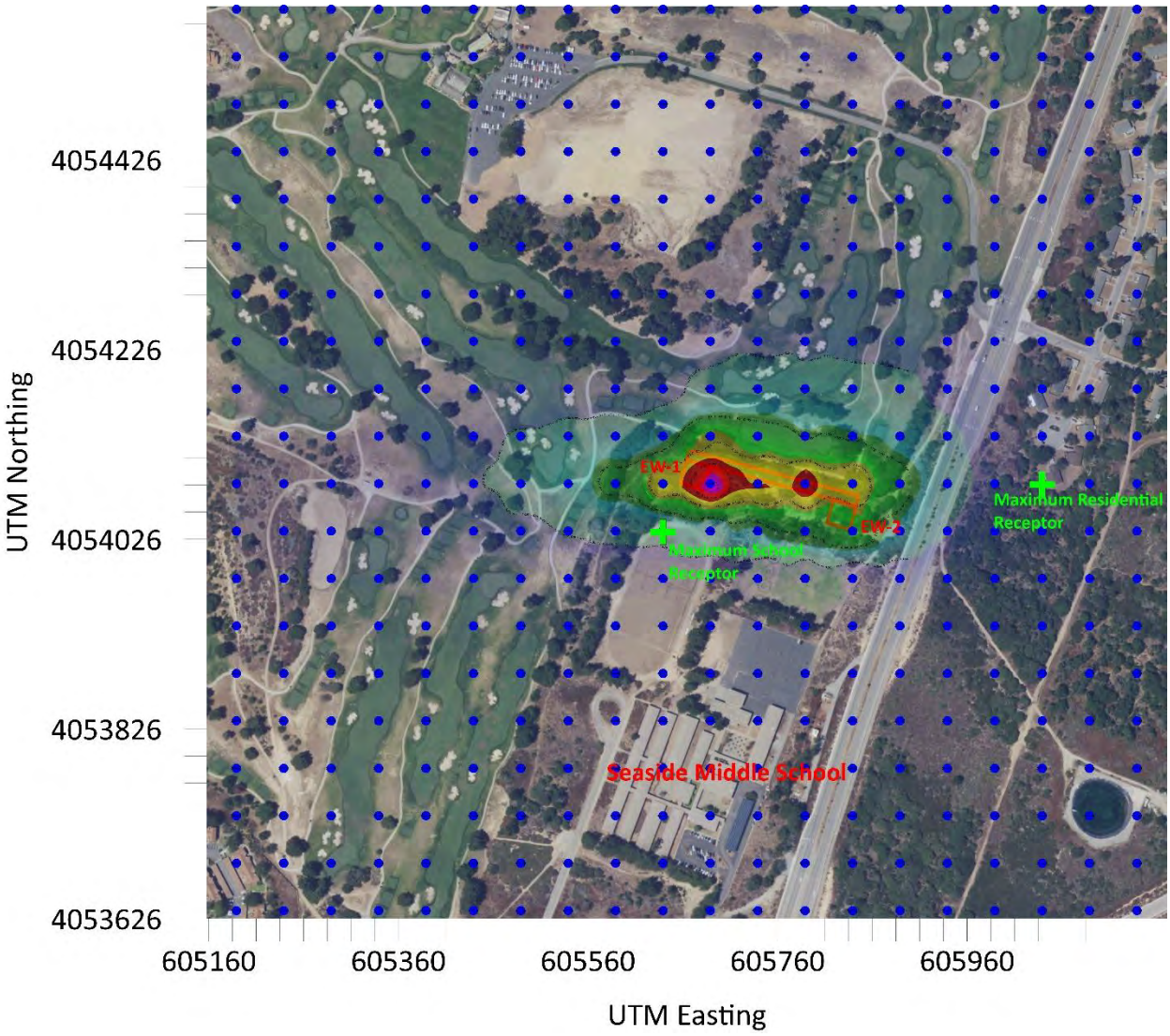
Table 3 Health Risk Assessment Summary		
EW-1/EW-2		
Risk Category – Seaside Middle School Receptor	**Project Impact**	**Applicable Significance Threshold**
Cancer Risk	0.7 in a Million	10 in a Million
Chronic Hazard Index	0.011	1
Acute Hazard Index	NA	NA
Cancer Burden	NA	NA

Conclusion

The excess lifetime cancer risk associated with the EW-1 and EW-2 well sites are well below the 10 in a million significance criteria for all locations. Excess lifetime cancer risks less than 10×10^{-6} are unlikely to represent significant public health impacts that require additional controls of emissions. The chronic hazard indices for all receptors are well below 1.0. It should be noted that DPM does not currently have an acute hazard index value, and as such, acute health effects were not evaluated in the HRA. Further description of the methodology used to calculate health risks associated with emissions to the air can be found in the HARP User's Manual dated 12/2003 and the ADMRT Manual dated 3/2015 (CARB 2015). If there is no significant impact associated with concentrations in air at any of the receptors, it is unlikely that there would be significant impacts

in any other location in the vicinity of the facility for both the residential and school exposure scenarios.

Figure 2
Maximum HRA Impact Locations



Attachment A
HRA Calculations

Maximum DPM Cancer Risk Calculations From Construction
Impacts at Off-Site Receptors - 1.5 meter receptor heights

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1 0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child				Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 9**	**2 - 16**	**16 - 30**
Parameter					
ASF =	10	10	3	3	1
CPF =	1 10E+00	1 10E+00	1 10E+00	1 10E+00	1 10E+00
DBR* =	361	1090	631	745	290
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1 00	1 00	1 00	1 00	0 73

* 95th percentile breathing rates all exposures

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Informatio				Adult - Exposure Information			
				DPM Conc (ug/m3)	Age	Infant/Child		Modeled	Age	Adult
Exposure	Exposure Duration				Sensitivity	Cancer Risk		DPM Conc (ug/m3)	Sensitivity	Cancer Risk
Year	(years)	Age	Year	Annual	Factor	(per million)	Year	Annual	Factor	(per million)
0	0 25	-0 25 - 0*	2021	0 0250	10	0 34	2021	0 0250	-	-
1	0 75	0 - 1	2021	0 0250	10	3 08	2021	0 0250	1	0 08
2	1	1 - 2		0 0000	10	0 00		0 0000	1	0 00
3	1	2 - 3		0 0000	3	0 00		0 0000	1	0 00
4	1	3 - 4		0 0000	3	0 00		0 0000	1	0 00
5	1	4 - 5		0 0000	3	0 00		0 0000	1	0 00
6	1	5 - 6		0 0000	3	0 00		0 0000	1	0 00
7	1	6 - 7		0 0000	3	0 00		0 0000	1	0 00
8	1	7 - 8		0 0000	3	0 00		0 0000	1	0 00
9	1	8 - 9		0 0000	3	0 00		0 0000	1	0 00
10	1	9 - 10		0 0000	3	0 00		0 0000	1	0 00
11	1	10 - 11		0 0000	3	0 00		0 0000	1	0 00
12	1	11 - 12		0 0000	3	0 00		0 0000	1	0 00
13	1	12 - 13		0 0000	3	0 00		0 0000	1	0 00
14	1	13 - 14		0 0000	3	0 00		0 0000	1	0 00
15	1	14 - 15		0 0000	3	0 00		0 0000	1	0 00
16	1	15 - 16		0 0000	3	0 00		0 0000	1	0 00
17	1	16-17		0 0000	1	0 00		0 0000	1	0 00
18	1	17-18		0 0000	1	0 00		0 0000	1	0 00
19	1	18-19		0 0000	1	0 00		0 0000	1	0 00
20	1	19-20		0 0000	1	0 00		0 0000	1	0 00
21	1	20-21		0 0000	1	0 00		0 0000	1	0 00
22	1	21-22		0 0000	1	0 00		0 0000	1	0 00
23	1	22-23		0 0000	1	0 00		0 0000	1	0 00
24	1	23-24		0 0000	1	0 00		0 0000	1	0 00
25	1	24-25		0 0000	1	0 00		0 0000	1	0 00
26	1	25-26		0 0000	1	0 00		0 0000	1	0 00
27	1	26-27		0 0000	1	0 00		0 0000	1	0 00
28	1	27-28		0 0000	1	0 00		0 0000	1	0 00
29	1	28-29		0 0000	1	0 00		0 0000	1	0 00
30	1	29-30		0 0000	1	0 00		0 0000	1	0 00
Total Increased Cancer Risk						**3.4**				**0.08**

* Third trimester of pregnancy

Maximum DPM Cancer Risk and PM2.5 Calculations From Construction of 4 lane design (Project)

School (K - 8th Grade) - 1.0 meters - Child Exposure

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/ hrs source operation per day) x (7 days/days o source operation per week) = 1.0
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	School Child	Adult
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF =	350	180	250
AT =	70	70	70
SAF =	1.00	1.00	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Child - Exposure Information: Maximum DPM Conc (ug/m3) Year	Maximum DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Child Cancer Risk (per million)	Maximum Hazard Index
2021	1	2021	0.0600	3	**0.7**	0.012

* Children assumed to be from 5 to 13 years of age

Appendix M
Source Water Operational Plan
Technical Memorandum

Monterey One Water
Providing Cooperative Water Solutions

TECHNICAL MEMORANDUM

To: ***Jennifer Gonzalez, PE, Engineering Manager***
Monterey One Water

From: ***Bob Holden, PE, LS, M.ASCE***
Principal Engineer
Monterey One Water

Alison Imamura, PE, AICP
Associate Engineer
Monterey One Water

Date: **April 11, 2020**

Subject: **Approved Pure Water Monterey (PWM) Project and Proposed Modifications to Expand the PWM Project - Source Water Operational Plan**

INTRODUCTION AND BACKGROUND

The Pure Water Monterey (PWM) Final Environmental Impact Report (EIR) certified in 2015 with addenda and the Draft Supplemental EIR dated 2019 (Draft SEIR) for the Proposed Modifications to expand the PWM Project[1] describe the source water availabilities, water rights, and uses. The EIR and Draft SEIR source waters analyses assumed 2009 to 2013 average flows would be consistent with future flows, plus these analyses assumed that the quantities of Salinas Industrial Wastewater (Ag Wash Water, AWW) would increase in the future. The PWM Project and the Proposed Modifications to expand the PWM Project yield include use of secondary-treated water as influent for the Advanced Water Purification Facility (AWPF) that provides purified water to MCWD for landscape irrigation and to convey for injection into the Seaside Groundwater Basin plus use of additional source water to augment Regional Treatment Plant (RTP) influent for the Salinas Valley Reclamation Project (SVRP) and the Castroville Seawater Intrusion Project (CSIP). The EIR identified that one acre-foot (AF) of AWPF product water requires 1.23 AF of RTP influent water (i.e., for every one AF of product water that is produced at the AWPF, 0.23 AF of reverse osmosis (RO) concentrate is sent into the outfall). Those analyses were not concerned with quantifying screening and membrane filtration (MF) backwashes as the backwash water returns to the RTP headworks and can be reused after primary and secondary treatment.

The purposes of this memorandum are 1) to describe M1W's rights to the AWPF feed water, 2) to describe quantities by month of secondary effluent that are available to use as influent to the AWPF in various conditions, and 3) to show how the AWPF feed water could be adjusted to a specific year's monthly flow. In these analyses, one AF of AWPF product water is assumed to require 1.37 AF water rights in the form

[1] The 2019 – 2020 SEIR addresses expanding the PWM Project for the purpose of providing a Back Up Plan for CalAm to meet the CDO in case the MPWSP desalination plant is delayed beyond milestones established in the State Water Resources Control Board's Cease and Desist Order.

of Ozone Feed Water. Of each one AF of product water, the Ozone Strainer and MF Pre-strainer backwashes removes 0.03 AF which returns to the headworks. Next, 0.11 AF are removed during MF backwash which is also returned to the Headworks. Finally, 0.23 AF of RO concentrate is removed and sent to the outfall. The analyses herein separately quantify the backwash water flows from the AWPF because when those flows return to primary and secondary treatment their water rights change. Water rights consider those rights to RTP secondary effluent prescribed by California Water Code section 1210 and the Amended and Restated Water Recycling Agreement (November 3, 2015, as amended in June 2019, herein referred to as the ARWRA). Volumes of wastewater flowing into the RTP's primary and secondary treatment processes that would be available to use as influent to the AWPF include municipal wastewater to which M1W and MCWD have contractual rights and the "new source waters" as described in the ARWRA. These AWPF source water flows will be determined for the three distinct AWPF uses: MCWD, the approved PWM Project, and the Proposed Modifications. Water sources and yields for the remainder of the PWM Project (SVRP/CSIP) are described in the Schaaf & Wheeler reports published in the Final PWM Project EIR (M1W/DD&A, 2015), Addendum No. 3 to the EIR (M1W/DD&A, October 2017), and in the Final SEIR in Master Response #3 of Chapter 3, and in Appendices I and R (M1W/DD&A, 2019).

COMPOSITION OF MUNICIPAL WASTEWATER FLOWS

Relative contributions of municipal wastewater from M1W's geographic areas that enters the M1W headworks and is metered there include: 51% from the Salinas urban area, 3% from Moss Landing and Castroville, 46% from the Monterey Peninsula, Marina, and Fort Ord areas (Source: M1W Sewer System Management Plan, 2019). Addition of AWW in recent years increases the percentage of flows from the Salinas area by up to 4% (peaking in the summer). These municipal flows are primarily from areas within M1W's 2001 Service Area, but also include some municipal/domestic flows from outside M1W's 2001 Service Area, including the following key geographic locations:[2]

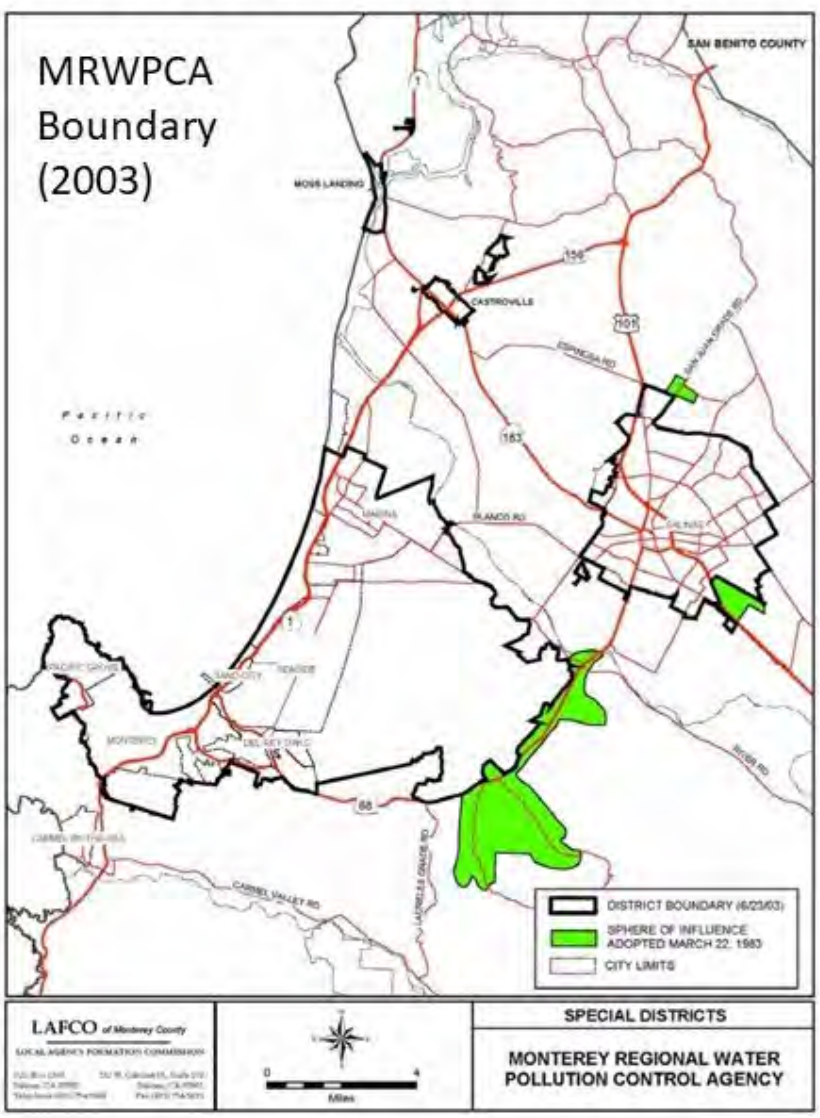
1. North County High School and the southeast portion of Castroville, as shown in Figures 1 and 2,[3]
2. Boronda and areas north and southeast of the City of Salinas, as shown Figures 1 and 2,
3. Starting in 2019, the Farmworker Housing site on Hitchcock Road, southwest of Salinas,
4. Monterey Regional Waste Management District landfill starting in 2016, and
5. M1W Regional Treatment Plant on-site wastewater.

These flows have not previously been individually metered and some flow through the headworks meter, however, monthly volumes throughout the year have been estimated for the analyses in this memorandum based on available pumping operations data, use assumptions, and other metered flow data (flow balance calculations). Because these are also wastewater flows which enter M1W-owned infrastructure, rights to these waters are also governed by California Water Code Section 1210 which provides for the ability for M1W to enter into agreements for assigning those rights to other entities. Currently, the ARWRA and the March 1996 *Annexation Agreement and Groundwater Mitigation Framework for Marina Area Lands* are the main agreements governing the water rights to these flows.

[2] The distinction between municipal flows coming from within and outside of the M1W 2001 Service Area are important for interpreting rights assigned to MCWRA by the Amended and Restated Water Recycling Agreement (November 2015).

[3] Figures 1 and 2 use maps of the M1W (at that time, known as Monterey Regional Water Pollution Control Agency) published by the Monterey County Local Agency Formation Commission in 2003 and 2012 because maps of the service area were not published in 2001, and a newer map has not been published since 2012.

Figure 1. LAFCO Boundary Maps of MRWPCA Service Areas in 2003 and 2012



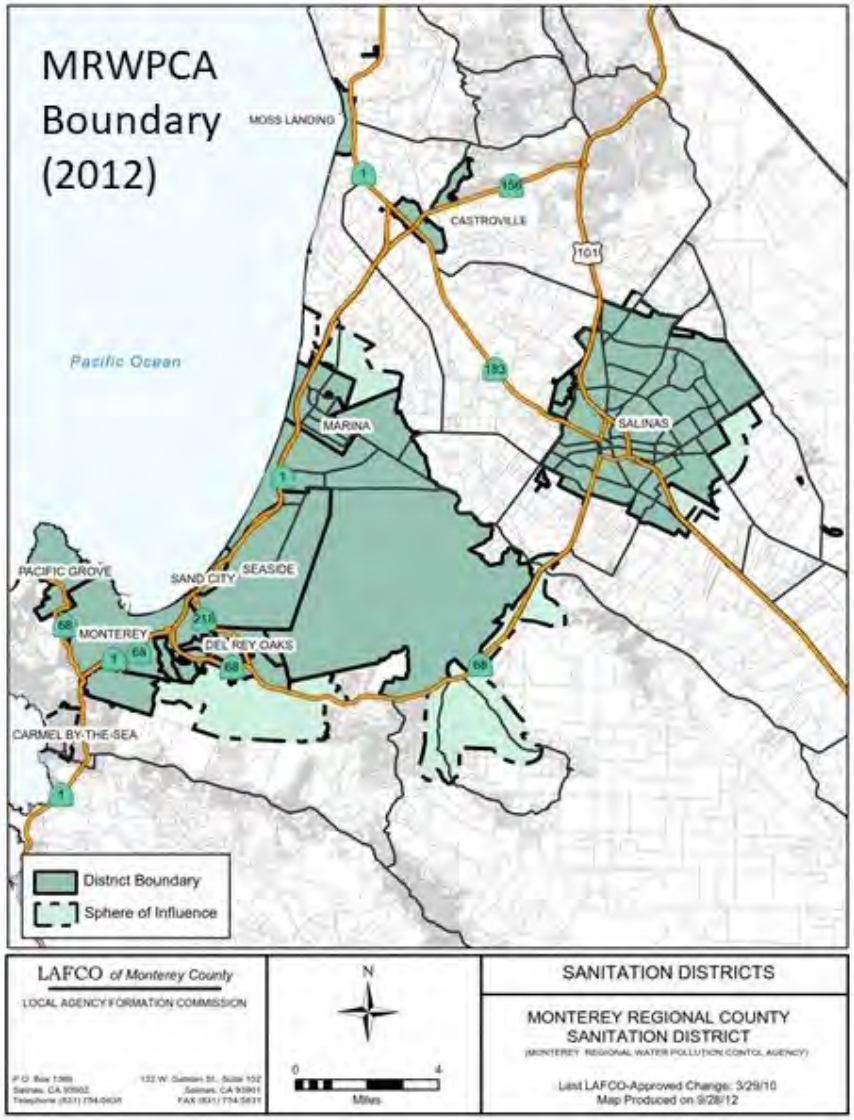
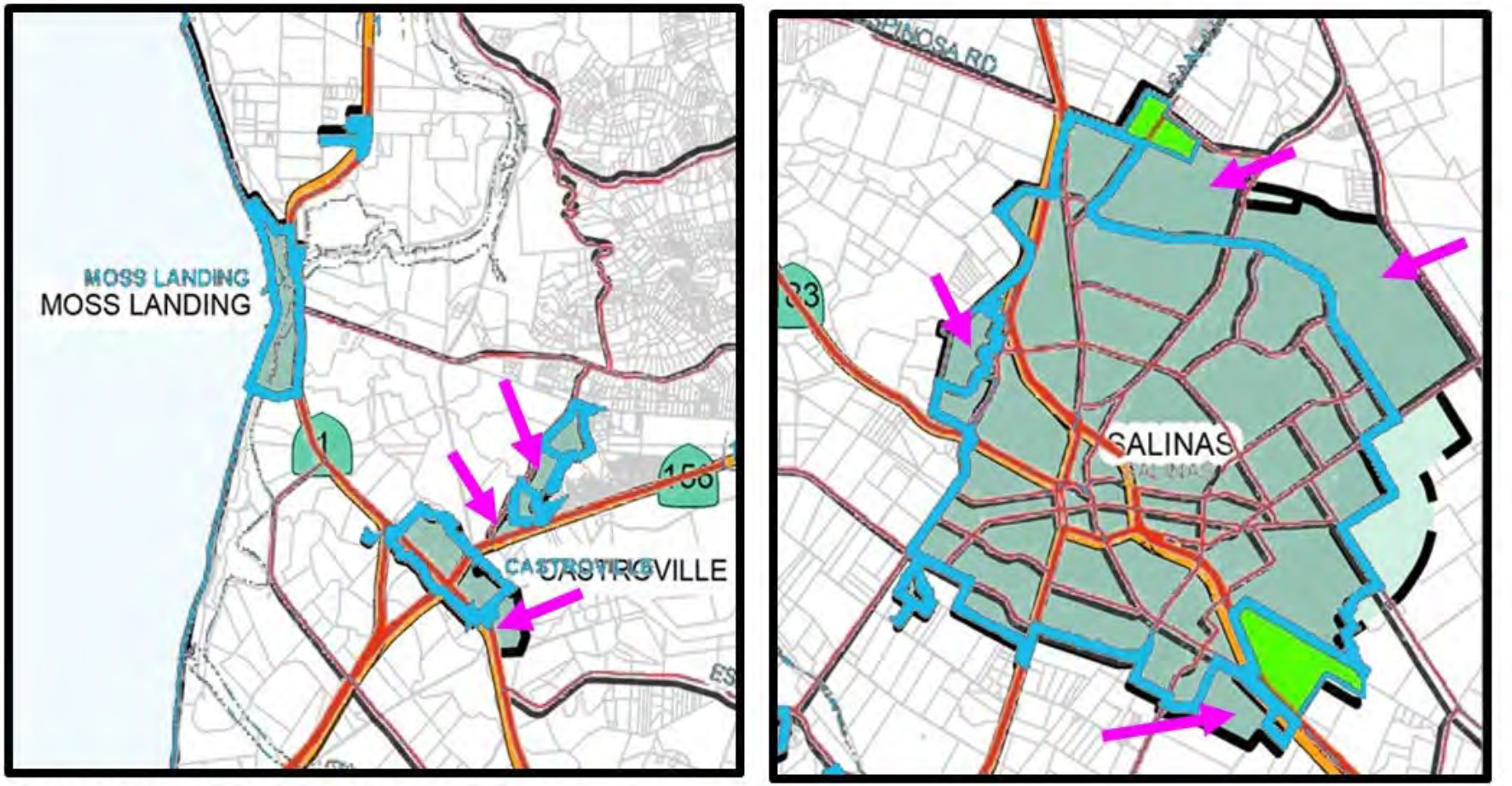


Figure 2. M1W Service Areas (northern & Salinas Area) added after 2003 (Noted with:)



= 2003 LAFCO-published of MRWPCA Service Area Boundary
= Current LAFCO-published M1W Service Area Boundary
= Areas within sphere of influence, but not within service area.

NEW SOURCE WATERS IN ARWRA

As described in the ARWRA, new source waters available for use for recycling include the following:

- **Reclamation Ditch surface water**. M1W can divert this water into the City wastewater collection system by using the recently completed diversion structure near Davis Road (which then flows to the RTP), as allowed by a State Board Water Rights Permit #21377 issued to the MCWRA and discussed by the ARWRA.
- **Blanco Drain surface water**. M1W can divert this water to the RTP headworks using the recently completed diversion structure near the Salinas River, as allowed by a State Board Water Rights Permit #21377 issued to the MCWRA and discussed by the ARWRA.
- **Agricultural Wash Water (Ag Wash Water)**. M1W can divert this water directly from the City of Salinas' separate industrial wastewater collection system to the M1W Salinas Pump Station using M1W's diversion facilities, as allowed by a State Board's Order approving Wastewater Change Petition #WW-0089 issued to the City of Salinas and the City/M1W Agreement for Conveyance and Treatment of Industrial Waste Water (October 27, 2015).

The use of these three categories of source water by M1W is subject to conditions precedent in Section 16.15 of the ARWRA as updated in Amendment No. 1 to the ARWRA. Under Amendment No. 1 to the ARWRA, M1W has rights to immediately use all the Reclamation Ditch and Blanco Drain surface waters and the Ag Wash Water, even before the conditions precedent are met. M1W may choose to use the Ag Wash Water to provide additional influent to the SVRP before the conditions precedent are met. In addition, Section 16.16 provides that if the conditions precedent are not met, then MCWRA would retain rights to the Ag Wash Water and M1W would retain rights to the Blanco Drain and Reclamation Ditch; however, for Section 16.16 to be in effect would require a separate agreement. Therefore, the analyses in this Technical Memorandum conservatively assume that Ag Wash Water:

1. is not available for use at the AWPF if conditions precedent are not met,
2. is only used for the Approved PWM Project during October through May in the scenarios where the conditions precedent are met, and
3. is not used for the Proposed Modifications.

Other new source waters that will be available to divert to the RTP to augment secondary effluent for recycling (and that are listed in the ARWRA) include City of Salinas urban runoff/stormwater that currently flows to the Salinas River, that will be mixed with AWW, conveyed to, and treated and stored in the Salinas Industrial Waste Water Treatment Facility (IWTF) ponds, and then diverted to the RTP from the northwest corner of Pond 3 at the IWTF. The infrastructure to enable this diversion is currently under construction. Currently, M1W does not have the ability to divert that treated water but will upon completion of the Pond 3 pump station. Nevertheless, because a contract with the City of Salinas or a contract amendment would be needed for M1W to use City of Salinas urban runoff/ stormwater, the analyses in this Technical Memorandum conservatively assume that City of Salinas urban runoff mixed with wastewater is not available for use at the AWPF. The ARWRA also lists Lake El Estero waters and SVRP modifications as new source waters, but to date there has been no implementation of this infrastructure due to lack of funding; therefore the analyses in this Technical Memorandum do not assume that these sources are available for use at the AWPF.

OTHER RELEVANT ANALYSES

This memorandum is complementary to the Perkins Coie Report "Water Rights Analysis for Proposed Modification to the Pure Water Monterey Groundwater Replenishment Project" (Perkins Coie Report). That report concluded:

- M1W, MCWD, and MCWRA all have secured rights to use water from the M1W's collection and treatment system.
- M1W has secured rights to divert and use AWW for recycling and delivery to customers, including SVRP treatment then distribution to CSIP plus AWPF treatment then injection to the Seaside Groundwater Basin (Agreement for Conveyance and Treatment of Industrial Waste Water By and Between the City of Salinas and the Monterey Regional Water Pollution Control Agency, dated Oct. 27, 2015).
- M1W needs a contract with the City of Salinas to acquire rights to divert, and treat for reuse, the City of Salinas storm water as enabled by M1W's Salinas Storm Water Projects. Prior agreements could be amended to allow M1W AWW to recycle flows through the SVRP and AWPF from Pond 3 at the City's IWTF to the Regional Treatment Plant (RTP) as enabled by the Salinas Storm Water Phase 1B Project.
- M1W and MCWRA have rights to Reclamation Ditch and Blanco Drain waters through two relevant SWRCB permits and the ARWRA, as amended. According to the ARWRA Section XVI, 16.16, if conditions precedent in Section XVI, 16.15 are not satisfied, M1W would retain the right to divert and use these waters and AWW would be available for MCWRA to use.

Another complementary report was Schaaf & Wheeler's Memorandum "Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project – Source Water Availability, Yield, and Use" dated November 1, 2019 (S&W Report) which was used to support the findings in the Draft SEIR. The Schaaf & Wheeler Report:

1. Dealt with the whole PWM Project that includes water for the AWPF and water for SVRP/CSIP. It emphasized the calculation of total additional water to flow into the RTP for treatment and reuse (added to existing wastewater flows) and the use of the flows by the AWPF and the SVRP and discharge to the outfall as recycled water or ocean discharge.
2. Used the 2015 EIR baseline data. This assumption was of interest to some stakeholders as the volumes of source water assumed to be available were based on 2009 through 2013 averages and industrial wastewater projections.[4] This Technical Memorandum provides supplemental analyses and results based on a different set of assumptions not reliant on the same baseline data.
3. Modeled flows going into or out of the RTP site and facilities owned by M1W but did not account for the backwash and on-site-generated flows that do not pass through the RTP headworks flow meter. The red box on **Figure 3** represents this flow model boundary as is appropriate for the overall PWM Project.

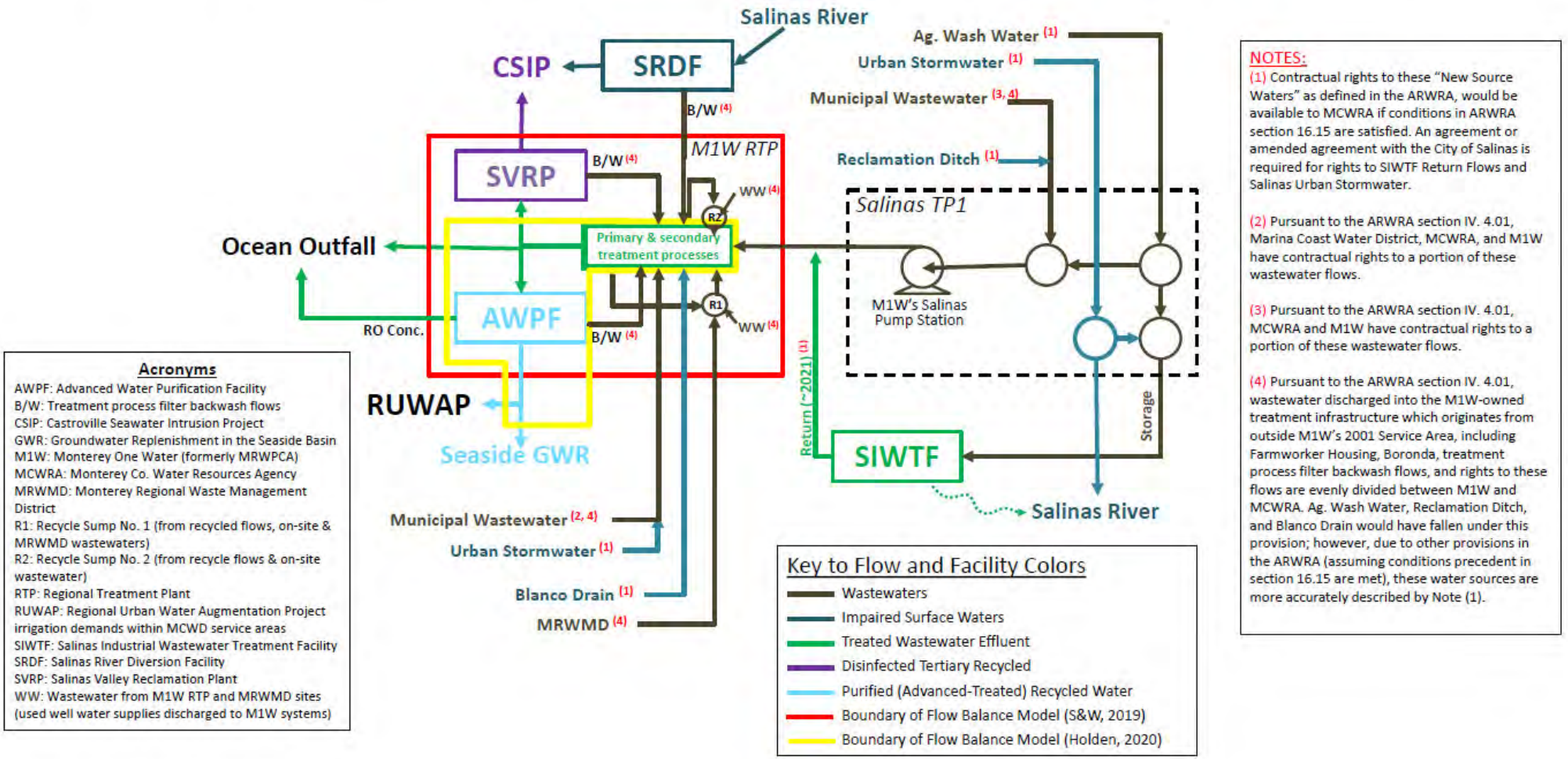
[4] Although some opined that this baseline did not incorporate more current data, this average was used only for the analysis of normal and wet years and included a severe drought year. In addition, wastewater influent volumes over the past three years has flattened and the provision of new water supplies to the Monterey Peninsula to eliminate constraints to growth will increase wastewater flows in the future under the Proposed Modifications. For these reasons, use of a 2009-2013 average for wastewater flows during normal and wet years is adequate.

4. Analyzed use of source waters, RTP inflows, ocean discharges, and recycling yields by month to meet both AWPF and SVRP demands based on the following four potential future scenarios:
    a. normal and wet year with drought reserve less than 1,000 AF,
    b. a normal and wet year with a 1,000 AF drought reserve,
    c. a drought year with a full 1,000 AF drought reserve, and
    d. a maximum diversion year without limiting diversion based on projected recycled demands.

    NOTE: The last scenario formed the basis for the environmental impact report analysis for various water resource topics since it provided a worst-case, conservative analysis of downstream impacts of surface water resources.
5. Ignored the SVRP, and AWPF backwash flows because they do not increase the amount of water at the RTP.
6. Ignored SRDF screening backwash flows because when screening is occurring, this indicates excess water available for meeting CSIP demands and these flows are inconsistent year-to-year.
7. Ignored rain and water in hauled waste (saline and septage) as influent to the RTP (these volumes are negligible).
8. Ignored evaporation and water in biosolids as a flow out of the RTP because these volumes are negligible.
9. Assumed AWW and Salinas Storm Water would be available directly and from Pond 3 IWTF Facility.
10. Assumed that the agencies implement the Lake El Estero Source Water diversion and the winter modifications to the Salinas Valley Reclamation Plant.
11. Estimated the reduced Reclamation Ditch water flow during drought for the drought scenario.
12. Estimated that Blanco Drain flow would not be reduced in drought, given that irrigation practices are consistent in drought and normal years enabled by the diversity of sources of irrigation water (river, groundwater wells, and recycled water -- the latter two of which are available even during drought years).

The Schaaf & Wheeler Report describes and quantifies source waters and uses for the entire PWM Project including SVRP/CSIP whereas this Technical Memorandum addresses use of flows for the AWPF portion of PWM Project.

Figure 3. Conceptual Flow Schematic for the Regional Collection, Treatment, and Recycling



Acronyms

AWPF: Advanced Water Purification Facility
B/W: Treatment process filter backwash flows
CSIP: Castroville Seawater Intrusion Project
GWR: Groundwater Replenishment in the Seaside Basin
M1W: Monterey One Water (formerly MRWPCA)
MCWRA: Monterey Co. Water Resources Agency
MRWMD: Monterey Regional Waste Management District
R1: Recycle Sump No. 1 (from recycled flows, on-site & MRWMD wastewaters)
R2: Recycle Sump No. 2 (from recycle flows & on-site wastewater)
RTP: Regional Treatment Plant
RUWAP: Regional Urban Water Augmentation Project irrigation demands within MCWD service areas
SIWTF: Salinas Industrial Wastewater Treatment Facility
SRDF: Salinas River Diversion Facility
SVRP: Salinas Valley Reclamation Plant
WW: Wastewater from M1W RTP and MRWMD sites (used well water supplies discharged to M1W systems)

Key to Flow and Facility Colors

- Wastewaters
- Impaired Surface Waters
- Treated Wastewater Effluent
- Disinfected Tertiary Recycled
- Purified (Advanced-Treated) Recycled Water
- Boundary of Flow Balance Model (S&W, 2019)
- Boundary of Flow Balance Model (Holden, 2020)

NOTES:

(1) Contractual rights to these "New Source Waters" as defined in the ARWRA, would be available to MCWRA if conditions in ARWRA section 16.15 are satisfied. An agreement or amended agreement with the City of Salinas is required for rights to SIWTF Return Flows and Salinas Urban Stormwater.

(2) Pursuant to the ARWRA section IV. 4.01, Marina Coast Water District, MCWRA, and M1W have contractual rights to a portion of these wastewater flows.

(3) Pursuant to the ARWRA section IV. 4.01, MCWRA and M1W have contractual rights to a portion of these wastewater flows.

(4) Pursuant to the ARWRA section IV. 4.01, wastewater discharged into the M1W-owned treatment infrastructure which originates from outside M1W's 2001 Service Area, including Farmworker Housing, Boronda, treatment process filter backwash flows, and rights to these flows are evenly divided between M1W and MCWRA. Ag. Wash Water, Reclamation Ditch, and Blanco Drain would have fallen under this provision; however, due to other provisions in the ARWRA (assuming conditions precedent in section 16.15 are met), these water sources are more accurately described by Note (1).

METHODOLOGY AND ASSUMPTIONS

The volumes of the municipal wastewater and new source waters for recycling for each M1W customer are described, quantified, and prioritized herein considering California Water Code section 1210, treated wastewater rights assigned by M1W with agreements, environmental benefits (reducing discharge of secondary effluent), operational needs (including efficiency of treatment and regulatory compliance), and cost considerations. The new source waters would preferentially be used for the Approved PWM Project as described by the ARWRA (Reclamation Ditch, Blanco Drain, and AWW if conditions precedent are met and just the Reclamation Ditch and Blanco Drain if conditions precedent are not met). The new source waters conservatively are not assumed to be available for the Proposed Modifications, regardless whether the conditions precedent are met. Flows from outside M1W's 2001 Service Area are prioritized to be used for the Proposed Modifications to avoid use of Salinas area drainage waters (Reclamation Ditch and Blanco Drain) and AWW. This strategy minimizes ocean discharges, optimizes water treatment efficiency, and keeps costs for recycling as low as possible. The analyses in this memorandum use updated source water flow rates and monthly volumes compared to the baseline data used previously in the EIR documents. Two scenarios are evaluated and presented representing two sets of assumptions about water availability and use for recycling:

- *A normal or wet water year while building a Drought Reserve (or Operating Reserve) in the Seaside Basin.* For these analyses, municipal wastewater and AWW flows are assumed to be the same as actual calendar year 2018 flows, which provide values for a representative (typical wet or normal) year.
- *A drought year starting with a full (1,000 AF) drought reserve.* Municipal wastewater and AWW flows for this scenario are assumed to be the same as in calendar year 2015, which had the lowest effluent flow to the ocean and the highest SVRP recorded use. The SVRP backwash flows are estimated assuming CSIP is optimized to maximize days of SVRP water production.

This memorandum looks at the source water use assuming scenarios in which MCWRA does or does not complete the "Conditions Precedent for New Source Water Facilities" from Section XVI, 16.15 of the ARWRA. According to the terms of the ARWRA, the Reclamation Ditch, Blanco Drain, and AWW water may be used by M1W at the AWPF if conditions precedent are met. This analysis conservatively assumes no New Source Waters (as defined by the ARWRA) are used for the Proposed Modifications regardless of whether conditions precedent are met. If conditions precedent are not met, AWW would be used to increase influent to the SVRP pending a new agreement pursuant to Section 16.16 of the ARWRA. In addition, if conditions precedent are not met, there would be no drought reserve and the Approved PWM Project would produce 3,500 AFY to 3,700 AFY in wet, normal, and drought years.

The analyses documented in this memorandum support responses to concerns about the quantity of water (as influent to the RTP) that would be available for recycling and advanced treatment at the AWPF (landscape irrigation and groundwater injection) portion of the approved PWM Project and Proposed Modifications to the PWM Project under an updated set of assumptions. The assumptions herein represent newer information and reflect how source waters might be used, depending upon whether conditions precedent are met or not, for specific types of water years noting that water source quantities differ each year so the quantity of water treated each month will differ each year.[5] These assumptions include the following:

[5] This analysis does not consider that the ARWRA would be revoked or rescinded as this scenario would mean that M1W would hold all rights to wastewater flows entering its collection and treatment system per California Water Code section 1210 less that water already allocated to MCWD by agreements.

1. Separately accounts for all flows going into or out of the primary and secondary processes at the RTP, the SVRP, and the AWPF, such as the recycle flows that do not pass through the RTP meter at the headworks. The yellow polygon on **Figure 3** represents this flow model boundary.
2. Considers recycle flow such as screening and MF backwash losses from the AWPF. Thus, the source water needs for the approved and expanded PWM Projects are assumed to be larger than the source water needs identified in the 2015 EIR, the 2019 Draft SEIR, and in the S&W Report. Screening and backwash flows, since they return to the RTP Headworks for retreatment do not change the overall amount of water available for the PWM Project. However, these losses are a required AWPF flow and for the analyses herein, the losses are assumed to reduce the amount of water to which M1W has rights. Backwash is a necessary part of the process but its return to the RTP primary and secondary treatment process results in the water rights to those flows being split between M1W and MCWRA in accordance with the ARWRA.
3. Identifies MCWD use of municipal wastewater flows from their service area as the source for meeting the RUWAP irrigation system demands for AWPF product water.
4. Assumes the 200 AFY of AWPF product water for building the CSIP drought reserve (if conditions precedent are met) would instead build the CalAm/M1W/MPWMD Water Purchase Agreement Operating Reserve (if conditions precedent have not been met).
5. Assumes the Farmworker Housing project's additional influent flows (35 AFY estimate) are additive to historic influent volumes (project came on line in 2019).
6. Identifies Boronda area on the western side of Salinas (170 AFY wastewater volume estimate) as the largest developed area that was not in M1W's 2001 Service Area. There are several other areas that would also be considered outside of M1W's 2001 Service Area, but they are smaller, and their flows have not yet been estimated.
7. Assumes Ozone and MF screening recovery is 98% and MF recovery is 92%.
8. Assumes AWPF is operational on average 90% of the time. It is assumed that more maintenance will be performed during April through September so the AWPF will be operational 87% during that period and would be operational 93% of the remainder of the year.
9. Assumes that the SVRP modifications have not been constructed to enable lower daily volumes of SVRP water to be delivered to CSIP directly, through bypassing the SVRP Storage Pond. If built, this would decrease the amount of secondary effluent to the ocean throughout the year, but primarily in the winter, and would increase the volume of SVRP backwash water.
10. Assumes that the extra 200 AF (beyond 3,500 AFY) will be injected every winter, even if the Drought Reserve and Operating Reserves are full, since M1W will not know during the winter if it will be a drought year and adequate excess secondary effluent will be available to meet this production amount in all year types. [6]

Like the Schaaf & Wheeler source water analysis, the analyses herein ignore rain, evaporation, hauled wastes (saline and septage), and the water content of biosolids. These analyses use the same RO recovery rate of 81%. These analyses also exclude SRDF screening backwash flows for the same rationale as the Schaaf & Wheeler analysis. Specifically, when SRDF is operating, this indicates excess water is available for meeting all CSIP demands, and these flows are inconsistent year-to-year.

[6] If a drought year does occur and the drought reserve is full, then the summer injection rate will be reduced to prevent exceeding the permitted annual injection volumes and to enable more secondary-treated RTP effluent to be available for CSIP in peak irrigation months, when demands are high enough.

The analysis presented in this memorandum assumes the following for analyzing the effect of MCWD use of their initial phase demands of 600 AFY AWPF product:

- MCWD demand schedule is in accordance with Section 3.02 (a) of the Pure Water Delivery and Supply Project Agreement Between Monterey Regional Water Pollution Control Agency and Marina Coast Water District (M1W/MCWD Agreement), dated April 8, 2016 which was amended in December 2017.
- MCWD has rights to all wastewater they provide to M1W which was 1,218 AF during 2018 subject to restrictions noted in the schedule discussed in the prior bullet item. Specifically, MCWD annexed portions of the former Fort Ord into their service area which may increase their annual rights to recycled water but limit their use of these water rights in peak irrigation months pursuant to restrictions in the ARWRA.
- MCWD needs 822 AFY of source water for 600 AFY of product water for their irrigation needs, including screening, MF backwash, and RO concentrate losses and MCWD needs 741 AF as shown in the Schaaf & Wheeler source water memorandum referenced above when excluding waste flows returned to the headworks,
- MCWD will utilize their full 300 AFY summer water allocation between April and September each year.
- M1W will utilize 342 AFY of their 650 AFY summer water allocation (ARWRA 4.01 (a)) as needed to supplement MCWD's water supply demand between May and August each year.
- MCWD has rights to the remainder of their rights to return flows during the winter (October through March) plus reallocation of any summer water (April through September) they do not use during those winter months.
- MCWD will utilize 179 AFY of their wastewater rights during October through March each year.
- MCWD has enough water rights that their 600 AFY project can proceed in wet, normal, or drought conditions. During severe droughts, the amount of MCWD's unutilized water rights would be reduced slightly. Because of its special nature, MCWD's portion of the AWPF source water issue is described above and summarized in **Table 1**.

Table 1. Source Waters for MCWD During Wet, Normal or Drought Years (600 AFY)

Source Water	Total (AFY)	April to September (AF)	October to March (AF)
Product Water Demand	600	469	131
Secondary Effluent (Winter)	179	0	179
MCWD Summer Water	300	300	0
M1W ARWRA 4.01 1 (d)	342	342	0
Total Source Water Utilized	822	642	179
Unutilized MCWD Effluent Rights	738	0	738

- MCWD's use of their summer water rights directly plus use of a portion of M1W's ARWRA 4.01 1(d) water rights reduces the amount of water available for SVRP/CSIP by about 642 AF between April and September. The result is that -- independent from the Proposed Modifications -- new source waters may be needed by SVRP/CSIP to meet peak demands if the Salinas River Diversion Facility is not operating and MCWD and M1W use some of, or all, their wastewater rights from April through September. Similarly, about 179 AF of MCWD's winter water rights will be utilized between October and March; however, this use will only reduce the ocean discharge of secondary effluent.

RESULTS

Prioritization of Source Waters (All Scenarios)

The assumed source water prioritization and quantities available to M1W are identified in **Table 2** for the Approved PWM Project and in **Table 3** for the Proposed Modification. This prioritization can and will change based on many factors over the years. These factors include: infrastructure reliability, treatability and efficiencies, changing agreements, regulatory requirements, agricultural and industrial changes, and population/economic growth and recessions If there are no other infrastructure or external restrictions, including changes to agreements, priority will be based on minimizing water cost, including treatability/water quality and energy demands.

Table 2. Source Water Priority for Approved Project AWPF (All Scenarios)

Priority	Source Water	Quantity of Water Available to M1W in a Typical Year (Acre Feet per Year)
1	Secondary Effluent to Ocean Outfall	5,811
2	Reclamation Ditch	808
3	Blanco Drain	2,620
4	AWW**	3,099
5	Recycle Sump #1*	41
6	Recycle Sump #2*	104
7	Approved PWM Project and MCWD AWPF Backwashes*	290
8	Proposed Modifications AWPF Backwashes (only available for Modifications) *	152
9	SVRP Backwash*	515
10	Boronda*	95
11	Farmworker Housing*	18
12	M1W's ARWRA Summer Water (ARWRA Section IV 4.01 1(d))	650
13	SRDF Screening ***	95
14	Salinas IWTF Pond System ***	150
	Total Available for M1W (without AWW, SRDF & Salinas IWTF Pond)	**11,104**

*Values shown are for 2018. Drought year (2015) values are provided in the attachments. *Those source water marked with * are assumed available ½ for M1W to meet the AWPF influent needs for Seaside Groundwater Basin injections and ½ for SVRP influent for CSIP. The values shown above are the M1W portion of the water source. **AWW is only available if conditions precedent are met and are assumed to not be available for the Proposed Modifications for the purpose of this analysis. ***SRDF Screening and Salinas IWTF Pond System waters are assumed to not be available.*

Table 3. Source Water Priority for Proposed Modifications AWPF (All Scenarios)

Priority	Source Water
1	Secondary Effluent to Ocean Outfall
2	Recycle Sump #1
3	Recycle Sump #2
4	Approved PWM Project and MCWD AWPF Backwashes
5	Proposed Modifications AWPF Backwashes (152 AFY additional above Table 2 quantities)
6	SVRP Backwash
7	Boronda
8	Farmworker Housing
9	M1W's ARWRA Summer Water (ARWRA Section IV 4.01 1(d))
Potential water quantities were provided in **Table 2, except as noted.**	

Scenario 1 (N-In): Source Waters for Normal/Wet Year Operation of AWPF While Building a Drought Reserve Assuming Conditions Precedent Are Met

Table 4 shows results of this analysis of water sources/types that would be available for AWPF influent (excluding MCWD which is covered in **Table 1**, above) to achieve the yield of the Approved PWM Project in a normal year of AWPF production (3,700 AFY), which includes Seaside Basin injections to build a reserve, assuming the Conditions Precedent are met. **Table 5** shows the parallel results for the Proposed Modifications to achieve a yield of 2,250 AFY production. **Table 6** shows the volumes of source waters to which M1W has existing water rights that will be left over after use of all of the flows needed for the full normal/wet year operation of an approved PWM Project and Proposed Modifications, including building a reserve and supplying MCWD's RUWAP demands (6,550 AFY total). These results are based on the assumptions listed above. **Figure 4** shows the results of this scenario of use of the various source waters for the Approved PWM Project and for the Proposed Modifications by month. **Attachment 1** provides the spreadsheet showing the detailed month by month use of the various waters.

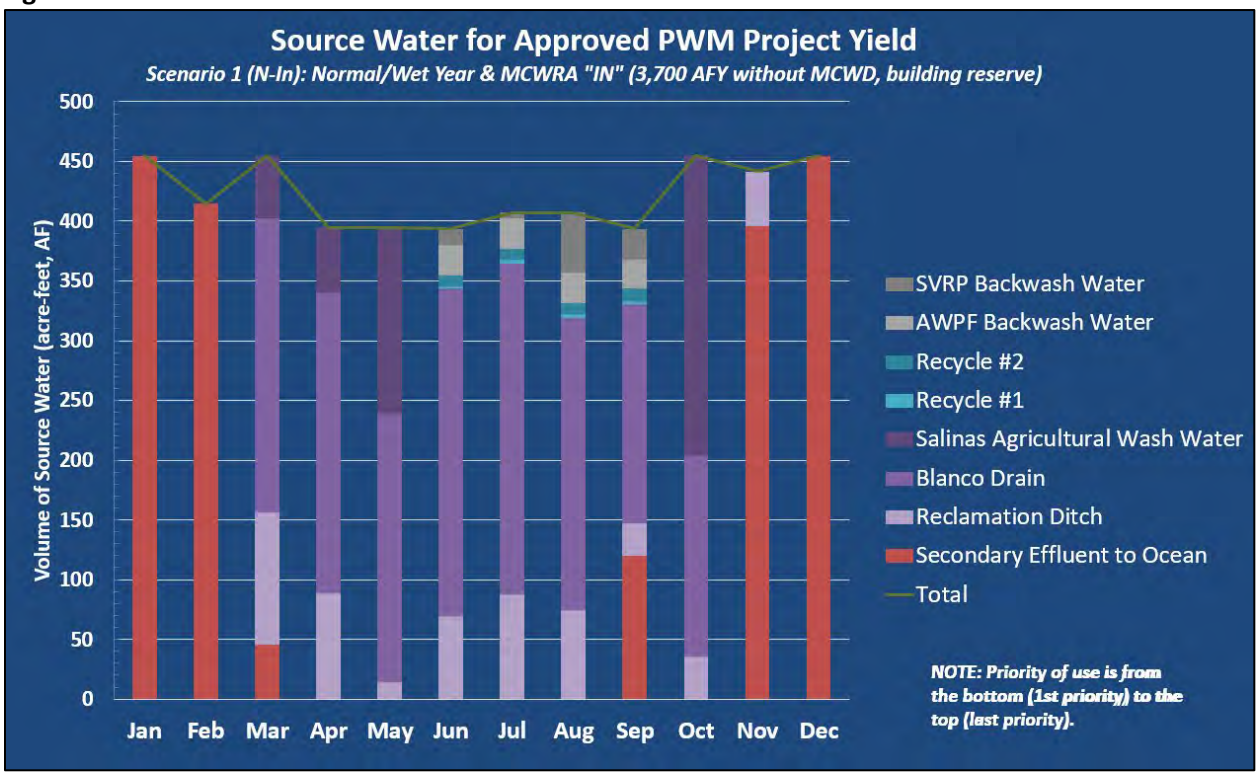
Table 4. Typical Source Waters Utilized for the Approved PWM Project (no MCWD) During Wet or Normal Years (3,700 AFY of AWPF Production) Assuming Conditions Precedent Are Met

Source Water	Total (AFY)	April to September (AF)	October to March (AF)
Excess Secondary Effluent to Outfall	*1,885*	*120*	*1,765*
SVRP Backwash	94	94	0
Boronda	0	0	0
Farmworker Housing	0	0	0
Recycle Sump #1	11	11	0
Recycle Sump #2	38	38	0
Approved PWM Project AWPF Backwash Flows	101	101	0
Reclamation Ditch	555	362	193
Blanco Drain	1,870	1,456	414
Ag Wash Water (October thru May)	**513**	**210**	**303**
Total Source Water	**5,067**	**2,391**	**2,675**
Total Backwash (Screening & MF) Returned to RTP	**499**	**235**	**263**
Total RO Concentrate to Outfall	**868**	**410**	**458**
Total AWPF Product Water	**3,700**	**1,746**	**1,954**

Table 5. Typical Source Waters Utilized for the Proposed Modifications During Wet or Normal Years (2,250 AFY of AWPF Production) Assuming Conditions Precedent Are Met

Source Water	Total (AFY)	April to September (AF)	October to March (AF)
Excess Secondary Effluent to Outfall	*2,595*	*66*	*2,529*
SVRP Backwash	195	195	0
Boronda	32	32	0
Farmworker Housing	5	5	0
Recycle Sump #1	7	7	0
Recycle Sump #2	18	18	0
PWM Project AWPF Backwash Flows	47	47	0
Additional AWPF Backwash Flows w/ Proposed Modifications	22	22	0
Reclamation Ditch	0	0	0
Blanco Drain	0	0	0
M1W ARWRA 4.01 1 (d)	159	159	0
Total Source Water	**3,081**	**551**	**2,530**
Total Backwash (Screening & MF) Returned to RTP	**303**	**54**	**249**
Total RO Concentrate to Outfall	**528**	**94**	**433**
Total AWPF Product Water	**2,250**	**403**	**1,847**

Figure 4. Source Water Use Scenario 1 Charts



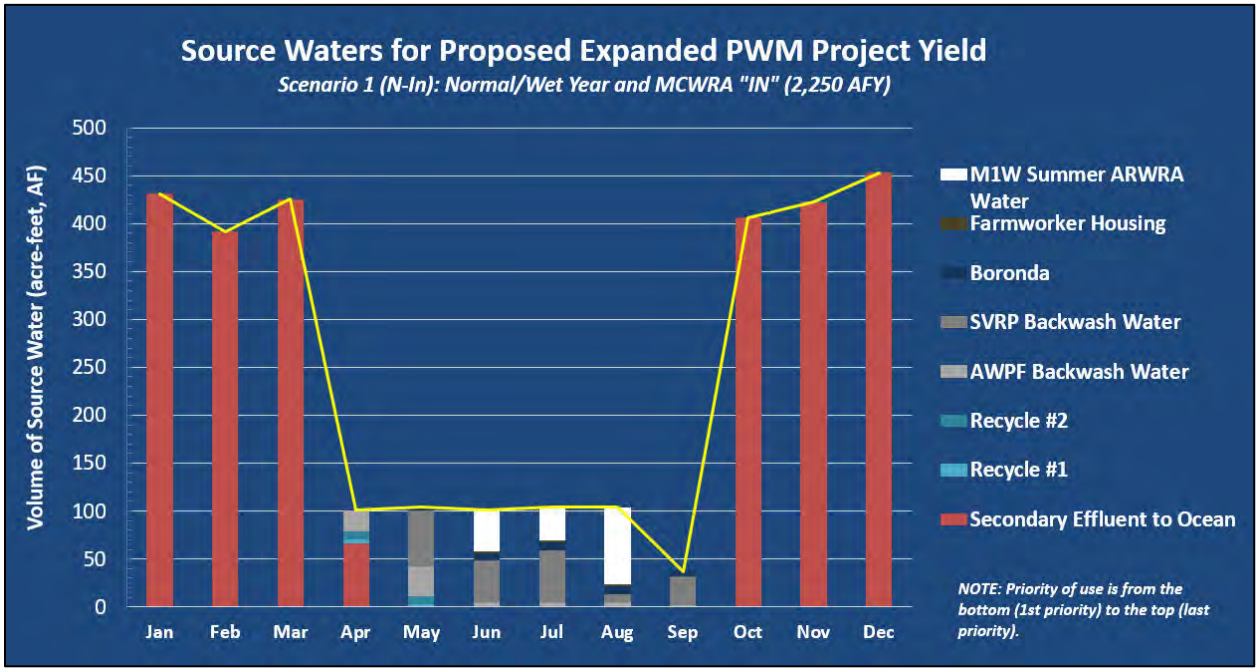


Table 6. Excess Winter Secondary Effluent, New Source Waters, and M1W Water Rights Remaining After Approved PWM Project (including MCWD RUWAP Phase 1) and Proposed Modifications During Wet or Normal Years (AWPF Producing 6,550 AFY, Total) Assuming Conditions Precedent Are Met

Source Water	Total (AFY)	April to September (AF)	October to March (AF)
Excess Unused Secondary Effluent to Outfall	***1,331***	***0***	***1,331***
M1W Source Waters			
SVRP Backwash	226	50	175
Boronda	63	16	47
Farmworker Housing	12	5	7
Recycle Sump #1	23	0	23
Recycle Sump #2	48	0	48
PWM Base Project and MCWD AWPF Backwashes	142	2	140
PWM Expansion Project AWPF Backwashes	129	5	124
Reclamation Ditch	253	0	253
Blanco Drain	750	0	750
M1W ARWRA 4.01 1 (d)	149	149	0
Total Unused Source Waters (excluding *Excess Unused Secondary Effluent to Ocean, above*)	**1,797**	**227**	**1,4570**
Total Unused Source Waters (including *Excess Unused Secondary Effluent to Ocean, above*)	**3,128**	**227**	**2,901**

** The ability to use Salinas Ag Wash Water and Storm Water that goes to the Salinas River would increase water remaining available for recycling by approximately 2,600 AFY, in this case (peaking in the summer).*

Scenario 2 (D-In): Source Waters for Drought Year Operation of AWPF With a Full Drought Reserve Assuming Conditions Precedent Are Met

A drought year, as mentioned above, does not affect MCWD water demands and only minimally their source waters. If conditions precedent in ARWRA Section 16.15 are completed, AWPF production under the approved PWM Project will be reduced to approximately 2,500 AFY during a drought year with a full drought reserve (reduction of 1,200 AFY production (including elimination, for one year, of building the drought reserve) and reducing AWPF influent by over 1,600 AFY) during the irrigation season. If conditions precedent in ARWRA Section 16.15 are not completed, then there would be no requirement for M1W to build a drought reserve for MCWRA and this reduction would not be required. The drought year source water availability estimates for Blanco Drain and Reclamation Ditch are based on Schaaf & Wheeler's report (Appendix I of the Draft SEIR) assuming the 2015 calendar year data (a severe drought condition). The SVRP backwash flow was estimated assuming CSIP optimization to maximize the number of days the SVRP would be producing water. The same source water priorities (**Tables 2 & 3**) will apply in a drought. The expectation is that winter production of purified water would be maximized in all years, such that during the winters of a drought year, flows to the ocean would be decreased further. The analysis in this scenario assumes that the Drought Reserve is available as a tool to provide water to CSIP in dry years.

Table 7 shows the results of this analysis of water sources/types needed for AWPF influent for the Approved PWM Project analysis for a drought year (2,500 AFY of production) starting with a full drought reserve. **Table 8** shows the results of this analysis of source waters to produce an additional 2,250 AFY of purified recycled water in a drought year. **Figure 5** shows the results of this scenario of use of the various

source waters for the Approved PWM Project and for the Proposed Modifications by month. **Table 9** shows the types and amounts of water rights that M1W will retain after satisfying the influent needs for the AWPF with the Approved PWM Project and Proposed Modifications to expand the AWPF capacity (a total of 4,637 AFY, which includes 2,500 AFY for Approved PWM Project injections, 600 AFY for MCWD irrigation, and 1,537 AFY for Proposed Modifications injections) during a drought year. **Attachment 2** provides the detailed analysis of drought year source water uses.

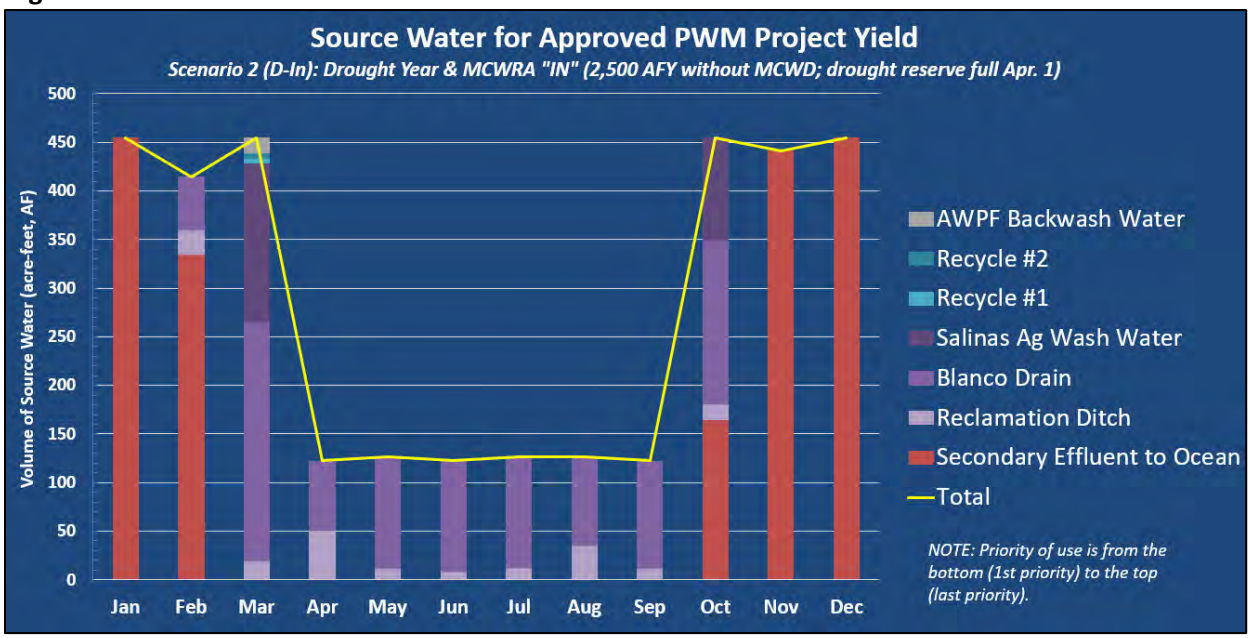
Table 7. Source Waters to be Used for the Approved PWM Project (2,500 AFY of yield, excludes MCWD) During Drought Year with Full Drought Reserve of 1,000 AF Assuming Conditions Precedent Are Met

Source Water	Total (AFY)	April to September (AF)	October to March (AF)
Secondary Effluent to Outfall	*1,850*	*0*	*1,850*
Reclamation Ditch	187	127	60
Blanco Drain	1,090	621	469
AWW (March & October only)	269	0	269
Recycle Sump #1	5	0	5
Recycle Sump #2	5	0	5
PWM Base Project and MCWD AWPF Backwashes	17	0	17
SVRP Backwash	0	0	0
Boronda	0	0	0
Farmworker Housing	0	0	0
M1W ARWRA 4.01 1 (d)	0	0	0
Total Source Water	**3,423**	**748**	**2,675**
Total Backwash (Screening & MF) Returned to RTP	**337**	**74**	**263**
Total RO Concentrate to Outfall	**586**	**128**	**458**
Total AWPF Product Water	**2,500**	**546**	**1,954**

Table 8. Source Waters to be Used for the Proposed Modifications to the PWM Project Yield During Drought Years (2,250 AFY using 133 AF Operating Reserve) Assuming Conditions Precedent Are Met

Source Water	Total (AFY)	April to September (AF)	October to March (AF)
Secondary Effluent to Outfall	*1,779*	*90*	*1,689*
Recycle Sump #1	23	18	5
Recycle Sump #2	72	55	17
PWM Base Project and MCWD AWPF Backwashes	122	68	54
PWM Expansion Project AWPF Backwashes	78	45	33
SVRP Backwash	442	302	139
Boronda	61	38	23
Farmworker Housing	10	7	3
M1W ARWRA 4.01 1 (d)	310	294	16
Reclamation Ditch	0	0	0
Blanco Drain	0	0	0
Total Source Water	**2,898**	**918**	**1,981**
Total Backwash (Screening & MF) Returned to RTP	***285***	***90***	***195***
Total RO Concentrate to Outfall	***496***	***157***	***339***
Total AWPF Product Water	***2,116***	***670***	***1,446***

Figure 5. Source Water Use Scenario 2 Charts



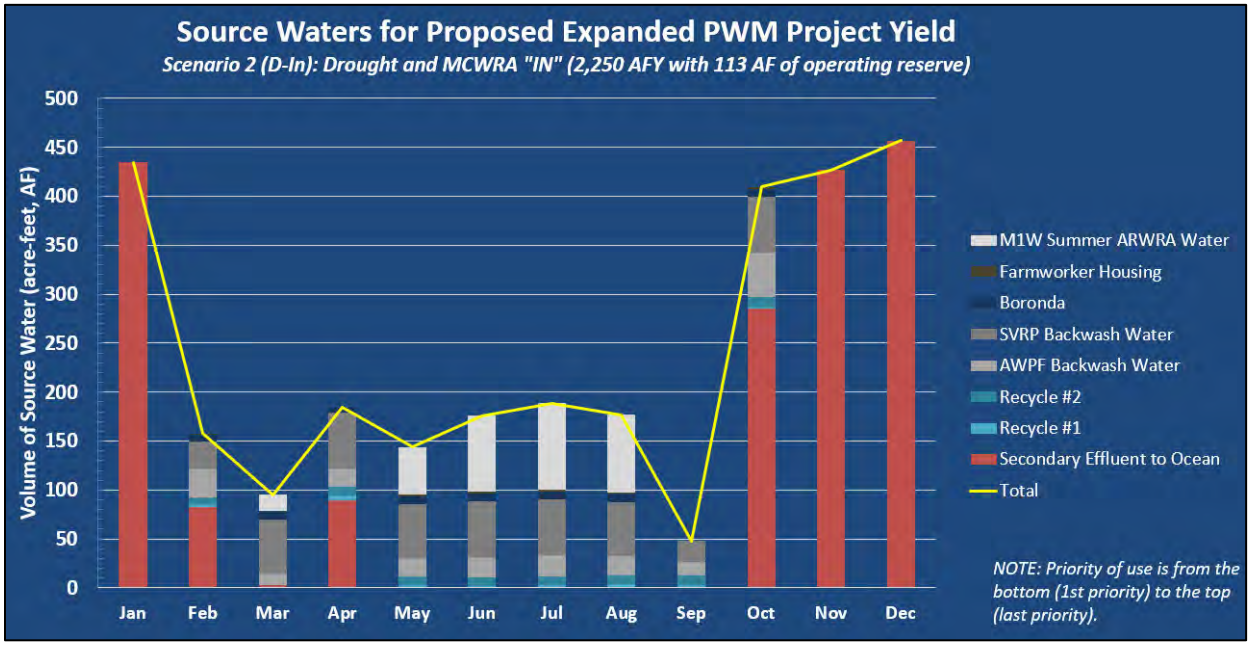


Table 9. Excess Winter Secondary Effluent, New Source Waters, and M1W Water Rights Remaining after Approved PWM Project (including MCWD RUWAP Phase 1), and Proposed Modifications During Wet or Normal Years (AWPF Producing 5,350 AFY) Assuming Conditions Precedent Are Met

Source Water	Total (AFY)	April to September (AF)	October to March (AF)
Secondary Effluent to Outfall	2,023	0	2,023
SVRP Backwash	108	35	73
Boronda	34	10	24
Farmworker Housing	7	3	4
Recycle Sump #1	13	0	13
Recycle Sump #2	26	0	26
PWM Base Project and MCWD AWPF Backwashes	70	0	70
PWM Expansion Project AWPF Backwashes	65	0	65
Reclamation Ditch	205	0	205
Blanco Drain	1,530	835	695
M1W ARWRA 4.01 1 (d)	0	0	0
Total Unused Source Waters (excluding *Excess Unused Secondary Effluent to Ocean, above*)	2,059	884	1,175
Total Unused Source Waters (including *Excess Unused Secondary Effluent to Ocean, above)*	4,082	884	3,198

* Salinas Ag Wash Water and Storm Water that drains from the City of Salinas to the Salinas River, if available to M1W for diversion, would increase secondary effluent remaining available for recycling by approximately 2,700 AFY.

Scenario 3 (N-Out): Source Waters for Normal/Wet Year Operation of AWPF While Building an Operating Reserve Assuming Conditions Precedent Are Not Met

Table 10 shows results of this analysis of water sources/types that would be available for AWPF influent (excluding MCWD which is covered in **Table 1**, above) to achieve the yield of the Approved PWM Project in a normal year of AWPF production (3,700 AFY), which includes Seaside Basin injections to build an Operating Reserve, assuming the Conditions Precedent are not met. **Table 11** shows the parallel results for the Proposed Modifications to achieve a yield of 2,250 AFY production, assuming the Conditions Precedent are not met. The Proposed Modifications would be dependent upon a Water Purchase Agreement (WPA) with California American Water Company. It is assumed, as with the existing WPA that the Operating Reserve would be one-half the average annual production (1,750 AF for the Approved PWM Project plus 1,125 AF for the Proposed Modifications or 2,875 AF total). **Figure 6** shows the results of this scenario of use of the various source waters for the Approved PWM Project and for the Proposed Modifications by month. **Table 12** shows the volumes of source waters to which M1W has existing water rights that will be left over after use of all of the flows needed for the full normal/wet year operation of the approved PWM Project and Proposed Modifications, including building an Operating Reserve and supplying MCWD's RUWAP Phase 1 demands (6,550 AFY total), assuming Conditions Precedent are not met. These results are based on the assumptions listed above. **Attachment 3** provides the spreadsheet showing the detailed month by month usage of the various waters.

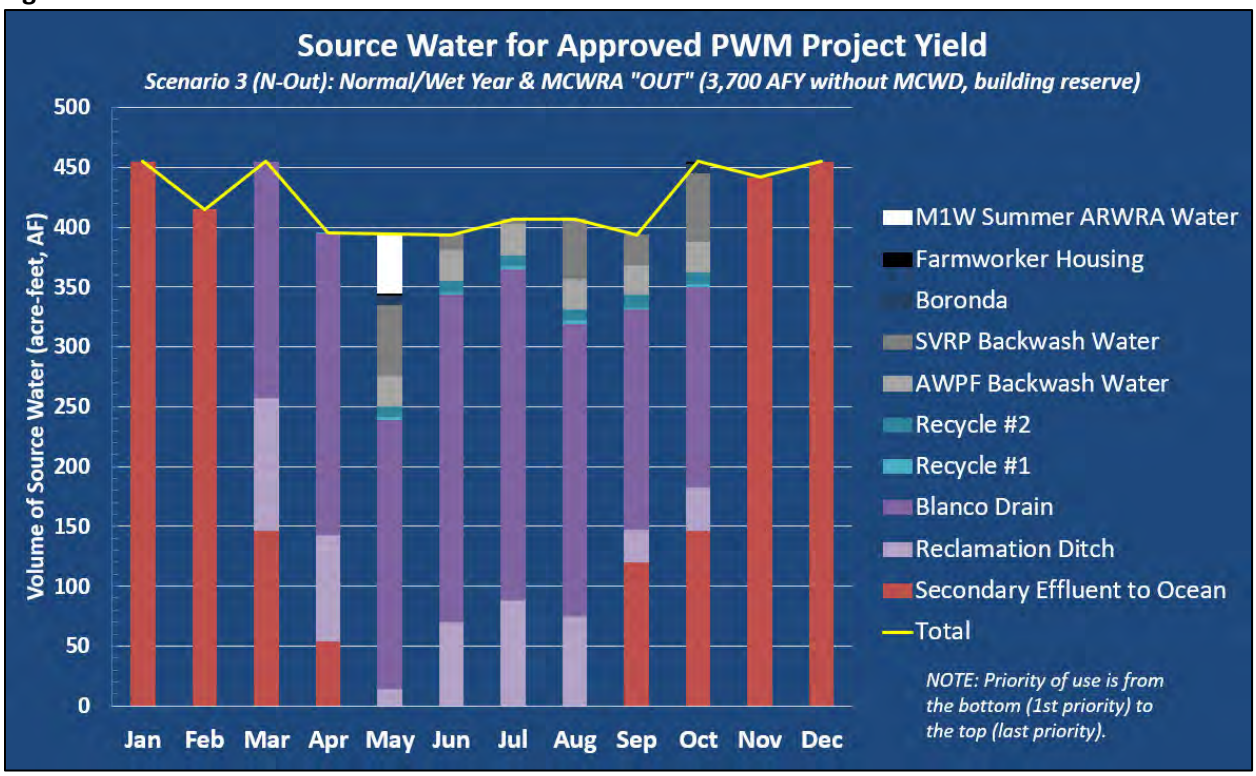
Table 10. Typical Source Waters Utilized for the Approved PWM Project (no MCWD) During Wet or Normal Years While Building an Operating Reserve (3,700 AFY of AWPF Production) Assuming Conditions Precedent Are Not Met

Source Water	Total (AFY)	April to September (AF)	October to March (AF)
Secondary Effluent to Outfall	*2,232*	*174*	*2,059*
Reclamation Ditch	509	362	147
Blanco Drain	1,821	1,456	365
Recycle Sump #1	17	14	3
Recycle Sump #2	56	47	10
Approved PWM Project and MCWD AWPF Backwashes	151	126	25
SVRP Backwash	210	153	57
Boronda	16	8	8
Farmworker Housing	4	2	2
M1W's ARWRA Summer Water (ARWRA §IV 4.01 1(d))	50	50	0
Total Source Water	**5,066**	**2,391**	**2,675**
Total Backwash (Screening & MF) Returned to RTP	***499***	***235***	***263***
Total RO Concentrate to Outfall	***868***	***410***	***458***
Total AWPF Product Water	***3,700***	***1,746***	***1,954***

Table 11. Typical Source Waters Utilized for the Proposed Modifications During Wet or Normal Years (2,250 AFY of AWPF Production) Assuming Conditions Precedent Are Not Met

Source Water	Total (AFY)	April to September (AF)	October to March (AF)
Secondary Effluent to Outfall	*2,358*	*12*	*2,346*
Recycle Sump #1	12	4	8
Recycle Sump #2	24	9	15
Approved PWM Project and MCWD AWPF Backwashes	70	23	47
Proposed Modifications AWPF Backwashes	79	27	52
SVRP Backwash	223	187	36
Boronda	48	40	8
Farmworker Housing	9	9	1
M1W ARWRA 4.01 1 (d)	258	258	0
Reclamation Ditch	0	0	0
Blanco Drain	0	0	0
Total Source Water	**3,081**	**568**	**2,513**
Total Backwash (Screening & MF) Returned to RTP	***303***	***56***	***247***
Total RO Concentrate to Outfall	***528***	***97***	***431***
Total AWPF Product Water	***2,250***	***415***	***1,835***

Figure 6. Source Water Use Scenario 3 Charts



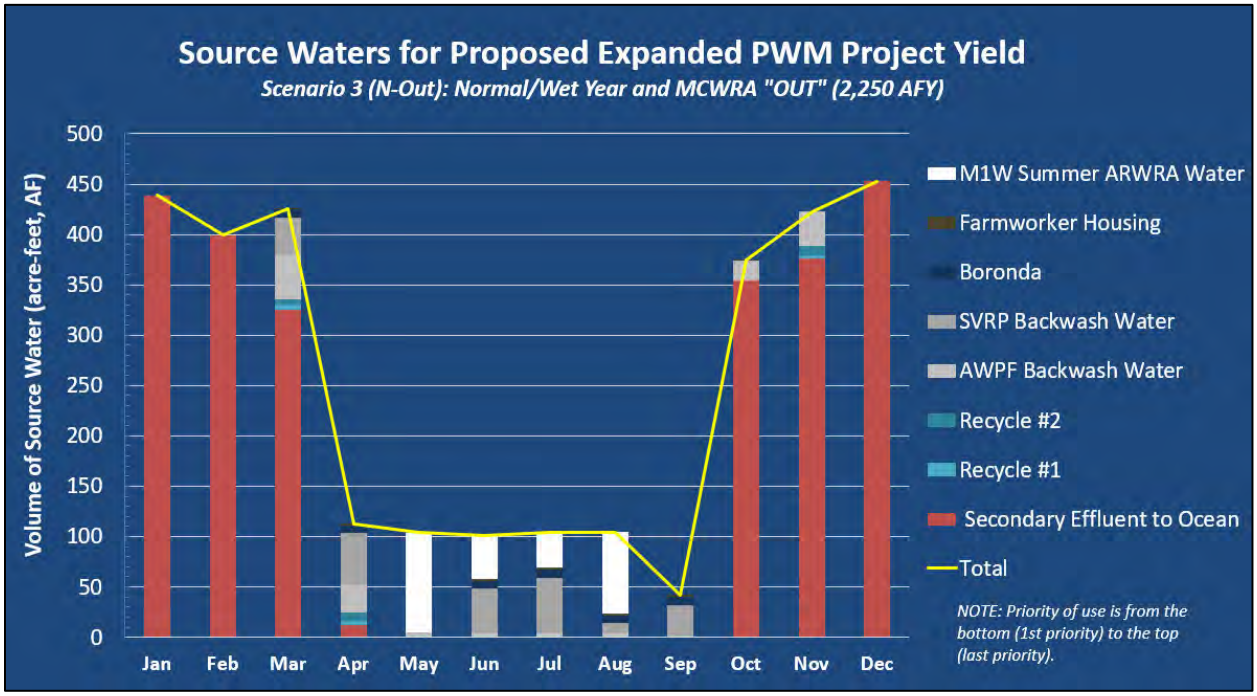


Table 12. Excess Winter Secondary Effluent, New Source Waters, and M1W Water Rights Remaining after the Approved PWM Project (including MCWD RUWAP Phase 1), and Proposed Modifications During Wet or Normal Years (AWPF Producing 6,550 AFY, Total) Assuming Conditions Precedent Are Not Met

Source Water	Total (AFY)	April to September (AF)	October to March (AF)
Secondary Effluent to Outfall	1,221	0	1,221
Recycle Sump #1	13	0	13
Recycle Sump #2	24	0	24
PWM Base Project and MCWD AWPF Backwashes	68	0	68
PWM Expansion Project AWPF Backwashes	72	0	72
SVRP Backwash	82	0	82
Boronda	31	0	31
Farmworker Housing	4	0	4
M1W ARWRA 4.01 1 (d)	0	0	0
Reclamation Ditch	299	0	299
Blanco Drain	799	0	799
Total Unused Source Waters (excluding *Excess Unused Secondary Effluent to Ocean, above*)	***1,393***	***0***	***1,393***
Total Unused Source Waters (including *Excess Unused Secondary Effluent to Ocean, above)*	***2,614***	***0***	***2,614***

Scenario 4 (D-Out): Source Waters for Drought Year Operation of AWPF With a Full Operating Reserve Assuming Conditions Precedent Are Not Met

A drought year, as mentioned above, does not affect MCWD water demands and only minimally their source waters. If conditions precedent in ARWRA Section 16.15 are not met, AWPF production under the approved PWM Project will remain 3,500 AFY during a drought year with a full Operating Reserve. If conditions precedent in ARWRA Section 16.15 are not completed, then there would be no drought reserve and no reduction in AWPF production in a drought. The drought year source water availability estimates for Blanco Drain and Reclamation Ditch are based on Schaaf & Wheeler's report (Appendix I of the Draft SEIR) assuming the 2015 calendar year data (a severe drought condition). The SVRP backwash flow was estimated assuming CSIP optimization to maximize the number of days the SVRP would be producing water. The same source water priorities (**Tables 2 & 3**) will apply in a drought. The expectation is that winter production of purified water would be maximized in all years, such that during the winters of a drought year, flows to the ocean would be decreased further. The analysis in this section assumes that the Operating Reserve is available as a tool to provide water to Cal Am in dry years.

Table 13 shows the results of this analysis of water sources/types needed for AWPF influent for the Approved PWM Project analysis for a drought year (3,500 AFY of production) starting with a full Operating Reserve. **Table 14** shows how 713 AF of the Operating Reserve would be utilized so that only 1,537 AFY of additional purified recycled water would need to be produced in the drought year. **Figure 7** shows the results of this scenario of use of the various source waters for the Approved PWM Project and for the Proposed Modifications by month. **Table 15** shows the types and amounts of water rights that M1W will retain after satisfying the influent needs for the AWPF with the Approved PWM Project and Proposed Modifications to expand the AWPF capacity (a total of 5,637 AFY, which includes 3,500 AFY for Approved PWM Project injections, 600 AFY for MCWD irrigation, and 1,537 AFY for Proposed Modifications injections) during a drought year). **Attachment 4** provides the detailed analysis of drought year source water uses.

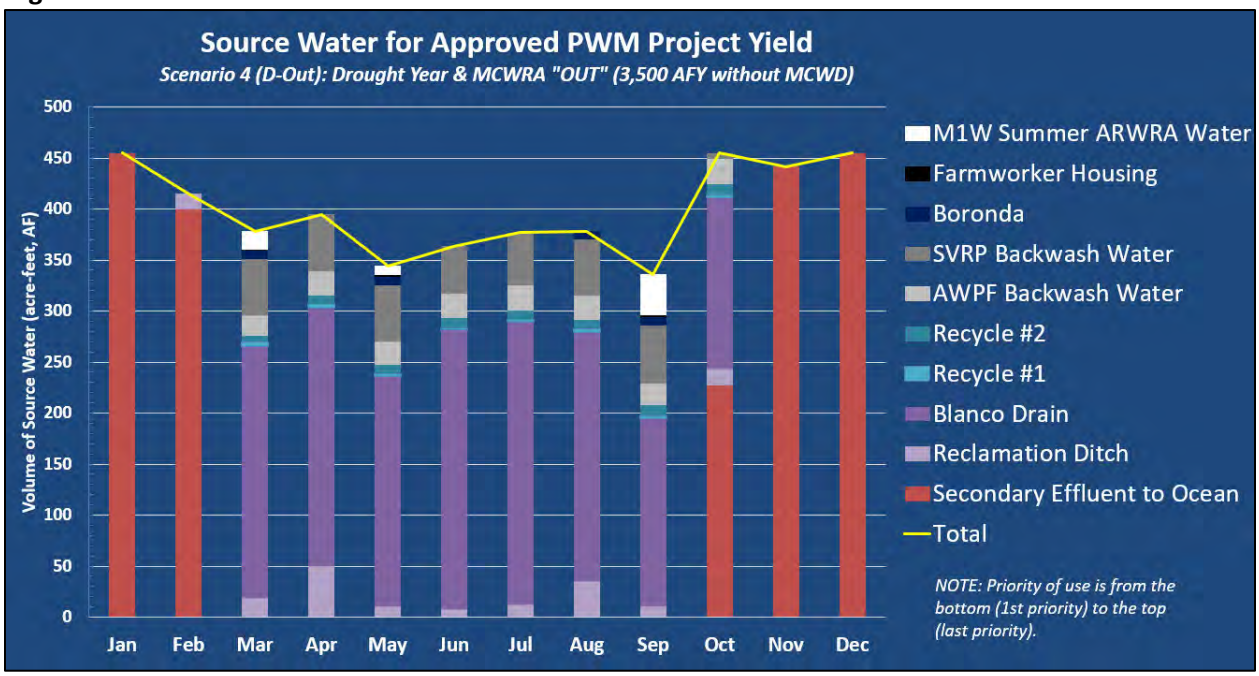
Table 13. Source Waters to be Used for the Approved PWM Project (3,500 AFY of yield, excludes MCWD) During Drought Year with Full Operating Reserve of 1,000 AF Assuming Conditions Precedent Are Not Met

Source Water	Total (AFY)	April to September (AF)	October to March (AF)
Secondary Effluent to Outfall	*1,978*	*0*	*1,978*
Reclamation Ditch	177	127	50
Blanco Drain	1,870	1,456	414
Recycle Sump #1	26	18	8
Recycle Sump #2	70	55	15
Approved PWM Project and MCWD AWPF Backwashes	185	140	46
SVRP Backwash	382	321	61
Boronda	32	24	8
Farmworker Housing	4	4	1
M1W ARWRA 4.01 1 (d)	68	50	19
Total Source Water	**4,793**	**2,194**	**2,599**
Total Backwash (Screening & MF) Returned to RTP	***472***	***216***	***256***
Total RO Concentrate to Outfall	***821***	***376***	***445***
Total AWPF Product Water	***3,500***	***1,602***	***1,898***

Table 14. Source Waters to be Used for the Proposed Modifications to the PWM Project Yield During Drought Years (2,250 AFY using 713 AF of Operating Reserve) Assuming Conditions Precedent Are Not Met

Source Water	Total (AFY)	April to September (AF)	October to March (AF)
Secondary Effluent to Outfall	*1,651*	*90*	*1,651*
Recycle Sump #1	3	0	3
Recycle Sump #2	7	0	7
Approved PWM Project and MCWD AWPF Backwashes	21	0	21
Proposed Modifications AWPF Backwashes	39	19	19
SVRP Backwash	95	16	79
Boronda	39	24	15
Farmworker Housing	9	7	3
M1W ARWRA 4.01 1 (d)	239	239	0
Reclamation Ditch	0	0	0
Blanco Drain	0	0	0
Total Source Water	**2,104**	**395**	**1,709**
Total Backwash (Screening & MF) Returned to RTP	***207***	***39***	***168***
Total RO Concentrate to Outfall	***361***	***68***	***293***
Total AWPF Product Water	***1,537***	***289***	***1,248***

Figure 7. Source Water Use Scenario 4 Charts



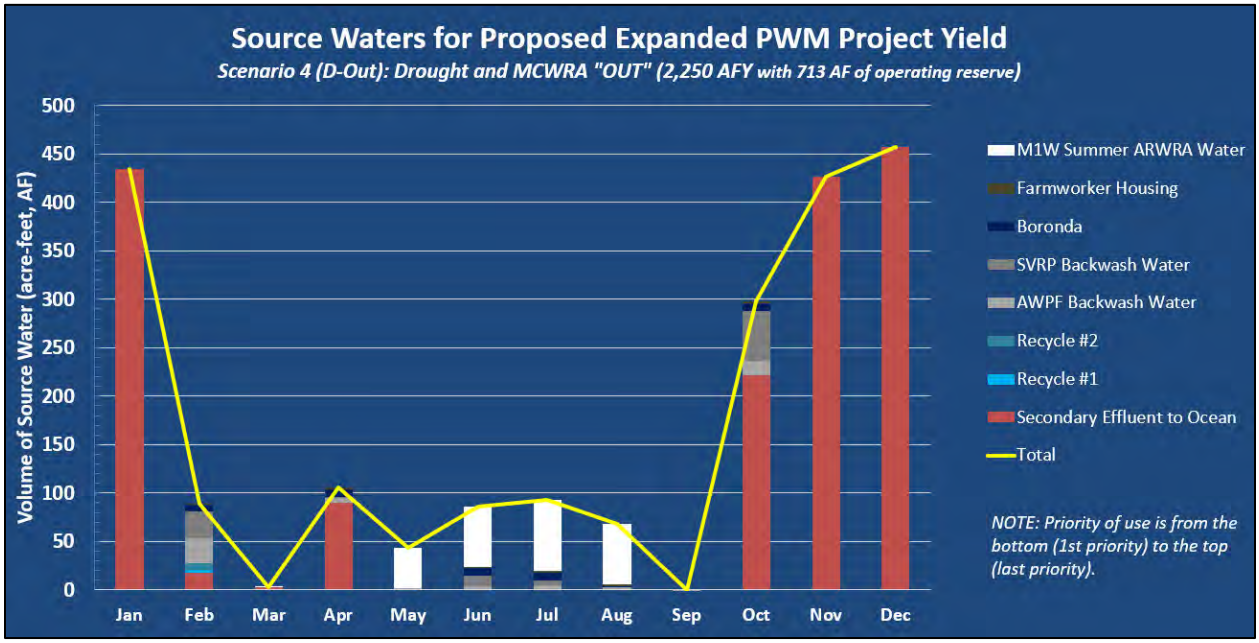


Table 15. Excess Winter Secondary Effluent, New Source Waters, and M1W Water Rights Remaining After Proposed Modifications to PWM Project During Drought Year (5,350 AFY, of AWPF production) Assuming Conditions Precedent Are Not Met

Source Water	Total (AFY)	April to September (AF)	October to March (AF)
Secondary Effluent to Outfall	2,023	0	2,023
SVRP Backwash	73	0	73
Boronda	24	0	24
Farmworker Housing	4	0	4
Recycle Sump #1	13	0	13
Recycle Sump #2	26	0	26
Approved PWM Project and MCWD AWPF Backwashes	70	0	70
Proposed Modifications AWPF Backwashes	65	0	65
Reclamation Ditch	215	0	215
Blanco Drain	750	0	750
M1W ARWRA 4.01 1 (d)	0	0	0
Total Unused Source Waters (excluding *Excess Unused Secondary Effluent to Ocean, above*)	***1,240***	***0***	***1,240***
Total Unused Source Waters (including Excess Unused Secondary Effluent to Ocean, above)	***3,263***	***0***	***3,263***

CONCLUSIONS

As shown above and in Appendix I of the Draft SEIR, the wastewater flows available for M1W to use to meet recycled water demands from the AWPF are substantial No other reasonably foreseeable projects that would increase CSIP demands or other recycled water use of these waters have been proposed or presented to M1W indicating an imminent reduction in availability. Even if the MCWRA takes its full rights to municipal wastewater within the 2001 service area, and the rights given via contract under the ARWRA, M1W would still have sufficient water rights for achieving the yield anticipated for the Proposed Modifications.

If Conditions Precedent are met, secondary effluent otherwise discharged to the ocean, wastewater from outside the 2001 service area, Blanco Drain, Reclamation Ditch, AWW, the Drought Reserve and Operating Reserve (during drought years), and the ARWRA water (4.01 1(d)) provide more than sufficient water for the Approved PWM Project. Secondary effluent otherwise discharged to the ocean, one-half of wastewater from outside the 2001 service area, and the ARWRA water (4.01 1(d)) provide more than sufficient source water for the Proposed Modifications in wet, normal, and drought conditions.

If Conditions Precedent are not met, secondary effluent otherwise discharged to the ocean, wastewater from outside the 2001 service area, Blanco Drain, Reclamation Ditch, the Operating Reserve (during drought year), and the ARWRA water (4.01 1(d)) provide more than sufficient water for the Approved PWM Project. Secondary effluent otherwise discharged to the ocean, one-half of wastewater from outside the 2001 service area, and the ARWRA water (4.01 1(d)), and the Operating Reserve provide more than sufficient source water for the Proposed Modifications in wet, normal, and drought conditions. In the future, City of Salinas IWTF Pond 3 Water and stormwater could also be available.

Attachment 1

Scenario 1 (N-In): Source Water Use During Normal/Wet Years and Conditions Precedent Are Met

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Apr-Sep	Oct-Mar
Source Water for M1W Portion of Base Project (3,700 AFY after removing 600 AFY MCWD's Portion from the 4,300 AFY total, building reserve)															
Source Water Needed for M1W Portion of Base Project (3,700)	455	415	455	395	395	394	407	407	394	455	441	455	**5,067**	2,391	2,675
Secondary Effluent to Ocean used for base project, 1st priority	455	415	46	0	0	0	0	0	120	0	395	455	**1,885**	120	1,765
Secondary Effluent to Ocean Remaining after Base Project	882	474	426	66	0	0	0	0	0	501	422	1155	**3,926**	66	3,860
Feed water needed after ocean flows	0	0	409	395	395	394	407	407	274	455	46	0	**3,182**	2,272	910
Reclamation Ditch used for base project, 2nd priority	0	0	111	89	14	70	88	75	27	36	46	0	**555**	362	193
Reclamation Ditch Flows remaining after Base Project	81	18	0	0	0	0	0	0	0	0	19	136	**253**	0	253
Feed Water needed after Reclamation Ditch	0	0	298	306	381	324	319	332	247	419	0	0	**2,627**	1,909	717
Blanco Drain used for base project, 3rd priority	0	0	246	252	225	274	277	244	184	168	0	0	**1,870**	1,456	414
Blanco Drain Flows after Base Project	209	223	0	0	0	0	0	0	0	0	133	185	**750**	0	750
Feed Water needed after Blanco Drain	0	0	52	54	156	50	42	88	63	251	0	0	**757**	453	303
AWW used for base project, 4th priority	0	0	52	54	156	0	0	0	0	251	0	0	**513**	210	303
AWW Flows remaining after Base Project	184	149	130	206	150	305	318	319	305	82	252	186	**2,585**	1,603	982
Feed Water needed after Reclamation Ditch	0	0	0	0	0	50	42	88	63	0	0	0	**243**	243	0
Recycle #1 used for base project, 5th priority	0	0	0	0	0	2	3	4	2	0	0	0	**11**	11	0
M1W's Portion of Recycle #1 after Base Project	7	3	5	5	3	0	0	0	0	3	3	3	**30**	7	23
Feed Water needed after Recycle #1	0	0	0	0	0	48	40	84	60	0	0	0	**232**	232	0
Recycle #2 used for Base Project, 6th priority	0	0	0	0	0	9	9	9	11	0	0	0	**38**	38	0
M1W's portion of Recycle #2 after base project	9	7	5	9	9	0	0	0	0	10	10	8	**66**	18	49
Feed Water needed after Recycle #2 water	0	0	0	0	0	39	31	75	50	0	0	0	**195**	195	0
PWM Base Project Backwash Water used for Base Project, 7th priority	0	0	0	0	0	25	26	25	24	0	0	0	**101**	101	0
M1W's portion of AWPF Backwash Water from base project after Base Project (1/2)	24	21	24	23	25	0	0	0	0	25	23	23	**189**	49	140
Feed Water needed after AWPF Backwash water	0	0	0	0	0	13	4	50	26	0	0	0	**94**	94	0
SVRP Backwash Water used for base project, 8th priority	0	0	0	0	0	13	4	50	26	0	0	0	**94**	94	0
M1W's portion of SVRP Backwash Water after Base Project	18	13	36	50	59	43	54	9	31	57	45	6	**421**	246	175
Feed Water needed after SVRP Backwash	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
Boronda used for base project, 9th priority	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
M1W's Portion of Boronda after Base Project	8	7	8	8	8	8	8	8	8	8	8	8	**95**	48	47
Feed Water needed after Boronda	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
Farmworker Housing used for Base Project 10th priority	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
M1W's Portion of Farmworker Housing after Base Project	1	1	1	2	2	2	2	2	2	2	2	1	**17**	11	7
Remaining Source Waters needed after Farmworker Housing	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
M1W Summer ARWRA Water used only for Expansion remaining after MCWD Project, 11th prio	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
M1W ARWRA Remaining Summer Water after MCWD, Base & Expansion Projects	0	0	0	0	50	82	93	83	0	0	0	0	**308**	308	0
Remaining Source Waters needed after ARWRA	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0

Source Waters for 2,250 AFY Proposed Expanded PWM/GWR Project--Winter Peaking Flow Scenario	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Apr-Sep	Oct-Mar
Source Waters needed for 2,250 AFY Expansion	431	392	425	101	104	101	104	104	37	406	423	453	**3,081**	551	2,530
Secondary Effluent to Ocean used for Expansion after Base Project, 1st Priority*	431	392	425	66	0	0	0	0	0	406	422	453	**2,595**	66	2,529
Remaining Effluent to Ocean after Base & Expansion Projects	451	83	0	0	0	0	0	0	0	94	0	702	**1,331**	0	1,331
Remaining Source Waters needed for Expansion after Ocean Flows	0	0	0	35	104	101	104	104	37	0	0	0	**486**	485	0
Recycle #1 after base project used for expansion, 2nd priority	0	0	0	5	3	0	0	0	0	0	0	0	**7**	7	0
M1W's Portion of Recycle #1 after Base & Expansion Projects	7	3	5	0	0	0	0	0	0	3	3	3	**23**	0	23
Feed Water needed after Recycle #1	0	0	0	30	102	101	104	104	37	0	0	0	**478**	478	0
Recycle #2 after base project used for Expansion, 3rd priority	0	0	0	9	9	0	0	0	0	0	0	0	**18**	18	0
M1W's portion of Recycle #2 after base & expansion Projects	9	7	5	0	0	0	0	0	0	10	9	8	**48**	0	48
Feed Water needed after Recycle #2 water	0	0	0	22	93	101	104	104	37	0	0	0	**460**	460	0
M1W's portion of PWM Base Backwash Water from Base used for Expansion Project, 4th Priority	0	0	0	22	25	0	0	0	0	0	0	0	**47**	47	0
M1W portion of Base PWM Backwash after Base & Expansion Projects	24	21	24	2	0	0	0	0	0	25	23	23	**142**	2	140
Remaining Source Waters needed after M1W Portion of AWPF Backwash	0	0	0	0	67	101	104	104	37	0	0	0	**413**	413	0
M1W's portion of PWM Expansion Backwash Water used for Expansion Project , 5th priority	0	0	0	0	5	5	5	5	2	0	0	0	**22**	22	0
M1W portion of PWM Expansion Backwash Water after Base & Expansion Projects	21	19	21	5	0	0	0	0	0	20	21	22	**129**	5	124
Feed Water needed after AWPF Expansion Backwash water	0	0	0	0	62	96	99	99	35	0	0	0	**391**	391	0
M1W's portion of SVRP Backwash Water used for expansion after Base Project, 6th Priority	0	0	0	0	59	43	54	9	31	0	0	0	**195**	195	0
M1W's portion of SVRP Backwash after Base & Expansion Projects	18	13	36	50	0	0	0	0	0	57	45	6	**226**	50	175
Remaining Source Waters needed after SVRP Backwash	0	0	0	0	3	53	45	91	5	0	0	0	**196**	196	0
Boronda after base project used for expansion, 7th priority	0	0	0	0	3	8	8	8	5	0	0	0	**32**	32	0
M1W's Portion of Boronda after Base & Expansion Projects	8	7	8	8	5	0	0	0	3	8	8	8	**63**	16	47
Feed Water needed after Boronda	0	0	0	0	0	45	37	82	0	0	0	0	**164**	164	0
Farmworker Housing after Base Project used for Expansion, 8th priority	0	0	0	0	0	2	2	2	0	0	0	0	**5**	5	0
M1W's Portion of Farmworker Housing after Base & Expansion Projects	1	1	1	2	2	0	0	0	2	2	2	1	**12**	5	7
Remaining Source Waters needed after Farmworker Housing	0	0	0	0	0	43	35	81	0	0	0	0	**159**	159	0
M1W Summer ARWRA Water used for Expansion remaining after MCWD Project, 9th priority	0	0	0	0	0	43	35	81	0	0	0	0	**159**	159	0
M1W ARWRA Summer Water Remaining after MCWD, Base & Expanded PWM	0	0	0	0	50	39	58	2	0	0	0	0	**149**	149	0
Remaining Source Waters needed after ARWRA	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0

**Available if otherwise not collected or would be discharged to ocean*

M1W Source Waters Not Used for Approved or Proposed Expanded PWM/GWR Projects	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Apr-Sep	Oct-Mar
Remaining Effluent to Ocean after Base & Expansion Project	451	83	0	0	0	0	0	0	0	94	0	702	**1,331**	0	1,331
M1W's portion of SVRP Backwash after Base & Expansion Projects	18	13	36	50	0	0	0	0	0	57	45	6	**226**	50	175
M1W's Portion of Boronda after Base & Expansion Projects	8	7	8	8	5	0	0	0	3	8	8	8	**63**	16	47
M1W's Portion of Farmworker Housing after Base & Expansion Projects	1	1	1	2	2	0	0	0	2	2	2	1	**12**	5	7
M1W's Portion of Recycle #1 after Base & Expansion Projects	7	3	5	0	0	0	0	0	0	3	3	3	**23**	0	23
M1W's portion of Recycle #2 after base & expansion Projects	9	7	5	0	0	0	0	0	0	10	9	8	**48**	0	48
M1W portion of Base PWM Backwash after Base & Expansion Projects	24	21	24	2	0	0	0	0	0	25	23	23	**142**	2	140
M1W portion of PWM Expansion Backwash Water after Base & Expansion Projects	21	19	21	5	0	0	0	0	0	20	21	22	**129**	5	124
Reclamation Ditch after Base & Expansion Projects	81	18	0	0	0	0	0	0	0	0	19	136	**253**	0	253
Blanco Drain Remaining Water after Base & Expansion Projects	209	223	0	0	0	0	0	0	0	0	133	185	**750**	0	750
M1W ARWRA Summer Water Remaining after MCWD, Base & Expanded PWM	0	0	0	0	50	39	58	2	0	0	0	0	**149**	149	0
M1W's Plus Unused other Source Waters after Base and Expansion Projects (excl. ocean)	378	313	101	66	57	39	58	2	5	125	262	391	**1,797**	227	1,570
M1W's Plus Unused other Source Waters after Base and Expansion Projects (incl. ocean)	829	395	101	66	57	39	58	2	5	219	262	1,094	**3,128**	227	2,901
M1W portion of SRDF Backwash Water	0	0	0	0	6	24	25	25	11	4	0	0	**95**	91	4
Salinas Industrial Wastewater (2018) Remaining	184	149	130	206	150	305	318	319	305	82	252	186	**2,585**	1,603	982
Salinas Pond Recovery Water (2018)*	0	0	0	0	300	0	0	0	0	0	0	0	**300**	300	0

**Flow may be much higher in 2021 when Salinas Pond PS Project Completed*

Attachment 2

Scenario 2 (D-In): Source Water Use During Drought Years and Conditions Precedent Are Met

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Apr-Sep	Oct-Mar
Source Water for M1W Portion of Base Project (2,500 AFY after removing 600 AFY MCWD's Portion from the 3,100 AFY total, drought)															
Source Water Needed for M1W Portion of Base Project (2,500)	455	415	455	123	127	123	127	127	123	455	441	455	**3,423**	748	2,675
Secondary Effluent to Ocean used for base project, 1st priority	455	335	0	0	0	0	0	0	0	165	441	455	**1,850**	0	1,850
Secondary Effluent to Ocean Remaining after Base Project	1,161	83	3	90	0	0	0	0	0	285	1,083	1,097	**3,803**	90	3,713
Feed water needed after ocean flows	0	80	455	122	127	123	127	127	123	290	0	0	**1,573**	748	825
Reclamation Ditch used for base project, 2nd priority	0	25	19	50	11	8	12	35	11	16	0	0	**187**	127	60
Reclamation Ditch Flows remaining after Base Project	0	0	0	0	0	0	0	0	0	0	133	72	**205**	0	205
Feed Water needed after Reclamation Ditch	0	55	436	72	116	115	115	92	112	274	0	0	**1,386**	621	765
Blanco Drain used for base project, 3rd priority	0	55	246	72	116	115	115	92	112	168	0	0	**1,090**	621	469
Blanco Drain Flows after Base Project	209	168	0	180	109	159	162	152	72	0	133	185	**1,530**	835	695
Feed Water needed after Blanco Drain	0	0	190	0	0	0	0	0	0	106	0	0	**296**	0	296
AAW used for base project, 4th priority	0	0	163	0	0	0	0	0	0	106	0	0	**269**	0	269
AWW Flows remaining after Base Project	172	139	0	270	297	302	305	300	288	206	239	154	**2,672**	1,763	910
Feed Water needed after Reclamation Ditch	0	0	27	0	0	0	0	0	0	0	0	0	**27**	0	27
Recycle #1 for expansion, 5th priority	0	0	5	0	0	0	0	0	0	0	0	0	**5**	0	5
M1W's Portion of Recycle #1 after Expansion	7	3	0	5	3	2	3	4	2	3	3	3	**36**	18	18
Feed Water needed after Recycle #1	0	0	22	0	0	0	0	0	0	0	0	0	**22**	0	22
Recycle #2 for Expansion, 6th priority	0	0	5	0	0	0	0	0	0	0	0	0	**5**	0	5
M1W's portion of Recycle #2 after expansion	9	7	0	9	9	9	9	9	11	10	10	8	**99**	55	44
Feed Water needed after Recycle #2 water	0	0	17	0	0	0	0	0	0	0	0	0	**17**	0	17
PWM Base Project Backwash Water used for Base Project, 7th priority	0	0	17	0	0	0	0	0	0	0	0	0	**17**	0	17
M1W's portion of AWPF Backwash Water after Base Project (1/2)	24	21	7	10	12	12	12	11	11	25	23	23	**192**	68	124
Feed Water needed after AWPF Backwash water	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
SVRP Backwash Water used for base project, 8th priority	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
M1W's portion of SVRP Backwash Water after Base Project	18	27	55	57	55	57	57	55	57	57	37	18	**550**	337	213
Feed Water needed after SVRP Backwash	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
Boronda for expansion, 9th priority	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
M1W's Portion of Boronda after Expansion	8	7	8	8	8	8	8	8	8	8	8	8	**95**	48	47
Feed Water needed after Boronda	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
Farmworker Housing for Expansion, 10th priority	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
M1W's Portion of Farmworker Housing after Expansion	1	1	1	2	2	2	2	2	2	2	2	1	**17**	11	7
Remaining Source Waters needed after Farmworker Housing	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
M1W Summer ARWRA Water for Expansion remaining after MCWD Project, 10th priority	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
M1W ARWRA Remaining Summer Water after Expansion	0	0	0	0	50	82	93	83	0	0	0	0	**308**	308	0
Remaining Source Waters needed after ARWRA	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Apr-Sep	Oct-Mar
Source Waters for 2,250 AFY Proposed Expanded PWM/GWR Project--Drought Year Scenario (Source Water = 2,898 AFY and 133 AF Operational Reserve)															
Source Waters needed for 2,250 AFY Expansion	435	157	95	184	144	176	189	177	48	410	427	457	**2,898**	917	1,981
Remaining Secondary Effluent to Ocean for Expansion after Base Project, 1st Priority*	435	83	3	90	0	0	0	0	0	285	427	457	**1,779**	90	1,689
Remaining Effluent to Ocean after Expansion Project	726	0	0	0	0	0	0	0	0	0	657	640	**2,023**	0	2,023
Remaining Source Waters needed for Expansion after Ocean Flows	0	75	92	94	144	176	189	177	48	125	0	0	**1,119**	827	291
Recycle #1 for expansion, 2nd priority	0	3	0	5	3	2	3	4	2	3	0	0	**23**	18	5
M1W's Portion of Recycle #1 after Expansion	7	0	0	0	0	0	0	0	0	0	3	3	**13**	0	13
Feed Water needed after Recycle #1	0	72	92	90	141	174	186	173	45	122	0	0	**1,095**	809	286
Recycle #2 for Expansion, 3rd priority	0	7	0	9	9	9	9	9	11	10	0	0	**72**	55	17
M1W's portion of Recycle #2 after Expansion	9	0	0	0	0	0	0	0	0	0	10	8	**26**	0	26
Feed Water needed after Recycle #2 water	0	65	92	81	132	165	177	164	35	112	0	0	**1,023**	754	269
M1W's portion of PWM Base Backwash Water Remaining from Base Project, 4th Priority	0	21	7	10	12	12	12	11	11	25	0	0	**122**	68	54
M1W portion of Base PWM Backwash after Base & Expansion	24	0	0	0	0	0	0	0	0	0	23	23	**70**	0	70
Remaining Source Waters needed after M1W Portion of AWPF Backwash	0	43	85	71	120	153	165	153	24	87	0	0	**901**	686	215
M1W's portion of PWM Expansion Backwash Water, 5th priority	0	8	5	9	7	9	9	9	2	20	0	0	**78**	45	33
M1W portion of PWM Expansion Backwash Water after Base & Expansion	21	0	0	0	0	0	0	0	0	0	21	22	**65**	0	65
Feed Water needed after AWPF Expansion Backwash water	0	35	80	62	113	144	155	144	22	67	0	0	**823**	641	182
M1W's portion of SVRP Backwash Water after Base Project, 6th Priority	0	27	55	57	55	57	57	55	22	57	0	0	**442**	302	139
M1W's portion of SVRP Backwash after Base & Expansion	18	0	0	0	0	0	0	0	35	0	37	18	**108**	35	73
Remaining Source Waters needed after SVRP Backwash	0	8	25	5	58	87	98	89	0	10	0	0	**381**	338	43
Boronda for expansion, 7th priority	0	7	8	5	8	8	8	8	0	8	0	0	**61**	38	23
M1W's Portion of Boronda after Expansion	8	0	0	2	0	0	0	0	8	0	8	8	**34**	10	24
Feed Water needed after Boronda	0	1	17	0	50	80	90	81	0	2	0	0	**320**	301	20
Farm Worker Housing for Expansion, 8th priority	0	1	1	0	2	2	2	2	0	2	0	0	**10**	7	3
M1W's Portion of Farmworker Housing after Expansion	1	0	0	2	0	0	0	0	2	0	2	1	**7**	3	4
Remaining Source Waters needed after Farmworker Housing	0	0	16	0	48	78	89	79	0	0	0	0	**310**	294	16
M1W Summer ARWRA Water for Expansion remaining after MCWD Project, 9th priority	0	0	16	0	48	78	89	79	0	0	0	0	**310**	294	16
M1W ARWRA Remaining Summer Water after Expansion	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
Remaining Source Waters needed after ARWRA	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0

**Available if otherwise not collected or would be discharged to ocean*

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Apr-Sep	Oct-Mar
Source Waters Not Used for Approved or Proposed Expanded PWM/GWR Projects															
Remaining Effluent to Ocean after Expansion Project	726	0	0	0	0	0	0	0	0	0	657	640	**2,023**	0	2,023
M1W's portion of SVRP Backwash after Base & Expansion	18	0	0	0	0	0	0	0	35	0	37	18	**108**	35	73
M1W's Portion of Boronda after Expansion	8	0	0	2	0	0	0	0	8	0	8	8	**34**	10	24
M1W's Portion of Farmworker Housing after Expansion	1	0	0	2	0	0	0	0	2	0	2	1	**7**	3	4
M1W's Portion of Recycle #1 after Expansion	7	0	0	0	0	0	0	0	0	0	3	3	**13**	0	13
M1W's portion of Recycle #2 after Expansion	9	0	0	0	0	0	0	0	0	0	10	8	**26**	0	26
M1W portion of Base PWM Backwash after Base & Expansion	24	0	0	0	0	0	0	0	0	0	23	23	**70**	0	70
M1W portion of PWM Expansion Backwash Water after Base & Expansion	21	0	0	0	0	0	0	0	0	0	21	22	**65**	0	65
Reclamation Ditch after Base & Expansion	0	0	0	0	0	0	0	0	0	0	133	72	**205**	0	205
Blanco Drain Remaining Water after Base & Expansion	209	168	0	180	109	159	162	152	72	0	133	185	**1,530**	835	695
M1W ARWRA Remaining Summer Water after Expansion	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
M1W's Plus Unused other Source Waters after Base and Expansion Projects (exclude ocean)	297	168	0	184	109	160	163	152	117	0	369	340	**2,059**	884	1,175
M1W's Plus Unused other Source Waters after Base and Expansion Projects (exclude ocean)	1,023	168	0	184	109	160	163	152	117	0	1,025	981	**4,082**	884	3,198
M1W portion of SRDF Backwash Water	0	0	0	0	6	24	25	25	11	4	0	0	**95**	91	4
Salinas Industrial Wastewater Flows Remaining	172	139	0	270	297	302	305	300	288	206	239	154	**2,672**	1,763	910
Salinas Pond Recovery Water (2015)*	0	0	0	100	15	0	0	0	0	0	0	0	**115**	115	0

**Flow may be much higher in 2021 when Salinas Pond PS Project Completed*

Attachment 3

Scenario 3 (N-Out): Source Water Use During Normal/Wet Years and Conditions Precedent Are Not Met

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Apr-Sep	Oct-Mar
Source Water for M1W Portion of Base Project (3,700 AFY after removing 600 AFY MCWD's Portion from the 4,300 AFY total, building Operational Reserve)															
Source Water Needed for M1W Portion of Base Project (3,700)	455	415	455	395	395	394	407	407	394	455	441	455	**5,067**	2,391	2,675
Secondary Effluent to Ocean used for base project, 1st priority	455	415	147	54	0	0	0	0	120	146	441	455	**2,232**	174	2,059
Secondary Effluent to Ocean Remaining after Base Project	882	474	325	12	0	0	0	0	0	354	376	1155	**3,579**	12	3,567
Feed water needed after ocean flows	0	0	308	341	395	394	407	407	274	309	0	0	**2,834**	2,218	617
Reclamation Ditch used for base project, 2nd priority	0	0	111	89	14	70	88	75	27	36	0	0	**509**	362	147
Reclamation Ditch Flows remaining after Base Project	81	18	0	0	0	0	0	0	0	0	65	136	**299**	0	299
Feed Water needed after Reclamation Ditch	0	0	197	252	381	324	319	332	247	273	0	0	**2,325**	1,855	470
Blanco Drain used for base project, 3rd priority	0	0	197	252	225	274	277	244	184	168	0	0	**1,821**	1,456	365
Blanco Drain Flows after Base Project	209	223	49	0	0	0	0	0	0	0	133	185	**799**	0	799
Feed Water needed after Blanco Drain	0	0	0	0	156	50	42	88	63	105	0	0	**504**	399	105
Recycle #1 used for base project, 4th priority	0	0	0	0	3	2	3	4	2	3	0	0	**17**	14	3
M1W's Portion of Recycle #1 after Base Project	7	3	5	4	0	0	0	0	0	0	3	3	**25**	4	21
Feed Water needed after Recycle #1	0	0	0	0	153	48	40	84	60	102	0	0	**488**	386	102
Recycle #2 used for Base Project, 5th priority	0	0	0	0	9	9	9	9	11	10	0	0	**56**	47	10
M1W's portion of Recycle #2 after base project	9	7	5	9	0	0	0	0	0	0	10	8	**48**	9	39
Feed Water needed after Recycle #2 water	0	0	0	0	144	39	31	75	50	92	0	0	**431**	339	92
PWM Base Project Backwash Water used for Base Project, 6th priority	0	0	0	0	25	25	26	25	24	25	0	0	**151**	126	25
M1W's portion of AWPF Backwash Water from base project after Base Project (1/2)	24	21	24	23	0	0	0	0	0	0	23	23	**139**	23	115
Feed Water needed after AWPF Backwash water	0	0	0	0	119	13	4	50	26	67	0	0	**280**	213	67
SVRP Backwash Water used for base project, 7th priority	0	0	0	0	59	13	4	50	26	57	0	0	**210**	153	57
M1W's portion of SVRP Backwash Water after Base Project	18	13	36	50	0	43	54	9	31	0	45	6	**305**	187	118
Feed Water needed after SVRP Backwash	0	0	0	0	60	0	0	0	0	10	0	0	**70**	60	10
Boronda used for base project, 8th priority	0	0	0	0	8	0	0	0	0	8	0	0	**16**	8	8
M1W's Portion of Boronda after Base Project	8	7	8	8	0	8	8	8	8	0	8	8	**79**	40	39
Feed Water needed after Boronda	0	0	0	0	52	0	0	0	0	2	0	0	**54**	52	2
Farmworker Housing used for Base Project 9th priority	0	0	0	0	2	0	0	0	0	2	0	0	**4**	2	2
M1W's Portion of Farmworker Housing after Base Project	1	1	1	2	0	2	2	2	2	0	2	1	**14**	9	5
Remaining Source Waters needed after Farmworker Housing	0	0	0	0	50	0	0	0	0	0	0	0	**50**	50	0
M1W Summer ARWRA Water used for Expansion remaining after MCWD Project, 10th priority	0	0	0	0	50	0	0	0	0	0	0	0	**50**	50	0
M1W ARWRA Remaining Summer Water after MCWD, Base & Expansion Projects	0	0	0	0	0	82	93	83	0	0	0	0	**258**	258	0
Remaining Source Waters needed after ARWRA	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0

Source Waters for 2,250 AFY Proposed Expanded PWM/GWR Project--Winter Peaking Flow Scenario	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Apr-Sep	Oct-Mar
Source Waters needed for 2,250 AFY Expansion	439	399	425	113	104	101	104	104	42	374	423	453	**3,081**	568	2,513
Secondary Effluent to Ocean used for Expansion after Base Project, 1st Priority*	439	399	325	12	0	0	0	0	0	354	376	453	**2,358**	12	2,346
Remaining Effluent to Ocean after Base & Expansion Projects	443	75	0	0	0	0	0	0	0	0	0	702	**1,221**	0	1,221
Remaining Source Waters needed for Expansion after Ocean Flows	0	0	101	101	104	101	104	104	42	20	46	0	**723**	556	167
Recycle #1 after base project used for Expansion, 2nd priority	0	0	5	4	0	0	0	0	0	0	3	0	**12**	4	8
M1W's Portion of Recycle #1 after Base & Expansion Projects	7	3	0	0	0	0	0	0	0	0	0	3	**13**	0	13
Feed Water needed after Recycle #1	0	0	95	97	104	101	104	104	42	20	44	0	**711**	552	159
Recycle #2 after base project used for Expansion, 3rd priority	0	0	5	9	0	0	0	0	0	0	10	0	**24**	9	15
M1W's portion of Recycle #2 after base & expansion Projects	9	7	0	0	0	0	0	0	0	0	0	8	**24**	0	24
Feed Water needed after Recycle #2 water	0	0	90	88	104	101	104	104	42	20	34	0	**688**	543	144
M1W's portion of PWM Base Backwash Water from Base used for Expansion Project, 4th Priority	0	0	24	23	0	0	0	0	0	0	23	0	**70**	23	47
M1W portion of Base PWM Backwash after Base & Expansion Projects	24	21	0	0	0	0	0	0	0	0	0	23	**68**	0	68
Remaining Source Waters needed after M1W Portion of AWPF Backwash	0	0	66	65	104	101	104	104	42	20	11	0	**617**	520	97
M1W's portion of PWM Expansion Backwash Water used for Expansion Project , 5th priority	0	0	21	5	5	5	5	5	2	20	11	0	**79**	27	52
M1W portion of PWM Expansion Backwash Water after Base & Expansion Projects	21	19	0	0	0	0	0	0	0	0	10	22	**72**	0	72
Feed Water needed after AWPF Expansion Backwash water	0	0	45	60	99	96	99	99	40	0	0	0	**538**	493	45
M1W's portion of SVRP Backwash Water used for Expansion after Base Project, 6th Priority	0	0	36	50	0	43	54	9	31	0	0	0	**223**	187	36
M1W's portion of SVRP Backwash after Base & Expansion Projects	18	13	0	0	0	0	0	0	0	0	45	6	**82**	0	82
Remaining Source Waters needed after SVRP Backwash	0	0	9	9	99	53	45	91	10	0	0	0	**315**	306	9
Boronda after base project used for Expansion, 7th priority	0	0	8	8	0	8	8	8	8	0	0	0	**48**	40	8
M1W's Portion of Boronda after Base & Expansion Projects	8	7	0	0	0	0	0	0	0	0	8	8	**31**	0	31
Feed Water needed after Boronda	0	0	1	2	99	45	37	82	2	0	0	0	**267**	267	1
Farmworker Housing after Base Project used for Expansion, 8th priority	0	0	1	2	0	2	2	2	2	0	0	0	**9**	9	1
M1W's Portion of Farmworker Housing after Base & Expansion Projects	1	1	0	0	0	0	0	0	0	0	2	1	**4**	0	4
Remaining Source Waters needed after Farmworker Housing	0	0	0	0	99	43	35	81	0	0	0	0	**258**	258	0
M1W Summer ARWRA Water used for Expansion remaining after MCWD Project, 9th priority	0	0	0	0	99	43	35	81	0	0	0	0	**258**	258	0
M1W ARWRA Remaining Summer Water after MCWD, Base & Expansion Projects	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
Remaining Source Waters needed after ARWRA	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0

**Available if otherwise not collected or would be discharged to ocean*

Source Waters Not Used for Approved or Proposed Expanded PWM/GWR Projects	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Apr-Sep	Oct-Mar
Remaining Effluent to Ocean after Base & Expansion Project	443	75	0	0	0	0	0	0	0	0	0	702	**1,221**	0	1,221
M1W's portion of SVRP Backwash after Base & Expansion Projects	18	13	0	0	0	0	0	0	0	0	45	6	**82**	0	82
M1W's Portion of Boronda after Base & Expansion Projects	8	7	0	0	0	0	0	0	0	0	8	8	**31**	0	31
M1W's Portion of Farmworker Housing after Base & Expansion Projects	1	1	0	0	0	0	0	0	0	0	2	1	**4**	0	4
M1W's Portion of Recycle #1 after Base & Expansion Projects	7	3	0	0	0	0	0	0	0	0	0	3	**13**	0	13
M1W's portion of Recycle #2 after base & expansion Projects	9	7	0	0	0	0	0	0	0	0	0	8	**24**	0	24
M1W portion of Base PWM Backwash after Base & Expansion Projects	24	21	0	0	0	0	0	0	0	0	0	23	**68**	0	68
M1W portion of PWM Expansion Backwash Water after Base & Expansion Projects	21	19	0	0	0	0	0	0	0	0	10	22	**72**	0	72
Reclamation Ditch after Base & Expansion Projects	81	18	0	0	0	0	0	0	0	0	65	136	**299**	0	299
Blanco Drain Remaining Water after Base & Expansion Projects	209	223	49	0	0	0	0	0	0	0	133	185	**799**	0	799
M1W ARWRA Remaining Summer Water after MCWD, Base & Expansion Projects	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
M1W's Plus Unused other Source Waters after Base and Expansion Projects (excl. ocean)	378	313	49	0	0	0	0	0	0	0	262	391	**1,393**	0	1,393
M1W's Plus Unused other Source Waters after Base and Expansion Projects (incl. ocean)	821	388	49	0	0	0	0	0	0	0	262	1,094	**2,614**	0	2,614
M1W portion of SRDF Backwash Water	0	0	0	0	6	24	25	25	11	4	0	0	**95**	91	4
Salinas Industrial Wastewater (2018)	184	149	182	261	305	305	318	319	305	333	252	186	**3,099**	1,813	1,285
Salinas Pond Recovery Water (2018)*	0	0	0	0	300	0	0	0	0	0	0	0	**300**	300	0

**Flow may be much higher in 2021 when Salinas Pond PS Project Completed*

Attachment 4

Scenario 4 (D-Out): Source Water Use During Drought Years and Conditions Precedent Are Not Met

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Apr-Sep	Oct-Mar
Source Water for M1W Portion of Base Project (3,500 AFY after removing 600 AFY MCWD's Portion from the 4,300 AFY total, drought)--not filling Operational Reserve															
Source Water Needed for M1W Portion of Base Project (3,700)	455	415	378	395	344	364	377	378	336	455	441	455	**4,793**	2,194	2,599
Secondary Effluent to Ocean used for base project, 1st priority	455	400	0	0	0	0	0	0	0	228	441	455	**1,978**	0	1,978
Secondary Effluent to Ocean Remaining after Base Project	1,161	18	3	90	0	0	0	0	0	222	1,083	1,097	**3,675**	90	3,585
Feed water needed after ocean flows	0	15	379	394	344	364	377	378	336	227	0	0	**2,815**	2,194	621
Reclamation Ditch used for base project, 2nd priority	0	15	19	50	11	8	12	35	11	16	0	0	**177**	127	50
Reclamation Ditch Flows remaining after Base Project	0	10	0	0	0	0	0	0	0	0	133	72	**215**	0	215
Feed Water needed after Reclamation Ditch	0	0	360	344	333	356	365	343	325	211	0	0	**2,638**	2,067	571
Blanco Drain used for base project, 3rd priority	0	0	246	252	225	274	277	244	184	168	0	0	**1,870**	1,456	414
Blanco Drain Flows after Base Project	209	223	0	0	0	0	0	0	0	0	133	185	**750**	0	750
Feed Water needed after Blanco Drain	0	0	114	92	108	82	88	99	141	43	0	0	**768**	611	157
Recycle #1 for base project, 5th priority	0	0	5	5	3	2	3	4	2	3	0	0	**26**	18	8
M1W's Portion of Recycle #1 after Expansion	7	3	0	0	0	0	0	0	0	0	3	3	**15**	0	15
Feed Water needed after Recycle #1	0	0	108	88	106	80	85	95	139	41	0	0	**741**	592	149
Recycle #2 for base project, 6th priority	0	0	5	9	9	9	9	9	11	10	0	0	**70**	55	15
M1W's portion of Recycle #2 after expansion	9	7	0	0	0	0	0	0	0	0	10	8	**34**	0	34
Feed Water needed after Recycle #2 water	0	0	103	79	97	71	76	87	128	31	0	0	**671**	537	134
PWM Base Project Backwash Water used for base project, 7th priority	0	0	20	23	23	24	25	24	21	25	0	0	**185**	140	46
M1W's portion of AWPF Backwash Water after Base Project (1/2)	24	21	0	0	0	0	0	0	0	0	23	23	**91**	0	91
Feed Water needed after AWPF Backwash water	0	0	83	56	74	47	52	63	107	6	0	0	**486**	398	88
SVRP Backwash Water used for base project, 8th priority	0	0	55	56	55	47	52	55	57	6	0	0	**382**	321	61
M1W's portion of SVRP Backwash Water after Base Project	18	27	0	1	0	10	5	0	0	51	37	18	**168**	16	152
Feed Water needed after SVRP Backwash	0	0	28	0	19	0	0	8	50	0	0	0	**104**	77	28
Boronda for base project, 9th priority	0	0	8	0	8	0	0	8	8	0	0	0	**32**	24	8
M1W's Portion of Boronda after Expansion	8	7	0	8	0	8	8	0	0	8	8	8	**63**	24	39
Feed Water needed after Boronda	0	0	20	0	11	0	0	0	42	0	0	0	**73**	53	20
Farmworker Housing for base project, 10th priority	0	0	1	0	2	0	0	0	2	0	0	0	**4**	4	1
M1W's Portion of Farmworker Housing after Expansion	1	1	0	2	0	2	2	2	0	2	2	1	**13**	7	6
Remaining Source Waters needed after Farmworker Housing	0	0	19	0	9	0	0	0	41	0	0	0	**68**	50	19
M1W Summer ARWRA Water for base project remaining after MCWD Project, 10th priority	0	0	19	0	9	0	0	0	41	0	0	0	**68**	50	19
M1W ARWRA Remaining Summer Water after Expansion	0	0	0	0	41	62	73	63	0	0	0	0	**240**	239	0
Remaining Source Waters needed after ARWRA	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Apr-Sep	Oct-Mar
Source Waters for 2,250 AFY Proposed Expanded PWM/GWR Project--Drought Year Scenario (Source Water = 2,105 AFY and 713 AF Operational Reserve)															
Source Waters needed for 2,250 AFY Expansion	435	89	4	105	43	86	93	68	0	298	427	457	**2,105**	395	1,709
Remaining Secondary Effluent to Ocean for Expansion after Base Project, 1st Priority*	435	18	3	90	0	0	0	0	0	222	427	457	**1,651**	90	1,561
Remaining Effluent to Ocean after Expansion Project	726	0	0	0	0	0	0	0	0	0	657	640	**2,023**	0	2,023
Remaining Source Waters needed for Expansion after Ocean Flows	0	71	1	15	43	86	93	68	0	76	0	0	**453**	306	148
Recycle #1 for Expansion, 2nd priority	0	3	0	0	0	0	0	0	0	0	0	0	**3**	0	3
M1W's Portion of Recycle #1 after Expansion	7	0	0	0	0	0	0	0	0	0	3	3	**13**	0	13
Feed Water needed after Recycle #1	0	69	1	15	43	86	93	68	0	76	0	0	**451**	306	145
Recycle #2 for Expansion, 3rd priority	0	7	0	0	0	0	0	0	0	0	0	0	**7**	0	7
M1W's portion of Recycle #2 after expansion	9	0	0	0	0	0	0	0	0	0	10	8	**26**	0	26
Feed Water needed after Recycle #2 water	0	61	1	15	43	86	93	68	0	76	0	0	**443**	306	138
M1W's portion of PWM Base Backwash Water Remaining from Base Project, 4th Priority	0	21	0	0	0	0	0	0	0	0	0	0	**21**	0	21
M1W portion of Base PWM Backwash after Base & Expansion	24	0	0	0	0	0	0	0	0	0	23	23	**70**	0	70
Remaining Source Waters needed after M1W Portion of AWPF Backwash	0	40	1	15	43	86	93	68	0	76	0	0	**422**	306	116
M1W's portion of PWM Expansion Backwash Water , 5th priority	0	4	0	5	2	4	5	3	0	15	0	0	**39**	19	19
M1W portion of PWM Expansion Backwash Water after Base & Expansion	21	0	0	0	0	0	0	0	0	0	21	22	**65**	0	65
Feed Water needed after AWPF Expansion Backwash water	0	35	0	10	41	82	88	65	0	61	0	0	**383**	286	97
M1W's portion of SVRP Backwash Water after Base Project, 6th Priority	0	27	0	1	0	10	5	0	0	51	0	0	**95**	16	79
M1W's portion of SVRP Backwash after Base & Expansion	18	0	0	0	0	0	0	0	0	0	37	18	**73**	0	73
Remaining Source Waters needed after SVRP Backwash	0	8	0	9	41	72	83	65	0	10	0	0	**288**	270	18
Boronda for Expansion, 7th priority	0	7	0	8	0	8	8	0	0	8	0	0	**39**	24	15
M1W's Portion of Boronda after Expansion	8	0	0	0	0	0	0	0	0	0	8	8	**24**	0	24
Feed Water needed after Boronda	0	1	0	2	41	64	75	65	0	2	0	0	**249**	246	3
Farmworker Housing for Expansion, 8th priority	0	1	0	2	0	2	2	2	0	2	0	0	**9**	7	3
M1W's Portion of Farm Worker Housing after Expansion	1	0	0	0	0	0	0	0	0	0	2	1	**4**	0	4
Remaining Source Waters needed after Farmworker Housing	0	0	0	0	41	62	73	63	0	0	0	0	**239**	239	0
M1W Summer ARWRA Water for Expansion remaining after MCWD Project, 9th priority	0	0	0	0	41	62	73	63	0	0	0	0	**239**	239	0
M1W ARWRA Remaining Summer Water after Expansion	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
Remaining Source Waters needed after ARWRA	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0

**Available if otherwise not collected or would be discharged to ocean*

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Apr-Sep	Oct-Mar
Source Waters Not Used for Approved or Proposed Expanded PWM/GWR Projects															
Remaining Effluent to Ocean after Expansion Project	726	0	0	0	0	0	0	0	0	0	657	640	**2,023**	0	2,023
M1W's portion of SVRP Backwash after Base & Expansion	18	0	0	0	0	0	0	0	0	0	37	18	**73**	0	73
M1W's Portion of Boronda after Expansion	8	0	0	0	0	0	0	0	0	0	8	8	**24**	0	24
M1W's Portion of Farm Worker Housing after Expansion	1	0	0	0	0	0	0	0	0	0	2	1	**4**	0	4
M1W's Portion of Recycle #1 after Expansion	7	0	0	0	0	0	0	0	0	0	3	3	**13**	0	13
M1W's portion of Recycle #2 after expansion	9	0	0	0	0	0	0	0	0	0	10	8	**26**	0	26
M1W portion of Base PWM Backwash after Base & Expansion	24	0	0	0	0	0	0	0	0	0	23	23	**70**	0	70
M1W portion of PWM Expansion Backwash Water after Base & Expansion	21	0	0	0	0	0	0	0	0	0	21	22	**65**	0	65
Reclamation Ditch after Base & Expansion	0	10	0	0	0	0	0	0	0	0	133	72	**215**	0	215
Blanco Drain Remaining Water after Base & Expansion	209	223	0	0	0	0	0	0	0	0	133	185	**750**	0	750
M1W ARWRA Remaining Summer Water after Expansion	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0
M1W's Plus Unused other Source Waters after Base and Expansion Projects (exclude ocean)	297	233	0	0	0	0	0	0	0	0	369	340	**1,240**	1	1,240
M1W's Plus Unused other Source Waters after Base and Expansion Projects (exclude ocean)	1,023	233	0	0	0	0	0	0	0	0	1,025	981	**3,263**	1	3,263
M1W portion of SRDF Backwash Water	0	0	0	0	6	24	25	25	11	4	0	0	**95**	91	4
Salinas Industrial Wastewater (2015)	172	139	163	270	297	302	305	300	288	312	239	154	**2,942**	1,763	1,179
Salinas Pond Recovery Water (2015)*	0	0	0	100	15	0	0	0	0	0	0	0	**115**	115	0

**Flow may be much higher in 2021 when Salinas Pond PS Project Completed*

Appendix N
Letter from David J. Stoldt to Ian Crooks, RE: California American Water Peer Review of Supply and Demand for Water on the Monterey Peninsula

March 6, 2020

VIA EMAIL

Mr. Ian C. Crooks
Vice President, Engineering
California American Water
655 West Broadway, Suite 1410
San Diego, CA 92101

Re: California American Water Peer Review of Supply and Demand for Water on the Monterey Peninsula

Dear Mr. Crooks:

Monterey Peninsula Water Management District (MPWMD) has thoroughly reviewed the report *"California American Water Peer Review of Supply and Demand for Water on the Monterey Peninsula"* prepared by Hazen & Sawyer, a consultant to Cal-Am, dated January 22, 2020 and widely distributed by Cal-Am via email on January 23, 2020.

MPWMD's review and analysis is presented here in three sections:

- Section 1 is comprised of the Hazen & Sawyer report annotated to direct the reader to specific numbered "Notes" or analysis prepared by MPWMD;
- Section 2 are MPWMD's explanatory "Notes" themselves; and
- Section 3 contains supporting exhibits

We believe this response establishes that the September 2019 MPWMD report "*Supply and Demand for Water on the Monterey Peninsula"*, which was updated December 3, 2019, does in fact comply with applicable California law and commonly accepted industry practice. MPWMD intends to finalize its report "Supply and Demand for Water on the Monterey Peninsula" in March 2020.

Further, the principal conclusions of the report remain valid: either of the proposed water supply projects – the Monterey Peninsula Water Supply Project desalination plant or Pure Water Monterey expansion – are sufficient to lift the Cease and Desist Order and to meet the water needs of the Monterey Peninsula for decades to come.

Sincerely,

David Stoldt
General Manager
Monterey Peninsula Water Management District

Section 1: Annotated Hazen & Sawyer Report (Shows References to MPWMD "Notes")

CALIFORNIA AMERICAN WATER
PEER REVIEW OF SUPPLY AND DEMAND FOR WATER ON THE MONTEREY PENINSULA

Prepared by: Kevin Alexander, P.E. and Cindy L. Miller, P.E.
Hazen and Sawyer[1]
January 22, 2020

This memorandum reviews the adequacy of the water supply portfolio on the Monterey Peninsula to meet current and future demands, with consideration of engineering best practices and State regulatory requirements for the establishment of supply and demand projections. This review analyzes the projections recently put forth by Monterey Peninsula Water Management District (MPWMD) staff, specifically the "Supply and Demand Analysis for Water on the Monterey Peninsula" dated September 2019 and the subsequent "Updated Water Demand Forecasts" dated December 17, 2019, and reaches the following key conclusions:

- Established values for supply and demand must meet the requirements of the California Health and Safety Code (CHSC) and the California Code of Regulations (CCR), specifically with regards to the reliability of the supply noted in CHSC Section 116555, and the estimation of demands based upon the highest 10-year maximum daily demand (MDD) required by CCR Title 22 Section 64554. The methodology used by MPWMD staff does not meet these requirements. **SEE NOTE 1**

- The projected demand for Cal-Am's Monterey service area identified by MPWMD staff is incorrect. MPWMD staff used a 5-year average rather than the 10-year MDD requirement. **SEE NOTE 2** As a result, the staff's demand and probable growth projections are underestimated, without clear supporting data. **SEE NOTE 3** MPMWD staff also assumes continued implementation of tiered rates, conservation restrictions, and enforced water use reductions in order to justify these lower demand projections, all of which have the potential to do continuing harm to the area's businesses and residential customers. **SEE NOTE 4**

- The supply projection presented by MPWMD staff incorrectly assumes that each supply source included in the analysis is available at all times at maximum capacity, with no allowance or consideration of the potential shortfall that would occur should one or more sources be reduced or off-line for extended periods. This does not meet engineering best practices for reliability, resiliency, and incorporation of a factor of safety to ensure compliance with the regulations for a "reliable and adequate supply", as required by §116555(a)(3) of CHSC. **SEE NOTE 5**

- The supply portfolio assumption made by Mr. Stoldt would operate at a precarious edge where current Peninsula water demand would need to be met by relying on **all** supply sources operating at **full capacity** at **all times** to meet the regulatory criteria. **SEE NOTE 5** Not only is this assumption

[1] Hazen & Sawyer is recognized worldwide as experts in safe drinking water, and has performed water system supply and new source evaluations for major metropolitan areas such as New York City and Washington, D.C., as well as for many smaller cities, towns and municipalities. Kevin Alexander, P.E., is Vice President and Regional Manager of the Firm's West Region. Cindy Miller, P.E., is Vice President and Operations Manager of the Firm's Irvine, California office. Each of their resumes is attached.

risky, it is unrealistic. As has recently occurred at nearby agencies, if even one source were to be reduced by capacity or water quality issues, the Peninsula supply would fall out of compliance, resulting in new Water Board restrictions, moratoriums, etc.

- Based upon the portfolio of ***reliable*** sources of water supply, the available supply with the Pure Water Monterey Expansion project and without another water source is inadequate to serve the current water demand determined by the CPUC of 12,000 afy, **SEE NOTE 6** as well as the reduced 10-year average demand of 10,863 afy as projected by MPWMD staff. **SEE NOTE 7**

- Based upon the foregoing, the implementation of the proposed MPWSP Desalination Plant is necessary to provide a safe and reliable water supply to meet regional demand, regardless of whether the Pure Water Monterey Expansion project is developed.

PURPOSE AND BACKGROUND

California American Water (Cal-Am) requested Hazen and Sawyer (Hazen) perform an independent engineering peer review of the memorandum entitled "Supply and Demand Analysis for Water on the Monterey Peninsula", prepared September 2019 by MPWMD's General Manager David J. Stoldt, (referred to hereafter as the Stoldt memo). The Stoldt memo re-examined available current and future water supplies, along with current and projected long-term demands and compared its updated values with previous estimates provided by Cal-Am and identified in the September 13, 2018 California Public Utilities Commission (CPUC's) Decision Approving a Modified Monterey Peninsula Water Supply Project (Decision). Cal-Am also requested Hazen review General Manager Stoldt's Updated Water Demand Forecasts presented to the MPWMD Board's Water Demand Committee on December 17, 2019.

A conclusion of the Stoldt memo and subsequent water demand forecast was that long-term water demands could reliably be met if Monterey One Water (M1W) constructs the Pure Water Monterey (PWM) Expansion, which it has been claimed could potentially eliminate the need to construct the MPWSP Desalination Plant that is required by the CPUC's Decision. This conclusion was cited as a major factor in the California Coastal Commission Staff Report issued on October 28, 2019 that recommended denial of Coastal Development Permits for Cal-Am to construct a slant well field, associated transmission pipelines and related infrastructure within the coastal zone to support the proposed MPWSP desalination facility.

This technical memo examines the supply and demand analysis methodology provided in the Stoldt memo, with a focus on whether the methodology used was consistent with the California Water Code, which Cal-Am, as a public water supplier, is required to follow. Specifically, Water Code §10635(a) states:

> *"Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. The water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. The water service reliability assessment shall be*

based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier." **SEE NOTE 1**

DEMAND

Sound water demand forecasting is critical to effective water resources planning. In particular, determining a utility's adequacy of supply hinges upon the accuracy of its demand forecasts. CCR §64554(b), establishes the requirements that California water utilities must use to project demands. The procedure requires that the public water system identify the day, month, and year with "the highest water usage during at least the most recent ten years of operation." This methodology is further supported by engineering best practices described in the American Waterworks Association (AWWA)[2] Manual M50 (Water Resources Planning Manual) which states, *"…the utility should forecast using monthly consumption from a period of **at least 10 years**"*, and that *"…data from a **20-year period** are most beneficial if the overall period includes one or more drought crises that must be analyzed to measure their temporary and permanent effects on consumption."* **SEE NOTE 1**

The foregoing regulatory requirements and AWWA guidance form the basis for review of the adequacy of the demand forecasting provided in the Stoldt memo and subsequent demand forecast update.

Current Annual Demand

The Stoldt memo disagrees with the CPUC's determination that current water demand in Cal-Am's service territory is 12,000 afy. **SEE NOTE 6** After reviewing the estimates of multiple parties, including MPWMD, the CPUC determined that an appropriately conservative and reasonable demand for Cal-Am's existing customers is 12,000 afy, based upon the maximum water demand within the 10-year period prior to the anticipated in-service date of the desalination plant (i.e., 2012-2021). The maximum water demand in Cal-Am's service territory over this 10-year period has not changed since the CPUC's determination. **SEE NOTES 8 & 11** The Stoldt memo update, however, presents both a 10-year average annual demand of 10,863 afy and a 5-year average annual demand of 9,825 afy, and bases its supply/ demand balance upon the latter, lower value. **SEE NOTE 2** In light of the State regulations (i.e. CCR §64554(b)) and Engineering Best Practices for demand estimating as described in the AWWA Water Resources Planning Manual, it is unclear why MPWMD considers a 5-year period to be an acceptable method to calculate the demand for the Monterey Peninsula. Moreover, basing capacity determinations on a 5- or 10-year average fails to provide sufficient system capacity to meet peak demands. To our knowledge, using a 5-year period to calculate demands has not been accepted previously by applicable regulatory bodies, including the State Water Board and the CPUC. **SEE NOTES 1, 2, & 8**

Based on review of the documentation provided, Hazen concludes the CPUC-approved demand assumptions meet the CCR requirements and engineering best practices as defined by AWWA, while those outlined in the Stoldt memo *do not*. SEE NOTE 1

[2] The American Water Works Association is an international, nonprofit, scientific and educational society dedicated to providing total water solutions assuring the effective management of water. Founded in 1881, the Association is the largest organization of water supply professionals in the world.

Future Demand Trends

In addition to the 12,000 afy needed to serve existing customer demand, **SEE NOTE 2** the CPUC determined that 2,000 afy of additional water, for a total of 14,000 afy, would be necessary to account for projected growth based upon lots of record, tourism bounce-back, and Pebble Beach buildout. The CPUC's findings were based upon actual numbers of legal lots of record, economic recovery projections, and the actual legal entitlement of Pebble Beach. To calculate future demand trends, the Stoldt memo reanalyzes the CPUC-approved demand estimations for future growth, and recommends reductions in the demand assumptions for each of these growth areas; however, the recommendations appear to be based on anecdotal data to support what-if scenarios rather than any hard data of actual lots and entitlements. **SEE NOTE 9** The lack of concrete evidence does not appear to be sufficient to justify revising the demands already approved by the CPUC.

The Stoldt memo also relies heavily upon the presumption that a general downward trend in water use is guaranteed to continue. **SEE NOTE 4** However, as noted by the CPUC in its Decision,

> *"The assertions by some parties that the downward trend in water use in the District will continue and that only minimal growth will occur in demand after 2021 are not convincing because those assertions fail to consider that maximum month usage increased in 2017 compared to 2016, conservation funding is projected to go down, and the conservation and moratorium measures implemented during the drought will end."*

The conservation and moratorium measures that were implemented in response to drought conditions, including tiered rates, conservation restrictions, and enforced water use reductions, were effective in lowering demand. However, no additional methods are presented in the memo to indicate how further reductions in demands would occur; absent any, it is reasonable to assume everything has already been done on the demand side to reduce levels and further reductions should not be considered in demand forecasting for determining water supply sufficiency. Additionally, continued implementation of these measures over the long term is uncertain and has the potential to do harm to the area's businesses (such as hotels having to ship out laundry services), economic growth, accessory dwelling units (ADU's), affordable housing, existing residential property improvements, and quality of life.

The Stoldt memo presents demand projections based upon market absorption rates and calculates increased demand between 492 and 1,476 afy. Mr. Stoldt then presented newly revised demand projection information to the MPWMD Board's Water Demand Committee on December 17, 2019, which now proposes to use growth projections prepared by the Association of Monterey Bay Area Governments (AMBAG) in its 2018 Regional Growth Forecast. The population forecast is used as a proxy for residential water demand and the employment forecast as a proxy for commercial water demand. While the intent of Mr. Stoldt in presenting this alternative methodology of computing future demand appears to be to provide input from "an objective third-party" as stated in his presentation to the Board, he also notes himself that "certainly, other factors can be considered. " Based on the water demands calculated by Stoldt using the AMBAG forecast, 1,469 afy would be needed to accommodate growth through 2049. This is in contrast to the CPUC-approved value of 2,000 afy noted previously. **SEE NOTE 10** Further, Section 2.5.3.4 of the FEIR for the MPWSP Desalination Plant provides each city's projection of future water supply needs, with a total of 3,526 afy needed to accommodate the projected growth at buildout that each City determined (see Table 2-5 from the FEIR). **SEE NOTE 11**

TABLE 2-5
FUTURE WATER DEMAND – SERVICE AREA JURISDICTIONS
(acre-feet per year)

Jurisdiction	Future Supply Needs (2006 Estimate)[a]	Future Supply Needs (Revised Estimate)
City of Carmel	288	288[b]
City of Del Rey Oaks	48	48
City of Monterey	705	705
City of Pacific Grove	1,264	500[c,d]
City of Sand City	386	180[e]
City of Seaside	582	662[f]
Monterey County (Unincorporated)	1,135	1,005[b,g,h]
Monterey Peninsula Airport District	138	138
Total	**4,545**	**3,526**

Clearly, the difference between Mr. Stoldt's projections and the growth projections of each jurisdiction within Cal-Am's service territory demonstrates that there is a wide variation in growth forecasts. Mr. Stoldt's assumption of 1,469 afy is 531 afy less than the CPUC-approved value of 2,000 afy; **SEE NOTE 10** based on the supply needs of each local jurisdiction presented in the MPWSP FEIR, that could represent entirely dismissing the future supply needs of the Cities of Carmel, Del Rey Oaks, and Sand City. Further, making assumptions which undercut both the CPUC-approved demand projections and the projections of each local jurisdiction becomes even more risky when coupled with other assumptions in the Stoldt memo that exaggerate the available reliable supply, as discussed later in this document.

There is no basis to conclude that AMBAG growth forecasting should be considered any more accurate or helpful than the CPUC-approved demand projection, the growth projections of each local jurisdiction in Cal-Am's service territory, or even Stoldt's prior projections. AMBAG's methodology can be acknowledged as one of several possible means of estimating future demands; however, the selected methodology must first and foremost utilize an acceptable current annual demand value, which is required by the regulations to be the 10-year period maximum demand estimate. SEE NOTE 12

SUPPLY

Existing and future available water supply sources for the Cal-Am service area are presented in Table 5-2 of Cal-Am's 2015 Urban Water Management Plan (UWMP). The UWMP includes the MPWSP desalination plant as a source of supply. The Stoldt Memo presents an alternative portfolio with the PWM expansion as a source of new future supply in lieu of the desalination plant. Aside from the desalination plant or PWM expansion, the balance of the water supply portfolios for both alternatives consist of almost identical supplies from five additional sources. The two supply portfolios are summarized in Table 1 on the following page, with a total available supply of up to 15,296 afy for the desalination plant alternative and up to 11,294 afy for the PWM expansion alternative.

Table 1 - Monterey Peninsula Available Supply
(Acre-Feet per Year)

Supply Source [1]	Per UWMP w/Desalination	Per Stoldt Memo w/PWM Expansion
MPWSP Desalination Plant	6,252	0
Pure Water Monterey	3,500	3,500
PWM Expansion	0	2,250
Carmel River [2]	3,376	3,376
Seaside Basin[3]	774	774
Aquifer Storage & Recovery (ASR)	1,300	1,300
Sand City Desalination Plant[4]	94	94
Total Available Supply	**15,296**	**11,294**
Total *Reliable* Supply (w/o ASR[5])	**13,996**	**9,994**

[1] Other sources of supply in the amount of 406 afy from the Carmel River and Sand City plant may be available; however, they have been noted by Stoldt as not to be included as reliable supplies and are excluded from this summary.
[2] Amount limited to 3,376 afy by Water Order 95-10; may be further declining due to storage limitations caused by sedimentation.
[3] The amount of 794 afy was used in the UWMP, but is revised to 774 afy here to reflect revisions to Cal-Am's Seaside Basin groundwater rights.
[4] Sand City Desalination Plant supply is adjusted from UWMP level to reflect legal commitments to offset Carmel River Pumping.
[5] Reliability of ASR supply discussed further below.

CHSC, §116655, requires "a reliable and adequate supply of pure, wholesome, healthful, and potable water." Evaluation of the reliability and adequacy of the supply portfolios presented in the table must include consideration of source capacity requirements established in Water Code, §10635 and CCR §64554, as well as best practice incorporation of a reasonable factor of safety should a major source of supply be reduced or eliminated such that the ability to meet demands is still maintained. While the table above provides a comprehensive list of all available sources of supply, it does not necessarily follow that each and every supply source can be assumed to be **reliably** available at full capacity and quality at all times. **SEE NOTE 5**

Reliability of Aquifer Storage and Recovery

Of particular concern is the supply from Aquifer Storage and Recovery (ASR). The average ASR yield is estimated in the UWMP at 1,300 afy. However, it is also noted therein that this amount will be reduced during drought conditions. In its October 15, 2019 comment letter to the Stoldt memo, Cal-Am took issue with including the ASR supply as a consistent, reliable source at 1,300 afy, asserting that it cannot be reliably assured to be capable of meeting long-term demand in normal water years, a single dry water year, and during droughts lasting at least five years per Water Code, §10635. Table 6-2 of the UWMP, which analyzes the reliability of each supply source, notes the availability of the ASR supply is reduced to 63% in a single dry year down to 4% in year 3 of multiple dry years, making this supply essentially almost entirely unavailable as a reliable continuous source during a drought. **SEE NOTE 13**

Table 6-2: Monterey County District Supply Reliability-Current Water Use

Water Supply Sources[1]	Average / Normal Water Year Supply	Single Dry Water Year	Multiple Dry Water Year Supply		
			Year 1	Year 2	Year 3
Carmel Valley Aquifer	100%	100%	100%	100%	100%
Seaside Groundwater Basin	100%	100%	100%	100%	100%
Salinas Valley Groundwater Basin	100%	100%	100%	100%	100%
Aquifer Storage and Recovery	100%	63%	74%	17%	4%
Sand City Desalination	100%	100%	100%	100%	100%

The Direct Testimony of Ian Crooks before the CPUC on September 15, 2017 explains Cal-Am's position regarding ASR shortfalls during dry years, which was expected to be made up by desalination supplies. Mr. Crooks stated, "the estimated 1,300 AFY of Carmel River stored in ASR may not be available in dry years or initial years of operation when no carry-over reserve is established. SEE NOTE 13 In this instance, without the 1,300 AFY, the supply surplus of 941 in normal years turns into an estimated deficit of 359 AFY (941 – 1,300) during dry years. The shortfall can be covered by increasing desalination plant output to 100% and peaking other system supplies (Seaside Basin, ASR, Carmel River) depending on operational variables and regulatory availability."

In response to Cal-Am's stated disagreement regarding the adequacy of the ASR supply to meet Water Code §10635 criteria, MPWMD staff provided a purported excerpt of a draft technical memorandum prepared by Pascual Benito and Derrik Williams dated September 30, 2019 (Benito/Williams memo), which used the Seaside Basin predictive model to evaluate water availability for Cal-Am pumping[3].The simulation assumes no ASR water is stored until Cal-Am satisfies the Cease and Desist Order (CDO), which is estimated to occur in year 2020 for the simulation. Once the CDO is met, the predictive model unreasonably assumed all water Cal-Am is permitted to pump from the Carmel River is injected into the Basin, and that ASR extraction is capped by ASR well capacity. SEE NOTE 14

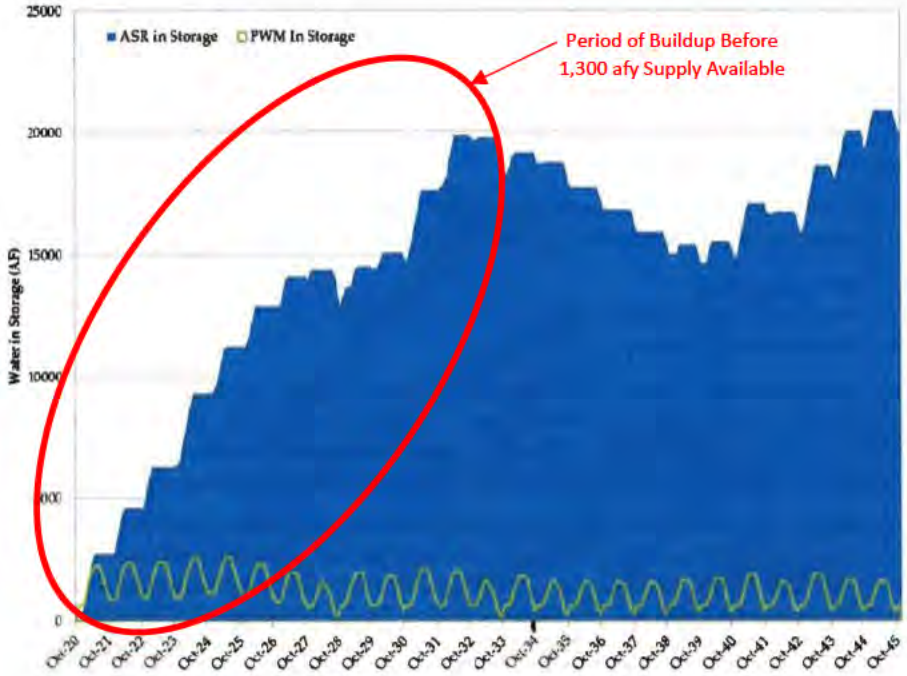
The predictive model also uses an initial annual demand of 10,400 AFY for year 2020, and a linear increase in demand over the following 25 years, to develop an ultimate annual demand of 11,325 AF in the year 2045, which was developed based upon an incorrect demand estimation methodology as previously discussed (note the 10-yr average presented by Mr. Stoldt was even lower at 11,232 afy). The initial and ultimate demand assumptions used for the model simulation are lower than the Peninsula's current estimated annual water demand of 12,000 AFY, as determined by the CPUC, for the initial period, and projected 14,000 AFY future demand also as determined by the CPUC. As previously discussed, the 12,000 current annual water demand is based upon historical data over a 10-year period, and projections from Cal-Am's 2015 Urban Water Management Plan. SEE NOTE 2

The conclusion drawn in the Benito/Williams memo is that buildup of ASR storage would be sufficient to meet a 4-year drought, SEE NOTE 15 and likely longer, beginning in the year 2034. Note that this is predicated on the lower demand assumption refuted earlier in the demand discussion of this memorandum and relies upon the unreasonable assumption of 14 to 15 years of full ASR storage, SEE NOTE 15 which would require a significant wet period, no drought (highly unlikely for this extended period), and full availability of

[3] It should be noted that only an excerpt of the memo was provided, that the purpose of the overall memo was to perform groundwater modeling and not evaluate supply, and that conclusions drawn by Mr. Stoldt in relation to adequacy of supply were his conclusions and not those of the memo's authors.

Carmel river pumping. Nonetheless, during the period of buildup of ASR storage from year 2020 through 2034, it can be deduced that sufficient reserves to meet drought conditions will *not* be available during that period. Likewise, if any prolonged drought condition were to occur during the buildup period, the reserves would be depleted, requiring a new "buildup period" during which ASR supply would again not be considered to be drought proof. SEE NOTE 15 Additionally, the Benito/Williams memo states that "the actual amount of ASR water stored during the project may be less than what is shown by the blue area on Figure 7 because some water may flow out to the ocean or to adjoining basins." This potential water loss is not quantified nor is its potential impact to annual ASR capacity quantified or the potential delay in the 2034 date noted above.

Figure 7.



In addition to the concerns with the quantity of reliably available ASR supply, there is no data presented in the memo to analyze the potential water quality concerns associated with ASR. It does not consider the uncertainties of this supply due to the potential that water extracted may not (now or at some point) meet the MCL for one or more constituents. Confirmation testing should be provided to make sure there are no issues such as Iron, Manganese, Arsenic, Silica, hardness, volatile organics and since some of the areas are near an old base, whether there are PFOA/PFOS concerns. SEE NOTE 16

Based upon the foregoing, it is Hazen's opinion that ASR supply does not meet the requirements of the CHSC for consideration as a permanent reliable water supply source, but should be treated as an alternative or backup supply, thus reducing the listed "Available Supply" in the Stoldt memo by 1,300 AFY. SEE NOTE 15 Further, as discussed later in this document, without ASR as a reliable source, the supply cannot meet the 10-yr average assumed by Mr. Stoldt, or even Mr. Stoldt's 5-yr demand average when growth is considered.

Reliability of Pure Water Monterey Expansion

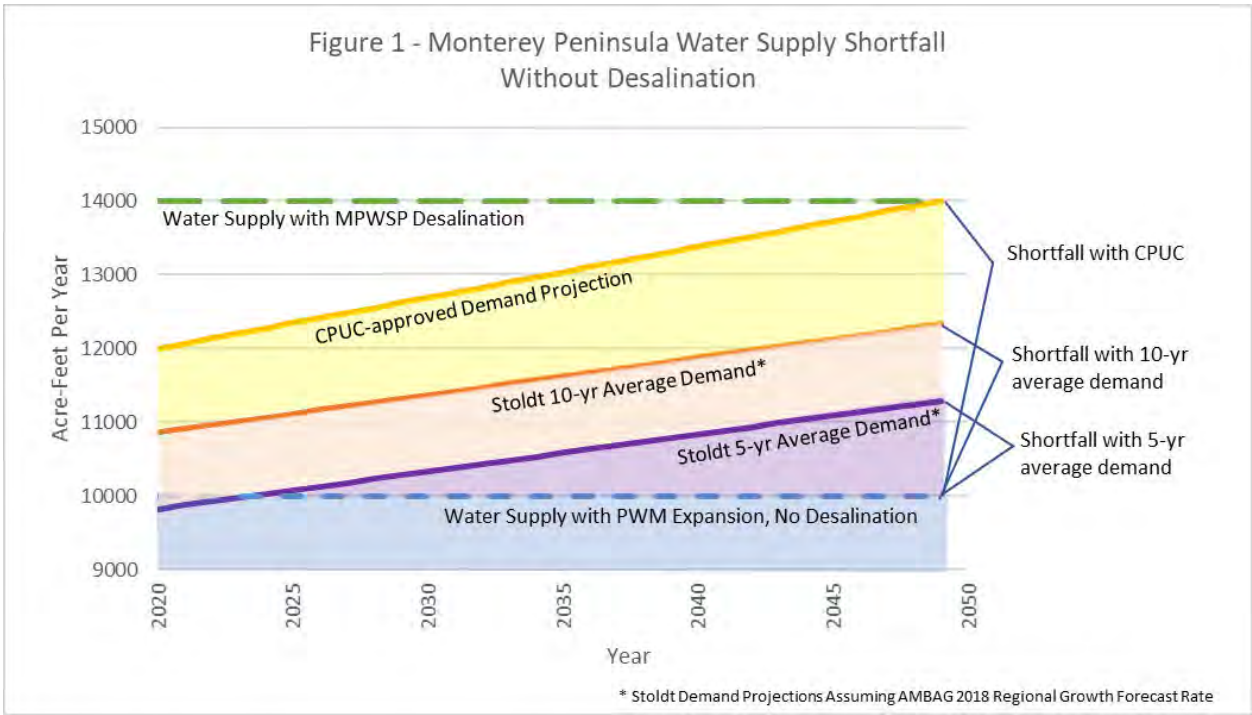
Also of significant concern is the reliability of the PWM Expansion at the full capacity of 2,250 afy, particularly in the context of the Stoldt memo's assumption that the PWM Expansion project replaces the need for the desalination supply. **SEE NOTE 17** Without the MPWSP desalination plant and the ASR, the need to rely on the full production capacity of the Expansion project becomes critical. However, the assumed availability of the supply provided by the Expansion project as reflected in the Stoldt memo does not appear to consider the reliability of the sources of supply to the Expansion project (wastewater, irrigation runoff) during reduced usage or drought years, **SEE NOTE 18** to consider impacts to water quality that may occur as the availability of the individual sources vary, and the potential shortfall of supply should the plant not operate at full capacity.

There have been disagreements between the parties regarding key water rights and source water issues, including access to Salinas-area wastewater sources, and claims that the Salinas Valley and its agricultural industry also have a need for the source water that is planned for the Expansion project. **SEE NOTE 19** There are also concerns regarding the water quality variability and treatability of the wastewater. M1W's general manager told The Herald newspaper that the wastewater is more challenging to treat during certain times and contains chemicals that upset the treatment plant's processes, and that the agency will monitor the source water for those contaminants and shut off the water when those are present.

Given the PWM Expansion project would represent approximately 60% of supplies on an annual basis and even more during peak summer demand, this supply is critically important in the absence of the MPWSP Desalination Plant , and the reliability aspect of the PWM Expansion project's source water supply needs to be validated and proven before it can be considered a verified supply source such that the Expansion project could provide its estimated full capacity of 2,250 afy. The absence of such information means that the projected supply from PWM Expansion is speculative. SEE NOTE 19 If the Expansion project cannot reliably meet its full capacity of 2,250 afy, there will be an even larger water supply deficit within Cal-Am's service territory. Further, even if PWM Expansion was proven reliable, the total water supply portfolio available barely meets today's demands and provides no buffering or contingency, and certainly not enough to permit additional or new water use. SEE NOTE 2

SUMMARY OF DEMAND VERSUS SUPPLY

Based upon the foregoing discussion of demand and supply, a projection can be made to forecast the ability to meet demands within Cal-Am's service territory for the next 30 years with and without the proposed desalination plant. Based upon the ***reliable*** supply portfolio presented in Table 1 herein, Figure 1 on the following page presents the water supply under two conditions: 1) after the CDO with PWM Expansion of 9,994 afy, and 2) water supply after the CDO with MPWSP Desalination of 13,996 afy. The projected water demand through 2049 is overlaid on the graph to evaluate the adequacy of the supplies. **SEE NOTE 20**



Stoldt provided a similar analysis in his December 17, 2019 presentation based upon the 5-yr average starting demand and the AMBAG growth projections, and based upon his assumptions, the supply is purported to meet the demand requirements. However, correction of the initial demand projection and of the portfolio of reliable supply sources fundamentally change those conclusions when analyzed as follows:

- Three demand projections are included in Figure 1, based upon the following criteria:

Source	Initial Demand (afy)	Growth Projection
CPUC-approved	12,000	Per CPUC-approved ultimate demand of 14,000 afy
Stoldt 10-yr average	10,863	Per Stoldt estimates using AMBAG growth projection
Stoldt 5-yr average	9,825	Per Stoldt estimates using AMBAG growth projection

- The available supplies illustrated in Figure 1 exclude ASR based upon the assumption that at least one of the sources is reduced or offline. **SEE NOTE 20** This is critical because even if the supply and demand appears to balance exactly on paper as per the Stoldt memo, the risk of operating at this precarious edge can be illustrated by two recently-issued compliance orders by the State Water Board's Division of Drinking Water – to Sheep Creek Water Company[4] and the City of San

[4] See SWRCB Compliance Order No. 05-13-18R-002, available at https://www.waterboards.ca.gov/drinking_water/programs/documents/ddwem/dwp%20enforcement%20actions/San%20Bernardino/2018/05_13_18R_002_3610109_WW.pdf.

Juan Bautista[5] – for failure to meet the requirements of CHSC §116655 for a reliable and adequate supply. In each of these two cases, the water systems relied upon all of their supply sources to be available at full capacity at all times to meet the regulatory criteria. However, when capacity or water quality issues resulted in reduction or loss of one or more sources, they fell out of compliance. The supply portfolio assumption made by Mr. Stoldt risks this same outcome for the Monterey Peninsula, particularly in its reliance on the reliability of ASR.

As illustrated in Figure 1, without ASR, the only water supply portfolio that meets any of the three demand projections is the water supply with MPWSP Desalination. The water supply portfolio with the PWM expansion does not meet the CPUC-approved demand nor the demand under the Stoldt 10-yr demand methodology, and only meets Stoldt's 5-yr demand estimate for approximately 3 years before falling out of compliance. Therefore, a reasonable conclusion is the Desalination plant is a vital part of the water supply portfolio for a reliable and adequate supply. **SEE NOTE 20**

Additional concerns may be considered when attempting to operate at an exact balance of supply and demand as proposed in the Stoldt memo:

- In considering the balance of supply and demand, it is unclear whether the analysis presented in the memo has taken into account potential impacts of climate change. For example, California's Fourth Climate Change Assessment report published by State of California on September 28, 2018, predicts that in the next 50 years annual average maximum temperatures in Monterey may increase approximately 4 degrees, and average number of days with maximum temperature above a threshold will increase by 10 days a year. Potential impacts to water usage are unknown, but present an added variable suggesting that operating right on the limit of the supply/demand balance would present risk that warrants further analysis if only the Expansion project is pursued.

- It is unclear if the supply portfolio presented by MPWMD staff would pass the required Risk and Resilience Assessment as defined within America's Water Infrastructure Act (AWIA) enacted on October 23, 2018, since even if the significant reductions in demand projections are accepted, the proposed non-desal supply option barely meets the current demand and if any supply source was reduced or eliminated due to malevolent acts, drought, or other natural hazards, even current demands would not be able to be met.

CONCLUSIONS

This peer review finds the following in regard to water supply and demand on the Monterey Peninsula, and the specific assertions presented in the Stoldt memo:

- Established values for supply and demand must meet the requirements of the California Health and Safety Code (CHSC) and the California Code of Regulations (CCR), specifically with regards to the reliability of the supply noted in CHSC Section 116555, and the estimation of demands

[5] See SWRCB Compliance Order No. 02-05-16R-004, available at https://www.waterboards.ca.gov/drinking_water/programs/documents/ddwem/dwp%20enforcement%20actions/San%20Benito/2016/02_05_16R_004_3510002_WW.pdf.

based upon the highest 10-year maximum daily demand (MDD) required in CCR Section 64554. The methodology used in the Stoldt memo does not meet these requirements. **SEE NOTE 1**

- The demand identified in the Stoldt memo is incorrect. Stoldt used a 5-year average rather than a 10-year MDD requirement. **SEE NOTES 2 & 8** As a result, demand and probable growth projections in the memo are underestimated, without clear supporting data. MPMWD staff also assumes continued implementation of tiered rates, conservation restrictions, and enforced water use reductions in order to justify lower demand projections, all of which have the potential to do continuing harm to the area's businesses and residential customers. **SEE NOTE 4**

- The supply projection presented in the Stoldt memo incorrectly assumes that each supply source included in the analysis is available at all times at maximum capacity, with no allowance or consideration of the potential shortfall that would occur should one or more sources be reduced or off-line for extended periods. This does not meet engineering best practices for reliability, resiliency, and incorporation of a factor of safety to ensure compliance with the regulations for a "reliable and adequate supply", as required by §116555(a)(3) of CHSC. **SEE NOTES 1, 5, & 7**

- The supply portfolio assumption made by Mr. Stoldt would operate at a precarious edge where current Peninsula water demand would need to be met by relying on **all** supply sources operating at **full capacity** at **all times** to meet the regulatory criteria. Not only is this assumption risky, it is unrealistic. As has recently occurred at nearby agencies, if even one source were to be reduced by capacity or water quality issues, the Peninsula supply would fall out of compliance, resulting in new Water Board restrictions, moratoriums, etc. **SEE NOTES 1, 5, & 7**

- Based upon the portfolio of ***reliable*** sources of supply, the supply without MPWSP Desalination is inadequate to serve the CPUC's determined demand of 12,000 afy, **SEE NOTE 6** as well as the reduced 10-year average demand of 10,863 afy as projected by MPWMD staff.

- The implementation of the proposed MPWSP Desalination Plant is necessary to provide a safe and reliable water supply to meet regional demand, regardless of whether the Pure Water Monterey Expansion project is developed. **SEE NOTE 21**

Additionally, the Stoldt memo provides four principal conclusions, each of which is listed below, followed by the findings of this peer review based upon the supply and demand discussions already presented.

- *Either supply option can meet the long-term needs of the Monterey Peninsula*
  This has not been demonstrated because the supply analysis in the Stoldt memo has neither followed the applicable statutes **SEE NOTE 1** nor has it adequately addressed the limitations on supply that would occur during drought years. **SEE NOTES 15 & 18**

- *Either supply option is sufficient to lift the CDO*
  This conclusion has not considered impacts of risk and resiliency that may interrupt one or more of the water supply sources, as a result of the four main categories for risk and resiliency of a water system (i.e. security, hazards, assets, and enterprise) as defined by the American Water

Infrastructure Act (AWIA) of 2018. Without ASR as a consistent reliable source, **SEE NOTE 15** the supply portfolio with the PWM Expansion cannot achieve the Stoldt memo's 10-yr demand average (or even the memo's 5-yr demand average when growth is considered), and it is reasonable to assume that CDO requirements (moratorium) would continue. **SEE NOTE 21** The current CDO imposes a moratorium on new service connections and increased use at existing connections, and the State Board would have the authority to impose continued moratoria based on a failure to comply with CCR §64554, as noted in CHSC §116655, which states in relevant part:

> *"(a) Whenever the state board determines that any person has violated or is violating this chapter, or any order, permit, regulation, or standard issued or adopted pursuant to this chapter, the state board may issue an order doing any of the following . . .*
> *(b) An order issued pursuant to this section may include, but shall not be limited to, any or all of the following requirements:*
> *. . .*
> *(4) That no additional service connection be made to the system."*

- *The long-term needs of the Monterey Peninsula may be less than previously thought*
  This assumes that per capita usage will remain at current low levels without consideration of possible effects of availability of secure supply and ongoing impacts to businesses of excessive conservation (such as having to ship out laundry services), as well as assuming that the CDO requirements preventing new connections coupled with steeply tiered rates to penalize higher water users and drive conservation will have to stay in place. The water supply portfolio presented under the Stoldt memo results in "water poverty" for the peninsula, with limited reliability and resiliency and steep rates and restrictions on usage and growth now and into the future. **SEE NOTE 21**

- *Several factors will contribute to pressure on decreasing per capita water use*
  While the Stoldt memo discusses potential impacts of increased water cost and recent conservation legislation signed by the Governor, it does not provide any evidence as to the actual impacts to per capita water use. The Governor's conservation bills are not statutory and are therefore not enforced by any regulatory agency; rather they are tools for agencies to calculate their own objectives. The data does show that rate-related conservation measures already in place, such as tiered rates, have driven per capita usage downward. No additional methods are presented in the memo to reduce demands; absent any, it is reasonable to assume everything has already been done on demand side to reduce levels and further reduction is not expected. Indeed, after a secure water supply is provided, it may be reasonable to assume the opposite, that an increase in demand is equally likely. A secure supply may provide some relief of the intense pressure on businesses to reduce usage, and coupled with projected tourism rebound and growth, suggests that it is not necessarily true that per capita usage will remain at current levels or continue to decrease.

Section 2: MPWMD Analysis "Notes" in Response to the Hazen & Sawyer Report

NOTE 1: MPWMD has consistently followed state and federal codes, as well as industry standards, in its analysis of the two supply options in the report. Hazen & Sawyer repeatedly misinterpret the same codes and standards, or mistakenly assert that MPWMD ignores them.

Specifically, any MPWMD conclusions in the report are consistent with the following:

- California Code of Regulations (CCR) section 64554
- California Health and Safety Code (CHSC) section 116555
- California Water Code (CWC) sections 10635 and 10631
- CPUC General Order 103A and other rules; and
- American Water Works Association "Water Resource Planning" guidance M50

CCR section 64554: Hazen & Sawyer's assertions of non-compliance are unfounded and misleading. For example, on multiple occasions Hazen & Sawyer asserts that MPWMD does not meet the requirements of CCR Title 22 section 64554. That is not true. Available to Cal-Am and its consultant Hazen & Sawyer, was a document produced and available from MPWMD in September 2019 and later publicly filed by the California Coastal Commission demonstrating MPWMD compliance.[1] With the passage of time, that analysis has been updated and is included here as Exhibit 1, now assuming a new water supply comes online in the year 2023. It shows that Pure Water Monterey expansion can meet the Maximum Day Demand (MDD) and Peak Hourly Demand (PHD) required under this section of the CCR. Ignoring the original document is an error of omission by Cal-Am and Hazen & Sawyer.

Hazen & Sawyer persistently confuses the backward-looking 10-year requirement for peak demand MDD under CCR section 64554 with average annual demand planning for future water supply. There is no such standard in 64554 to look back 10 years to ascertain current or projected future average annual demand. Section (k) which says *"The source capacity of a surface water supply or a spring shall be the lowest anticipated daily yield based on adequately supported and documented data"* by citing "daily yield", still goes to MDD and PHD, not long-term average annual demand. This bears repeating: **CCR section 64554 has nothing to with estimating current existing consumer demand or future average annual consumer demand for water.**

CHSC section 116555: Here too, Hazen & Sawyer misses the mark. All that is required under this section of the Code is that a water supplier "provides a reliable and adequate supply of pure, wholesome, healthful, and potable water." Nothing more, nothing less. To assert that either Pure Water Monterey expansion or the proposed desalination plant do not do so is disingenuous.

CWC sections 10635 and 10631: We agree that section 10635 of the CWC requires that *"every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry,*

[1] See California Coastal Commission agenda, November 14, 2019, Application 9-19-0918 / Appeal A-3-MRA-19-0034 (California American Water Co.) Exhibit 9 staff note attachment

and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years." MPWMD has done so with respect to both proposed water supply sources and have concluded, Cal-Am and Hazen & Sawyer protests notwithstanding, that they can each meet the challenges of a normal water year, a single dry water year, and a 5-year drought (drought resilience is discussed in more detail later in Notes 15 and 18.)

We also recognize section 10631 reiterates the above-said requirement in the plan. Section 10631 also requires analysis by the utility of (i) Water waste prevention ordinances; (ii) Metering; (iii) Conservation pricing; (iv) Public education and outreach; (v) Programs to assess and manage distribution system real loss; (vi) Water conservation program coordination and staffing support; and (vii) Other demand management measures. These programs, many of which have been sponsored by MPWMD, have led to the decline in water demand that sets the baseline for future water supply planning. We believe that Hazen & Sawyer has done an inadequate job of incorporating these aspects on the Monterey Peninsula into its analysis.

CPUC General Order 103A and other rules: MPWMD's analysis has met the requirements of CPUC General Order 103A which states all water supplied shall be *"obtained from a source or sources reasonably adequate to provide a reliable supply of water" and "shall have the capacity to meet the source capacity requirements as defined in CCR Title 22, Section 64554"*. This has been addressed above.

The CPUC's "Rate Case Plan and Minimum Data Requirements for Class A Water Utilities General Rate Case (GRC) Applications" states utilities should *"forecast customers using a five-year average of the change in number of customers by customer class"* subject to unusual events (such as a meter moratorium here in Monterey). MPWMD has also recognized this regulatory guidance.

American Water Works Association (AWWA) "Water Resource Planning" guidance M50: Hazen & Sawyer incorrectly asserts that MPWMD analysis is inconsistent with industry standards as evidenced by AWWA M50 guidance. AWWA recognizes there are 6 traditional forecasting methods.[2] MPWMD's report has incorporated at least three of the accepted methods: "per capita models", "extrapolation models", "disaggregate water use models", and have checked certain estimates using "land-use models" each recognized by AWWA. Further, to the extent MPWMD has analyzed the AMBAG growth forecast and assigned water usage to the population and job forecasts, "multivariate" modeling has been included, also recognized by AWWA. "Several methods of demand forecasting are often combined, even within a single utility."[3]

[2] AWWA, "Water Resources Panning: Manual of Water Supply Practices M50", 3rd Edition, pages 81-84.
[3] AWWA, "Water Resources Panning: Manual of Water Supply Practices M50", 3rd Edition, page 81, paragraph 2.

Hazen & Sawyer quotes (without a footnote) from the second edition of M50[4], which was superseded by the third edition published in 2017. The current M50 edition from AWWA does not reference a specific preferred time period for historical data to be used for a future demand forecast. The MPWMD analysis is consistent with the current section of M50.

Nevertheless, if the out-of-date second edition of AWWA M50 citing a period of at least 10 years, is used, the same section also states *"If a simple per capita approach to forecasting is selected, the data requirements could be as easy as securing historical annual water production or sales for 5 to 10 years"* Hence, MPWMD's use of a 5-year period would have been acceptable.

NOTE 2: Hazen & Sawyer confuses the concept of current annual demand with MDD calculations based on a 10-year look-back. This was covered under NOTE 1 above, but bears repeating: **CCR section 64554 which looks back 10-years to determine maximum day and peak hour demand has nothing to with estimating current existing consumer demand or future average annual consumer demand for water.** It is entirely up to the water planning agency to determine the following:

- How much water do we use today?
- How much will we need in the future?
- How soon will we get there?

There is no specific guidance in the regulations other than that discussed earlier regarding normal year, dry year, and 5-year drought analysis. For Hazen & Sawyer to suggest otherwise is wrong. The MPWMD report directly addresses each of those three bullet points consistent with AWWA standards.

AWWA does not recommend a specific number of years to establish a historical base line.[5] There is nothing wrong, or outside industry standards, with looking at a 5-year average or some other measure to determine "How much water do we use today?" Also recall from Note 1 the CPUC's approach to future growth in connections is based on a recent 5-year history.

NOTE 3: Hazen & Sawyer did not "connect the dots" on this assertion. They have not demonstrated any probable underestimation.

NOTE 4: Hazen & Sawyer in multiple locations make the false assertion that MPWMD's report assumes continued conservation restrictions and water use reductions to justify lower demand projections.[6] Nowhere in the MPWMD report is this stated as an assumption. On the day of the release of the Hazen & Sawyer report, Hazen & Sawyer and Cal-Am were asked to substantiate this claim and have not done so. The MPWMD

[4] AWWA, "Water Resources Panning: Manual of Water Supply Practices M50", 2nd Edition, pages 47-48
[5] AWWA, "Water Resources Panning: Manual of Water Supply Practices M50", 3rd Edition, pages 86-90
[6] Hazen & Sawyer page 1, paragraph 3; page 4, paragraph 2;

report merely establishes a baseline to answer the question "How much water do we use today?"

NOTE 5: Nowhere in the MPWMD analysis does it assert each supply source "is available at all times at maximum capacity". This is a misinterpretation by Hazen & Sawyer. In fact, the MDD analysis discussed under NOTE 1 above shows "firm capacity" assuming the largest production well is unavailable. As previously noted, the original MDD analysis under NOTE 1 was available to Cal-Am and its consultant.

NOTE 6: Hazen & Sawyer repeatedly cites "current water demand determined by the CPUC of 12,000 afy". They have both mistaken this for the actual Cal-Am and CPUC number of 12,350 afy. In its Decision D.18-09-017 the CPUC stated *"we are convinced that 12,350 afy represents an appropriate estimate of annual demand to use in assessing the adequacy of Cal-Am's water supply…"*[7] It is important to understand that the CPUC did no original analysis, modeling, or projection of its own. It surveyed testimony provided by others and chose one to support its findings and recommendations. It should not be represented that that the CPUC developed demand numbers on its own.

Further, the Cal-Am testimony submitted in support of the 12,350 afy value used data that ended in 2016 and the company discounted the value of 2016 by incorrectly stating it was a drought year, which it was not on the Monterey Peninsula.[8] Hence, there are three additional years of data (four if you do not discount 2016) since that used to develop the 12,350 afy value.

However, Hazen & Sawyer appears unaware that Cal-Am itself has disavowed this 12,350 afy number as a measure of current water demand in its current General Rate Case (GRC) application, as discussed below. This fact undermines every further statement made by Cal-Am or Hazen & Sawyer as it relates to the current demand – **the starting point of all future demand analysis.**

As shown in the table below, Cal-Am now asserts in the GRC that its total water production for 2021 and 2022 from the Central Division is 9,789 afy,[9] which includes the Cal-Am Main System plus its satellites (generally thought to be 4-5% greater in total demand than the Cal-Am Main system.) This validates MPWMD's estimate of current demand. The Cal-Am GRC filing can be seen in Exhibit 2 attached.

In CPUC Decision 16-12-026, the Commission required Class A and B water utilities to propose improved forecast methodologies in their next general rate cases.[10] In the current GRC, Jeffrey Linam, Cal-Am's Vice President of Rates and Regulatory, states in his testimony that Cal-Am *"believes that the testimony demonstrates improved forecasting methodologies that consider the consumption trends during and following the*

[7] CPUC D.18-09-017, page 49, lines 1-2.
[8] Direct Testimony of Ian Crooks, Errata Version, in A.12-04-019, September 27, 2107, page 10, at line 22.
[9] California-American Water Company's (U-210-W) Update to General Rate Case Application, A.19-07-004, October 14, 2019, Table 3.14 of Results of Operations Model
[10] Direct Testimony of Jeffrey T. Linam (Final Application), in A.19-07-004, July 1, 2019, page 108, at line 14

drought that began in 2013".[11] Cal-Am "*hired David Mitchell of consulting firm MCubed to provide its sales forecast based on econometric models. The Company believes this is a significant improvement over the prior methods and use of historical averages…*"[12] This augments the testimony of Cal-Am expert witness Bahman Pourtaherian in the GRC who says David Mitchell's company M-Cubed "*has expertise addressing sales forecasting and rate design issues for energy, municipal and investor owned water utilities across the State.*"[13]

Mr. Mitchell developed a highly complex econometric model for Cal-Am that in this GRC estimated the following (see table) current demand (2021-2023) for the Cal-Am Main System (which is the system analyzed by MPWMD's supply and demand analysis). His results, presented in the table below, also support MPWMD's estimate of current demand.[14]

Cal-Am Estimates of Current Demand
From Current 2019 GRC
(AFY)

	2021	2022	2023
Central Division Forecast Sales Results of Operations Model in A.19-07-004 Table 3.14 (See also Exhibit 2)[9]	9,789	9,789	n/a
Expert Testimony of Cal-Am Witness David Mitchell Cal-Am Main System[14]	9,338	9,478	9,610

The fact that Cal-Am itself has now repudiated the Monterey Main System consumer demand numbers that supported the 2018 CPUC desalination Decision 18-09-017, makes much of the Hazen & Sawyer report moot.

NOTE 7: MPWMD and Hazen & Sawyer have a fundamental disagreement in how "reliable" supply is determined. Pure Water Monterey expansion and desalination both easily meet the 10-year average historical demand and far exceed the most recent 5-year average demand.

NOTE 8: Again, Hazen & Sawyer is confusing peak demand planning with long-term water supply planning. There are no prescribed regulatory standards for what time period may be selected to establish a baseline for existing demand in a system. A 10-year look-back is required for peak planning. A 5-year look-back is more than acceptable to establish an historical baseline of current use. Forecasting methods approved by AWWA do not specify any historical period to inform a future forecast, as discussed previously. As discussed in "Note 1" above, the CPUC itself encourages utilities to "*forecast*

[11] Direct Testimony of Jeffrey T. Linam (Final Application), in A.19-07-004, July 1, 2019, page 102, at line 25
[12] Direct Testimony of Jeffrey T. Linam (Final Application), in A.19-07-004, July 1, 2019, page 105, at line 6
[13] Direct Testimony of Bahman Pourtaherian (Final Application), in A.19-07-004, July 1, 2019, page 9, at line 21
[14] Direct Testimony of David Mitchell (Final Application), in A.19-07-004, July 1, 2019, Attachment 2, page 32, final line converted to acre-feet from CCF

customers using a five-year average of the change in the number of customers by customer class"[15] [16]

NOTE 9: It is important to reiterate that the CPUC did no original analysis, modeling, or projection of demand on its own. It surveyed testimony provided by others and chose one to support its findings and recommendations. It should not be represented that that the CPUC developed demand numbers on its own. It states in Decision 18-09-017 *"The Commission similarly evaluated all of the evidence presented along with arguments of the parties and determines that Cal-Am's future water demand will be approximately 14,000 afy"*[17] However, no evidence was presented to determine if tourism "bounce-back" had already occurred, whether water efficiency gains would reduce the water demand of legal lots of record, or if the Pebble Beach Company could realistically build out its whole entitlement in a reasonable timeframe. Neither the CPUC, Cal-Am, nor Hazen & Sawyer evaluated the market absorption for new demand, which would answer the question: How soon will we get there? The MPWMD report simply took a deeper look at the data behind those questions: How much will we need in the future? And How soon will we get there?

NOTE 10: 14,000 minus 12,350 equals 1,650 afy, not 2,000

NOTE 11: Column two of Table 2-5 was prepared by MPWMD in 2006. MPWMD is well aware of the future supply needs reflected in the table. The table does not indicate by when the future supplies are needed or how quickly the needs can be absorbed in the marketplace.

NOTE 12: AMBAG implemented an employment-driven forecast model for the first time in the 2014 forecast and contracted with the Population Reference Bureau (PRB) to test and apply the model again for the 2018 Regional Growth Forecast (RGF). To ensure the reliability of the population projections, PRB compared the employment driven model results with results from a cohort-component forecast, a growth trend forecast and the most recent forecast published by the California Department of Finance (DOF). All four models resulted in similar population growth trends. As a result of these reliability tests, AMBAG and PRB chose to implement the employment-driven model again for the 2018 RGF.[18] The CPUC did no original analysis, modeling, or projection of its own. It surveyed testimony provided by others and chose one to support its findings and recommendations.

NOTE 13: The Cal-Am Urban Water Management Plan (UWMP) was developed during a period when Aquifer Storage and Recovery (ASR) water was mandated to be recovered in the same year in which it is injected. That is not the case after a new water supply is

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[15] Rate Case Plan and Minimum Data Requirements for Class A Water Utilities General Rate Case (GRC) Applications, Appendix A to CPUC D.07-05-062

[16] Report and Recommendations on Revenues, Rate Design, and Special Requests, CPUC Public Advocates Office, February 14, 2020, page2-5, line 5

[17] CPUC Decision 18-09-017, page 68, line 1

[18] 2018 Regional Growth Forecast, Technical Documentation, Association of Monterey Bay Area Governments (AMBAG), June 2018, page 5

developed and the Cease and Desist Order (CDO) has been lifted. Hence, the Hazen & Sawyer analysis of the UWMP is meaningless.

Once the CDO is lifted as a result of either new proposed water supply, ASR is to function more like a reservoir, establishing a reserve that is carried over year-to-year.

NOTE 14: The Benito/Williams modeling assumptions were reviewed and approved by Cal-Am.

NOTE 15: MPWMD subsequently revised its conclusion that build-up of ASR storage would be sufficient to meet a 5-year drought. The build-up occurs based on historical data including wet, normal, and dry years. If the data is randomized, the same results will occur – ASR acts like a lake behind a dam, building up supplies for use later during a drought. To remove ASR from the resource planning mix as Hazen & Sawyer does on page 6 of its report would be akin to telling the Sonoma County Water Agency to remove Lake Mendocino from its supply planning, or any of the hundreds of urban water providers to discount one of its reservoirs. This is inconsistent with industry practice for estimating water supply availability. Even AWWA recognizes ASR in its reliability assessment: *"ASR wells can improve water basin management by storing water underground from periods of excess supply…, and later allowing a portion of the stored water to be extracted during periods of demand or short supply"*[19]

If the Monterey Peninsula were to experience drought during the "buildup period" following the completion of new water supply and the lifting of the CDO, ASR would arguably be delayed in building up a drought reserve, however Hazen & Sawyer have completely overlooked that a Pure Water Monterey expansion is new capacity without an immediate offsetting demand. That is, 2,250 afy from Pure Water Monterey expansion would provide the necessary approximately 800 afy to offset unlawful Carmel River diversions and lift the CDO and provide a remaining 1,450 afy for which there is no immediate present-day demand and can instead be delivered for customer service in the early years if ASR's drought reserve has not yet built-up. Just a few years of Pure Water Monterey expansion water could also provide drought-resilience to the Monterey Peninsula.

The Benito/Williams memo demonstrates, ASR is drought-resilient and Pure Water Monterey expansion provides an additional factor of safety against drought impacts to ASR.

NOTE 16: The use of water quality concerns is applicable to any water injected in the Seaside Basin. Presently, it is intended that desalinated water, Pure Water Monterey water, and ASR river water will be injected to the basin. The water quality issue Hazen & Sawyer raises is equally relevant or irrelevant to all three.

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[19] AWWA, "Water Resources Panning: Manual of Water Supply Practices M50", 3rd Edition, page 148

NOTE 17: The MPWMD report does not make the "assumption that the PWM Expansion project replaces the need for the desalination supply." Hazen & Sawyer may have inferred such, but it is not stated in the MPWMD report.

NOTE 18: A memorandum dated November 1, 2019 which appears as Appendix I to the Pure Water Monterey Supplemental Environmental Impact Report titled "Source Water Availability, Yield and Use Technical Memorandum", indicates Pure Water Monterey is resilient to drought, in general. Page 1 of the memorandum states the purpose of the memorandum is to summarize the source water availability and yield estimates for proposed modifications to the approved Pure Water Monterey Groundwater Replenishment Project (as modified, the full project is referenced as the Expanded PWM/GWR Project), to explain the seasonal storage yield estimates, and to provide the proposed maximum and typical (or normal) water use estimates for the Proposed Modifications.

Page 10 of the memorandum says *"In the attached scenario tables (Tables 9 through 11), the use of the various sources is reduced to just meet the demands of the AWPF and offset the current CSIP groundwater use in the wet season (October-March). During the dry season (April-September), surface water diversions are shown meeting the monthly AWPF demands and providing extra flow for the CSIP, such that* ***the annual use of new sources exceeds the annual AWPF demands.''*** *(emphasis added by MPWMD)*

"*The demand scenarios considered are:*

> *Table 9: A normal water year while developing a drought reserve (AWPF producing 6,550 AFY)*
> *Table 10: A normal water year with a full drought reserve (AWPF producing 6,350 AFY)*
> ***Table 11: A drought year starting with a full reserve (AWPF producing 5,550 AFY)*** *(emphasis added by MPWMD)*

In the drought year scenario, the stormwater and wastewater availability were reduced. Urban runoff from Salinas was assumed to be one-third of the historic average. Rainfall on the SIWTF ponds used the 2013 rainfall record (critically dry year). The unused secondary treated effluent values from 2013 were used, also the historic low. The CSIP groundwater well use from OCT 2013 to SEP 2014 was used as the CSIP augmentation target. Under this scenario, surface water diversions were required from the Reclamation Ditch, Blanco Drain and Lake El Estero, and the diversions were needed from March through November."

In MPWMD's opinion, this shows that the drought scenario shows all Advanced Water Purification Facility needs are met and there are still residual new supplies available to CSIP. In other words, Pure Water Monterey expansion is reliable in periods of reduced usage or drought years.

NOTE 19: In multiple presentations by the staff of Monterey One Water (M1W)[20] it has been shown that none of the source water for expansion of Pure Water Monterey is speculative, nor comes from Salinas-area wastewater or Salinas valley sources for which M1W doesn't already have rights. In one example, source water for the expansion would come from ocean discharge from the Regional Treatment Plant (54%), the Reclamation Ditch (5%), Blanco Drain (10%), wastewater outside the prior M1W boundaries (30%), and summer water rights from the County Water Resource Agency (1%).

NOTE 20: The Hazen & Sawyer charts on page 10 of its report incorrectly eliminate ASR from the supplies, inconsistent with industry practice. See Note 15.

NOTE 21: The MPWMD report considered all aspects of risk and resiliency in the two proposed supply alternatives. The MPWMD has gone further than any other parties to examine the factors influencing current customer demand, future customer demand, and the pace at which demand is incrementally added. MPWMD stands by the conclusions of its supply and demand analysis.

(Additional note: MPWMD intends to finalize its report "Supply and Demand for Water on the Monterey Peninsula" in March 2020)

[20] For example, November 12, 2019 M1W presentation to the Monterey County Farm Bureau and the Grower-Shipper Association and the September 30-2019 M1W board meeting

Section 3: Exhibits

EXHIBIT 1

MPWMD Analysis of Available Well Capacity for 10-Year Maximum Daily Demand (MDD) and Peak Hour Demand (PHD)

A) Find maximum month demand for 10-year period 2014-2023
August 2014 = 1,023 AF[1]

B) Convert to average daily demand
1,023 AF / 31 days = 33 AF/day

C) Convert to million gallons per day (MGD)
33 AF/day X 325,851 gal/AF divided by 1,000,000 = 10.753 MGD

D) Gross-up for peaking factor of 1.5
10.753 MGD X 1.5 =16.13 MGD = Maximum Daily Demand (MDD)

E) Average hourly flow during MDD is 10.753 MGD divided by 24 hours = 0.448 MGh

F) Gross-Up for peaking factor of 1.5
0.448 MGh X 1.5 = 0.672 million gallons per hour = Peak Hour Demand (PHD)

Hence, new water supply must support a MDD of 16.13 MGD. Table 1 on the next page shows existing and planned system supply capacities under authorized, desired, and firm capacity scenarios. As can be seen, the lowest available capacity is 19.41 MGD which significantly exceeds MDD.

This assumes additional production well capacity currently being analyzed in the Pure Water Monterey Expansion Supplemental EIR are developed and the Forest Lake Pump Station currently requested under the 2019 General Rate Case filing is built. These two projects markedly remove system capacity constraints.

We also recognize that the Plumas, Luzern, Ord Grove, Paralta, and Playa wells are presently unable to deliver to the Monterey Pipeline, serving only Seaside, Sand City, and Old Monterey. This could potentially reduce available capacity throughout the rest of the system on the order of 2 MGD. Even in this instance, operations are sufficient to meet MDD. This issue goes further away if one or more of the wells are also connected to the pipeline, as well as with the continued reduction in MDD in more recent years.

CONCLUSION: Pure Water Monterey expansion provides sufficient capacity to meet MDD and PHD for the Cal-Am Monterey Main System.

[1] Direct testimony of Ian Crooks, Errata version 9-27-17 in A.12.04.019 at California Public Utilities Commission, page 9, Table 3

EXHIBIT 1

TABLE 1

Cal-Am Monterey Main Well Capacity Under Authorized and Desired Operations With New Wells being Analyzed in Pure Water Monterey Expansion SEIR							
	Authorized Operations		**Desired Operations**		**Desired Operations Firm Capacity**	
Upper Carmel Valley Wells	**Capacity (gpm)**	**Capacity (MGD)**	**Capacity (gpm)**	**Capacity (MGD)**	**Capacity (gpm)**	**Capacity (MGD)**
Assume n/a in Summer	-	-	-	-	-	-
Lower Carmel Valley Wells						
Rancho Canada	1,150	1.66	1,200	1.73	1,200	1.73
Cypress	1,500	2.16	-	-	-	-
Pearce	1,500	2.16	-	-	-	-
Schulte	1,250	1.80	-	-	-	-
Manor	125	0.18	-	-	-	-
Berwick No 8.	600	0.86	-	-	-	-
Berwick No. 9	985	1.42	-	-	-	-
Subtotal Lower CV	7,110	10.24	1,200	1.73	1,200	1.73
Seaside Wells						
Plumas	192	0.28	192	0.28	192	0.28
Luzern	640	0.92	640	0.92	640	0.92
Ord Grove	1,000	1.44	1,000	1.44	1,000	1.44
Paralta	1,350	1.94	1,350	1.94	1,350	1.94
Playa	350	0.50	350	0.50	350	0.50
Santa Margarita ASR 1 or 2	1,750	2.52	1,750	2.52	1,750	2.52
Middle School ASR 1 or 2	1,750	2.52	1,750	2.52	1,750	2.52
Subtotal Seaside	7,032	10.13	7,032	10.13	7,032	10.13
4 New Wells in Pure Water Expansion SEIR						
New 1	1,750	2.52	1,750	2.52	1,750	2.52
New 2	1,750	2.52	1,750	2.52	1,750	2.52
New 3	1,750	2.52	1,750	2.52	1,750	2.52
New 4	1,750	2.52	1,750	2.52	-	-
Subtotal New	7,000	10.08	7,000	10.08	5,250	7.56
Total Well Capacity	**21,142**	**30.44**	**15,232**	**21.93**	**13,482**	**19.41**
Notes:						
gpm = Gallons per Minute						
MGD = Million Gallons per Day						
AF = Acre-Feet						
Firm Capacity = Without largest producing well						

EXHIBIT 2

CALIFORNIA AMERICAN WATER
Central Division - 2019 GRC
WATER PRODUCTION (KCCF)
AUTHORIZED AND PROPOSED

Filing: 100-Day update

Line No.	Description	Last Authorized Test Year 2018	Estimated 2019	Estimated 2020	Proposed Test Year 2021	Escalation Year 2022
1.	Metered Sales	4,172.6	3,989.7	3,989.7	3,989.7	3,989.7
2.	Other Consumption	0.0	0.0	0.0	0.0	0.0
3.	Total Consumption	4,172.6	3,989.7	3,989.7	3,989.7	3,989.7
4.	Non Revenue	363.6	274.5	274.5	274.5	274.5
5.	Total Water Requirement	4,536.2	4,264.3	4,264.3	4,264.3	4,264.3
6.	Non Revenue Water %	8.0%	6.4%	6.4%	6.4%	6.4%
7.	Equivalent Acre Feet	10,413.6	9,789.4	9,789.4	9,789.4	9,789.4
8.	Total Water Requirement in CCF	4,536,162	4,264,251	4,264,251	4,264,251	4,264,251

References:
Line 1 Metered sales per Table 3.11
Other Consumption per [insert text if applicable]
Line 3 is sum of lines 2 and 3.
Line 4 is based on projection. See REV Wkp [insert reference]
Line 5 is line 3 plus 4
Line 6 is line 4 divided by line 5.
Line 7 is line 5 divided by 435.6 and multiplied by 1,000 to convert to Acre Feet.
Line 8 is line 5 multiplied by 1,000 to convert ot CCF.

Appendix O
Supply and Demand for Water on the Monterey Peninsula

Supply and Demand for Water on the Monterey Peninsula

Prepared by David J. Stoldt, General Manager
Monterey Peninsula Water Management District
FINAL
March 13, 2020

Introduction

With the approval of the Monterey Peninsula Water Supply Project (MPWSP) in September 2018 and the continued environmental work on Pure Water Monterey (PWM) expansion as a back-up option, it is an opportune time to examine available supplies and their ability to meet current and long-term demand. This memorandum will also look at the changing nature of demand on the Monterey Peninsula, the underlying assumptions in the sizing of the water supply portfolio, and indicators of the market's ability to absorb new demand.

At its September 16, 2019 meeting, the District Board accepted a report titled *"Supply and Demand for Water on the Monterey Peninsula"*, which was Exhibit 9-A of the Board packet. The report was reviewed by members of the public, local organizations, and state agencies. While publicly vetted, only three sets of comments were received: (a) California American Water provided a comment letter October 15, 2019, and (b) The Coalition of Peninsula Businesses provided letters September 15, 2019 and September 24, 2019. All three comment letters argued that the findings in the report contradict those of the California Public Utilities Commission, but the letters did not provide any substantive alternate assumptions or facts. The District's General Manager has encouraged the parties to provide their own forecast of growth and/or market absorption of water demand, but they have failed to do so.

At the November 14, 2019 Coastal Commission hearing former Pacific Grove mayor Bill Kampe did raise two substantive issues regarding the report: (a) pre-Cease and Desist Order (CDO) market absorption of water demand may have been constrained in some jurisdictions due to a lack of water allocation, and (b) new statewide focus on housing will require water.

Additionally, subsequent to the release of the initial report the 2019 water year was completed, providing an additional data point on current customer demand. The report was revised December 3, 2019 to address three items: (i) What is average current demand with the additional water year in the data? (ii) What water will be required to meet future housing needs? And (iii) What might be the market absorption of water based on an objective third-party growth forecast – the Association of Monterey Bay Area Governments (AMBAG) 2018 Growth Forecast? The revisions were presented to the District's Water Demand Committee December 17, 2019 and a revised report was distributed to the Peninsula's six city managers in January.

On January 22, 2020 Hazen & Sawyer, a consultant to Cal-Am, issued an analysis of the District's report, to which the District responded on March 6, 2020.

This FINAL version of the supply and demand report responds to comments made by the public, the city managers, Hazen & Sawyer, and incorporates an additional growth forecast.

Supply

Available sources of supply are shown in Table 1 below and are described in the discussion that follows. Despite the California Supreme Court's decision to not hear the two petitions for writ of review, there remains the risk of additional legal challenges and not all permits have been issued for California American Water's (Cal-Am) MPWSP desalination plant. For these reasons, supply has been shown with both desalination and with PWM expansion as a back-up.

Table 1
Monterey Peninsula Available Supply
(Acre-Feet Annually)

Supply Source	w/ Desalination	w/ PWM Expansion
MPWSP Desalination Plant	6,252	0
Pure Water Monterey	3,500	3,500
PWM Expansion	0	2,250
Carmel River	3,376	3,376
Seaside Basin	774	774
Aquifer Storage & Recovery (ASR)	1,300	1,300
Sand City Desalination Plant	94	94
Total Available Supply	**15,296**	**11,294**

There also exists approximately 406 additional acre-feet of other available supplies as discussed below.

Desalination: The 6.4 million gallon per day (MGD) MPWSP desalination plant is expected to deliver 6,252 acre-feet annually (AFA).[1] It is likely to begin deliveries in late-2023, considering final permits in mid-2020, a 21-month construction period, and 6-month commissioning and start-up window.[2]

[1] CPUC Decision 18-09-017, September 13, 2018, page 70; Amended Application of California-American Water Company (U210W), Attachment H, March 14, 2016
[2] www.watersupplyproject.org/schedule

Pure Water Monterey: Monterey One Water's (M1W) project came online in February 2020 and should begin deliveries for customer service of 3,500 AFA to Cal-Am in mid-2020.

Pure Water Monterey Expansion: The expansion of Pure Water Monterey is expected to yield 2,250 AFA.[3] The source waters for the expansion are secure: In multiple presentations by the staff of Monterey One Water (M1W)[4] it has been shown that none of the source water for expansion of Pure Water Monterey is speculative, nor comes from Salinas valley sources for which M1W doesn't already have rights. In one example, source water for the expansion would come from ocean discharge from the Regional Treatment Plant (54%), the Reclamation Ditch (5%), Blanco Drain (10%), wastewater outside the prior M1W boundaries (30%), and summer water rights from the County Water Resource Agency (1%). This project could come online by late 2022.

Carmel River: Cal-Am has legal rights to 3,376 AFA from the Carmel River comprised of 2,179 AFA from License 11866, 1,137 AFA of pre-1914 appropriative rights, and 60 AFA of riparian rights. This does not include what is referred to as Table 13 rights, discussed under "*Other Available Supplies*" below.

Seaside Basin: The 2006 Seaside Groundwater Basin adjudication imposed triennial reductions in operating yield for Standard Producers such as Cal-Am until the basin's Natural Safe Yield is achieved. The last reduction will occur in 2021 and Cal-Am will have rights to 1,474 AFA. However, with the delivery of a long-term permanent water supply, the company would like to begin replacing its accumulated deficit of over-pumping through in-lieu recharge by leaving 700 AFA of its production right in the basin for 25 years. Hence, only 774 AFA is reflected as long-term supply available, although the additional 700 AF becomes available again in the future.

Aquifer Storage & Recovery: There are two water rights that support ASR. Permit 20808A allows maximum diversion of 2,426 AFA and Permit 20808C allows up to 2,900 AFA for a total of 5,326 AFA. However, these are maximums that may only be close to being achieved in the wettest of years. Based on long-term historical precipitation and streamflow data, ASR is designed to produce 1,920 AFA on average. The MPWSP assumes a lesser amount of 1,300 AFA to be conservative.

Sand City Desalination Plant: The Sand City plant was designed to produce a nominal 300 AFA, but has failed to achieve more than the 276 AF in 2011. Due to source water quality issues and discharge permit requirements the plant has averaged 188 AFA the past four years including water year 2019. The intakes will likely be augmented and production increased (see "*Other*

[3] Notice of Preparation of a Supplemental Environmental Impact Report and Public Scoping Meeting Notice, page 4, May 15, 2019

[4] For example, November 12, 2019 M1W presentation to the Monterey County Farm Bureau and the Grower-Shipper Association and the September 30-2019 M1W board meeting

Available Supplies", below.) Here only the 94 AFA of long-term production legally committed to offset Carmel River pumping is included.

Other Available Supplies: In 2013, Cal-Am received Permit 21330 from the State Water Board for 1,488 AFA from the Carmel River. However, the permit is seasonally limited to December 1 through May 31 each year and subject to instream flow requirements. As a result, actual production will vary by water year. Here, we have assumed 300 AFA on average. For the Sand City desalination plant the amount produced in excess of 94 AFA is available for general Cal-Am use and eventually to serve growth in Sand City. With new intakes, we have assumed average production of 200 AFA or 106 AFA of other available supply. There is also available unused capacity in the Seaside Basin which annually is reallocated to the Standard Producers such as Cal-Am as "Carryover Credit" under the adjudication decision. Such Carryover capacity has been on the order of 400 AFA recently. While not insignificant, Carryover Credit has not been included in the 406 AFA of "Other Available Supplies" stated earlier.

Historical Water Demand for which MPWSP Desalination Plant is Sized

The MPWSP was initially sized solely as a replacement supply[5] for current customer demand, but this has changed over time as described below. Consideration was also given to peak month and peak day. Additional demand was recognized to accommodate legal lots of record, a request by the hospitality industry to anticipate a return to occupancy rates similar to that which existed prior to the World Trade Center tragedy, and to shift the buildout of Pebble Beach off the river.[6] Table 2 below shows the demand assumptions originally used in sizing the MPWSP in the April 2012 application to the California Public Utilities Commission (CPUC). Each component is discussed below.

Table 2
Water Demand Assumed in Sizing the MPWSP
(Acre-Feet Annually)

Demand Component	Acre-Feet Annually
Average Current Customer Demand	13,290
Legal Lots of Record	1,181
Tourism Bounce-Back	500
Pebble Beach Buildout	325
Total Water Demand	**15,296**

[5] Direct Testimony of Richard C. Svindland, April 23, 2012, pages 4,5,7
[6] Supplemental Testimony of Richard C. Svindland, January 11, 2013, pages 4-5

Average Current Customer Demand: The Application of Cal-Am to the CPUC in April 2012 utilized 13,290 AFA which was the 5-year average demand for 2007-2011.[7] As stated earlier, this was to be replacement supply and the Application stated *"At this point future demands of the Monterey System have not been included in the sizing of the plant."*[8] At that time, the 5-year average maximum month was 1,388 AF and the highest month was 1,532 AF.[9]

In a January 2013 CPUC filing, average demand was reiterated by Cal-Am to be 13,290 AFA but Cal-Am added that the plant would need to be increased larger by approximately 700 acre-feet per year for the in-lieu recharge of the Seaside Basin.[6] However, as can be seen in comparing Tables 1 and 2 above, supply equals demand at 15,296 AFA without changing the size of the plant from the initial Application.

In a 2016 update to the CPUC, Cal-Am recognized that average demand had declined in the intervening three years.[10] The 5-year average had declined to 10,966 AFA and the maximum month declined to 1,250 AF. At the time of the 2016 update, Cal-Am suggested that it should size the plant based on the backward-looking 10-year average demand and maximum month, instead of the 5-year average in the original Application, as well as several alternate assumptions about return of water to the Salinas Valley. They concluded *"we do not believe the size of the plants should be changed."*[11]

In a September 2017 filing to the CPUC, Cal-Am acknowledged continuing declines in demand, but indicated that the plant sizing remained appropriate saying *"We anticipate demand to rebound over time after these new water supplies are available, the drought conditions continue to subside, the moratorium on new service connections is lifted, and strict conservation and water use restrictions are eased."*[12] The company also for the first time introduced the use of future population and demand as a way to "normalize" the average demand used in sizing, a departure from the "replacement supply" basis under the initial Application in 2012.[13] This resulted in their estimate of average "current" system demand of 12,350 AFA. This amount, combined with the same lots of record, tourism bounce-back, and Pebble Beach buildout results in demand of 14,355 AFA – a reduction from the initial Application – but the company asserted that the plant need not be resized because this would allow it to run at 86% capacity, a more reasonable operating rate compared to the 95% posed in the original Application.

[7] Direct Testimony of Richard C. Svindland, April 23, 2012, page 21
[8] Direct Testimony of Richard C. Svindland, April 23, 2012, page 36
[9] Direct Testimony of Richard C. Svindland, April 23, 2012, page 22
[10] Supplemental Testimony of Richard C. Svindland, April 14, 2016 (Errata), pages 7-11
[11] Supplemental Testimony of Richard C. Svindland, April 14, 2016 (Errata), page 9
[12] Direct Testimony of Ian Crooks Errata Version, September 27, 2017, page 10
[13] Direct Testimony of Ian Crooks Errata Version, September 27, 2017, pages 11-13

The CPUC, in its September 2018 Decision, agreed that "current" demand was 12,350 AFA, therefore the 6.4 MGD desalination plant is warranted. In its Decision D.18-09-017 the CPUC stated *"we are convinced that 12,350 afy represents an appropriate estimate of annual demand to use in assessing the adequacy of Cal-Am's water supply…"*[14] It is important to understand that the CPUC did no original analysis, modeling, or projection of its own. It surveyed testimony provided by others and chose one to support its findings and recommendations. It should not be represented that that the CPUC developed demand numbers on its own.

Legal Lots of Record: The 2012 Application to the CPUC also included 1,181 AFA for Legal Lots of Record.[15, 6] Legal lots of record are defined as lots resulting from a subdivision of property in which the final map has been recorded in cities and towns, or in which the parcel map has been recorded in Parcels and Maps or Record of Surveys. Lots of record may include vacant lots on vacant parcels, vacant lots on improved parcels, and also included remodels on existing improved, non-vacant parcels. Ultimately, not all legal lots are buildable. While the District is the source of the 1,181 AFA estimated demands for the lots of record, the number was lifted from the 2009 Coastal Water Project environmental impact report.

Tourism Bounce-Back: The 500 AFA for economic recovery was originally proffered by the hospitality industry to handle a recovery of occupancy rates in the tourist industry in a post-World Trade Center tragedy setting. [16, 6] The industry felt that their most successful occupancy rates were in the three years prior to September 11, 2001 and felt 500 AFA would provide a buffer for a return to that level.

Pebble Beach Buildout: Ever since the State Water Board issued Order 95-10 and the Cease and Desist Order (CDO) it has recognized the Pebble Beach Company's investment in the Reclamation Project and the Company's right to serve its entitlements from the Carmel River. However, the State Water Board has stated a desire to have the Pebble Beach entitlements shifted away from the river and be satisfied by a new supply. At the time of the 2012 Application, the Pebble Beach company had approximately 325 AF of entitlements still available.

Water Demand Assumptions in 2020

The original MPWSP desalination project plant sizing was done eight years ago in 2012. With the passage of time and the opportunity to perform deeper research, it is possible to revisit the assumptions about consumer demand for water in the current context.

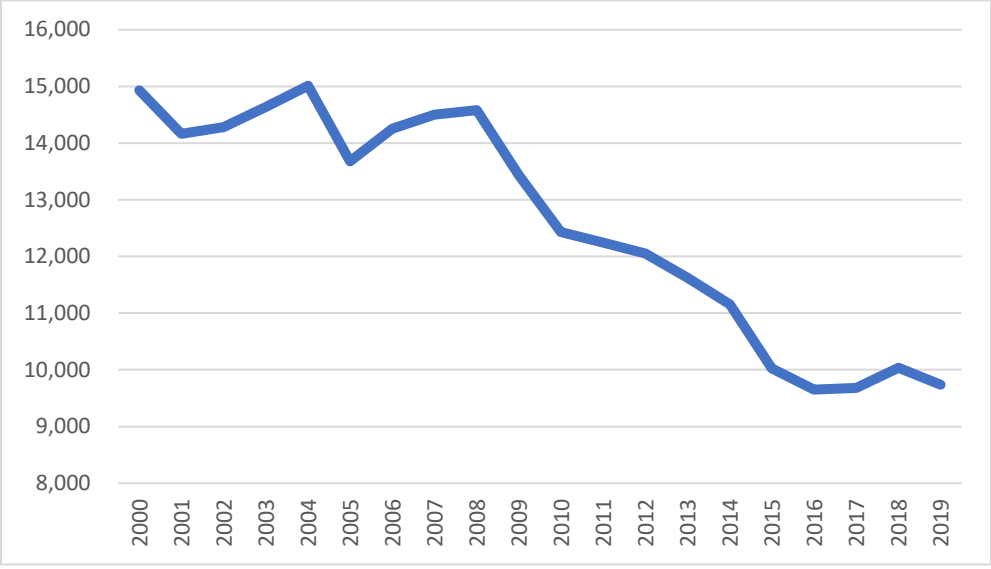
[14] CPUC D.18-09-017, page 49, lines 1-2.
[15] Direct Testimony of Richard C. Svindland, April 23, 2012, pages 22, 37.
[16] Direct Testimony of Richard C. Svindland, April 23, 2012, page 37

It states in Decision 18-09-017 *"The Commission similarly evaluated all of the evidence presented along with arguments of the parties and determines that Cal-Am's future water demand will be approximately 14,000 afy"*[17] However, no evidence was presented to determine if tourism "bounce-back" had already occurred, whether water efficiency gains would reduce the water demand of legal lots of record, or if the Pebble Beach Company could realistically build out its whole entitlement in a reasonable timeframe. Neither the CPUC, Cal-Am, nor Hazen & Sawyer evaluated the market absorption for new demand, which would answer the question: How soon will we get there? This MPWMD report simply takes a deeper look at the data behind these questions: How much will we need in the future? And How soon will we get there?

Average Current Customer Demand: The Cal-Am testimony submitted in support of the 12,350 AFA value used data that ended in 2016 and the company discounted the value of 2016 by incorrectly stating it was a drought year, which it was not on the Monterey Peninsula.[18] Hence, there are now three additional years of data (four if you do not discount 2016) since that used to develop the 12,350 AFA value.

Figure 1 below shows water production for customer service, a proxy for customer demand, for the past twenty-one-year period, updated for 2019 data. As can be seen, demand has been in decline, but somewhat leveled out over the past five years.

Figure 1
Annual Water Production for Customer Service (Demand)
Last 21 Years
(Acre-Feet)



[17] CPUC Decision 18-09-017, page 68, line 1
[18] Direct Testimony of Ian Crooks, Errata Version, in A.12-04-019, September 27, 2107, page 10, at line 22.

Table 3 shows how the 10-, 5-, and 3-year average demand compares to the CPUC and Cal-Am's most recent 12,350 AFA assumption.

Table 3
Alternate Average Current Customer Demand Assumptions
Updated for 2019 Water Year
(Acre-Feet)

Period	Amount	Difference to CPUC/Cal-Am #
CPUC/Cal-Am Assumption	12,350	
10-Year Average - Actual	10,863	1,487
5-Year Average - Actual	9,825	2,525
3-Year Average - Actual	9,817	2,533

Hence, the case could be made that the average customer demand assumption in the sizing of new water supply should be 9,817 to 10,863 AFA.

The trend is similar for peak month demand: 10-year maximum month through 2018 was 1,111 AF, the 5-year max was 966 AF, and the 3-year max was 950 AF. By comparison, the maximum month at the time the plant was first sized was 1,532 AF. The proposed desalination plant, in conjunction with the other production facilities can meet peak month/peak day requirements. Pure Water Monterey expansion adds 4 new extraction wells, two for production and two for redundancy. Preliminary analysis (see Appendix C) shows that peak month/peak day can also be met with Pure Water Monterey expansion.

Cal-Am itself has moved away from the 12,350 AFA number as a measure of current water demand in its current General Rate Case (GRC) application. As shown in the table below, Cal-Am now asserts in the GRC that its total water production for 2021 and 2022 from the Central Division will be 9,789 AFA,[19] which includes the Cal-Am Main System plus its satellites (generally thought to be 4-5% greater in total demand than the Cal-Am Main system.) This validates MPWMD's estimate of current demand. The Cal-Am GRC filing can be seen in Appendix D attached.

In CPUC Decision 16-12-026, the Commission required Class A and B water utilities to propose improved forecast methodologies in their next general rate cases.[20] In the current GRC, Jeffrey Linam, Cal-Am's Vice President of Rates and Regulatory, states in his testimony that Cal-Am *"believes that the testimony demonstrates improved forecasting methodologies that consider*

[19] California-American Water Company's (U-210-W) Update to General Rate Case Application, A.19-07-004, October 14, 2019, Table 3.14 of Results of Operations Model
[20] Direct Testimony of Jeffrey T. Linam (Final Application), in A.19-07-004, July 1, 2019, page 108, at line 14

the consumption trends during and following the drought that began in 2013".[21] Cal-Am *"hired David Mitchell of consulting firm MCubed to provide its sales forecast based on econometric models. The Company believes this is a significant improvement over the prior methods and use of historical averages…"*[22] This augments the testimony of Cal-Am expert witness Bahman Pourtaherian in the GRC who says David Mitchell's company M-Cubed *"has expertise addressing sales forecasting and rate design issues for energy, municipal and investor owned water utilities across the State."*[23]

Mr. Mitchell developed a highly complex econometric model for Cal-Am that in this GRC estimated the following (see Table 4) current demand (2021-2023) for the Cal-Am Main System (which is the system analyzed by MPWMD's supply and demand analysis). His results, presented in the table below, also support MPWMD's estimate of current demand.[24]

Table 4
Cal-Am Estimates of Current Demand
From Current 2019 GRC
(AFA)

	2021	2022	2023
Central Division Forecast Sales Results of Operations Model in A.19-07-004 Table 3.14 (See also Exhibit 2)[19]	9,789	9,789	n/a
Expert Testimony of Cal-Am Witness David Mitchell Cal-Am Main System[24]	9,338	9,478	9,610

The forecasts were created when it was assumed the desalination plant would be online at the end of 2021.

Legal Lots of Record: The 1,181 number is derived from the October 2009 Coastal Water Project Final Environmental Impact Report and references a 2001 District analysis as the source. It was actually sourced from a Land Systems Group Phase II February 2002 interim draft report that used the number 1,181.438 AF. At that time, a calculation error was corrected and the report was subsequently updated in June 2002 and the number was revised to 1,210.964. However, the earlier number seems to have been used going forward. Both versions did not include vacant lots on improved parcels in the unincorporated County. Table 5 shows how the corrected number was calculated.

[21] Direct Testimony of Jeffrey T. Linam (Final Application), in A.19-07-004, July 1, 2019, page 102, at line 25
[22] Direct Testimony of Jeffrey T. Linam (Final Application), in A.19-07-004, July 1, 2019, page 105, at line 6
[23] Direct Testimony of Bahman Pourtaherian (Final Application), in A.19-07-004, July 1, 2019, page 9, at line 21
[24] Direct Testimony of David Mitchell (Final Application), in A.19-07-004, July 1, 2019, Attachment 2, page 32, final line converted to acre-feet from CCF

Table 5
Legal Lots of Record Estimates (2002)
Unincorporated County Not Included
(Acre-Feet)

Type of Parcel	Amount
Vacant Lots on Vacant Parcels	729.9
Vacant Lots on Improved Parcels	288.2
Anticipated Remodels (10 years)	192.8
Total	**1,210.9**

Table 6
Assumptions Driving the Legal Lots of Record Conclusions

Category	Units on Vacant Parcels	Units on Improved Parcels	Estimated Number of Remodels	Water Use Factor	Total Water Usage
Single Family Dwellings	688	152		0.286 AF	240.2
Multi-Family Dwellings	846	204		0.134 AF	140.7
Commercial/Industrial	556	288		0.755 AF	637.2
Residential Remodels			3765	0.029 AF	109.2
Commercial Remodels			513	0.163 AF	83.6
	2,091	**789**	**4,278**		**1,210.9**

However, since the study was done, the District's conservation programs have resulted in reductions in the average water use factors which reduces the water needed for the same lots of record. For example, with single-family water use at 0.2 AFA, multifamily use at 0.12 AFA, and commercial customer connections averaging 0.66 AFA (2016 data), these changes alone would reduce the total above by 167.1 AF. Further, some of these lots may have been built upon, others determined unbuildable. Many of the remodels have likely occurred. General plans have been rewritten and housing elements recalculated. These factors taken together could result in another 150 AF reduction in the assumption.

Compared to the 1,890 units from the 2002 Land Systems Group study shown above, going forward, AMBAG's Regional Housing Needs Allocation (RHNA) Plan: 2014-2023 showed 1,271 additional housing units expected in the 6 cities for a ten-year period. This is shown in Appendix B of this report. Assuming single-family water use at 0.2 AFA and multifamily use at 1.2 AFA, this equates to approximately 395-405 AFA over a 20-year period[25]. Most of AMBAG's

[25] Appendix B of this report

projected growth occurs in Seaside and Monterey, which if slated for the former Fort Ord would not be served by Cal-Am. Unfortunately, it is not possible to accurately distinguish the Cal-Am served housing growth from the non-Cal-Am housing growth, but the 405 AFA likely overstates the Cal-Am growth. The AMBAG assumptions appear consistent with the Land Systems Group estimates. The RHNA is expected to be updated soon and the allocation could change. Instead of focus on a RHNA number, however, the water for housing can be thought of as captured within the population growth component of the third-party growth forecast discussed later in this report and in Appendix A, because houses don't use water – people do.

The case could be made that the legal lots of record demand assumption in the sizing of the MPWSP should be 864 to 1,014 AFA.

Tourism Bounce-Back: As stated earlier, the 500 AFA for economic recovery was originally suggested by the local hospitality industry to account for a recovery of occupancy rates in the tourist industry in a post-World Trade Center tragedy setting.[6, 16] Representatives of the Coalition of Peninsula Businesses indicated in 2017 testimony that the hospitality industry was hurt by the recent recession and that occupancy rates need to increase by 12 to 15 percent to re-attain the levels of decades ago.[26] It is true that the Salinas-Monterey market was one of five California markets, out of 22, to experience significant declines after the events of 2001, from 71.8% in 2000 to 63.0% in 2001.[27] It is also true that the decline persisted and was still down when the MPWSP desalination plant was sized, with occupancy rates of 62.8% in 2011-12 and 64.1% in 2012-13.[28] However, occupancy rates have since recovered with no notable increase in water demand. Hotel occupancy locally is back at approximately 72% and is estimated by Smith Travel Research to be higher for better quality properties on the Monterey Peninsula.[29, 30] The commercial sector water demand is shown below in Table 7 for the year prior to the World Trade Center tragedy, the year of the MPWSP plant sizing, and the most recent year. As can be seen, commercial demand, which is heavily influenced by the hospitality industry remains in decline, despite the already absorbed "bounce-back" in occupancy rates.

Table 7
Commercial Sector Water Demand - Selected Years
(Acre-Feet)

Year	Demand
2001	3,387
2012	2,770
2018	2,442

[26] Testimony of John Narigi (to CPUC), September 29, 2017, page 5
[27] HVS San Francisco, August 19, 2003
[28] Monterey County Convention and Visitors Bureau Annual Report 2012-13, page ii
[29] Fiscal Analysis of the Proposed Hotel Bella Project, Applied Development Economics, April 6, 2016
[30] Cannery Row Company, January 9, 2019

There is a secular change in commercial demand that is due to permanent demand reductions resulting from targeted rebate programs, conservation standards for the visitor-serving sector since 2002, mandatory conservation standards for other commercial businesses instituted in 2013, and commercial inspection/enforcement by the District. A "bounce-back" of 500 AFY would represent an increase in water use demand of 20% in the entire commercial sector, not just the hospitality industry. The District does not view this as likely in the near-term, nor due to a return to higher occupancy rates.

Hence, the case could be made that the tourism bounce-back demand assumption in the sizing of the MPWSP should be 100 to 250 AFA.

Pebble Beach Buildout: As cited earlier, at the time of the 2012 Application, the Pebble Beach company had approximately 325 AF of entitlements still available and that number was added to the MPWSP sizing needs. However, the final environmental impact report certified in 2012 envisioned 145 AFA for the buildout projects and 154 AFA in "other entitlement demand."[31]

However, the "other entitlement demand" is very likely to go away when a new water supply comes online because homeowners will have no reason to pay $250,000 per AF for an entitlement when connecting directly to Cal-Am is possible when the moratorium on new service connections is lifted. In the ten years since the CDO was imposed, Pebble Beach entitlement water demand has averaged 4.9 AF added each year. It is reasonable to assume only another 15 AFA during the next three years before a permanent water supply is online.

The project buildout from the EIR is 145 AFA, not 325 AFA used in MPWSP sizing. Further, the buildout number includes estimated water use that may not materialize in decades, if ever. Table 8 shows the elements that comprise the Pebble Beach buildout.

Table 8
Components of Pebble Beach Buildout in AFA

Project	Demand
Lodge	13.11
Inn at Spanish Bay	12.85
Spyglass Hotel	30.59
Area M Residential	10.00
Other Residential	77.00
Driving Range	0.33
Roundabout	0.70
Total	144.58

[31] Pebble Beach Final Environmental Impact report (FEIR), April 2012, Appendix H "Water Supply and Demand Information for Analysis"

Two elements of the project warrant greater discussion: "Other Residential" includes 66 single family residences at 1.0 AF each and 24 residences at 0.50 AF each (and a decrement of 1 AF in the total calculation for other reasons.) District research in 2006 determined the average large lot Pebble Beach home utilized 0.42 AFA. Building conservation standards have increased since then. Many of the proposed homes are not utilized year-round. Hence, the estimate could be overstated by one-third or more. Spyglass Hotel is not currently being pursued and there are no plans to do so in the near-term. The project could be a decade or two away, if ever.

Hence, the case could be made that the Pebble Beach buildout demand assumption in the sizing of the MPWSP should be 103 to 160 AFA.

Summary of Demand v. Supply

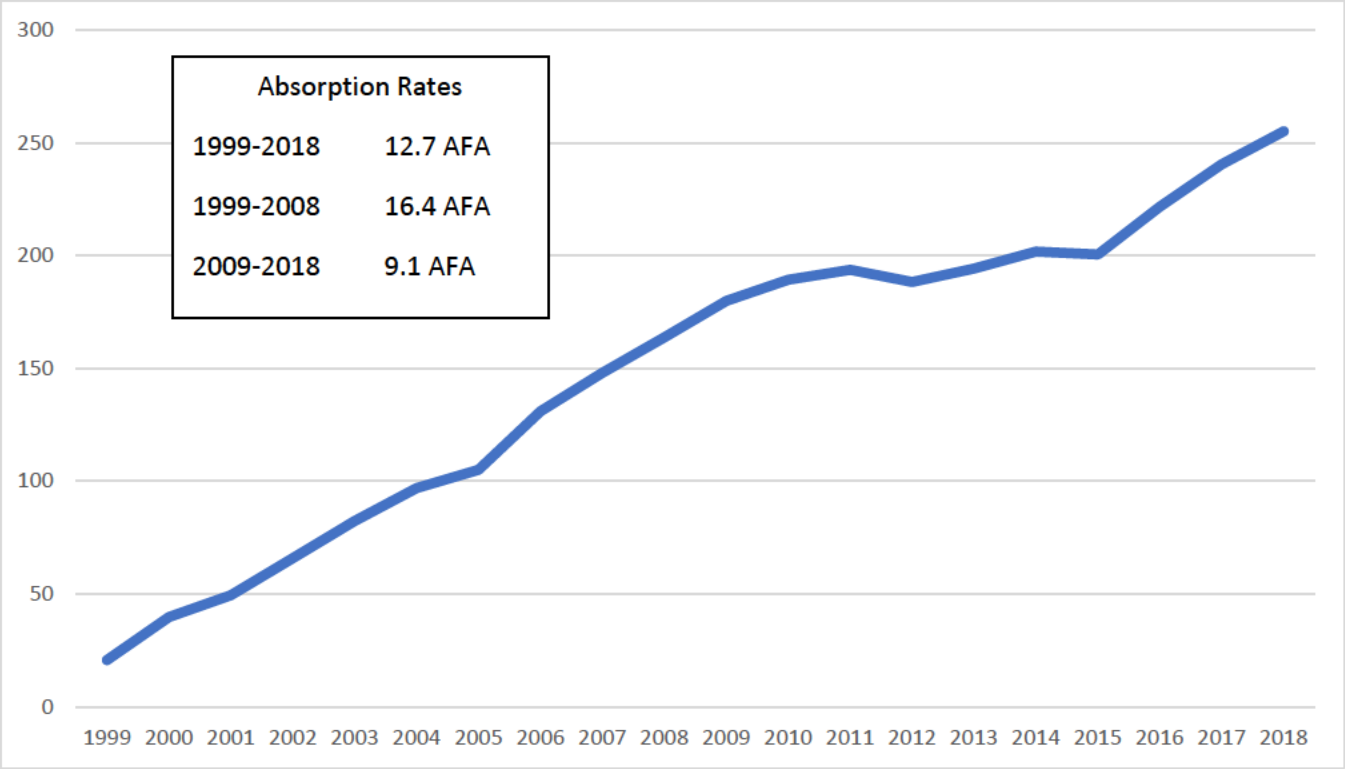
Table 9 shows the range of demand estimates that have been established in the foregoing analysis. These long-term demand estimates can be compared to existing current demand to determine how much water supply is needed.

Table 9
Range of Potential Demand Scenarios in MPWSP Sizing
(Acre-Feet)

Demand Component	Current Project	Revised High	Revised Low
Average Current Customer Demand	13,290	10,863	9,817
Legal Lots of Record	1,181	1,014	864
Tourism Bounce-Back	500	250	100
Pebble Beach Buildout	325	160	103
Total Water Demand	**15,296**	**12,287**	**10,884**

However, the ability of the Monterey Peninsula to generate or "absorb" the housing and commercial growth will help determine when such water supply is needed. Figure 2 shows the past 20 years of market absorption of water demand based on water permits issued. The average growth or absorption in water use was 12.7 AF per year. The first decade preceded the CDO and was a period of relative economic stability, available property, no moratorium on new service connections, and lower water rates resulting in 16.4 AF per year of absorption. The second decade was after the CDO and moratorium on service connections and understandably had a lower absorption rate of 9.1 AF per year.

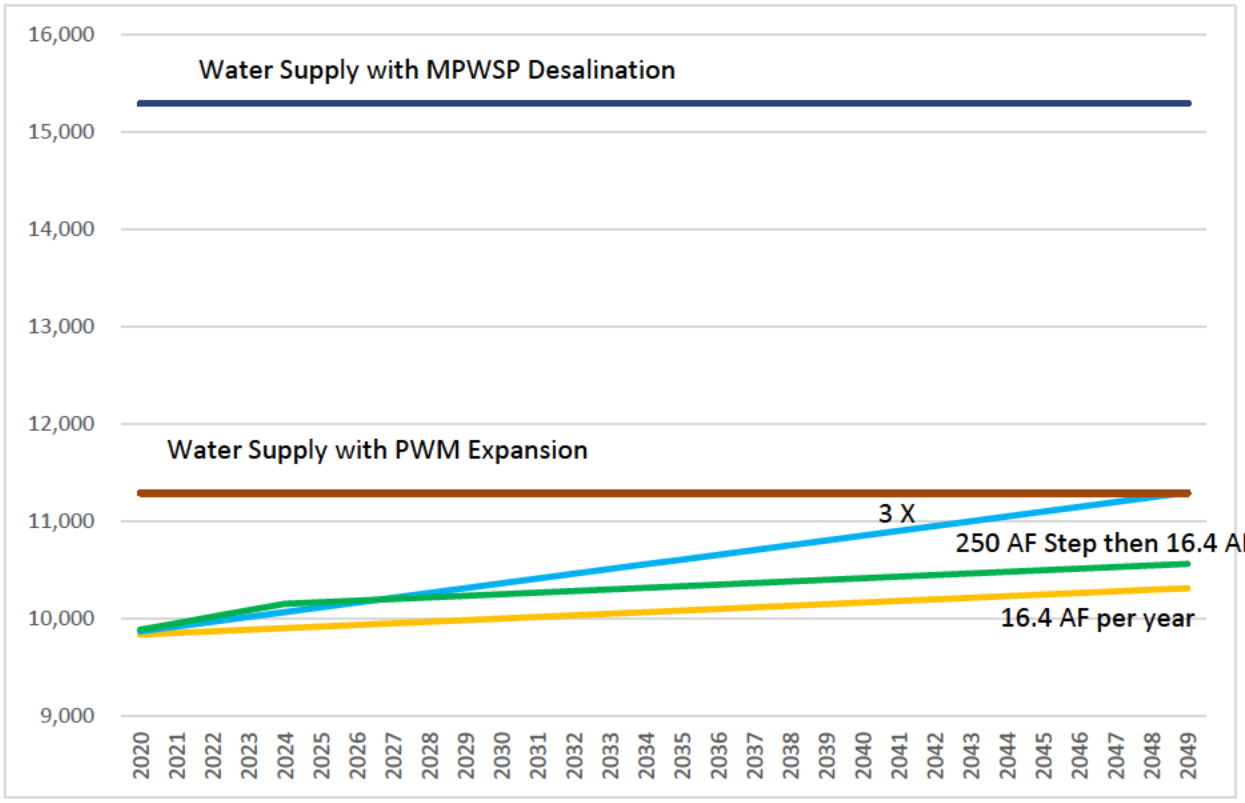
Figure 2
Market Absorption of Water Demand
Last 20 Years
(Acre-Feet)



By adopting assumptions about current demand and market absorption rates, it can be determined the sufficiency of certain supply alternatives over time.

Scenario 1: Supply v Demand Using Pre-CDO Absorption Rate Scenarios: In Figure 3, the current demand assumption of 9,825 AF (most recent 5-year average) is shown with three market absorption rates: (a) 16.4 AF per year (pre-CDO decade rate), (b) three times that rate, and (c) 250 AF over the first five years on top of the pre-CDO rate. These are also compared to the two supply alternatives in Table 1.

Figure 3
Market Absorption of Water Demand Compared to Water Supply
Current Demand at 5-Year Average
Pre-CDO Growth Rate Alternatives
(Acre-Feet)



This chart shows that, assuming a starting current demand at the 5-year average, both water supply alternatives meet 30-year market absorption at the historical rate, 250 AF in the first 5 years on top of the historical rate, and at 3-times the historical absorption rate.

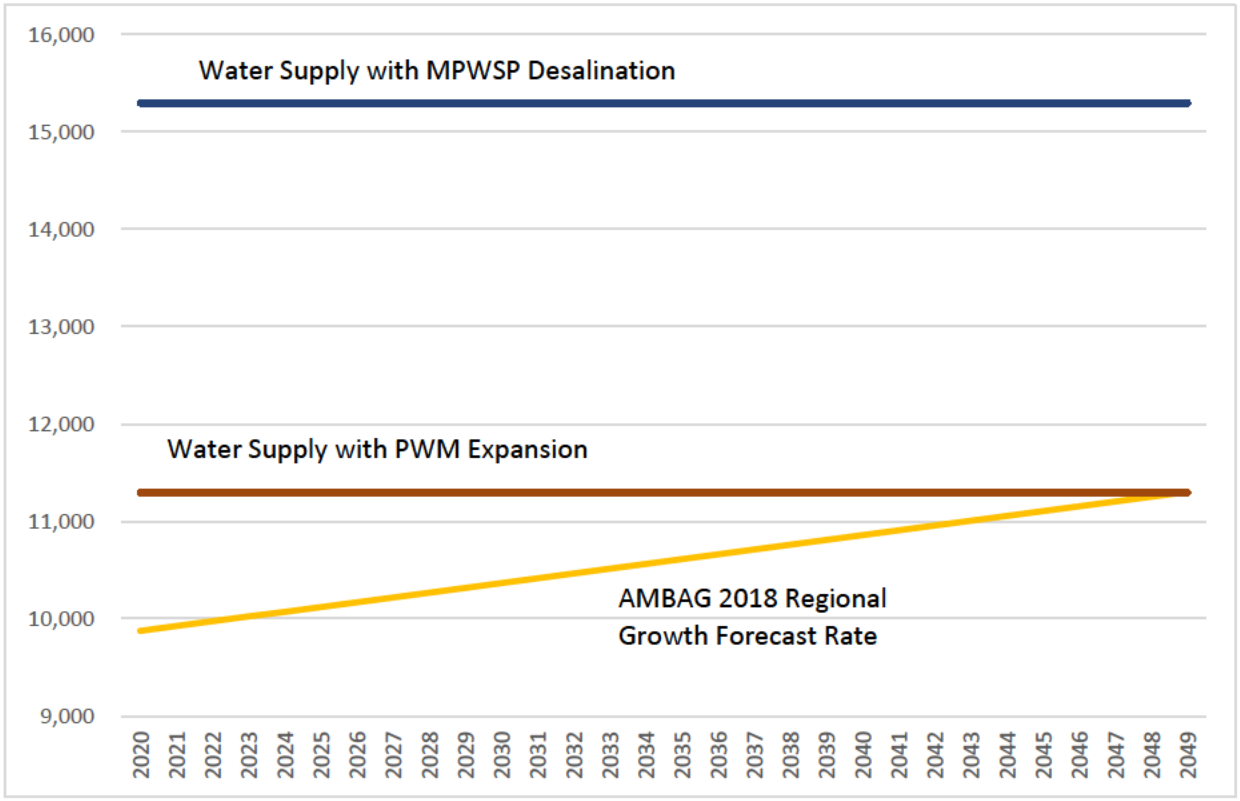
Scenario 2: Supply v Demand Using 3rd-Party Growth Forecast Absorption Rate: Rather than to rely on pre-CDO absorption of water demand or alternative theoretical future demand scenarios, as was done in the September report, it is instructive to instead look at a regional growth forecast by an objective third-party. Here, as shown in Appendix A, we evaluated AMBAG's 2018 Regional Growth Forecast, specifically the subregional population forecast as a proxy for residential water demand, and the subregional employment forecast, using job growth as a proxy for commercial water demand. (Certainly, other factors could be considered.)

AMBAG implemented an employment-driven forecast model for the first time in the 2014 forecast and contracted with the Population Reference Bureau (PRB) to test and apply the

model again for the 2018 Regional Growth Forecast (RGF). To ensure the reliability of the population projections, PRB compared the employment driven model results with results from a cohort-component forecast, a growth trend forecast, and the most recent forecast published by the California Department of Finance (DOF). All four models resulted in similar population growth trends. As a result of these reliability tests, AMBAG and PRB chose to implement the employment-driven model again for the 2018 RGF.[32]

Using this methodology, the total water demand increase in the 20 year study period is 984 AF or 49.2 AFA. Applying the 49.2 AFA linearly across a 30-year horizon results in the demands shown in Figure 4.

Figure 4
Market Absorption of Water Demand Compared to Water Supply
Current Demand at 5-Year Average
AMBAG 2018 Regional Growth Forecast
(Acre-Feet)



This chart shows that, assuming a starting current demand at the 5-year average (inclusive of water year 2019), both water supply alternatives meet 30-year market absorption at the AMBAG 2018 Regional Growth Forecast rate.

[32] 2018 Regional Growth Forecast, Technical Documentation, Association of Monterey Bay Area Governments (AMBAG), June 2018, page 5

Scenario 3: Supply v Demand Using "Pent-Up Demand" Plus AMBAG Growth Forecast Absorption Rate: The Regional Growth Forecast is intended to include new housing starts for increasing population, and new commercial businesses for job formation. However, several cities have approved and unbuilt projects that might happen more quickly once a permanent water supply becomes available and new meters can be set.

Examples of housing projects include Garden Road and Strangio in Monterey, Del Dono in Carmel, South of Tioga in Sand City, and various mixed-use projects and ADUs throughout the service area. Example non-residential projects include almost 120,000 square feet of commercial space at Ocean View Plaza in Monterey, approximately 1,250 rooms across five hotels in Pacific Grove (2) and Sand City (3). Hotels have their own demands and the guests can increase demand at local establishments. There can also be variability in students and service members attending MIIS, MPC, NPS, DLI, or living in the service area attending other institutions.

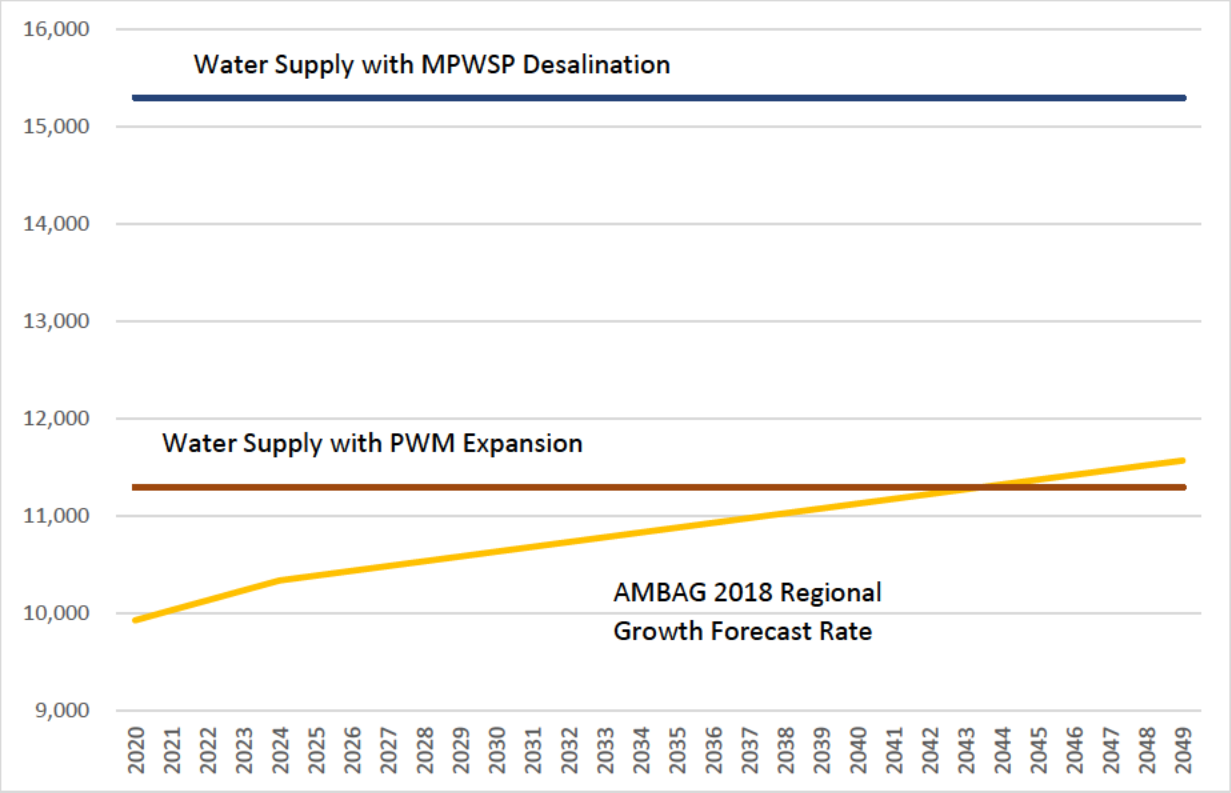
There is little likelihood that the market can absorb all of this quickly, but if it did there might be assumed to be something similar to the following pent-up near-term demand:

Table 10
Potential Near-Term Demand
(Acre-Feet)

Type of Demand	Acre Feet Required
1,250 Hotel Rooms X 0.064 AF/room	80
1.5 guests/room X 1,250 rooms X 75% occupancy X 0.02 AF/restaurant seat	28
200,000 new square feet of commercial space X 0.00007 AF/sq.ft.	14
1,000 new students X 57 gal/day X 260 days/Year	45
Approved but Unbuilt Housing	100
TOTAL Near-Term Demand	267

Figure 5 shows what the supply and demand relationship would be if this 267 AFA is added to the first five years, on top of the AMBAG Growth Forecast. The chart shows that, assuming a starting current demand at the 5-year average (inclusive of water year 2019), Pure Water Monterey Expansion meets 24-year market absorption, and the MPWSP desalination plant exceeds 30-year demands.

Figure 5
Market Absorption of Water Demand Compared to Water Supply
Current Demand at 5-Year Average
"Pent-Up" Demand in first 5 Years plus AMBAG 2018 Regional Growth Forecast
(Acre-Feet)



Additional Factors Affecting Future Demand

Cost: The future water supply will significantly impact rates. It is expected that the combined cost of new water supply and regular annual rate increases will almost double a residential ratepayer's water bill by 2023. Rules of price elasticity suggest the cost of water might dampen demand. The cost of each major component of supply is shown below:

Desalination Plant	$6,094 per acre-foot[33]
Carmel River:	$271 per acre-foot[34]

[33] Attachment C-3 California American Water Company Advice Letter 1220 "Total Yr 1 Cost to Customer" $38.1 million, divided by 6,252 acre-feet per year
[34] MPWSP Model- V 2.1 submitted to CPUC; February 2018 and October 2017 versions, 6.4 MGD scenario, "Avoided Costs" worksheet

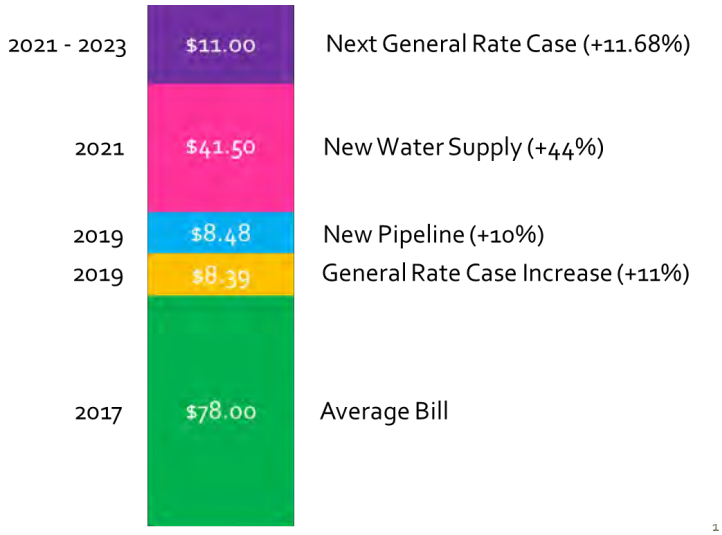
Seaside Basin:	$130 per acre-foot[35]
Pure Water Monterey:	$2,398 per acre-foot[36]
PWM with Expansion:	$2,339 per acre-foot[37]

Further, if the desalination plant capacity is not fully utilized, the cost per acre-foot rises due to the fixed costs, as shown below.

Production by Desal Plant – AF	6,252	5,000	4,300
Variable Cost ($ Million)	7.8	6.2	5.4
Fixed Cost ($ Million)	30.3	30.3	30.3
Total Annual Cost to Customer	38.1	36.5	35.7
Cost per Acre-Foot	$6,094	$7,308	$8,294

The rate impact can be seen in Figure 5 below, which is calculated based on full utilization of the desalination plant.

Figure 5
Ratepayer Impacts of New Water Supply[38]



Legislation: On May 31, 2018, Governor Brown signed two bills which build on the ongoing efforts to "make water conservation a California way of life." SB 606 (Hertzberg) and AB 1668

[35] MPWSP Model- V 2.1 submitted to CPUC; February 2018 and October 2017 versions, 6.4 MGD scenario, "Avoided Costs" worksheet
[36] Recent estimate for 2020-21 fiscal year
[37] Estimate
[38] "Your Rates Are Changing" California American Water mailer, April 2019 and "Notice of General Rate Case Application filed" July 2019

(Friedman) reflect the work of many water suppliers, environmental organizations, and members of the Legislature. The mandates will fall on urban water suppliers – not customers.

Specifically, the bills call for creation of new urban efficiency standards for indoor use, outdoor use, and water lost to leaks, as well as any appropriate variances for unique local conditions. Each urban retail water agency will annually, beginning November 2023, calculate its own *objective*, based on the water needed in its service area for efficient indoor residential water use, outdoor residential water use, commercial, industrial and institutional (CII) irrigation with dedicated meters, and reasonable amounts of system water loss, along with consideration of other unique local uses (i.e., variances) and "bonus incentive," or credit, for potable water reuse, using the standards adopted by the State Water Board.

The indoor water use standard will be 55 gallons per person per day (gallons per capita daily, or GPCD) until January 2025; the standard will become stronger over time, decreasing to 50 GPCD in January 2030. For the water use objective, the indoor use is aggregated across population in an urban water supplier's service area, not each household. Presently, the average June 2014-May 2019 gallons per capita per day for the Cal-Am Monterey system is 57 gpcd. Hence, existing users are unlikely to increase their water consumption with the availability of new water supply.

Principal Conclusions

- Either supply option can meet the long-term needs of the Monterey Peninsula
- Either supply option is sufficient to lift the CDO
- The long-term needs of the Monterey Peninsula may be less than previously thought
- Several factors will contribute to pressure on decreasing per capita water use

Appendix A

Water Required to Meet AMBAG 2018 Regional Growth Forecast

Water Required for Population Growth[39]

	Monterey	Pacific Grove	Carmel-by-the-Sea	Sand City	Seaside	Del Rey Oaks	County[40]	TOTAL
Population in 2020	28,726	15,349	3,833	544	34,301	1,949	7,182	**91,884**
Population in 2040	30,976	16,138	3,876	1,494	37,802	2,987	7,541	**100,814**
Increase	2,250	789	43	950	3,501	1,038	359	**8,930**
GPCD[41]	56.8	56.8	56.8	56.8	56.8	56.8	56.8	**56.8**
Acre-Feet per Year	143 AF	50 AF	3 AF	60 AF	223 AF	66 AF	23 AF	**568 AF**

*: Likely overstates population growth in Cal-Am service area due to some growth attributable to the Fort Ord build-out.

Water Required for Employment Growth[42]

	Monterey	Pacific Grove	Carmel-by-the-Sea	Sand City	Seaside	Del Rey Oaks	County[43]	TOTAL
Jobs in 2020	34,434	5,093	2,998	1,569	10,161	371	4,300	**58,926**
Jobs in 2040	40,173	5,808	3,378	1,810	11,299	432	4,845	**67,745**
Increase	16.7%	14.0%	12.7%	15.4%	11.2%	16.4%	12.7%	
Commercial Consumption In 2019[44]	1,371 AF	248 AF	203 AF	54 AF	282 AF	21 AF	651 AF	**2,830 AF**
Commercial Consumption In 2040[45]	1,600 AF	283 AF	229 AF	62 AF	314 AF	24 AF	734 AF	**3,246 AF**
Increase	229 AF	35 AF	26 AF	8 AF	32 AF	3 AF	83 AF	**416 AF**

Using this methodology, total water demand increase in 20 year period is 984 AF or 49.2 AFY.

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[39] Association of Monterey Bay Area Governments. 2018. "2018 Regional Growth Forecast." Table 8, page 32

[40] Uses Cal-Am service area population reported in SWRCB June 2014 – September 2019 Urban Water Supplier Monthly Reports (Raw Dataset), minus urban areas, escalated at 5%.

[41] SWRCB June 2014 – September 2019 Urban Water Supplier Monthly Reports (Raw Dataset); Average gallons per capita per day for August 2018 – July 2019; www.waterboard.ca.gov

[42] Association of Monterey Bay Area Governments. 2018. "2018 Regional Growth Forecast." Table 7, page 30

[43] California Employment Development Department, Monthly Labor Force Data for Cities and Census Designated Places. November 15, 2019. Sum of Carmel Valley Village CDP and Del Monte Forest CDP. Escalated at same rate as Carmel-by-the-Sea.

[44] Cal-Am. 2019. "Customers and Consumption by Political Jurisdiction"

[45] Assumes escalation at same rate as job growth 2020 to 2040

A Regional Growth Forecast

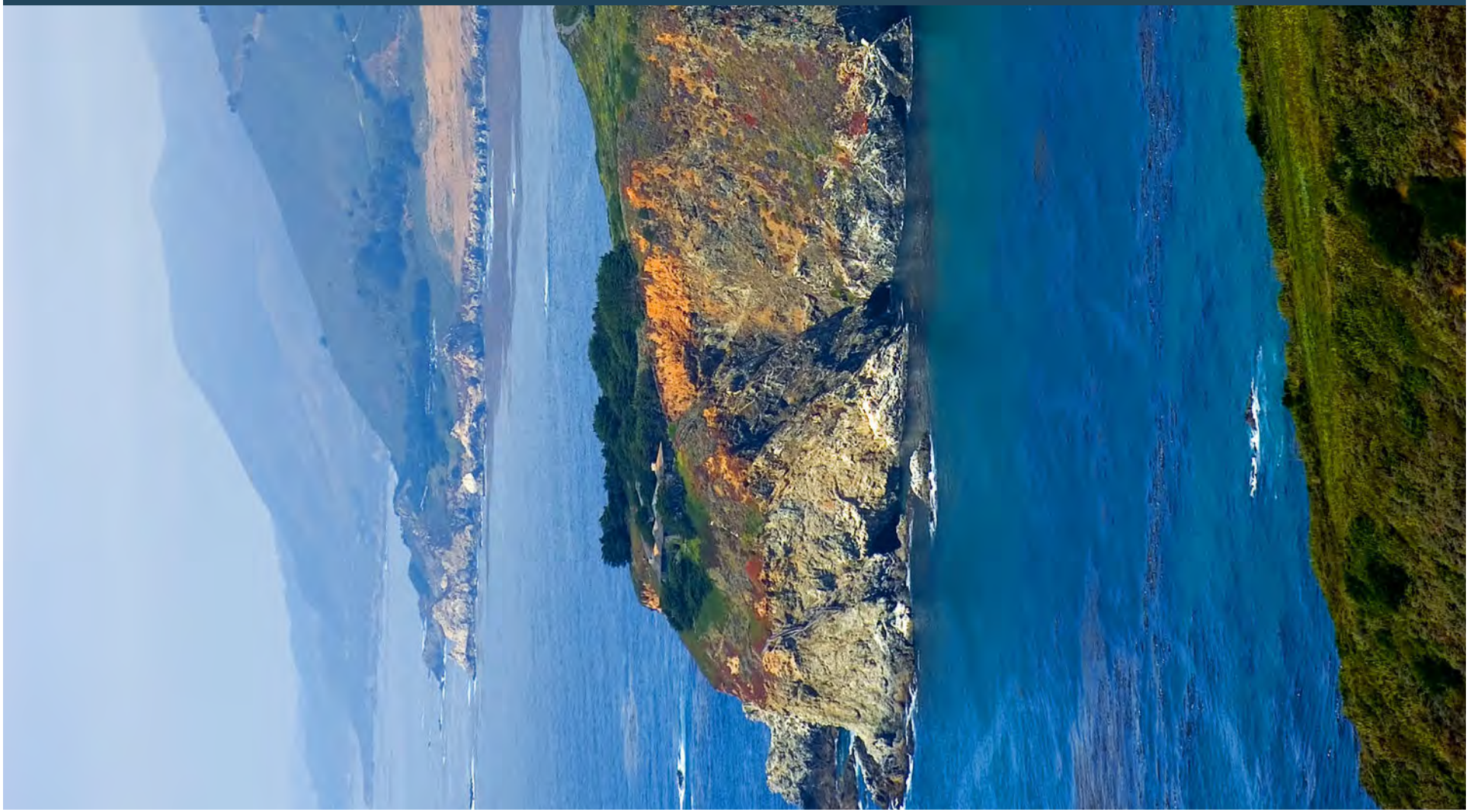

Table 7: Subregional Employment Forecast

Geography	2015	2020	2025	2030	2035	2040	Change 2015-2040 Numeric	Change 2015-2040 Percent
AMBAG Region	337,600	351,800	363,300	374,100	384,800	395,000	57,400	17%
Monterey County	203,550	211,799	218,203	224,207	230,212	235,822	32,272	16%
Carmel-By-The-Sea	2,935	2,998	3,096	3,195	3,289	3,378	443	15%
Del Rey Oaks	359	371	387	404	418	432	73	20%
Gonzales	4,477	4,963	5,064	5,166	5,278	5,371	894	20%
Greenfield	7,024	7,552	7,729	7,813	7,911	7,982	958	14%
King City	4,441	4,692	4,862	5,013	5,154	5,287	846	19%
Marina	6,340	6,649	6,886	7,140	7,373	7,620	1,280	20%
Monterey	34,030	34,434	35,970	37,405	38,814	40,173	6,143	18%
Pacific Grove	5,000	5,093	5,272	5,466	5,637	5,808	808	16%
Salinas	64,396	67,270	69,660	71,958	74,160	76,294	11,898	18%
Sand City	1,517	1,569	1,633	1,698	1,758	1,810	293	19%
Seaside	9,650	10,161	10,455	10,726	11,020	11,299	1,649	17%
Soledad	3,442	3,584	3,694	3,786	3,885	3,978	536	16%
Balance Of County	59,939	62,503	63,497	64,438	65,516	66,390	6,451	11%
San Benito County	18,000	19,240	19,957	20,617	21,264	21,913	3,913	22%
Hollister	13,082	14,035	14,608	15,132	15,650	16,172	3,090	24%
San Juan Bautista	559	591	615	639	662	685	126	23%
Balance Of County	4,359	4,614	4,734	4,846	4,951	5,056	697	16%
Santa Cruz County	116,050	120,761	125,141	129,275	133,324	137,265	21,215	18%
Capitola	7,062	7,199	7,464	7,727	7,979	8,228	1,166	17%
Santa Cruz	40,986	43,090	44,647	46,153	47,616	49,085	8,099	20%
Scotts Valley	7,475	7,612	7,820	8,004	8,180	8,349	874	12%
Watsonville	22,644	23,482	24,382	25,200	26,008	26,772	4,128	18%
Balance Of County	37,883	39,339	40,826	42,191	43,541	44,831	6,948	18%

Sources: Data for 2015 from InfoUSA and the California Employment Development Department. Forecast years were prepared by AMBAG and PRB.

Table 8: Subregional Population Forecast

Geography	2015	2020	2025	2030	2035	2040	Change 2015-2040 Numeric	Change 2015-2040 Percent
AMBAG Region	762,676	791,600	816,900	840,100	862,200	883,300	120,624	16%
Monterey County	432,637	448,211	462,678	476,588	489,451	501,751	69,114	16%
Carmel-By-The-Sea	3,824	3,833	3,843	3,857	3,869	3,876	52	1%
Del Rey Oaks	1,655	1,949	2,268	2,591	2,835	2,987	1,332	80%
Gonzales	8,411	8,827	10,592	13,006	15,942	18,756	10,345	123%
Greenfield	16,947	18,192	19,425	20,424	21,362	22,327	5,380	32%
King City	14,008	14,957	15,574	15,806	15,959	16,063	2,055	15%
Marina	20,496	23,470	26,188	28,515	29,554	30,510	10,014	49%
Marina balance	19,476	20,957	22,205	22,957	23,621	24,202	4,726	24%
CSUMB (portion)	1,020	2,513	3,983	5,558	5,933	6,308	5,288	518%
Monterey	28,576	28,726	29,328	29,881	30,460	30,976	2,400	8%
Monterey balance	24,572	24,722	25,324	25,877	26,456	26,972	2,400	10%
DLI & Naval Postgrad	4,004	4,004	4,004	4,004	4,004	4,004	0	0%
Pacific Grove	15,251	15,349	15,468	15,598	15,808	16,138	887	6%
Salinas	159,486	166,303	170,824	175,442	180,072	184,599	25,113	16%
Sand City	376	544	710	891	1,190	1,494	1,118	297%
Seaside	34,185	34,301	35,242	36,285	37,056	37,802	3,617	11%
Seaside balance	26,799	27,003	27,264	27,632	28,078	28,529	1,730	6%
Fort Ord (portion)	4,450	4,290	4,340	4,490	4,690	4,860	410	9%
CSUMB (portion)	2,936	3,008	3,638	4,163	4,288	4,413	1,477	86%
Soledad	24,809	26,399	27,534	28,285	29,021	29,805	4,996	20%
Soledad balance	16,510	18,100	19,235	19,986	20,722	21,506	4,996	30%
SVSP & CTF	8,299	8,299	8,299	8,299	8,299	8,299	0	0%
Balance Of County	104,613	105,361	105,682	106,007	106,323	106,418	1,805	2%
San Benito County	56,445	62,242	66,522	69,274	72,064	74,668	18,223	32%
Hollister	36,291	39,862	41,685	43,247	44,747	46,222	9,931	27%
San Juan Bautista	1,846	2,020	2,092	2,148	2,201	2,251	405	22%
Balance Of County	18,308	20,360	22,745	23,879	25,116	26,195	7,887	43%
Santa Cruz County	273,594	281,147	287,700	294,238	300,685	306,881	33,287	12%
Capitola	10,087	10,194	10,312	10,451	10,622	10,809	722	7%
Santa Cruz	63,830	68,381	72,091	75,571	79,027	82,266	18,436	29%
Santa Cruz balance	46,554	49,331	51,091	52,571	54,027	55,266	8,712	19%
UCSC	17,276	19,050	21,000	23,000	25,000	27,000	9,724	56%
Scotts Valley	12,073	12,145	12,214	12,282	12,348	12,418	345	3%
Watsonville	52,562	53,536	55,187	56,829	58,332	59,743	7,181	14%
Balance Of County	135,042	136,891	137,896	139,105	140,356	141,645	6,603	5%

Sources: Data for 2015 are from the U.S. Census Bureau and California Department of Finance. Forecast years were prepared by AMBAG and PRB.

Appendix B
Water Required to Meet
Regional Housing Needs Allocation Plan: 2014-2023

2014-2023 RHNA Goals by Local Jurisdiction[46]

	Monterey	Pacific Grove	Carmel-by-the-Sea	Sand City	Seaside	Del Rey Oaks	TOTAL
Total Allocation	**650**	**115**	**31**	**55**	**393**	**27**	**1,271**
Very Low (24.1%)	157	28	7	13	95	7	**307**
Low (15.7%)	102	18	5	9	62	4	**200**
Moderate (18.2%)	119	21	6	10	72	5	**233**
Above Moderate (42%)	272	48	13	23	164	11	**531**

*: Does not include unincorporated Monterey County, which might be 15-25 additional AFY to full build-out

Estimated Water Required to Meet RHNA Goals on the Monterey Peninsula

	TOTAL RHNA GOAL	Water Required (AFY)[47]	Factor Used
Very Low (24.1%)	307	37	0.12 AFA (multi-family)
Low (15.7%)	200	24	0.12 AFA (multi-family)
Moderate (18.2%)	233	37	0.16 (half single family/half multi-family)
Above Moderate (42%)	531	92	0.173 (2/3 single family/1/3 multi-family)
Total Allocation/Water Required	**1,271**	**190**	

Over two similar 10-year periods, total water required for housing calculated with this methodology is 380 AF over twenty years, or 395 – 405 AF including estimate for unincorporated County (footnote above.)

[46] Association of Monterey Bay Area Governments. ND. "Regional Housing Needs Allocation Plan: 2014-2023." Available at: https://ambag.org/sites/default/files/documents/RHNP%202014-2023_Final_revised.pdf.

[47] Calculated based on the RHNA goals for the six cities in the Monterey Peninsula and MPWMD's water use factors for single family units (0.2 AFA) and multi-family units (0.12 AFA).

REGIONAL HOUSING NEEDS ALLOCATION PLAN: 2014 - 2023

ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

RHNA Allocation

Geography	Total Allocation	Very Low (24.1%)	Low (15.7%)	Moderate (18.2%)	Above Moderate (42.0%)
AMBAG Region	10,430	2,515	1,640	1,900	4,375
Monterey County	**7,386**	**1,781**	**1,160**	**1,346**	**3,099**
Carmel-By-The-Sea	31	7	5	6	13
Del Rey Oaks	27	7	4	5	11
Gonzales	293	71	46	53	123
Greenfield	363	87	57	66	153
King City	180	43	28	33	76
Marina	1,308	315	205	238	550
Monterey	650	157	102	119	272
Pacific Grove	115	28	18	21	48
Salinas	2,229	538	350	406	935
Sand City	55	13	9	10	23
Seaside	393	95	62	72	164
Soledad	191	46	30	35	80
Balance Of County	1,551	374	244	282	651
Santa Cruz County	**3,044**	**734**	**480**	**554**	**1,276**
Capitola	143	34	23	26	60
Santa Cruz	747	180	118	136	313
Scotts Valley	140	34	22	26	58
Watsonville	700	169	110	127	294
Balance Of County	1,314	317	207	239	551

Appendix C

Pure Water Monterey Expansion
Consistency With Planning Criteria

MPWMD has consistently followed state and federal codes, as well as industry standards, in its analysis of the two supply options in the report. Specifically, any MPWMD conclusions in the report are consistent with the following:

- California Code of Regulations (CCR) section 64554
- California Health and Safety Code (CHSC) section 116555
- California Water Code (CWC) sections 10635 and 10631
- CPUC General Order 103A and other rules; and
- American Water Works Association "Water Resource Planning" guidance M50

CCR section 64554: MPWMD meets the requirements of CCR Title 22 section 64554. This was shown in a document produced and available from MPWMD in September 2019 and later publicly filed by the California Coastal Commission demonstrating MPWMD compliance.[48] With the passage of time, that analysis has been updated and is included in this Appendix C, now assuming a new water supply comes online in the year 2023. It shows that Pure Water Monterey expansion can meet the Maximum Day Demand (MDD) and Peak Hourly Demand (PHD) required under this section of the CCR.

There is no standard in 64554 to look back 10 years to ascertain current or projected future average annual demand. Section (k) which says *"The source capacity of a surface water supply or a spring shall be the lowest anticipated daily yield based on adequately supported and documented data"* by citing "daily yield", still goes to MDD and PHD, not long-term average annual demand. This bears repeating: CCR section 64554 has nothing to with estimating current existing consumer demand or future average annual consumer demand for water.

CHSC section 116555: All that is required under this section of the Code is that a water supplier "provides a reliable and adequate supply of pure, wholesome, healthful, and potable water." Nothing more, nothing less. To assert that either Pure Water Monterey expansion or the proposed desalination plant do not do so would be disingenuous.

CWC sections 10635 and 10631: Section 10635 of the CWC requires that *"every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years.*

[48] See California Coastal Commission agenda, November 14, 2019, Application 9-19-0918 / Appeal A-3-MRA-19-0034 (California American Water Co.) Exhibit 9 staff note attachment

This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years." MPWMD has done so with respect to both proposed water supply sources and have concluded that they can each meet the challenges of a normal water year, a single dry water year, and a 5-year drought. Drought resilience of Pure Water Monterey and ASR is discussed in more detail below.

We also recognize section 10631 reiterates the above-said requirement in the plan. Section 10631 also requires analysis by the utility of (i) Water waste prevention ordinances; (ii) Metering; (iii) Conservation pricing; (iv) Public education and outreach; (v) Programs to assess and manage distribution system real loss; (vi) Water conservation program coordination and staffing support; and (vii) Other demand management measures. These programs, many of which have been sponsored by MPWMD, have led to the decline in water demand that sets the baseline for future water supply planning.

CPUC General Order 103A and other rules: MPWMD's analysis has met the requirements of CPUC General Order 103A which states all water supplied shall be *"obtained from a source or sources reasonably adequate to provide a reliable supply of water" and "shall have the capacity to meet the source capacity requirements as defined in CCR Title 22, Section 64554".* This has been addressed above.

The CPUC's "Rate Case Plan and Minimum Data Requirements for Class A Water Utilities General Rate Case (GRC) Applications" states utilities should *"forecast customers using a five-year average of the change in number of customers by customer class"* subject to unusual events (such as a meter moratorium here in Monterey). MPWMD has also recognized this regulatory guidance.

American Water Works Association (AWWA) "Water Resource Planning" guidance M50: AWWA recognizes there are 6 traditional forecasting methods.[49] MPWMD's report has incorporated at least three of the accepted methods: "per capita models", "extrapolation models", "disaggregate water use models", and have checked certain estimates using "land-use models" each recognized by AWWA. Further, to the extent MPWMD has analyzed the AMBAG growth forecast and assigned water usage to the population and job forecasts, "multivariate" modeling has been included, also recognized by AWWA. "Several methods of demand forecasting are often combined, even within a single utility."[50]

[49] AWWA, "Water Resources Panning: Manual of Water Supply Practices M50", 3rd Edition, pages 81-84.
[50] AWWA, "Water Resources Panning: Manual of Water Supply Practices M50", 3rd Edition, page 81, paragraph 2.

The out-of-date second edition of AWWA M50 does cite a period of 10 years of historical data be used to develop future forecasts of demand, but the same section also states *"If a simple per capita approach to forecasting is selected, the data requirements could be as easy as securing historical annual water production or sales for 5 to 10 years"* Hence, MPWMD's use of a 5-year period would have been acceptable.[51] However, that edition of M50 was superseded by the third edition published in 2017. The current M50 edition from AWWA does not reference a specific preferred time period for historical data to be used for a future demand forecast. The MPWMD analysis is consistent with the current section of M50. There is nothing wrong, or outside industry standards, with looking at a 5-year average or some other measure to determine "How much water do we use today?"

[51] AWWA, "Water Resources Panning: Manual of Water Supply Practices M50", 2nd Edition, pages 47-48

Drought Resilience of ASR and Pure Water Monterey

ASR: Based on the Benito/Williams technical memorandum modeling assumptions contained in the Pure Water Monterey SEIR appendices, MPWMD concludes that build-up of ASR storage would be sufficient to meet a 5-year drought. The build-up occurs based on historical data including wet, normal, and dry years. If the data is randomized, the same results will occur – ASR acts like a lake behind a dam, building up supplies for use later during a drought. To remove ASR from the resource planning mix is inappropriate and would be inconsistent with industry practice for estimating water supply availability. Even AWWA recognizes ASR in its reliability assessment: *"ASR wells can improve water basin management by storing water underground from periods of excess supply…, and later allowing a portion of the stored water to be extracted during periods of demand or short supply"*[52]

If the Monterey Peninsula were to experience drought during the "buildup period" following the completion of new water supply and the lifting of the CDO, ASR would arguably be delayed in building up a drought reserve, it should not be overlooked that a Pure Water Monterey expansion is new capacity without an immediate offsetting demand. That is, 2,250 AFA from Pure Water Monterey expansion would provide the necessary approximately 800 AFA to offset unlawful Carmel River diversions and lift the CDO and provide a remaining 1,450 AFA for which there is no immediate present-day demand and can instead be delivered for customer service in the early years if ASR's drought reserve has not yet built-up. Just a few years of Pure Water Monterey expansion water could also provide drought-resilience to the Monterey Peninsula.

The District believes the Benito/Williams memo demonstrates ASR is drought-resilient and Pure Water Monterey expansion provides an additional factor of safety against drought impacts to ASR.

Pure Water Monterey: A memorandum dated November 1, 2019 which appears as Appendix I to the Pure Water Monterey Supplemental Environmental Impact Report titled "Source Water Availability, Yield and Use Technical Memorandum", indicates Pure Water Monterey is resilient to drought, in general. Page 1 of the memorandum states the purpose of the memorandum is to summarize the source water availability and yield estimates for proposed modifications to the approved Pure Water Monterey Groundwater Replenishment Project (as modified, the full project is referenced as the Expanded PWM/GWR Project), to explain the seasonal storage yield estimates, and to provide the proposed maximum and typical (or normal) water use estimates for the Proposed Modifications.

[52] AWWA, "Water Resources Panning: Manual of Water Supply Practices M50", 3rd Edition, page 148

Page 10 of the memorandum says *"In the attached scenario tables (Tables 9 through 11), the use of the various sources is reduced to just meet the demands of the AWPF and offset the current CSIP groundwater use in the wet season (October-March). During the dry season (April-September), surface water diversions are shown meeting the monthly AWPF demands and providing extra flow for the CSIP, such that* ***the annual use of new sources exceeds the annual AWPF demands."*** *(emphasis added by MPWMD)*

"*The demand scenarios considered are:*

Table 9: A normal water year while developing a drought reserve (AWPF producing 6,550 AFY)
Table 10: A normal water year with a full drought reserve (AWPF producing 6,350 AFY)
Table 11: A drought year starting with a full reserve (AWPF producing 5,550 AFY) *(emphasis added by MPWMD)*

In the drought year scenario, the stormwater and wastewater availability were reduced. Urban runoff from Salinas was assumed to be one-third of the historic average. Rainfall on the SIWTF ponds used the 2013 rainfall record (critically dry year). The unused secondary treated effluent values from 2013 were used, also the historic low. The CSIP groundwater well use from OCT 2013 to SEP 2014 was used as the CSIP augmentation target. Under this scenario, surface water diversions were required from the Reclamation Ditch, Blanco Drain and Lake El Estero, and the diversions were needed from March through November."

In MPWMD's opinion, this shows that the drought scenario shows all Advanced Water Purification Facility needs are met and there are still residual new supplies available to CSIP. In other words, Pure Water Monterey expansion is reliable in periods of reduced usage or drought years.

MPWMD Analysis of Available Well Capacity for 10-Year Maximum Daily Demand (MDD) and Peak Hour Demand (PHD)

A) Find maximum month demand for 10-year period 2014-2023
August 2014 = 1,023 AF[53]

B) Convert to average daily demand
1,023 AF / 31 days = 33 AF/day

C) Convert to million gallons per day (MGD)
33 AF/day X 325,851 gal/AF divided by 1,000,000 = 10.753 MGD

D) Gross-up for peaking factor of 1.5
10.753 MGD X 1.5 =16.13 MGD = Maximum Daily Demand (MDD)

E) Average hourly flow during MDD is 10.753 MGD divided by 24 hours = 0.448 MGh

F) Gross-Up for peaking factor of 1.5
0.448 MGh X 1.5 = 0.672 million gallons per hour = Peak Hour Demand (PHD)

Hence, new water supply must support a MDD of 16.13 MGD. Table 1 on the next page shows existing and planned system supply capacities under authorized, desired, and firm capacity scenarios. As can be seen, the lowest available capacity is 19.41 MGD which significantly exceeds MDD.

This assumes additional production well capacity currently being analyzed in the Pure Water Monterey Expansion Supplemental EIR are developed and the Forest Lake Pump Station currently requested under the 2019 General Rate Case filing is built. These two projects markedly remove system capacity constraints.

We also recognize that the Plumas, Luzern, Ord Grove, Paralta, and Playa wells are presently unable to deliver to the Monterey Pipeline, serving only Seaside, Sand City, and Old Monterey. This could potentially reduce available capacity throughout the rest of the system on the order of 2 MGD. Even in this instance, operations are sufficient to meet MDD. This issue goes further away if one or more of the wells are also connected to the pipeline, as well as with the continued reduction in MDD in more recent years.

CONCLUSION: Pure Water Monterey expansion provides sufficient capacity to meet MDD and PHD for the Cal-Am Monterey Main System.

[53] Direct testimony of Ian Crooks, Errata version 9-27-17 in A.12.04.019 at California Public Utilities Commission, page 9, Table 3

TABLE 1

Cal-Am Monterey Main Well Capacity Under Authorized and Desired Operations With New Wells being Analyzed in Pure Water Monterey Expansion SEIR							
	Authorized Operations			**Desired Operations**		**Desired Operations Firm Capacity**	
	Capacity (gpm)	**Capacity (MGD)**		**Capacity (gpm)**	**Capacity (MGD)**	**Capacity (gpm)**	**Capacity (MGD)**
Upper Carmel Valley Wells							
Assume n/a in Summer	-	-		-	-	-	-
Lower Carmel Valley Wells							
Rancho Canada	1,150	1.66		1,200	1.73	1,200	1.73
Cypress	1,500	2.16		-	-	-	-
Pearce	1,500	2.16		-	-	-	-
Schulte	1,250	1.80		-	-	-	-
Manor	125	0.18		-	-	-	-
Berwick No 8.	600	0.86		-	-	-	-
Berwick No. 9	985	1.42		-	-	-	-
Subtotal Lower CV	7,110	10.24		1,200	1.73	1,200	1.73
Seaside Wells							
Plumas	192	0.28		192	0.28	192	0.28
Luzern	640	0.92		640	0.92	640	0.92
Ord Grove	1,000	1.44		1,000	1.44	1,000	1.44
Paralta	1,350	1.94		1,350	1.94	1,350	1.94
Playa	350	0.50		350	0.50	350	0.50
Santa Margarita ASR 1 or 2	1,750	2.52		1,750	2.52	1,750	2.52
Middle School ASR 1 or 2	1,750	2.52		1,750	2.52	1,750	2.52
Subtotal Seaside	7,032	10.13		7,032	10.13	7,032	10.13
4 New Wells in Pure Water Expansion SEIR							
New 1	1,750	2.52		1,750	2.52	1,750	2.52
New 2	1,750	2.52		1,750	2.52	1,750	2.52
New 3	1,750	2.52		1,750	2.52	1,750	2.52
New 4	1,750	2.52		1,750	2.52	-	-
Subtotal New	7,000	10.08		7,000	10.08	5,250	7.56
Total Well Capacity	**21,142**	**30.44**		**15,232**	**21.93**	**13,482**	**19.41**
Notes:							
gpm = Gallons per Minute							
MGD = Million Gallons per Day							
AF = Acre-Feet							
Firm Capacity = Without largest producing well							

CALIFORNIA AMERICAN WATER
Central Division - 2019 GRC
WATER PRODUCTION (KCCF)
AUTHORIZED AND PROPOSED

Filing: 100-Day update

Line No.	Description		Last Authorized Test Year 2018	Estimated 2019	Estimated 2020	Proposed Test Year 2021	Escalation Year 2022
1.	Metered Sales		4,172.6	3,989.7	3,989.7	3,989.7	3,989.7
2.	Other Consumption		0.0	0.0	0.0	0.0	0.0
3.	Total Consumption		4,172.6	3,989.7	3,989.7	3,989.7	3,989.7
4.	Non Revenue		363.6	274.5	274.5	274.5	274.5
5.	Total Water Requirement		4,536.2	4,264.3	4,264.3	4,264.3	4,264.3
6.	Non Revenue Water %		8.0%	6.4%	6.4%	6.4%	6.4%
7.	Equivalent Acre Feet		10,413.6	9,789.4	9,789.4	9,789.4	9,789.4
8.	Total Water Requirement in CCF		4,536,162	4,264,251	4,264,251	4,264,251	4,264,251

References:
Line 1 Metered sales per Table 3.11
Other Consumption per [insert text if applicable]
Line 3 is sum of lines 2 and 3.
Line 4 is based on projection. See REV Wkp [insert reference]
Line 5 is line 3 plus 4
Line 6 is line 4 divided by line 5.
Line 7 is line 5 divided by 435.6 and multiplied by 1,000 to convert to Acre Feet.
Line 8 is line 5 multiplied by 1,000 to convert ot CCF.

Appendix D
Cal-Am Sales Forecast
(Current Demand)
From 2019 GRC Application

Appendix P
Biographical Information of Key SEIR Contributors

Robert B. Holden, P.E.

Expertise in Recycled Water Project Planning, Engineering, Water Balance Calculations, Operations, and Construction

Robert (Bob) Holden is principal engineer with Monterey One Water where he has worked over 29 years. For the last 21 years he has worked with recycled water for crop irrigation and for the last thirteen years has been working on the Pure Water Monterey groundwater replenishment project. He currently is managing the $50M Advanced Water Purification Facility construction project to produce indirect potable reuse water. Bob has a Bachelor of Science in Chemical Engineering from University of California Berkeley and a Master of Science in Oceanography from Oregon State University. Bob is a licensed Civil Engineer and Land Surveyor in California. Bob is a member of the American Society of Civil Engineers, WateReuse Association and the Water Research Foundation.

Adam Olivieri, Dr. PH, P.E.

Principal/Founder
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A Registered Civil Engineer with the State of California with a Doctorate in Public Health, Adam has over 30 years of experience in leading technical and regulatory projects associated with wastewater, water recycling and reuse, groundwater, stormwater, and public health risk assessments (chemical and microbial). Through his experience as a staff engineer at the California Regional Water Quality Control Board, San Francisco Bay Region and as staff specialist with the School of Public Health, University of California – Berkeley, Adam has experience working in the public, private and university settings, giving him a unique perspective on water quality policy in California. Adam is the Vice President of EOA and frequently serves as a guest lecturer and a technical advisor on State and National water quality initiatives.

Source: http://eoainc.com/dr-adam-olivieri/, accessed March 25, 2020.

Resumes of Experts Involved in Preparation of the EIR

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Contact by Email

Rhodes Trussell, Ph.D., P.E., BCEE

The founder of Trussell Technologies, Inc., R. Rhodes Trussell, has a B.S., M.S., and Ph.D. in Environmental Engineering from University of California at Berkeley. Dr. Trussell is a registered Civil and Corrosion Engineer in the State of California with more than 40 years of experience who has authored more than 200 publications. He is recognized, worldwide, as an authority in methods and Criteria for Water Quality and in the development of advanced processes for treating water or wastewater to achieve the highest standards. He has worked on the process design for dozens of treatment plants, ranging from less than one to more than 900 mgd in capacity and has experience with virtually every physiochemical process and most biological processes as well. Dr. Trussell is available to review and advise on any complex water quality problem. He has a special interest in emerging water quality problems and reuse.

Dr. Trussell served for more than ten years on EPA's Science Advisory Board, on several committees for the National Academies, including as Chair of their Water Science and Technology Board. For the International Water Association, Dr. Trussell has served on the Scientific and Technical Council, Editorial Boards, and on the Program Committee.

Source: http://www.trusselltech.com/about/staff/rhodes-trussell, accessed March 25, 2020.

David J. Stoldt

General Manager, Monterey Peninsula Water Management District

Mr. Stoldt joined the Monterey Peninsula Water Management District as General Manager in 2011. He has over 31 years of experience in the public infrastructure sector, including investment banking and consulting to public agencies. He has also served as chief executive and chief financial officer for early stage start-up companies. His roles have included cross-functional experience in strategic planning, finance, marketing, logistics, and management. Mr. Stoldt has also served in various positions in the public sector, both appointed and elected, leading to an understanding of how to achieve results amidst the delicate balance of public and political interests. Some career activities include:

- Oversee activities related to potential acquisition of local investor-owned water utility; Provide management direction for water supply, conservation, permitting, and environmental stewardship activities of public agency; Co-developed with another agency, the Pure Water Monterey advanced water purification project, named one of 2015 WateReuse Association's projects of the year; Participation on Association of California Water Agency's Drought Action Group 2014-15; Worked to write and pass Senate Bill 936 to create low-cost financing for desalination project 2014
- Experience with public-private partnerships and asset divestiture: For example, engineered the sale of landfill assets of a California city to publicly held corporation.
- Served as CEO, President, CFO, and Director/Board Member for various start-up companies. Built administrative, financial, and sales functions, as well as oversaw manufacturing, operations, and marketing. Provided strategic day-to-day direction, financial analysis, strategic transactions, as well as wind-downs and dissolution.
- Served as member of several governmental committees dealing with land acquisition, building construction, master planning, EIR review and comment, conservation easements, negotiating funding agreements, "green energy" procurement, and management of architects, engineers, and developers.
- Officer of leading Wall Street firm in public finance investment banking area. Responsible for new business development, transaction processing, and team oversight. Investment banker to 41 public agency projects totaling over $3 billion.
- Familiarity with regulatory frameworks for investor-owned utilities including expert testimony on water-related topics as both public official and private sector consultant at California Public Utilities Commission and 4 years at a California electric utility.
- California Special Districts Association "General Manager of the Year" in 2014; City of Pacific Grove Public Official of the Year 2016; and the 2016 Monterey Peninsula Chamber of Commerce Public Official of the Year.

Education:

- Stanford University, MBA and Certificate in Public Management, 1987
- University of California, Berkeley, MS (Energy and Resources), 1982
- University of Illinois, Urbana/Champaign, BS (Civil and Environmental Engineering – Environmental and Hydrosystems), 1980

Andrew A. Sterbenz, P.E. – Senior Project Manager – Schaaf & Wheeler

Education

BSCE, Massachusetts Institute of Technology

MSCE, University of Texas at San Antonio

Licenses

Registered Civil Engineer
California C69703
Texas 93537

Affiliations

American Water Works Association

Society of American Military Engineers

American Public Works Association

Monterey Bay Water Works Association

Andrew A. Sterbenz, P.E. has over 25 years of experience managing engineering organizations and solving engineering problems, and is recognized for developing and implementing creative solutions to complex problems. In 2006-2007 and 2012-2013 he served as the full-time District Engineer for the Marina Coast Water District, managing a $150 million water and sewer capital improvements budget that includes the development of new groundwater, recycled and desalinated water supplies for the former Fort Ord. He has prepared long-range water supply plans in California and Texas. Plans include the projection of population and water demands, the assessment of current water supply availability, and the analysis of water management strategies to meet projected shortages. He is adept at analyzing, researching, planning, coordinating and executing strategies to achieve organizational goals. Andy has prepared detailed plans and specifications for bidding and construction for public agencies, and managed construction projects for the client agencies. He has conducted environmental studies and remediation design, and assisted with environmental permitting. He is well experienced with state and federal environmental regulations.

Major Project Accomplishments

Water and Wastewater Systems Planning and Design

A1/A2 Reservoirs and B/C Booster Pump Station – Marina Coast Water District – Marina, CA (2019-present)

Septembr Ranch Water System Design and Permitting - Carmel Reserve LLC – Carmel Valley, CA (2018-present)

Lompico Water Tank Replacements – San Lorenzo Valley Water District – Santa Cruz County, CA (2018-present)

Anderson Dam Seismic Retrofit Project, Project Management Team – Black & Veatch for Santa Clara Valley Water District – Morgan Hill, CA (2012 – Present)

Pure Water Monterey Injection Well Field – Kennedy/Jenks Consultants for Monterey Regional Water Pollution Control Agency - Monterey County, CA (2016-2019)

Reclamation Ditch Diversion Pump Station – E2 Consulting Engineers for Monterey Regional Water Pollution Control Agency - Monterey County, CA (2016-2019)

Lightfighter Drive Water Main – Marina Coast Water District – Seaside, CA (2016)

San Juan Oaks Water and Wastewater System Design – Whitson Engineers – Hollister, CA (2015-16)

Pure Water Monterey Groundwater Replenishment Project – Monterey Regional Water Pollution Control Agency – Monterey County, CA (2015-17)

Truck Yard Lift Station and Water System Improvements – Monterey Regional Waste Management District – Marina, CA (2014-16)

Pure Water Monterey Groundwater Replenishment Project – Denise Duffy & Assoc. – Monterey County, CA (2013-2015)

Reclamation Ditch Yield Study – Monterey Penninsula Water Management District - Monterey County, CA (2013-2014)

Blanco Drain Yield Study – Monterey Penninsula Water Management District - Monterey County, CA (2013-2014)

Aptos Booster Pump Station – Soquel Creek Water District – Aptos, CA (2012-2015)

McGregor Drive Booster Pump Station – Soquel Creek Water District – Capitola, CA (2012-2015)Interim District Engineer - Marina Coast Water District - Marina, CA (2006-2007, 2012-2013)

Soquel Drive Cast Iron Main Replacement-Soquel Creek Water District-Soquel, CA (2012)

Watkins Gate Well and Pipeline– Marina Coast Water District – Marina, CA (2011-2012)

Stonegate Water Supply Project – San Benito County Public Works - Hollister, CA (2011-2013)

Castroville Community Plan Infrastructure Estimate – Monterey County Redevelopment Agency – Monterey, CA (2009-2010)

Sewer Feasibility Study for Commercial Parkway – Monterey County Redevelopment Agency – Castroville, CA

(2010)
Boronda Meadows General Development Plan Peer Review – PMC, Inc. – Salinas, CA (2010)
Modular Wastewater Treatment System - LOGCAP – Balkans, Yugoslavia (1999)
Raw Water Pump Station Design and Construction - Coastal Water Authority - Houston, Texas (2000)
Moses Bayou 84-Inch Siphon - Gulf Coast Water Authority - Texas City, Texas (2001)
System Water Audit - Gulf Coast Water Authority - Texas City, Texas (1999)

Water Supply Planning

Water Supply Assessment for 2018 General Use Permit – Stanford University (2016-17)
2015 Urban Water Management Plan – Marina Coast Water District – Marina, CA (2015--2016)
2010 Urban Water Management Plan – Marina Coast Water District – Marina, CA (2010-2011)
Regional Urban Water Augmentation Project - Marina Coast Water District - Marina, CA (2006-2007)
Region H Water Plans (2001 and 2006) - San Jacinto River Authority - Conroe, Texas (1998-2001, 2002-2006)
Colorado River Water Availability Model - Texas Natural Resource Consv. Comm. – Austin, TX (2002)

Stormwater Planning and Design

Bryant Canyon Channel – Monterey County Water Resources Agency – Soledad, CA (2013 –2014, 2017)
Wrigley-Ford Creeks Maintenance Project – City of Milpitas – Milpitas, CA (2011-2012)
Reclamation Ditch Repair at Alisal St – Monterey County Water Resources Agency – Salinas, CA (2009)
Pajaro River Levee Maintenance Design – Monterey County Water Resources Agency – Salinas, CA (2009)

ILLINGWORTH & RODKIN, INC.
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JAMES A. REYFF

Mr. Reyff is a Meteorologist with expertise in the areas of air quality and acoustics. His expertise includes meteorology, air quality emissions estimation, transportation/land use air quality studies, air quality field studies, greenhouse gas studies and environmental noise studies. He is familiar with federal, state and local air quality and noise regulations and has developed effective working relationships with many regulatory agencies.

During the past 31 years, Mr. Reyff has prepared Air Quality Technical Reports for over 20 major Caltrans highway projects and conducted over 300 air quality analyses for other land use development projects. These projects included microscale analyses, calculation of project emissions (e.g., ozone precursor pollutants, fine particulate matter, diesel particulate matter, and greenhouse gases), health risk assessments, and preparation of air quality conformity determinations. Mr. Reyff has advised decisions of federal and local air quality agencies regarding impact assessment methodologies and air quality conformity issues. He has conducted air quality evaluations for specific plans and General Plan updates and advised City and County staff on these topics.

Mr. Reyff has been responsible for a variety of meteorological and air quality field investigations in support of air permitting and compliance determinations. He has conducted air quality analyses of diesel generators in support of regulatory permitting requirements and environmental compliance issues. Mr. Reyff has designed and implemented meteorological and air quality monitoring programs throughout the Western United States including Alaska. Programs include field investigations to characterize baseline levels of air toxics in rural areas, as well as regulatory air quality and meteorological monitoring. He was the Meteorologist involved in a long-term monitoring program at the Port of Oakland that evaluated meteorological conditions and fine particulate matter concentrations in neighborhoods adjacent to the Port.

Mr. Reyff has conducted over 15 major acoustical technical studies for transportation systems. He has managed several research studies for Caltrans including a noise study that evaluated long-range diffraction and reflection of traffic noise from sound walls under different meteorological conditions. Mr. Reyff has also evaluated noise from power plants, quarries and other industrial facilities. He has also been actively involved in research regarding underwater sound effects from construction on fish and marine mammals.

PROFESSIONAL EXPERIENCE

1995-Present	Illingworth & Rodkin, Inc.
Senior Consultant	Petaluma, California
1989-1995	Woodward-Clyde Consultants (URS)
Project Meteorologist	Oakland, California
1988-1989	Oceanroutes (Weather News)
Post Voyage Route Analyst	Sunnyvale, California

EDUCATION

1986 San Francisco State University
B.S. Major: Geoscience (Meteorology)

PROFESSIONAL SOCIETIES

American Meteorological Society
Institute of Noise Control Engineering

AWARDS

FHWA Environmental Excellence Award – 2005
Caltrans Excellence in Transportation, Environment - 2005

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MICHAEL S. THILL

Mr. Thill is a principal of the firm with 21 years of professional experience in the field of acoustics. His expertise includes performing field research, analyzing data, and noise modeling. He has conducted numerous field surveys in a variety of acoustical environments to quantify airborne noise levels, groundborne vibration levels, and hydro-acoustic noise levels. He has analyzed and summarized complex sets of data for inclusion into noise models. Mr. Thill has been trained, and is a regular user of FHWA's Traffic Noise Model (TNM), and is familiar with federal and State procedures for preparing highway noise study reports.

Mr. Thill has authored technical noise reports for various land use proposals including residential, commercial, educational, and industrial developments. He has managed the General Plan Update noise studies for several communities in California and has recommended policy language in order to maintain compatible noise levels community-wide. Some of his recent major projects have included the assessment of noise and vibration from data center projects, quarry expansion projects, groundwater recharge projects, and winery projects where operations and special events have been of concern in rural settings. He has vast experience explaining acoustical concepts and the results of his analyses in public forums to the general public and project decision-makers.

Mr. Thill has also led traffic noise investigations for major transportation projects including the Route 4 Bypass project (2003 to 2013) and the I-680/Route 4 Interchange project (2014 to 2015) in Contra Costa County, California. He managed the noise study reports the US Highway 101 and State Route 85 Express Lanes projects for the Santa Clara County Valley Transit Authority (2011 to 2013), proposed along 66 miles, combined, of project study area between Mountain View and Morgan Hill, California. In 2013, Mr. Thill led the analyses of noise impacts due to the Jennings Avenue Pedestrian and Bicycle Rail Crossing Project, and in 2015, Mr. Thill led the analysis of noise impacts and noise abatement for the US Highway 101 / Hearn Avenue Interchange Project in Santa Rosa, California.

PROFESSIONAL EXPERIENCE

2009 - Present Principal	Illingworth & Rodkin, Inc. Petaluma, California
2005 - 2009 Senior Consultant	Illingworth & Rodkin, Inc. Petaluma, California
1998 - 2005 Staff Consultant	Illingworth & Rodkin, Inc. Petaluma, California

EDUCATION

1998	University of California at Santa Barbara B.S., Major: Environmental Science

PROFESSIONAL SOCIETIES

Institute of Noise Control Engineering
Association of Environmental Professionals

Matthew P. Johnson

Project Manager/Senior Environmental Scientist

Education

Bachelor of Science, Earth Systems Science and Policy, California State University of Monterey Bay, Seaside, California, 2001

Microsoft Certified Systems Engineer, New Horizons Computer Learning Center

Work Experience

Senior Environmental Scientist / Geographic Information Systems Manager, DD&A

Geographic Information Systems Research Analyst, California Department of Fish and Game, Marine Region

Professional Affiliations

Central Coast Joint Data Committee

Monterey Peninsula Audubon Society

Registrations/Certificates

Trimble Certified GPS Operator

40 Hour HAZWOPER Certification

USFWS Federal Recovery Permit TE-091857-0 - California tiger salamander and California red-legged frog (authorized individual)

CDFG Scientific Collection permit SC-007701 -: Mammals, Reptiles, Amphibians, and Freshwater/terrestrial invertebrates

USFWS Approved Bald/Golden Eagle Surveyor

Workshops/Training

Wetlands Regulation and Mitigation Training Seminar

Special Status Amphibians and Reptiles of Northern California

The Western Section of Wildlife Society Annual Meeting and Symposium

CEQA Basics/Advanced Workshop (AEP)

Matthew Johnson has 17 years of experience working in the environmental field, with a background in environmental science and policy. During his tenure at DD&A Mr. Johnson has also served as the manager of the Geographic Information Systems (GIS) department. At DD&A his responsibilities include project management, rare plant surveys, protocol-level wildlife surveys, CRAM assessments, biological monitoring, and wetland delineations; preparation of biological reports, Mitigation Monitoring and Restoration Plans, CEQA/NEPA documents, and regulatory permit applications. In his role as the GIS Manager Mr. Johnson is responsible for, Global Positioning System (GPS) data collection; Geographic Information Systems (GIS) analysis; and graphics support for biological and planning documents. Mr. Johnson holds federal permit (TE-091857-0) to handle multiple listed wildlife species and is expert in conducting protocol presence/absence surveys for burrowing owl, California red-legged for, California tiger salamander, and additional wildlife species. Mr. Johnson holds a CDFW Scientific Collecting Permit (SC-007701) allowing for collection and handling of mammals, reptiles, amphibians, and freshwater/terrestrial invertebrates. Mr. Johnson holds a 40-hour HAZWOPER Certification and participates in an 8-hour refresher course, annually. He has over 100 hours of experience conducting burrowing owl surveys in accordance with either the 1993 Burrowing Owl Survey Protocol and Mitigation Guidelines (BOSPMG) or the 2012 Staff Report on Burrowing Owl Mitigation (SRBOM). Mr. Johnson has conducted pre-construction clearance surveys for a wide range of nesting avian species afforded protection under CDFG Code, the Migratory Bird Treaty Act, Federal Endangered Species Act and California Endangered Species Act for a wide range of projects in Monterey, San Benito, Santa Clara and Santa Cruz Counties. Mr. Johnson has been approved by the USFWS to perform bald and golden eagle surveys in accordance with the *Protocol for Evaluating Bald Eagle Habitat and Populations in California*.

His technical expertise is demonstrated in his background projects and training:

- Experience working closely with resource and regulatory agencies in permitting projects of varying size and complexity, including:
  - California Department of Fish and Wildlife (CDFW)
  - U.S. Fish and Wildlife Service (USFWS)
  - National Marine Fisheries Service (NOAA Fisheries)
  - Army Corps of Engineers (ACOE)
  - California Department of Transportation
  - Regional Water Quality Control Board (RWQCB)
- Extensive experience managing and conducting biological monitoring, pre-construction wildlife surveys on a variety of projects, & biological trainings to inform construction crews & other project team members of the sensitive resources present within project sites and the protection measures afforded to them.
- Proficiency in conducting biological surveys, including protocol-level surveys for special-status wildlife and plant species such as the California tiger salamander, California red-legged frog, Monterey/San Francisco dusky-footed woodrat, nesting avian species, burrowing owl, San Joaquin kit fox, bald/golden eagle, sand gilia, Monterey spineflower, and seaside bird's beak.
- Technical experience includes preparing biological reports for a broad range of environmental documentation in accordance with CEQA and NEPA requirements and local, State, and federal policies and regulations,

ESRI User Conference

Navigating the Environmental Compliance Process in Coastal California, Elkhorn Slough Workshop

Fifty Plant Families in the Field: Monterey Bay, UC Berkley Workshop

Riparian Bird Workshop, Central Coast Chapter: Wildlife Society

including the Clean Water Act and the federal and state Endangered Species Acts, including:

- Biological Assessments (BA)
- Natural Environment Studies (NES)
- Wetland Delineation Reports
- Mitigation Monitoring and Reporting Programs (MMRP)
- Permit Applications for CDFW LSAA, ACOE 404, USFWS ESA, RWQCB 401, etc.

- Extensive experience on large-scale water projects including Pure Water Monterey Groundwater Replenishment, San Benito County Water District West Hills Water Treatment Plant, Rinconada Water Treatment Plant, Montevina Water Treatment Plant, Ostwald Waterline Replacement, and Lake Ranch Reservoir Dam Rehabilitation.

Project Experience:

Botanical, Wildlife, and Wetland Assessment Projects:

- *Fort Ord Dune State Park Rare Plant Surveys, California State Parks*
- *Los Gatos Creek Trail Reach 5B/C NES/BA, City of San Jose*
- *Mazda Raceway/Laguna Seca Recreation Area Protocol-level CTS Surveys, Monterey County Department of Parks and Recreation*
- *Lake Ranch Reservoir Dam Rehabilitation Project, San Jose Water Company*
- *Ostwald Waterline Replacement Project, San Jose Water Company*
- *Pure Water Groundwater Replenishment Biological Surveys, Monterey Regional Water Pollution Control Agency*

ESA Section 10 Permits and Section 7 Consultation Projects:

- *Fort Ord Habitat Conservation Plan EIR and EIS – Fort Ord Reuse Authority and the U.S. Fish and Wildlife Service*
- *Santa Lucia Preserve Habitat Conservation Plan EA – Rancho San Carlos Partnership and the U.S. Fish and Wildlife Service*
- *Malcom Ranch Habitat Conservation Plan, Denise Malcom*

Biological Construction and Monitoring Projects:

- *Pure Water Monterey Groundwater Replenishment Project, Monterey Regional Water Pollution Control Agency*
- *Ostwald Waterline Replacement Project, San Jose Water Company*
- *Lake Ranch Reservoir Dam Rehabilitation Project, San Jose Water Company*
- *Royal Oaks Facility Bolsa Nueva Creek Restoration Project, Monterey Mushrooms, Inc.*
- *AHTNA OUCTP Clean Up Project, AHTNA Environmental, Inc.*

Avian Nesting Pre-Construction Projects:

- *Golden/Bald Eagle Protocol Nesting Survey, County of Monterey*
- *Preconstruction Nesting Raptors and Tri-Colored Blackbird Surveys for the Three Creeks Trail (Lonus Street to Minnesota Avenue) Project, City of San Jose*
- *Preconstruction Nesting Avian Survey for the Pacific Grove Local Water Project at the Pacific Grove Wastewater Treatment Plant Site City of Pacific Grove*
- *Raptor Nest Biological Monitoring, CSUMB*
- *Preconstruction Raptor/Migratory Bird Nesting and Special-Status Bat Species Roosting Surveys for the University Villages Specific Plan Project, Shea Homes*

Appendix Q
Hydraulic Analysis of Potential Additional Injection Wells - Hydraulic Modeling Parameters and Results

6 April 2020

Technical Memorandum

To: Bob Holden; Alison Imamura, M1W

From: Rod Houser, P.E.; Sifang Shan

Subject: Hydraulic Analysis of Potential Additional Injection Wells – Hydraulic Modelling Parameters and Results
K/J 1668001*63

Background

The Pure Water Monterey Groundwater Replenishment Project (Project) injects purified recycled water produced at an Advanced Water Purification Facility (AWPF) at M1W's Regional Treatment Plant (RTP) to the Seaside Groundwater Basin. Current conveyance and injection facilities consist of the product water pump station at the RTP, an approximately 9-mile product water pipeline along General Jim Moore Boulevard and an 18 to 24-inch injection pipeline that serves three injection sites. The initial phase of Project operation includes two injection sites, Well Sites 2 and 3, each with one deep well and one shallow (vadose zone) well have a combined maximum design injection rate of 4.0 MGD. Two other sites, Well Sites 1 and 4, were approved by M1W, but are not currently being implemented.

The proposed modifications to expand the Project would meet an injection rate up to 7.57 MGD (Proposed Modifications). To meet this yield, the Proposed Modification would relocate previously-approved deep wells at Well Sites 1 and 4 to Well Sites 5 and 7, respectively, and would add a new deep well at Well Site 6 (for a total of 5 deep wells). Well Sites 5, 6, and 7 would be located in an Expanded Injection Well area to the north and east of the approved well field for Wells sites 1 through 4. Figure 1 displays the locations of both the approved and new injection well sites. This memorandum serves to identify the boundary conditions and evaluation criteria for desktop modelling of the system expansion, and to present results of the modelling.

Figure 1. Well Sites

Based on discussions with M1W staff, two alternatives of injection system expansion will be investigated. Additionally, Marina Coast Water District (MCWD)'s demand will be omitted because the peak (and worst-case) hydraulic condition for this analysis occurs when the peak injections of 7.6 MGD are being injected and MCWD's irrigation demands are zero. The two expansion alternatives are listed in Table 1 and presented in Figure 2 and 3.

Table 1. Injection System Proposed Modification Options and Well Site Demands

Expansion Option	Well Site 2 (WEST AUSTIN)		Well Site 3 (BAYVIEW)		Well Site 4 (BASIN)		Well Site 5 (EAST EUCALYPTUS)		Well Site 6 (MIDDLE EUCALYPTUS)		Well Site 7 (WEST EUCALYPTUS)	
	DIW-1	VZW-1	DIW-2	VZW-2	DIW-3Alt	VZW	DIW-4	VZW	DIW-5	VZW	DIW-3	VZW
Proposed (gpm)	764	142	764	142	N/A	N/A	1,274	N/A	1,274	N/A	1,019	N/A
Alternative (gpm)	764	142	764	142	510	N/A	1,529	N/A	1,529	N/A	N/A	N/A

Considering the extra cost and maintenance of adding new pump stations, the model will be set up for gravitational feed to Well Site 5, 6 and 7 from the Black Horse tank. A preliminary investigation of the vertical pipe alignment indicates a hill approximately 20 feet higher than the tank bottom between the existing and the new injection sites. This makes it impractical to loop

the new injection manifold with the existing manifold. Thus, the new pipeline will end at Well Site 7.

The following design criteria are used to size new transmission pipelines between the Black Horse tank and the additional injection wells:

- Water level at the Black Horse tank will be modeled at 1 foot above the tank bottom (water surface elevation 485 ft). This modelling assumption is made to ensure adequate well head pressures can be maintained at all operating levels within the tank.
- Maximum pipe velocity is limited to 6 ft/s maximum
- all nodes can maintain a minimum pressure of 10 psi to avoid vacuum conditions at all of the new well heads.

The pipe connecting the Black Horse Tank and the new well sites is assumed to conform to AWWA C-900 standards for PVC pipe. Pipe diameter and pressure rating will be discussed in the Steady-State Modelling section.

It should be noted that some portions of the existing transmission main do not meet the 6 ft/s velocity criteria. However, this segment of pipeline can deliver the required flow without compromising the functional requirements of the conveyance system. Additional head losses caused by the undersized pipeline have been accounted for in the design basis for the product water pump station. Thus, Kennedy/Jenks recommends keeping the existing transmission main as constructed.

Figure 2 - Proposed

Figure 3 - Alternative

Steady-State Modelling

The first objective of steady state modelling is to identify an appropriate size for a new transmission main from the Black Horse Tank to Well Site 7. This is done by assuming a "worst case" scenario with a tank that is almost empty (i.e. 1-foot of water). In order to maintain peak velocity below 6 ft/s while aiming for 10 psi pressure at the well sites, it was concluded that both alternatives will require a nominal pipe diameter of 24-inch. Table 2 lists the residual pressure and hydraulic grade line (HGL) elevations at each well site for both alternatives.

Table 2. Steady State Model Results Summary

		Proposed		Alternative	
		Pressure (psi)	HGL (ft)	Pressure (psi)	HGL (ft)
Well Head Pressure and HGL (Black Horse Tank Water Level @ 1ft; Water Elev. 486.5 ft)	Well Site 1	8	479	5	471
	Well Site 2	34	479	31	471
	Well Site 3	52	479	48	471
	Well Site 4	74	480	70	472
	Well Site 5	10	481	10	483
	Well Site 6	9	481	9	482
	Well Site 7	11	481	11	482
Results Below Assumes Black Horse Tank is Full (Water Level 512.5ft); PWPS Elev.98ft					
PWPS Discharge HGL (ft, from model)		605		604	
HGL @ Wet Well (ft, from drawing)		83		83	
Required Pumping (ft)		522		521	

Both alternatives yield a maximum pipe velocity of 7.86 fps during steady state simulations. This maximum velocity occurs along the 16-inch segment of the existing 24-inch transmission pipe, indicated by purple highlight in Figure 4. After discussing the steady state results with M1W staff, the 'Proposed' expansion plan was chosen for further analysis in the extended period simulations.

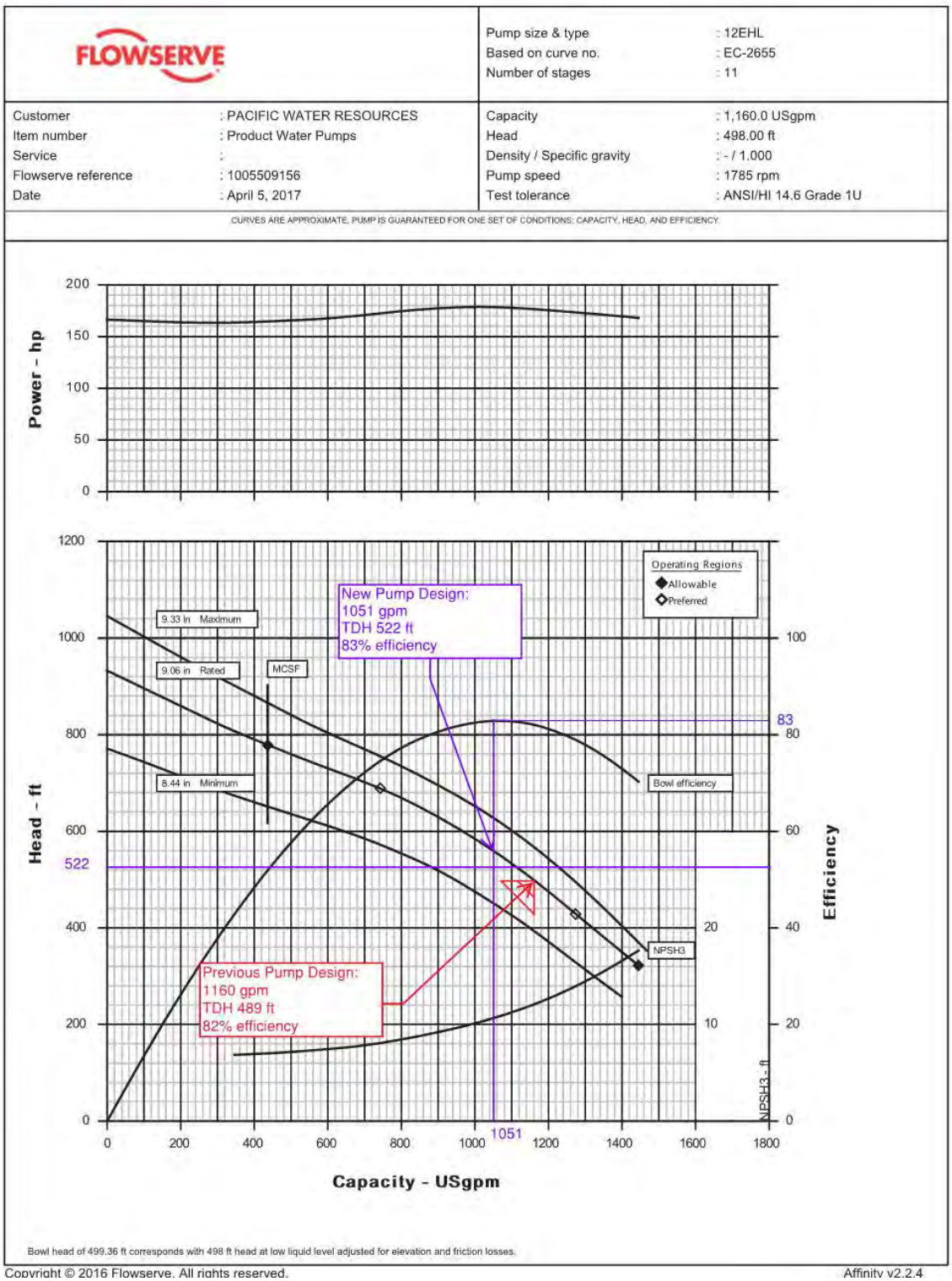
Figure 4. Maximum Pipe Velocity

After obtaining the size of the new transmission main, the Black Horse Tank level is modeled as full to determine the pressure class of the new transmission main. Maximum pressure along the new transmission main in both expansion alternatives when the tank is full is 43 psi, thus the pressure class of both alternatives will be 100 psi, assuming AWWA C900 PVC pipe materials (JM Eagle, 2014).

Product-water pumps were originally specified for a system flow of 6.7 mgd. The steady state model calculated the required discharge HGL at the product water pump station (PWPS) for the expanded output of 7.57 mgd. By design, pumps at the PWPS raise product water from a wet well to the HGL in the 24-inch transmission pipe. Thus, the difference in HGLs between the wet well and the existing transmission main is the required TDH corresponding to the new system flow rate. HGL at the wet well is obtained from Conformed AWPF Contract Drawings Vol 1, Sheet G-1.6.

Figure 5 shows the anticipated duty condition at the product water pump station assuming a fifth duty pump (identical to the existing pumps) is added to meet the new service conditions of 7.57-mgd. Model results demonstrate that the existing pump selection is compatible for the expanded system. The current PWPS is currently configured with four (4) duty pumps to meet the original design flow rate of (6.7 mgd/1160 gpm per pump); with the expanded system it will take five (5) duty pumps to meet the new injection flow rate (7.57 mgd/1051 gpm per pump). Additional space was provided at the PWPS to accommodate the new pump.

Figure 5. Pump Curve for Pump Selection



Extended-Period Simulations (EPS)

EPS are used to evaluate the water levels at Black Horse Tank during backwash cycles at the injection wells. Each well site, five in total, was assumed to be backwashed for four (4) hours between 8:00 PM and 12:00 PM from Monday to Friday, consecutively (i.e. one well backwashed per day). For purposes of this study the simulation period is modelled as a full calendar week (168 hours). Table 3 summarizes the assumed backwash schedule at each of the five injection sites.

Table 3. Backwash Schedule

Well Site and Normal Injection Rate (gpm)		Well 2	Well 3	Well 5	Well 6	Well 7
		906	906	1,274	1,274	1,019
Day	Hour					
Mon	0-20					
	20-24	Backwash				
Tue	24-44					
	44-48		Backwash			
Wed	48-68					
	68-72			Backwash		
Thu	72-92					
	92-96				Backwash	
Fri	96-116					
	116-120					Backwash
Sat-Sun	120-168					

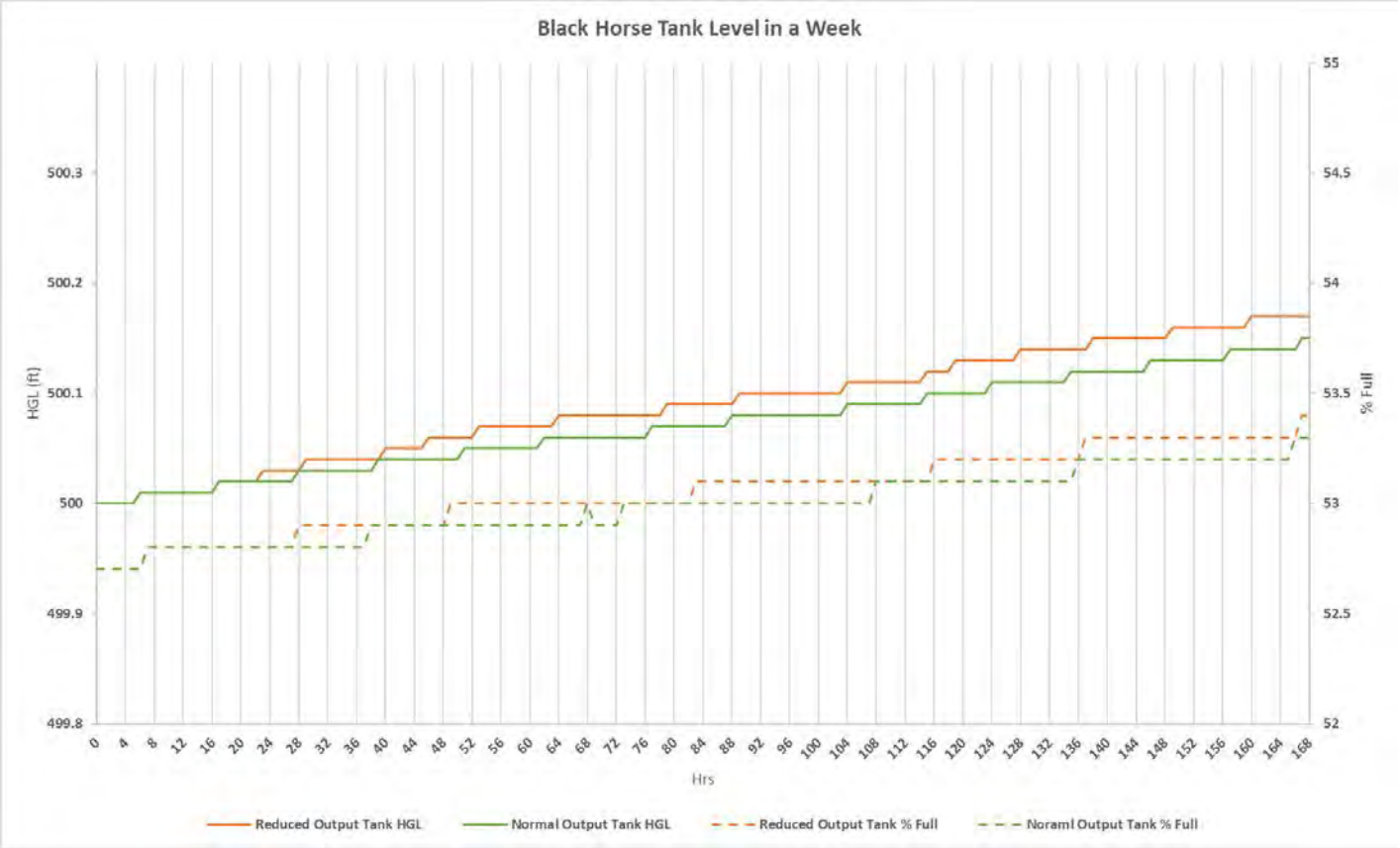
The Black Horse Tank has an effective storage capacity of 1.98 MG. Water level in the tank was assumed to be approximately 50% full at the beginning of the simulation period for purposes of modelling performance over a typical week. Two EPS scenarios were modeled:

1) Decrease the PWPS output by the corresponding injection flowrates during each backwash cycle while holding injection rates constant at the remaining active well sites; and

2) Evenly increase injection rates at active well sites to compensate for the 'lost' injection flow during backwash periods while holding the PWPS output constant.

Figure 6 shows that tank levels vary by less than 1-foot provided that output from the PWPS matches the volume discharged to the well field.

Figure 6. Simulated Tank Levels During 1 Week of Operation



Figures 7 and 8 demonstrate the pressure variations at the well sites during a week. In both scenarios, the pressure variations are not significant. Comparing the two scenarios, both the magnitude and quantity of variations of the “reduced PWPS output” scenario is smaller than those of the “increased injection rates” scenario.

In the “reduced PWPS output” scenario, reduced pumps’ output during backwashes result in decreases in PWPS discharge HGLs as well as decreases in friction loss due to the lower flow velocities. During backwashes at Well Site 2 and 3, due to the smaller decreases in the PWPS outputs, the decreases in the PWPS HGLs are not as significant as the accumulated decreases in friction loss along the 9-mile product water line and the existing injection pipe. Therefore, the HGLs at Well 2 and 3 during backwashes rise and so do the pressures at these two sites. Similarly, the greater decreases in the PWPS outputs during backwashes at Well 5, 6 and 7 lead to greater decreases in the PWPS HGLs, and in this case, the decreases in the PWPS HGLs outweigh the decreases of friction losses, resulting in lower HGLs and pressures at Well 2 and 3.

In the “constant PWPS output” scenario, backwashes at Well Site 2 and 3 lead to increases in demand at Well Site 5,6 and 7, and vice versa. The increase in flow results in increase in friction loss. When multiplied by the length of the pipes, the accumulated friction losses are greater than the slight fluctuations in the PWPS HGLs and the Black Horse Tank HGLs. Therefore, when either side of the system is in backwash, a “flip” in pressure changes can be expected, as shown in Figure 8.

Figure 7. Well Head Pressures Across 7 Days – "Reduced PWPS Output" Scenario

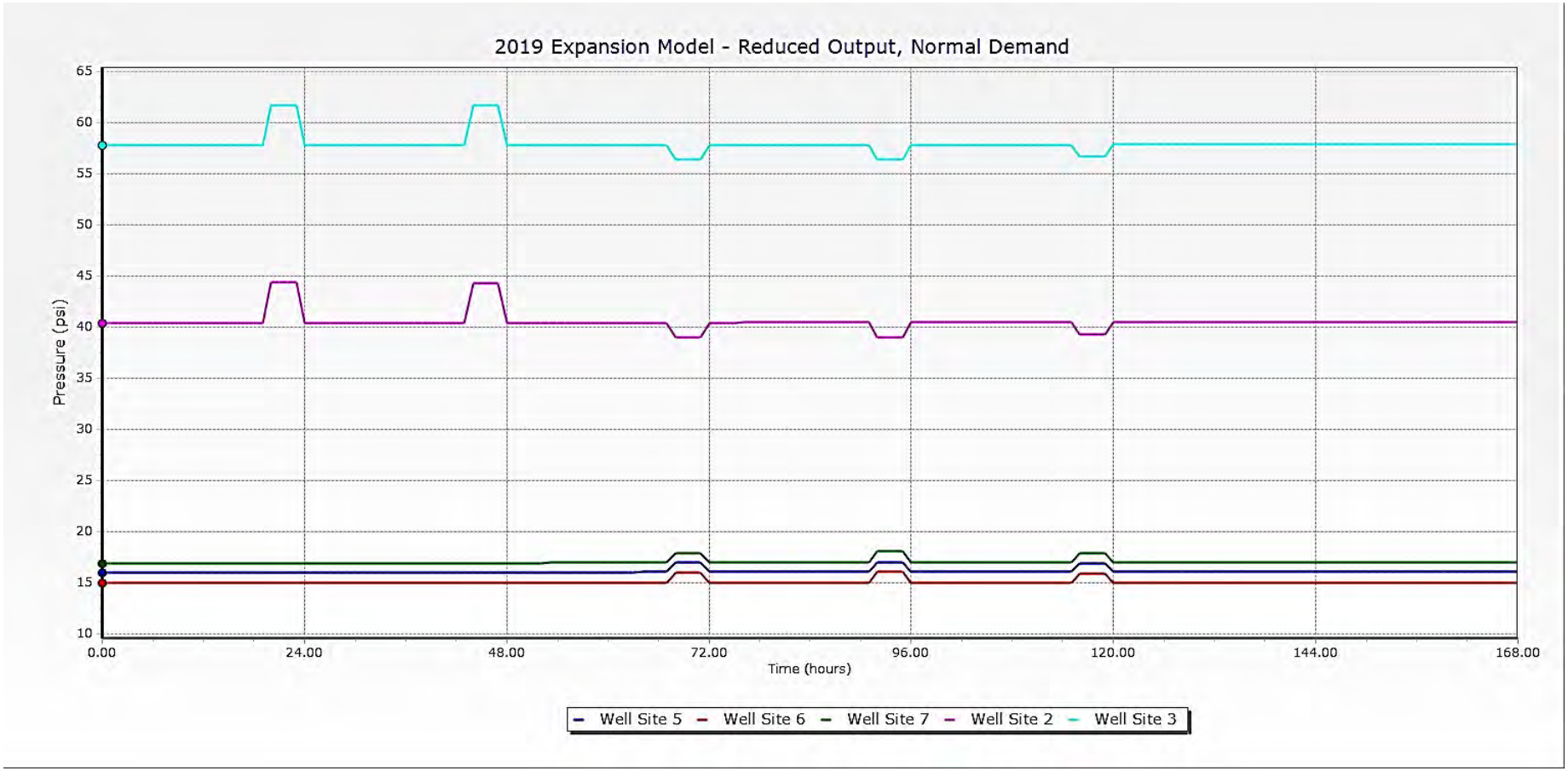
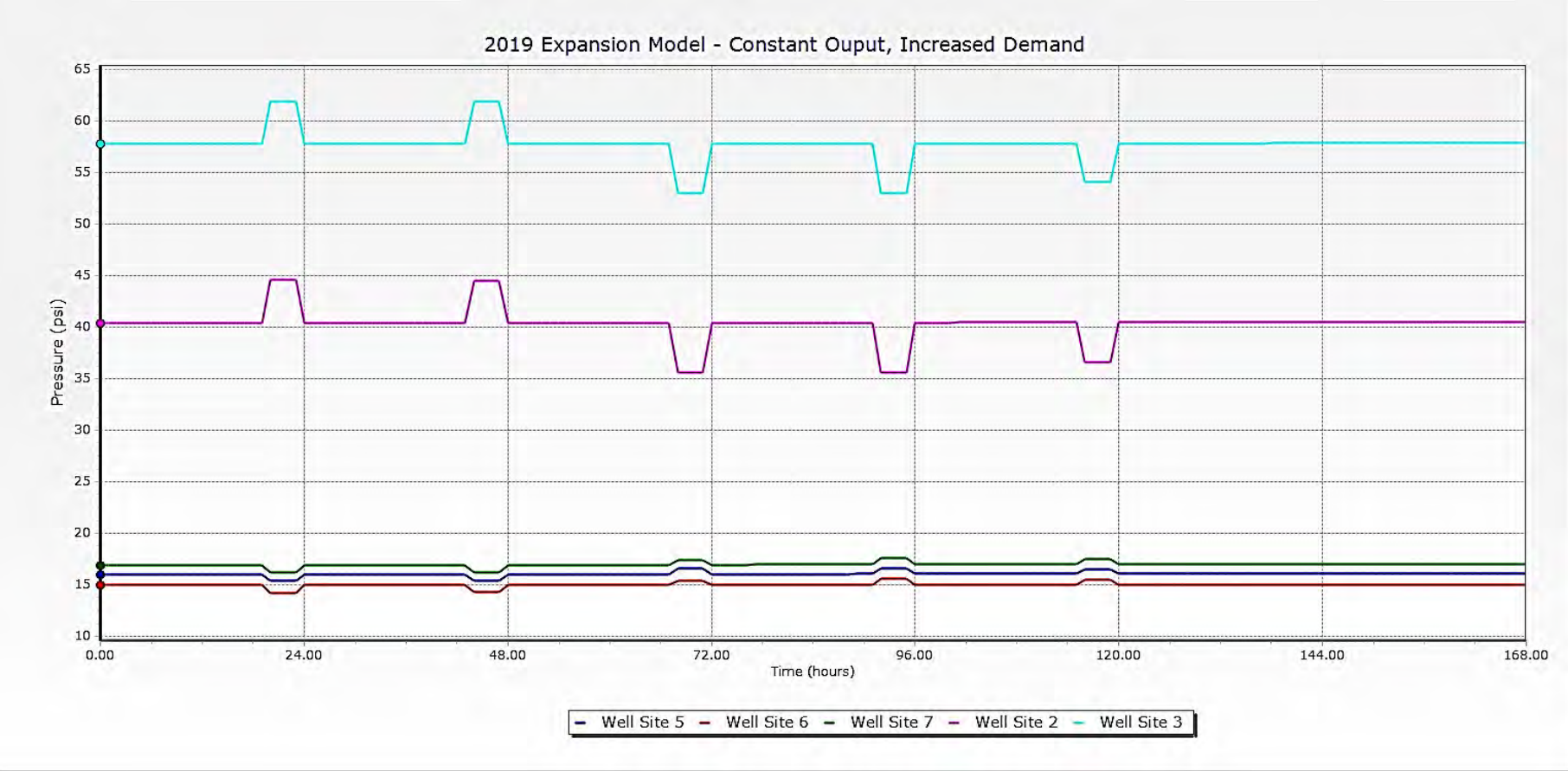


Figure 8. Well Head Pressures Across 7 Days – "Increased Injection Rates" Scenario



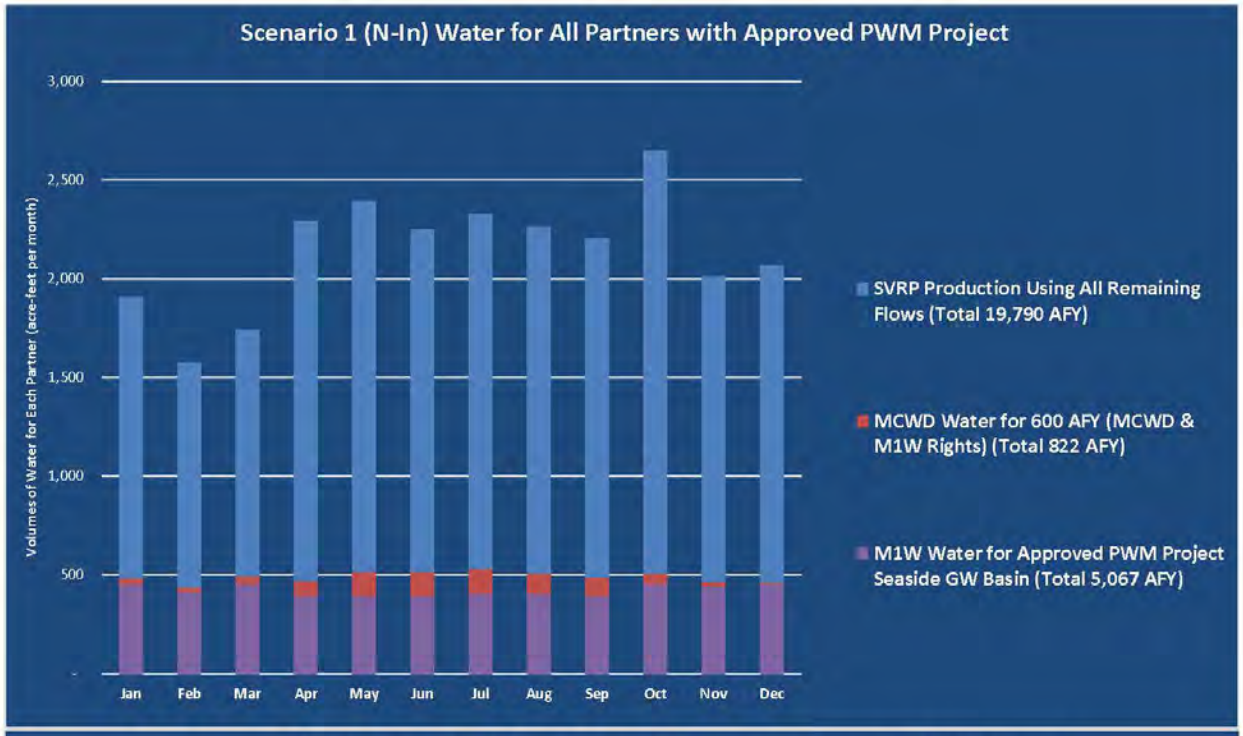
Conclusions and Recommendations

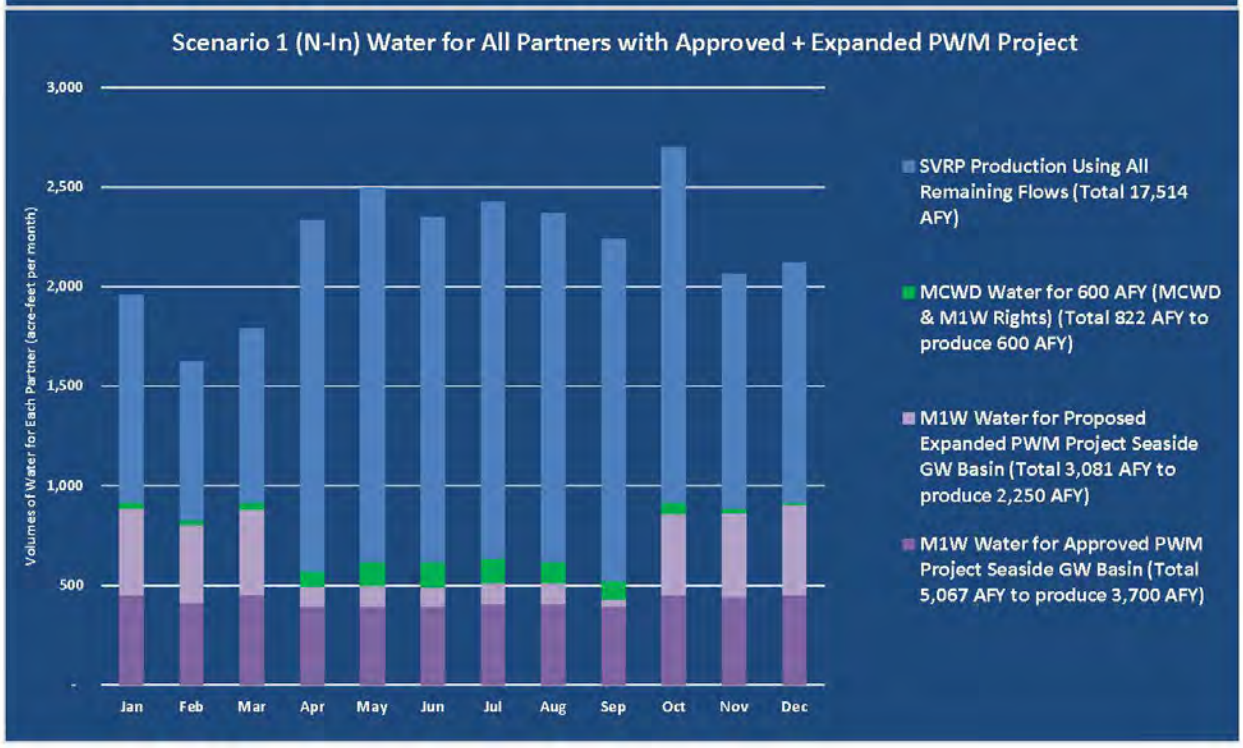
- It is feasible to increase injection flows to 7.57 mgd by expanding the well field
- Adequate well-head pressures can be maintained provided that at least one foot of water exists in the Black Horse tank
- A 24-inch transmission main should be constructed to connect the Black Horse tank to the expanded well field. This study assumed AWWA C900 PVC with a pressure rating of 100 psig
- Existing pumps at the PWPS are compatible with the expanded duty conditions. A fifth pump (identical to the existing units) will be required to satisfy the proposed firm capacity of 7.57 mgd
- The existing Black Horse tank has enough capacity to accommodate routine backwashing of all deep-injection wells assuming one well is backwashed per day for five days out of a week. This assumes that output from the PWPS matches the total demand for pure water over the course of a week

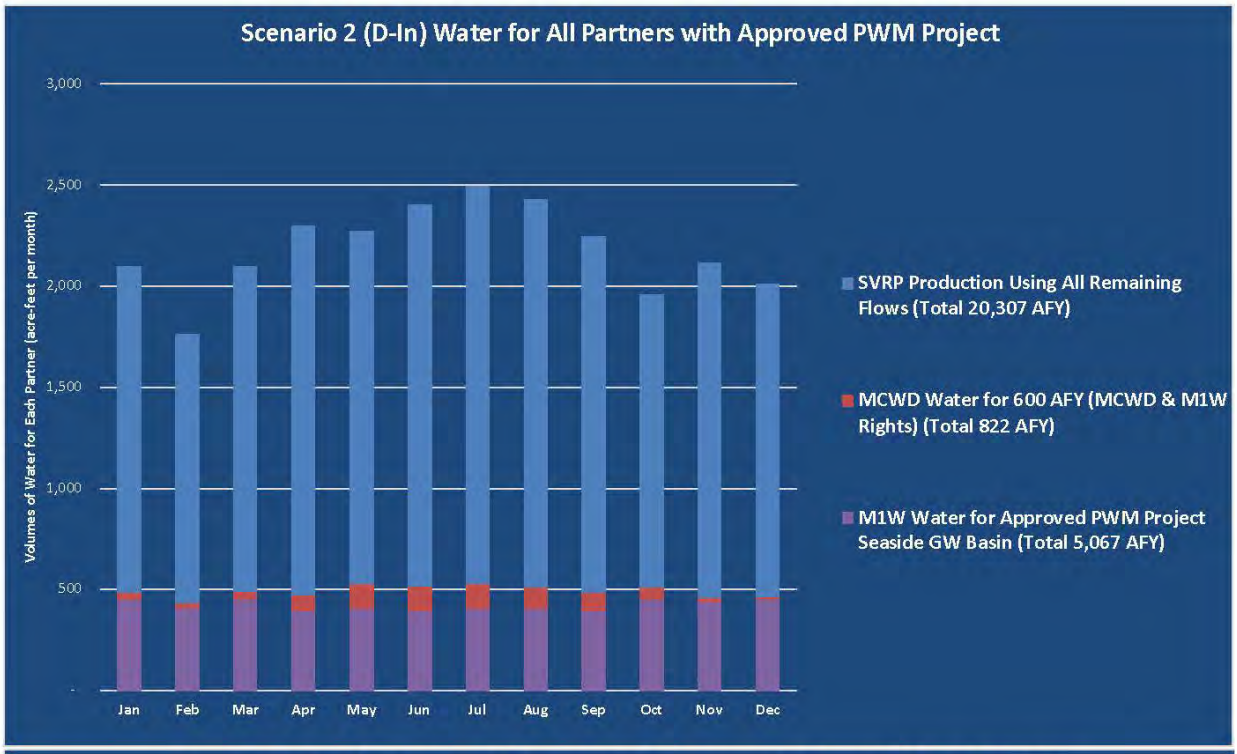
Appendix R
Charts of Source Water for
AWPF and SVRP Production

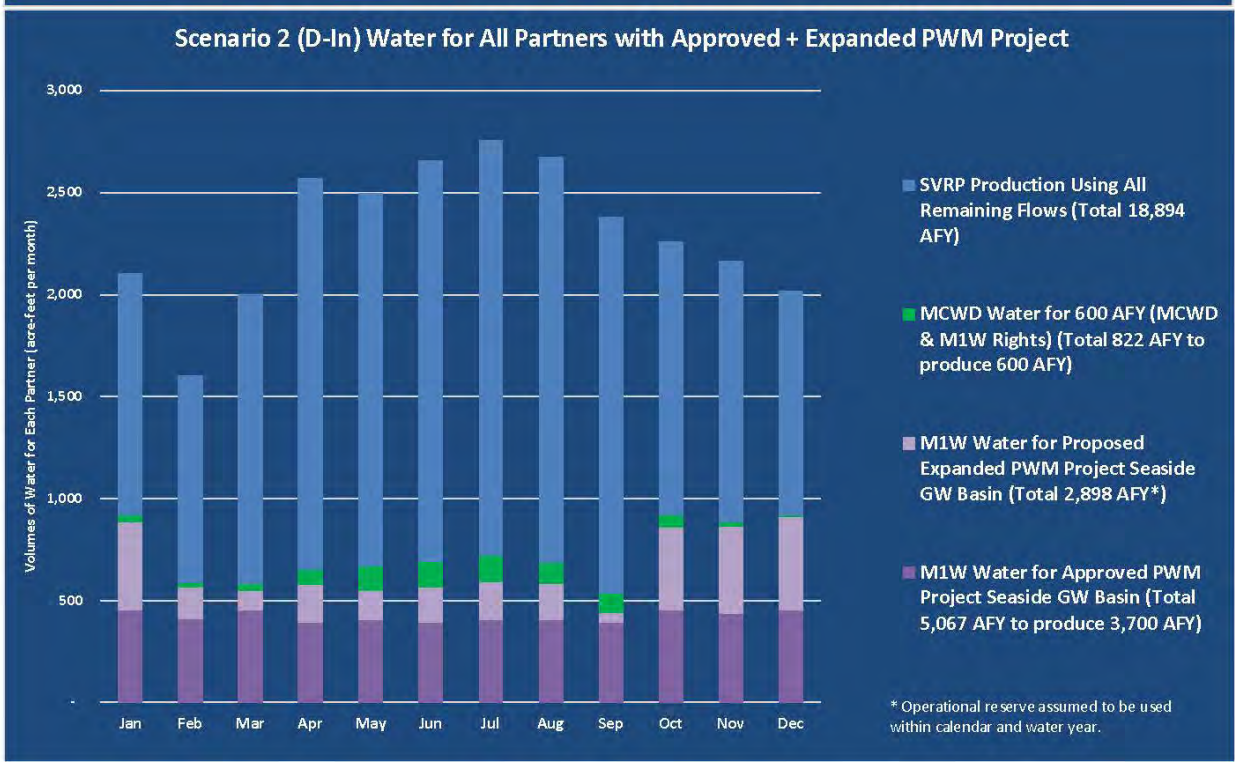
Appendix R – Charts of Source Water for AWPF and SVRP Production

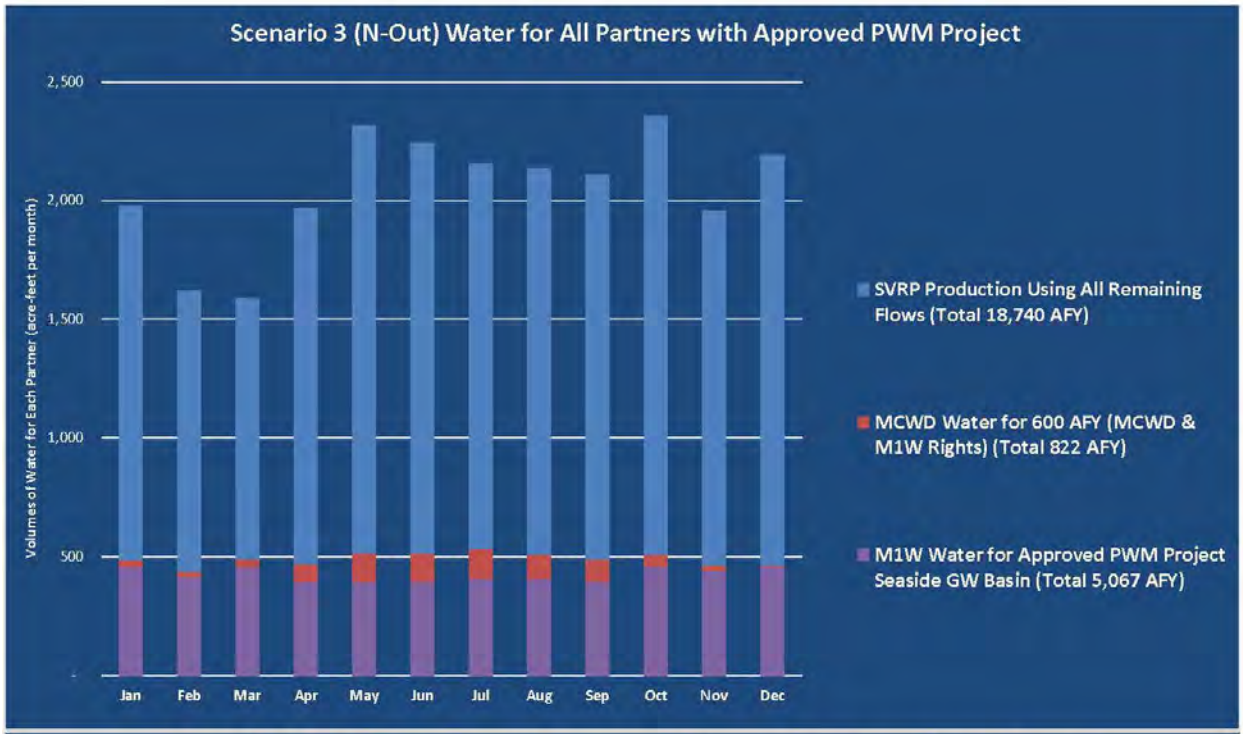
By M1W, April 12, 2020 (Data Source: M1W, Approved Pure Water Monterey (PWM) Project and Proposed Modifications to Expand the PWM Project - Source Water Operational Plan Technical Memorandum, April 11, 2020).

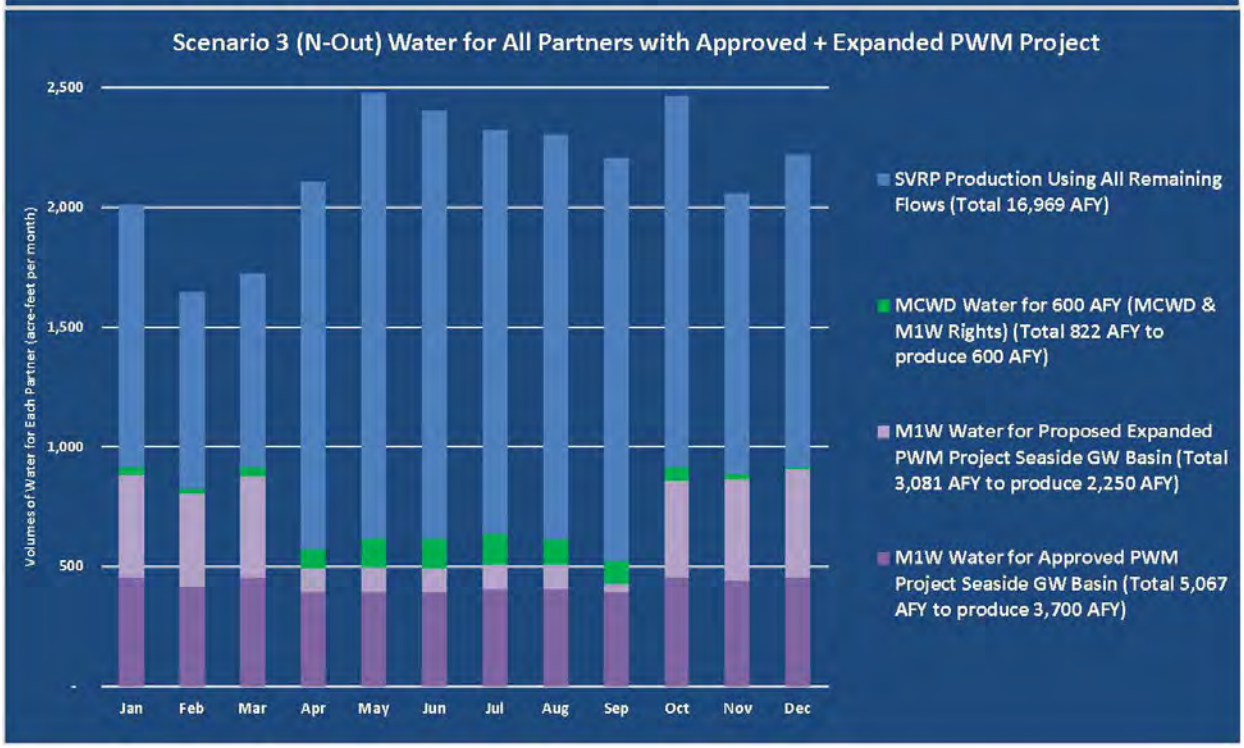


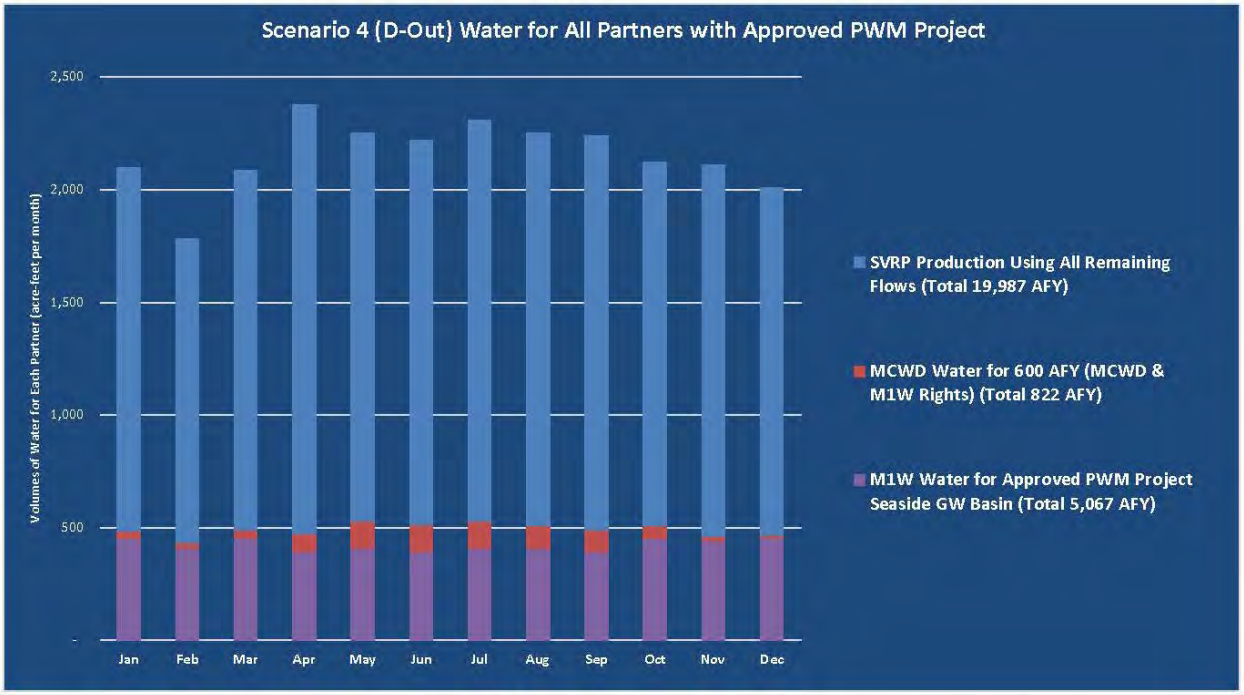


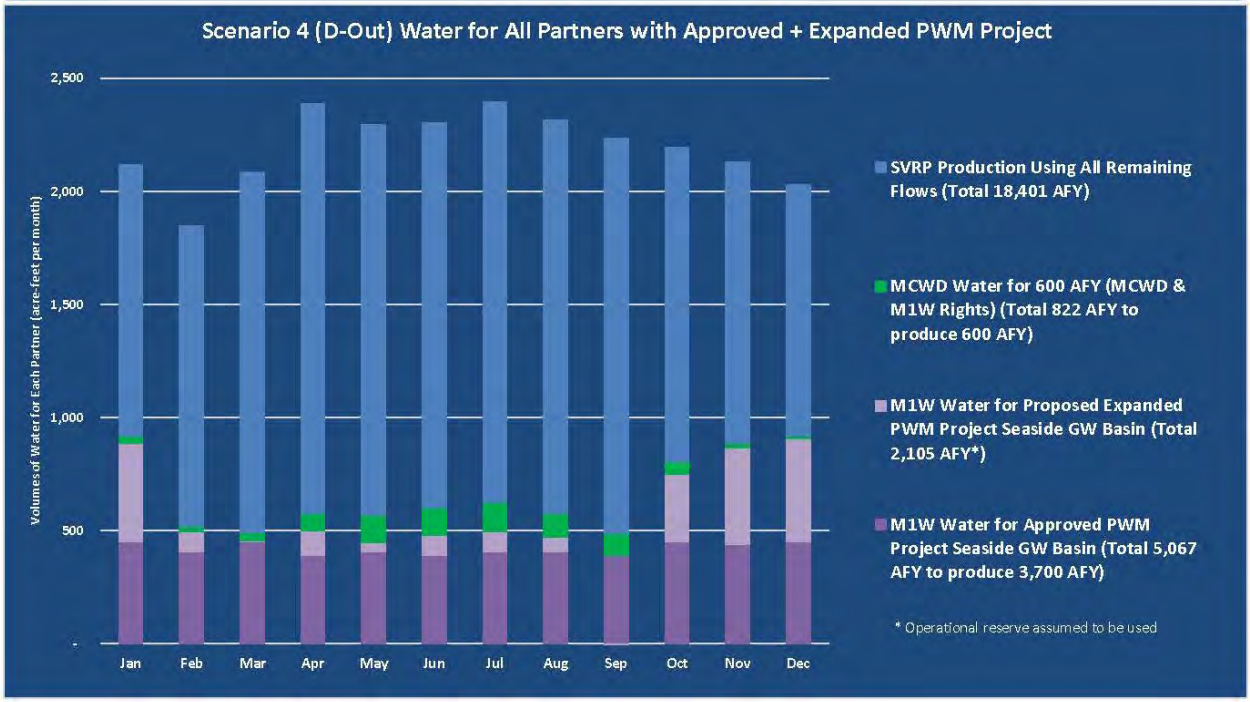

Scenario 2 (D-In) Water for All Partners with Approved PWM Project
Volumes of Water for Each Partner (acre-feet per month)
3,000
2,500
2,000
1,500
1,000
500
-
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
SVRP Production Using All Remaining Flows (Total 20,307 AFY)
MCWD Water for 600 AFY (MCWD & M1W Rights) (Total 822 AFY)
M1W Water for Approved PWM Project Seaside GW Basin (Total 5,067 AFY)


Scenario 2 (D-In) Water for All Partners with Approved + Expanded PWM Project
Volumes of Water for Each Partner (acre-feet per month)
3,000
2,500
2,000
1,500
1,000
500
-
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
SVRP Production Using All Remaining Flows (Total 18,894 AFY)
MCWD Water for 600 AFY (MCWD & M1W Rights) (Total 822 AFY to produce 600 AFY)
M1W Water for Proposed Expanded PWM Project Seaside GW Basin (Total 2,898 AFY*)
M1W Water for Approved PWM Project Seaside GW Basin (Total 5,067 AFY to produce 3,700 AFY)
* Operational reserve assumed to be used within calendar and water year.


Scenario 3 (N-Out) Water for All Partners with Approved PWM Project
Volumes of Water for Each Partner (acre-feet per month)
2,500
2,000
1,500
1,000
500
-
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
SVRP Production Using All Remaining Flows (Total 18,740 AFY)
MCWD Water for 600 AFY (MCWD & M1W Rights) (Total 822 AFY)
M1W Water for Approved PWM Project Seaside GW Basin (Total 5,067 AFY)


Scenario 3 (N-Out) Water for All Partners with Approved + Expanded PWM Project
Volumes of Water for Each Partner (acre-feet per month)
2,500
2,000
1,500
1,000
500
-
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
SVRP Production Using All Remaining Flows (Total 16,969 AFY)
MCWD Water for 600 AFY (MCWD & M1W Rights) (Total 822 AFY to produce 600 AFY)
M1W Water for Proposed Expanded PWM Project Seaside GW Basin (Total 3,081 AFY to produce 2,250 AFY)
M1W Water for Approved PWM Project Seaside GW Basin (Total 5,067 AFY to produce 3,700 AFY)


Scenario 4 (D-Out) Water for All Partners with Approved PWM Project
Volumes of Water for Each Partner (acre-feet per month)
2,500
2,000
1,500
1,000
500
-
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
SVRP Production Using All Remaining Flows (Total 19,987 AFY)
MCWD Water for 600 AFY (MCWD & M1W Rights) (Total 822 AFY)
M1W Water for Approved PWM Project Seaside GW Basin (Total 5,067 AFY)


Scenario 4 (D-Out) Water for All Partners with Approved + Expanded PWM Project
Volumes of Water for Each Partner (acre-feet per month)
2,500
2,000
1,500
1,000
500
-
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
SVRP Production Using All Remaining Flows (Total 18,401 AFY)
MCWD Water for 600 AFY (MCWD & M1W Rights) (Total 822 AFY to produce 600 AFY)
M1W Water for Proposed Expanded PWM Project Seaside GW Basin (Total 2,105 AFY*)
M1W Water for Approved PWM Project Seaside GW Basin (Total 5,067 AFY to produce 3,700 AFY)
* Operational reserve assumed to be used

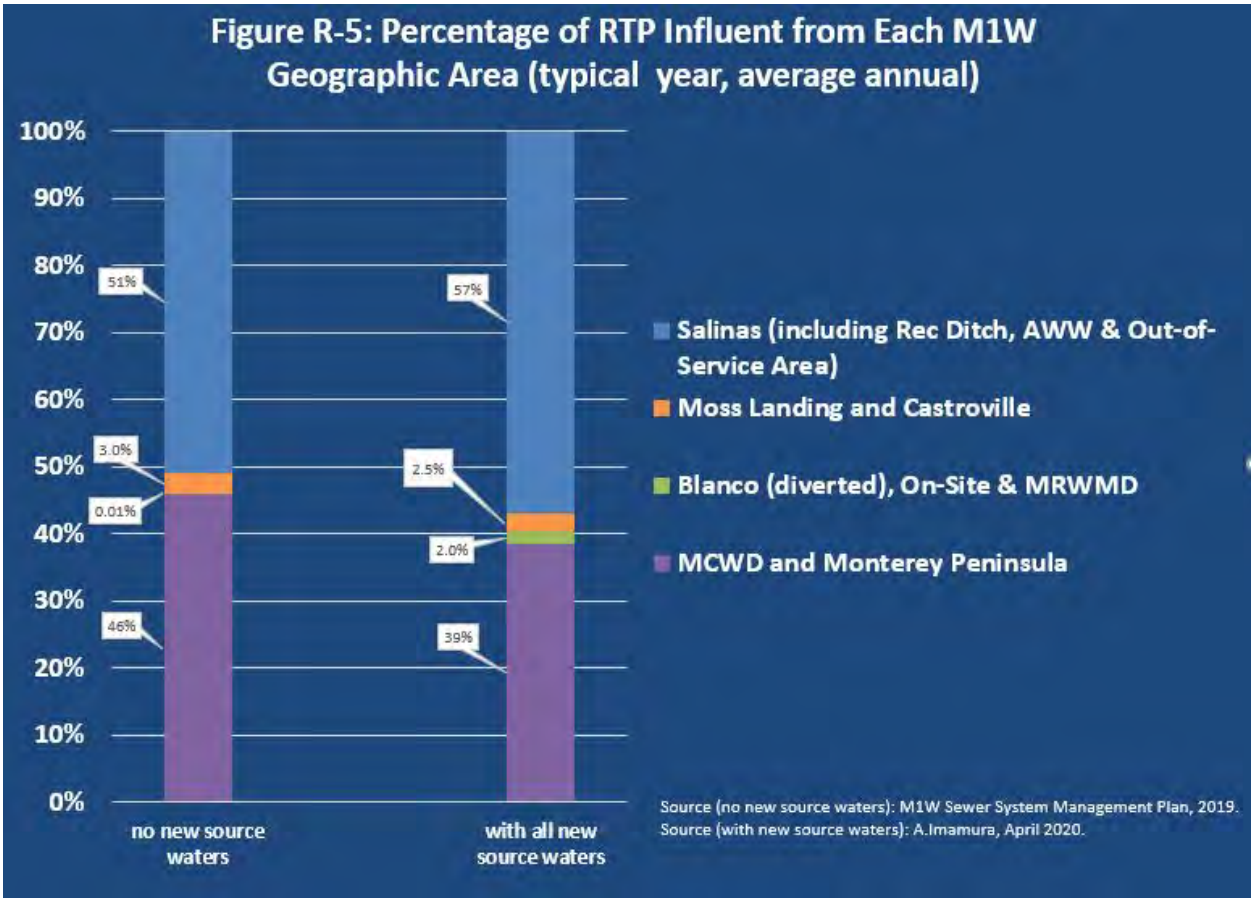


Figure R-5: Percentage of RTP Influent from Each M1W Geographic Area (typical year, average annual)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
51%
3.0%
0.01%
46%
57%
2.5%
2.0%
39%
no new source waters
with all new source waters
Salinas (including Rec Ditch, AWW & Out-of-Service Area)
Moss Landing and Castroville
Blanco (diverted), On-Site & MRWMD
MCWD and Monterey Peninsula
Source (no new source waters): M1W Sewer System Management Plan, 2019.
Source (with new source waters): A.Imamura, April 2020.