Appendix A

Scoping Report for the Pure Water Monterey Groundwater Replenishment Project Environmental Impact Report

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Denise Duffy & Associates, Inc.

PLANNING AND ENVIRONMENTAL CONSULTING

SCOPING REPORT

for the

PURE WATER MONTEREY

GROUNDWATER REPLENISHMENT PROJECT

ENVIRONMENTAL IMPACT REPORT

March 2015

Prepared by:

Denise Duffy & Associates, Inc.

In association with Valerie Young, Hazen and Sawyer

Prepared for:

Monterey Regional Water Pollution Control Agency

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1. INTRODUCTION

In accordance with California Environmental Quality Act (CEQA) guidelines, the Monterey Regional Water Pollution Control Agency (MRWPCA) is preparing a Draft Environmental Impact Report (EIR) for the Monterey Peninsula Groundwater Replenishment Project (GWR Project or proposed project). The Draft EIR will assess the potential impacts from the proposed project on the physical environment. On May 30, 2013, MRWPCA began the CEQA scoping process to help determine issues, mitigation measures and alternatives to be evaluated in the Draft EIR by issuing a Notice of Preparation (NOP), provided in Appendix A. The NOP described the proposed project and identified opportunities for agencies and the general public to submit comments on topics to be considered in the EIR. The MRWPCA also held an in-person scoping meeting on June 18, 2013; the meeting was advertised in local papers and notice also provided in the circulated NOP. In Section 6 of this report, a summary of the Supplement to the May 2013 NOP is provided and the relevant comments received during that second scoping period are summarized.

This report provides an overview of the scoping process for the GWR Project, and summarizes the comments received during the scoping period. Comments from this report that are applicable to a particular topic in the EIR are described in the introduction to that topical section of the Draft EIR.

This report is intended to summarize and document the comments received during the two scoping periods: May 30, 2013 to July 2, 2013 and December 9, 2014 through January 8, 2015, including both verbal and written comments. The MRWPCA will use this report as a tool to ensure that scoping comments are considered during preparation of the Draft EIR.

2. PURPOSE OF SCOPING PROCESS

CEQA Guidelines Section 15082 specifies that, after deciding that an environmental report is required for a project, the lead agency must send to the Office of Planning and Research and each responsible agency and trustee agency a notice of preparation stating that an environmental impact report will be prepared.

> *"The notice of preparation shall provide the responsible and trustee agencies and the Office of Planning and Research with sufficient information describing the project and the potential environmental effects to enable the responsible agencies to make a meaningful response."*

Within 30 days after receiving the notice of preparation, each responsible and trustee agency and the Office of Planning and Research must provide the lead agency with specific detail about the scope and content of the environmental information related to the responsible or trustee agency's area of responsibility that must be included in the EIR. At a minimum the response shall identify:

> *"The significant environmental issues and reasonable alternatives and mitigation measures that the responsible or trustee agency, or the Office of Planning and Research, will need to have explored in the draft EIR."*

In order to expedite consultation, the lead agency may request one or more meetings between representatives of the agencies involved to assist the lead agency in determining the scope and content of the environmental information that the responsible or trustee agency may require.

CEQA Guidelines Section 15083 recognizes that the lead agency may also consult with any person or organization it believes will be concerned with the environmental effects of the project.

> *"Prior to completing the draft EIR, the Lead Agency may also consult directly with any person or organization it believes will be concerned with the environmental effects of the project. Many public agencies have found that early consultation solves many potential problems that would arise in more serious forms later in the review process. This early consultation may be called scoping. Scoping will be necessary when preparing an EIR/EIS jointly with a federal agency.*
>
> *(a) Scoping has been helpful to agencies in identifying the range of actions, alternatives, mitigation measures, and significant effects to be analyzed in depth in an EIR and in eliminating from detailed study issues found not to be important.*
>
> *(b) Scoping has been found to be an effective way to bring together and resolve the concerns of affected federal, state, and local agencies, the proponent of the action, and other interested persons including those who might not be in accord with the action on environmental grounds.*
>
> *(c) Where scoping is used, it should be combined to the extent possible with consultation under Section 15082. "*

MRWPCA distributed the notice of preparation to responsible and trustee agencies, and to the Office of Planning and Research, and invited responsible and trustee agencies to a scoping meeting. In addition, MRWPCA distributed the NOP to interested members of the public and organizations, and opened the scoping meeting to the public.

The comments provided by the public and agencies during the scoping process will help the MRWPCA identify issues, methods of analyses, and level of detail of information and analysis in the EIR. The scoping comments will also assist the MRWPCA in developing a reasonable range of feasible alternatives that will be evaluated in the EIR.

Scoping comments that pertain to CEQA will be considered during the preparation of the Draft EIR. Non-CEQA comments will be noted for the record in the final version of this scoping report. The MRWPCA and the EIR preparers, which includes specialists in each of the environmental subject areas covered in the EIR, will assess the comments received and determine how they should addressed. This consideration of scoping comments is intended to ensure that the EIR is both comprehensive and responsive to issues raised by the public and regulatory agencies, and satisfies all CEQA requirements.

Scoping is not conducted to resolve differences concerning the merits of a project or to anticipate the ultimate decision on a proposal. Rather, the purpose of scoping is to help ensure that a comprehensive EIR will be prepared that provides an informative basis for the decision-making process.

3. OVERVIEW OF SCOPING PROCESS

3.1 MAILING LIST

In preparation for the scoping period, the MRWPCA developed a contact list of potentially affected persons and agencies that would have an interest in, or jurisdiction over, project-related actions proposed within the project area. The contact list included all known federal, state, responsible, and trustee agencies involved in approving or funding the project, as well as relevant local agencies and special districts with jurisdiction in the project area. The list was developed using the Monterey Peninsula Integrated Regional Water Management (IRWM) stakeholder list, the MRWPCA noticing distribution list, Monterey Peninsula Water Management District noticing distribution list, and the Greater Monterey County IRWM Regional Water Management Group.

3.2 NOTICE OF PREPARATION

A Notice of Preparation was prepared in compliance with the CEQA Guidelines Section 15082 (Appendix A). The NOP solicited comments on the scope of environmental issues as well as alternatives and mitigation measures that should be explored in the EIR. The NOP provides background information on relevant water supply conditions, briefly describes the proposed GWR Project, identifies the location of the project and describes the probable environmental issue effects of the project to be analyzed in the EIR. Public agencies were invited to comment on the scope and content of the environmental information that is relevant to each agency's statutory responsibilities with regard to the proposed GWR Project. Members of the public were also invited to provide their comments on the scope of the EIR. The public scoping period began on May 31, 2013 and ended at 5:00 PM on Tuesday, July 2, 2013, which provided the required 30-day scoping comment period. To initiate the required scoping period, 15 copies of the NOP with the required transmittal, were submitted via overnight mail to the Governor's Office of Planning and Research (OPR) State Clearinghouse. The OPR State Clearinghouse distributes the NOP to applicable state agencies and departments, including the State Water Resources Control Board, Division of Financial Assistance, a state agency division that will act as designated lead for federal environmental regulatory compliance (i.e., CEQA-plus) for the Clean Water State Revolving Fund Program, which is partially funded by the U.S. Environmental Protection Agency. In addition, the NOP was distributed electronically and by mail to over 638 government agencies, non-government organizations, private companies, and individuals (see Appendix B for an overview of NOP recipients).

3.3 OTHER NOTIFICATIONS

- Notice of Availability (NOA) of the NOP was published in the following newspapers:
    - Monterey Herald on June 2 and 9, 2013
    - Californian – Salinas on June 5 and 12, 2013
    - Coast Weekly, Carmel Pine Cone and Cedar Street Times (various dates June 2012)
- NOA was posted at the MRWPCA Office (5 Harris Ct, Monterey, CA 93940) and at the MRWPCA Wastewater Treatment Plant (14811 Del Monte Boulevard , Marina, CA 93933)
- NOP was posted on the MRWPCA GWR Project website

- NOP was sent to the following libraries for public posting:
    - Carmel Harrison Library
    - Carmel Valley Public Library
    - Castroville Public Library
    - California State University Monterey Bay Library
    - Marina Library
    - Monterey Library
    - Monterey Peninsula College Library
    - Pacific Grove Library
    - Salinas Public Library
    - Seaside Library

MRWPCA also made additional outreach efforts for the public scoping meeting through print and social media. A press release was sent to media outlets in the Monterey Bay region identifying the project, the NOP scoping period and the date and time for the public scoping meeting. An "evite" event invitation was also set up on social media for the NOP Public Scoping meeting with a link to the GWR website reaching approximately 150 people.

3.4 PUBLIC SCOPING MEETING

The MRWPCA held a public scoping meeting on Thursday, June 18, 2013 from 6:00 to 8:00 PM at the Oldemeyer Center: Dance Hall Room, 986 Hilby Avenue, Seaside, CA 93955. The scoping meeting included a presentation of the information contained in the NOP, an overview of the CEQA process, and provided attendees an opportunity to comment on the scope of the EIR (see presentation in Appendix C-1). A total of 37 people attended the scoping meeting including: government representatives, non-governmental organizations, and local citizens (see Appendix C-2). Comments received during the scoping meeting were documented during the meeting on flipcharts (see Appendix C-3), and also summarized in meeting notes (see Appendix C-4).

4. SUMMARY OF SCOPING COMMENTS

During the scoping period, MRWPCA received comments in the form of personal communication (from one individual), emails, and letters. Verbal comments were received at the scoping meeting held on June 18, 2013. This section contains a summary of all verbal and written comments received. The meeting notes from the scoping meeting are included in Appendix C-3 and C-4 and copies of written comments are included in Appendix D.

The MRWPCA consultant team and staff reviewed all of the scoping comments, numbered the individual comments within each letter, prepared a one- to two-sentence summary of each comment, and grouped the comments into the following issue, and sub-issue categories:

- General/Procedural Comments
- Comments on Project Description and Alternatives *[Note: A matrix of the type of comment, or sub-issue category, within this general category of comments is also provided.]*

- National Environmental Policy Act Process, including Federal Regulatory Compliance
- Permits/Authorizations/Agreements/Rights of Way
- Comments on Specific EIR Topical Issues
    - Agriculture and Forestry
    - Air Quality/Greenhouse Gas
    - Biological Resources
    - Climate Change Effects on Project
    - Cultural Resources
    - Hazards / Public Health and Safety related to Drinking Water Quality
    - Land Use/Consistency with Plans and Policies
    - Groundwater Hydrology
    - Growth Inducing Impacts
    - Hydrology and Water Quality: Surface Water
    - Traffic during Construction
    - Utilities
    - Water Demand/Supplies
    - Cumulative Impacts
- Issues Not Analyzed under CEQA
    - Economics /Cost, except as it may result in indirect physical impacts to the environment

The comment summaries seek to capture the main point of every comment in a way that will facilitate addressing the comment in the EIR and the CEQA process, more generally. The full version of comment letters are provided in Appendix D and this Appendix should be reviewed together with this scoping report. [Some individual comments apply to multiple topical areas, and will be considered in all pertinent topical areas of the EIR.]

4.1 LIST OF LETTERS/COMMENTERS AND ACRONYMS

A. Eleanor Citen (EC)
B. Water Plus (WP)
C. State Water Resources Control Board (SWRCB)
D. U.S. Army Garrison, Presidio of Monterey, Directorate of Public Works, Master Planning (USA POM)
E. Department of Parks and Recreation (DPR)
F. Coalition of Peninsula Businesses (CPB)
G. Farm Bureau Monterey (FBM)
H. Monterey County Resource Management Agency (MCRMA)
I. California State Lands Commission, Division of Environmental Planning and Management (CSLC)
J. Monterey Regional Waste Management District (MRWMD)
K. Peter Le (PL)
L. California Department of Public Health, Drinking Water Program, Environmental Review Unit (CDPH)
M. Seaside Basin Watermaster (SBW)
N. Monterey Peninsula Water Management District (MPWMD)
O. City of Pacific Grove (CPG)
P. City of Seaside (CSe)
Q. City of Monterey (CM)
R. Marina Coast Water District (MCWD)
S. Fort Ord Community Advisory Group (FOCAG)
T. City of Salinas (CSa)
U. Bill Carrothers (BC)

List of Commenters at the Public Scoping Meeting

MTG-A. Bill Carrothers
MTG-B. Ron Weitzman (these comments were also submitted in written form "Letter B")
MTG-C. George Riley
MTG-D. Helen Rucker
MTG-E. Bill Carrothers (a second time)
MTG-F. Ron Weitzman (a second time)
MTG-G. Helen Rucker (a second time)

4.2 COMMENTS ON GENERAL CEQA AND PROCEDURAL ISSUES

C-15: The Water Board staff requests that they receive the draft CEQA document and that they receive notice to all associated hearings and meetings. (SWRCB)

H-5: Monterey County Resource Management Agency requests a copy of the Administrative Draft EIR. (MCRMA)

I-1 California State Lands Commission (CSLC) is a trustee agency and if the GWR Project involves work on sovereign lands, the CSLC will act as a responsible agency. (CSLC)

I-14: Mitigation measures should be specific, feasible and enforceable obligations. (CSLC)

K-9: Requests that MRWPCA staff make a presentation to the MCWD Board on their expectations of the MCWD roles on this proposed project. (PL)

O-1: The City of Pacific Grove is in support of the goals to expand recycled water uses. (CPG)

O-2: Pacific Grove is developing its own recycled water project, the Pacific Grove Local Water Project, to provide non-potable water to multiple sources. (CPG)

T-3: City of Salinas believes funding for public outreach is currently inadequate for the scale of the project. Two large economic entities need to agree and approve the project in addition to multiple local jurisdictions, agencies and citizen groups, state and federal entities. It is highly visible and controversial making it especially important that good communication and agreement be attained. A broad array of media platforms need to be used to communicate the project honestly and transparently and to avoid past mistakes. It is imperative that the communications strategy be at the highest level of skill and effort. A rethinking of communications strategy is in order to guarantee success, as will a rethinking of funding. (CSa)

MTG A1-1: This project will need an outstanding hydrologist that is very familiar with the Seaside Basin, a superb water engineer, and a gifted leader.

MTG-C1: Will the EIR explore or include any of the positive impacts in addition to the negative impacts?

MTG-D1: Concerned about the outreach that was done for this meeting and the project in general; noted that few residents were in attendance.

MTG-D2: It is important that “non-experts” are included in the scoping and made aware of project issues.

4.3 COMMENTS ON PROJECT DESCRIPTION AND ALTERNATIVES

NOTE: Table 1 at the end of this report contains a matrix that summarizes the applicability of the comment to the following issues: (1) overall project objectives, purpose and need, (2) alternatives consideration/analysis, (3) project description: mapping / background, (4) relationship to the California Public Utilities Commission's (CPUC's) EIR on the Monterey Peninsula Water Supply Project (MPWSP), and (5) the various project description elements/components, including source water, treatment product water conveyance, concentrate disposal, and injection/recharge.

D-3: The EIR should explain environmental reasons for selecting and eliminating alternative technologies, or "barriers" for treatment of water. (USA POM)

F-1: The project description should be amended to establish a clearer project purpose and goal. The project's relationship and/or inter-relationship with the regional water project pending before the CPUC should be explained. Whether the GWR Project is intended to be a stand-alone project or as a supplement to Cal-Am's project should be explained. (CPB)

F-8: The EIR should study the GWR project as an independent source of additional Peninsula water supply. (CPB)

H-4: The EIR should include alternate locations of facilities to minimize environmental impacts in alternative analysis. (MCRMA)

I-3: The EIR should provide more detailed project maps and exact locations of injection wells. (CSLC)

I-4: The CSLC identify the project objectives and the project components as described in the NOP. (CSLC)

I-5: The project description should be as precise as possible; it should describe the details of all allowable activities and the timing and length of activities. (CSLC)

I-11: The EIR should consider the effects of sea level rise both on the project and the rate of saltwater intrusion. A project alternative should be provided that would be more resilient to sea level rise. (CSLC)

K-2: The EIR should explain why 3,500 AFY is the target amount of water produced. The EIR should show calculations on this based on this goal number for both existing and future conditions. (PL)

K-3: Will this project utilize the MCWD designs for modified regional treatment plant that were part of the RUWAP project and will this portion of the GWR project be paid by MCWD? What additional work on the regional treatment plant that will be done on this project? How does MRWPCA identify and separate all costs for two different projects? (PL)

K-4: What are the impacts of the GWR project on the MCWD recycled water project? What is the required separation between MRWPCA recycled pipes and MCWD recycled pipes? (PL)

K-5: The EIR should consider the alternative of recharging the Seaside Aquifer with excess inter flow water from the Salinas River. (PL)

K-6: How do the discharges of the proposed advanced water treatment plant and secondary source water affect the MCWD brine disposal capacity and the total capacity of the existing outfalls? (PL)

M-1: GWR project will not "replenish" the Seaside Groundwater Basin, as the NOP claims. It will act as an interim storage basin for the injected water until it is pumped out for municipal use. (SBW)

M-3: The map provided in the NOP does not clearly show were the facilities are to be located; provide detailed maps of recharge facilities. (SBW)

M-4: The NOP states that Cal Am owns 12 wells within the Seaside Groundwater Basin, this should be changed to, "Cal Am *currently operates* 12 production wells in the Seaside Groundwater Basin." (SBW)

M-5: The description of the Watermaster should be changed to, "The Watermaster Board of Directors consists of nine entities, one representative from each…" The next-to-last sentence on page seven should read, "Water levels were found to be below sea level in *portions of* both…" (i.e., add "portions of") (SBW)

M-6: The secondary goal of assisting in the prevention of seawater intrusion in the Seaside Groundwater Basin should be removed or clarified, per comment M- 1. (SBW)

M-7: Due to the known contamination in Blanco Drain and Reclamation Ditch waters, the GWR treatment facilities should be designed to address all potential pollutants to produce water of suitable quality for injection into the Seaside Groundwater Basin, which is used for potable water supply. (SBW)

M-8: The first sentence on page 17 should be revised to read, "With groundwater levels currently below sea level in *portions of* both ..." (SBW)

O-3: In order to comply with State Water Board requirements for discharges to Areas of Special Biological Significance, Pacific Grove may divert a portion of (approximately 2,500 gpm to 12,000 gpm) its storm water to the MRWPCA treatment plant for use in the GWR project. (CPG)

O-4: Address the facilities that would be required to convey additional storm water from Pacific Grove. (CPG)

O-5: The benefits to local MS4 discharges should be acknowledged in the Project Objectives. (CPG)

P-1: Could the project scope be expanded to also consider recharging the Carmel River as either an alternative or as an option? (CSe)

P-4: Project design is not finalized and the NOP contains language describing possible adverse constraints; change language to allow flexibility in the final project design to facilitate project implementation. (CSe)

P-5: Please clarify the areas and how much land in the City of Seaside are being referred to as the "Coastal Recharge Facilities" and the "Inland Recharge Facilities" as shown in Figure 2. (CSe)

P-6: Correct or clarify the NOP statement that the proposed inland recharge facilities are within a City-planned utility corridor; no City-planned utility corridor in the area shown in Figure 2. (CSe)

P-7: Please clarify where the four deep injection wells noted under the description of Inland Recharge Facilities on page 17 would be built, including well containment, back flush pit, fencing, treatment facility, etc. (CSe)

P-9: Clarify or remove page 17 statement regarding recharge ability of shallower wells in the Coastal Recharge Facilities. The statement describes the potential facilities but also appears to discount the value of the facilities when addressing recharge capability. (CSe)

P-10: Clarify statement on page 17 of NOP regarding available land within the City of Seaside. Suggest "The locations for the proposed coastal recharge facilities were determined based on an analysis of *potentially* available land and known aquifer characteristics." (i.e., add "potentially") (CSe)

Q-1: Concerns about the process and rationale behind the project definition. In order to ensure an adequate environmental review the definition and understanding of the project must be clear, for this the scope of the project might need revision. Lack of clarity behind the background of how the project scope was defined. If revision is necessary, now is a good time for it. (CM)

Q-2: Has MRWPCA considered sources water from the perspective of dry weather patterns or wet weather flows from storm drains? Identification of sources is not consistent in the NOP. (CM)

Q-5: Will there be any credits to member entities for flows that go into the GWR and if there are, will there be any quantification of what those credits will be? (CM)

R-2: Encourages MRWPCA to explore alternative source water volumes above the 3,500 AFY total specified in the NOP. (MCWD)

R-4: Requests inclusion of potential for use of Marina Coast Water District's recycled water facilities for conveyance of GWR water from AWT facility to Seaside Groundwater Basin, given appropriate compensation to the district for that access. (MCWD)

R-5: Recommends exploration of long-term plan for GWR Project. Will project continue injecting water into the Seaside Groundwater Basin once the Basin is recharged and operating within protective groundwater elevations and sustainable yield? Are there other uses for AWT water? Sending AWT water north to combat seawater intrusion in the Salinas Valley Groundwater Basin is a possibility. (MCWD)

R-6: MCWD encourages MRWPCA to evaluate alternatives that include variable seasonal flow rates of source waters without the need for including secondary or tertiary effluent sources. The seasonal flow of water sources for the AWT facility is an operational consideration if the outflow is to be at a single predictable rate. (MCWD)

T-4: Recommends clarification and emphasis on project's independent justification, purpose and utility. This is especially true for any desalination project, there is a lot of discussion of them as though they are connected. (CSa)

T-5: Regarding options A and B pipeline routing, between City of Salinas agricultural wash water settling ponds and the MRWCPA treatment facilities, please also address the pipeline from City of Salinas pump station to treatment facilities. (CSa)

T-7: Recommend clarification about whether source waters are from one specific source "…or a combination of the following sources…" and delineate how the determination will be made, and when. (CSa)

T-8: Recommend that MRWPCA remain flexible, if possible, with regard to detail of pipe size, capacity, pump location and size. That CEQA studies focus on routing and environmental factors rather than system design as that is not yet finalized. Also, if more than 3,500 AFY can be sourced, would environmental processing need to be repeated or is it possible to avoid going through the process again if system capacity were to increase? (CSa)

T-9: Regarding page 13, recommend that MRWPCA consider two conveyance pipelines be laid rather than one, for both source and recycled water. This would accomplish both cost savings and give MRWPCA a leg up as a regional source of recycled water. The second pipeline may remain temporarily unused, but could be put to use later for recycled water or for greater intake of source water and the economics of scale would be very beneficial in the long term. (CSa)

MTG-C2: Will other alternatives to the project (besides those already included) be addressed in the EIR?

MTG-F1: Is it possible that a larger scale version of the GWR project can solve the entire water supply issue, therefore eliminating the need for a desalination plant?

4.4 Comments on NEPA Process, including Federal Regulatory Compliance

C-3: The CWSRF Program is partially funded by the USEPA, and therefore, it requires CEQA-Plus environmental documentation and review for project. The Water Board will consult directly with responsible agencies. Any environmental issues raised by these agencies must be resolved prior to Water Board approval of CWSRF financing. The project must demonstrate compliance with following environmental regulations (SWRCB):

- Endangered Species Act Section 7 (also comment C-4) (SWRCB)
- National Historic Preservation Act Section 106 (also comment C-6) (SWRCB)
- Federal Clean Air Act conformity (also comment C-8) (SWRCB)
- California Coastal Zone Management Act (also comment C-9) (SWRCB)
- Clean Water Act Section 404 (also comment C-10) (SWRCB)
- Farmland Protection Policy Act (also comment C-11) (SWRCB)
- Migratory Bird Treaty Act (also comment C-12) (SWRCB)
- Flood Plain Management (also comment C-13) (SWRCB)
- Wild and Scenic Rivers Act (also comment C-14) (SWRCB)

T-1: Project may be eligible for federal funding. City of Salinas advises that CEQA could be used to develop NEPA if done correctly, and assist with federal funding. (CSa)

4.5 Comments on Permits/Authorizations/Agreements/Rights of Way

I-2: The CSLC has jurisdiction and management of Tidelands, submerged lands, and beds of navigable lakes and waterways. All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust. (CSLC)

E-1: The Department is concerned about the installation of the product water pipeline within the TAMC ROW, and the access that would be taken through FODSP. This access must be coordinated in advance (up to 18 months for temporary construction easements). Department staff should be included in any meetings that involve the use of FODSP. (DPR)

F-2: If use of CSIP facilities are used as part of the project, the rights landowners for use of reclaimed water up to the first 19,500 AFY and MRWPCA's right to divert any portion of that water must be explained. (CPB)

F-3: Source waters must be clearly identified and the status of agreements for acquisition must be disclosed. Legal rights to the use the source water and then the distribution of recycled water need to be clearly

established and legal disputes must be resolved, and if necessary, water supply must be sufficient to meet the assurances to the agricultural community and provide water for sale to Cal Am for drinking water. (CPB)

G-2: There must be a clear understanding of what water rights are used for the project. Orange County proved that technology and science support the benefits of this type of program. (FBM)

G-3: Monterey County Farm Bureau hopes the CEQA process will identify additional water sources that can be used to, and potential be contracted for, supplying reclaimed water for this program. (FBM)

H-1: This project will require Use Permits and Coastal Development Permits. Monterey County will be the responsible agency. (MCRMA)

H-6: Monterey County Resource Management Agency recommends that a Pre-Application meeting be scheduled as soon as possible. (MCRMA)

J-1: The Monterey Regional Waste Management District is responsible for approving the Electric Power Purchase Agreement as well as approving construction access and right of way easements. (MRWMD)

K-7: What is involved in the cooperation between MRWPCA and MCWD involve as described in page 11 of the NOP? (PL)

K-8: Has MRWPCA communicated with any staff from MCWD on its proposal to use partially completed recycled water systems? How does this project affect MCWD access to the acquired Armstrong Ranch property? (PL)

L-1: The CDPH is responsible for issuing water permits when there are changes to water supply. The CDHP will need to issue a new or amended water supply permit for the proposed project should the project proceed under the alternatives described. The CDHP will be a responsible agency under CEQA. (CDPH)

L-2: The project must comply with any draft of adopted (groundwater recharge and reuse) regulations. Frequent communication with CDPH is recommended. (CDPH)

M-10: The permit required from the Watermaster is called, "Agreement for Storage and Recovery of on-Native Water from the Seaside Groundwater Basin." (SBW)

P-2: The project proposes to use storm water as a potential water source. Does it propose to revise the MRWPCA NPDES Permit to allow storm water to be conveyed and treated by the existing sewer facilities? (CSe)

P-11: The EIR should include Seaside Highlands Homeowners Association in the "Potential Permits and Approvals Required" if some of the land being considered for Coastal Injection Wells is within their jurisdiction. (CSe)

Q-6: Existing and pending regulatory reasons mandate the flow of both dry and some wet weather storm drain flows to the MRWPCA STP, with the goal of removing pollutants from the receiving water (Monterey Bay). Have there been any discussions with the State Water Resources Control Board regarding the potential for discharging filter reject concentrate as described in the NOP into the receiving water that the diversions are intended to protect? (CM)

R-3: MCWD's senior right to return water from MRWPCA's treatment plant must be recognized when discussing available plant output. MCWD is willing to consider leasing a portion of those rights for a predetermined period. (MCWD)

T-2: The project should attain permits as soon as possible. The Water Board can take up to two years for issuance or revision of permits. Permitting should be done concurrently with environmental study processes. Recommend consulting with the Water Board early to clarify the process, and to explore the possibility of "Master Permits". (CSa)

4.6 COMMENTS ON SPECIFIC EIR TOPICAL ISSUES

Agriculture and Forestry

C-11: The project must comply with the Farmland Protection Policy Act. (SWRCB)

H-3: If protected trees are to be removed, a Forest Management Plan is required. (MCRMA)

Air Quality/Greenhouse Gas

C-8: The project must be in compliance with Federal Clean Air Act by providing air quality studies. If the project is in a non-attainment area, it must also provide a summary of estimated emission for the project, and if the emission are above de minimis levels, but project is sized to meet the needs of the current population, show how this increase was calculated. (SWRCB)

I-10: The EIR should include a GHG emissions analysis that identifies thresholds, calculates emissions, determines significance, and identifies mitigation. (CSLC)

Biological Resources

C-3: The project must demonstrate compliance with following environmental regulations (SWRCB):

- Endangered Species Act Section 7 (also comment C-4) (SWRCB)
- California Coastal Zone Management Act (also comment C-9) (SWRCB)
- Clean Water Act Section 404 (also comment C-10) (SWRCB)
- Migratory Bird Treaty Act (also comment C-12) (SWRCB)

C-5: The Water Board will consult with USFWS and/or NMFS to determine of the project will have any direct or indirect effects on federally listed threatened, endangered, or candidate species on the site and surrounding areas. They will also identity measures to reduce such effects. (SWRCB)

E-2: The Department is concerned about construction equipment on park roads and trails, traffic control needs, and impacts to natural resources. (DPR)

I-6: The EIR should analyze all potentially significant effects on sensitive species and habitats and identify mitigation measures. CDFW CNDDB and USFWS Special Status Species databases should be used, and consultation with these agencies should occur and be documented. (CSLC)

I-7: The EIR should examine if any elements of the Project would favor non-native species. CDFW's Invasive Species Program can assist with this and help develop mitigation. (CSLC)

I-8: The EIR should evaluate noise and vibration impacts on fish and birds and include mitigation measures for these impacts. Consultation with CDFW, USFWS, and NOAA is recommended. (CSLC)

I-9: The EIR should evaluate impacts to biological resources associated with frac-out, and include mitigation measures. CSLC may request documentation of mitigation for frac-out prior to issuing a lease and provides an example of a Contingency and Resource Protection Plan. (CSLC)

Climate Change Effects on Project

I-11: The EIR should consider the effects of sea level rise both on the project and the rate of saltwater intrusion. A project alternative should be provided that would be more resilient to sea level rise. (CSLC)

Cultural Resources

C-3/C-6: The EIR should demonstrate compliance with the National Historic Preservation Act Section 106. (SWRCB)

C-7: The EIR must identify Area of Potential Effects; records search request must include an area larger than the APE. (SWRCB)

I-12: The EIR should evaluate impacts to submerged cultural resources; contact Pam Griggs (Senior Staff Counsel) to obtain shipwrecks data. Any submerged archaeological site of submerged historic resource that has remained in State waters for more than 50 years is significant. (CSLC)

I-13: Title to shipwrecks, archaeological sites and historic resources on or in the tide and submerged lands are vested in the State and under jurisdiction of the CSLC. (CSLC)

Hazards / Public Health and Safety related to Drinking Water Quality

A-1: Does not support the use of wastewater in the GWR Project because it contains many chemicals. She supported this statement with various materials from Aquafornia. She suggested that Mr. Holden attend meetings in Southern California in order to get excess water from their OC project. (EC)

B-1: The EIR should address toxins in each potential water source. Address discharge rate and natural capacity of Seaside aquifer and flow rate between injection and extraction wells. (WP)

D-1: The EIR should address the quality of recycled water after treatment, questions the effect of injecting recycled wastewater on Seaside Basin groundwater quality; EIR should be thorough and flawless leaving no unanswered questions about safe drinking water. (USA POM)

D-3: The EIR should explain the environmental reasons for selecting and eliminated alternative technologies, or "barriers" for treatment of water. (USA POM)

F-4: The EIR should include previously conducted studies showing contamination of the source waters. It should also explain how the contamination will be dealt with to meet California Department of Public Health standards. Examples of this should be provided. (CPB)

K-7: What is the current residence time of the recharged water as specified by the State? (PL)

M-7: Due to the known contamination in Blanco Drain and Reclamation Ditch waters, the GWR treatment facilities should be designed to address all potential pollutants to produce water of suitable quality for injection into the Seaside Groundwater Basin, which is used for potable water supply. (SBW)

R-7: The EIR should confirm with CDPH the required residence time between injection and extraction for all proposed water sources prior to the publication of the Draft EIR. (MCWD)

R-8: The EIR should confirm that the capacity of the Seaside Groundwater Basin is sufficient, within that predetermined residence time, for the injection of the GWR project water. (MCWD)

S-1: The EIR scope should include assessing existing hazards to drinking water, potential increasing hazards due to migration and leaching of toxic chemicals from former training ranges. (FOCAG)

S-2: Fort Ord is a National Superfund Site, with known contamination of area groundwater; consider the possibility of leaching and migration of chemicals into underground aquifers. Concern for whether the full extent of contamination, including constituents below thresholds, is known and whether these chemicals are a health hazard. Are the human health risks known for this level of exposure? What are the synergistic effects of munitions chemicals and pesticides on organisms? Are there studies available on the effects of low level exposure to these chemicals? (FOCAG)

S-3: The commenter expressed concerns for public communication, identification, record keeping, reporting, "out-gassing," and clean-up/remediation of chemicals and pesticides at very low levels in training areas, including Site #39 (including those in Tables 3, 4, 5, and 6 attachment to letter). (FOCAG)

S-4: Review of the cited cleanup documents did not support the Army's claim that presence of pesticides were evaluated and addressed by clean-up activities. There are several hundred chemicals potentially leaching out of ordnance into the ground as well as residual chemicals from weapons/ordnance training and pyrotechnics. Herbicides were widely used. (FOCAG)

S-5: The detection equipment used to clear this site is incapable of detecting nonmetallic, and deeply buried munitions. Munitions found onsite may not be reliably detected within 4 feet of the surface. (FOCAG)

S-6: a) What is the migration and fate of munitions and pesticide chemicals into this drinking water supply? b) Where did all the chemicals go? c) What Fort Ord document fully investigated the potential munitions and pesticide contamination? d) Is there ongoing monitoring and reporting of the potential munitions and pesticide contamination of the Seaside Groundwater Basin? Where is it? e) What might construction, development, and irrigating in the area above the Seaside Groundwater Basin do for migrating chemicals? (FOCAG)

<u>Land Use/Consistency with Plans/Policies</u>

H-1: The EIR should include an analysis of the project's consistency with the Monterey County General Plan, Land Use Plans, Title 20 and Title 21; this analysis should include appropriate maps. (MCRMA)

P-6: The NOP references a location for the proposed inland recharge facilities and states that it is a City planned utility corridor. This is not accurate as there is no City planned utility corridor in the area shown in Figure 2. Please clarify this point. (CSe)

R-1: MCWD encourages incorporation of GWR with the Greater Monterey County Integrated Regional Water Management Plan (IRWMP) and Monterey Peninsula IRWMP. (MCWD)

Groundwater Hydrology

(Note: Some of these comments are related to Hazards/Public Health, so are also included in that topical issue.)

B-1: The EIR should address discharge rate and natural capacity of Seaside aquifer and flow rate between injection and extraction wells. (WP)

K-7: What is the current State-required residence time of recharged water? (PL)

M-1: The GWR project will not "replenish" the Seaside Groundwater Basin, as the NOP claims. It will act as an interim storage basin for the injected water until it is pumped out for municipal use. (SBW)

N-1: Monitoring of the Santa Margarita aquifer shows that not all water injected would be expected to be extracted; this effect should be better understood. (MPWMD)

N-2: The EIR should contain an evaluation of both the travel time and volume of water moved between injection and extraction sites in order to determine what portion of injected water can be safely extracted and when. To minimize the potential of seawater intrusion a "buffer" amount of water could be injected before extraction occurs. (MPWMD)

R-7: The EIR should confirm with CDPH the required residence time between injection and extraction for all proposed water sources prior to the publication of the Draft EIR. (MCWD)

R-8: The EIR should provide information on whether the capacity of the Seaside Groundwater Basin is sufficient, within that predetermined residence time, for the injection of the GWR project water. (MCWD)

R-9: MCWD requests confirmation from CDPH of the horizontal distance required between points of injection and extraction in the event those two modes of operation are simultaneously occurring, prior to producing the Draft EIR. Will spacing and limited horizontal distance between recharge facility and Bay preclude the use of the facility for GWR? (MCWD)

Growth Inducing Impacts

F-7: The EIR should include a review of the growth-inducing impacts associated with this project. (CPB)

Hydrology and Water Quality: Surface Water

K-5: How do the discharges of the proposed advanced water treatment plant and secondary source water affect the MCWD brine disposal capacity and the total capacity of the existing outfalls? (PL)

Q-7: Existing and pending regulatory reasons mandate the flow of both dry and some wet weather storm drain flows to the MRWPCA STP, with the goal of removing pollutants from the receiving water (Monterey Bay). Have there been any discussions with the State Water Resources Control Board regarding the potential for discharging filter reject concentrate as described in the NOP into the receiving water that the diversions are intended to protect? (CM)

MTG-E3: The EIR should address the quality of water that would be sent to the outfall location as opposed to that of the water sent to Seaside for injection.

MTG-E1: The EIR should include information about industrial and environmental hygiene.

Traffic during Construction

E-2: The Department of Parks and Recreation is concerned about construction equipment on park roads and trails, traffic control needs and impacts to natural resources. (DPR)

H-2: Construction staging areas should be described in the project description and temporary construction impacts should be included in a traffic analysis. (MCRMA)

P-8: The EIR should provide information regarding traffic control and construction to coordinate with the City of Seaside on the implementation of the underground pipeline within the City. (CSe)

Utilities

P-3: Space is limited in the Product Water Conveyance Alignment (Option 2) right of way that follows Cal-Am's proposed pipeline alignment. It is a public right of way in the City of Seaside that would be significantly disruptive. MRWPCA and Cal-Am should coordinate installation to minimize impacts. (CSe)

Water Demand/Supplies

F-2: If use of CSIP facilities are used as part of the project, the rights of landowners for use of reclaimed water up to the first 19,500 AFY and MRWPCA's right to divert any portion of that water must be explained. (CPB)

F-5: The EIR should project the effect of water conservation measures on the amount of inflow and assess MRWPCA's ability to produce reclaimed wastewater. (CPB)

F-6: The EIR should address the effect of increased emphasis on water conservation, recycling and reduction in agricultural and urban runoff on the supply of source water. (CPB)

G-1: The agricultural community asserts that additional sources of water must be obtained in order to satisfy the desired amount of reclaimed water. Until this issue is settled they reserve their support for the project. (FBM)

K-1: The EIR needs to analyze if the project will have an effect on the amount of water supplied to the Marina Coast Water District. If MCWD utilizes it full 2.1 MGD recycled water, will this decrease the amount available for the project? Similarly, if 19,500 AFY is allotted to the agricultural community, how does this affect the proposed project? (PL)

M-2: The Watermaster would prefer that additional water be provided to replenish the Seaside Groundwater Basin to raise groundwater levels to protective elevations. The EIR should address the possible future expansion of the GWR project to provide this additional water. (SBW)

Q-3: Is the 3,500 AFY limitation a function of source water availability or system capacity? Why was a greater capacity not considered so that all member entities could contribute all non-storm/dry weather flows as well as some portion of storm water flows? (CM)

Q-4: How will the member entities ability to convey non-storm and storm water flows be apportioned? Will enlargements in the conveyance systems need to be made for equitable distribution of apportionment? (CM)

T-6: The scale of the project may be inadequate to process the 9,500 to 12,500 AFY of source water available. The remaining source water could be recycled and used for irrigation; however, the discussion of this opportunity has been limited with regard to its processing and distribution. The same applies to the tertiary treatment. Designing the facility for ease and rapidity of expansion is highly recommended. (CSa)

MTG-E2: The EIR should address the potential for operational failures at the Water Treatment Plant.

Cumulative

S-1: The EIR should consider proposed other ground disturbing activities including a horse park. (FOCAG)

P-3: Space is limited in the Product Water Conveyance Alignment Option 2 that follows Cal-Am's proposed pipeline alignment; that is a public right of way in the City of Seaside that would be significantly disruptive, MRWPCA, and Cal-Am should coordinate installation to minimize impacts. (CSe)

4.7 Issues Not Analyzed under CEQA

Economics /Cost

C-1: The State Water Board understands that the MRWPCA may be pursuing CWSRF financing for the GWR project, and states that they are a funding agency and an agency with jurisdiction by law. (SWRCB)

D-2: Mr. Guidi requests that the EIR analyze the cumulative socio-economic impacts of this project in conjunction with other regional water projects in the area. He asks that the economic ripple effects of rate be analyzed. An estimated cost (in AF/yr) should be provided and compared to other water supply projects. (USA POM)

K-3: Will this project utilize the MCWD designs for modified regional treatment plant that were part of the RUWAP project and will this portion of the GWR project be paid by MCWD? What additional work on the regional treatment plant that will be done on this project? How does MRWPCA identify and separate all costs for two different projects? (PL)

T-1: Varied and significant potential funding required for the project, including potential federal funding. City of Salinas Industrial Wastewater Improvement project is receiving some funding from federal Economic Development Grant, and possibly Community Development Block Grant as well. City of Salinas advises that CEQA could be used to develop NEPA, and assist with federal funding.

U-1: Provide costs associated with scaling up the proposal, and what it would cost to design the project to have the potential for future capacity increases, including (1) cost of storage facility for excess effluent , (2) cost of solar energy for a desal-only project, (3) amount of required diluent , (4) cost comparison with desal-only project. (BC)

MTG-G1: Is the cost of the GWR project greater or less than the cost of a typical desalination plant?

MTG-G2: Who will bear the cost of this project; will local residents with lower incomes be able to afford to live in this area?

5. Consideration of Issues Raised in Scoping Process

This Scoping Report documents the process and results of soliciting and receiving comments on the scope of the EIR from interested agencies and the public. The scoping process assists the lead agency in determining those issues that other agencies, jurisdictions, groups, and public consider to be important to address in the GWR Project EIR. Every issue that has been raised during the Scoping Process that falls within the scope of CEQA will be considered in preparation of the EIR and will be addressed to the extent possible.

Table 1
Matrix of Scoping Comments on Project Description and Alternatives

	Overall Purpose, Need, Objectives	Alternatives Suggested	Project Description: Mapping / Background	Relation to CPUC MPWS Project	Project Description Component				
					Source Water	Treatment	Disposal of Reverse Osmosis Concentrate	Product Water Conveyance	Injection/ Recharge
D-3: Explain environmental reasons for selecting and eliminated alternative technologies, or "barriers" for treatment of water.		X			X				
F-1: Amend project description to establish a clearer project purpose and goal. The project's relationship and/or inter-relationship with the regional water project pending before the PUC, should be explained. Whether the GWR Project is intended to be a stand-alone project or as a supplement to Cal-Am's project should be explained.	X			X					
F-8: Study the GWR project as an independent source of additional Peninsula water supply.	X	X							
H-4: Include alternate locations of facilities to minimize environmental impacts in alternative analysis.		X							
I-3: Provide more detailed project maps and exact locations of injection wells. [injection]									X
I-4: The CSLC reiterates the project objectives and the project components as described in the NOP.									
I-5: Make project description should be as precise as possible; it should describe the details of all allowable activities and the timing and length of activities.	X								
I-11: The EIR should consider the effects of sea level rise both on the project and the rate of saltwater intrusion. A project alternative should be provided that would be more resilient to sea level rise.		X							
K-2: Explain why 3,500 AFY is the target amount of water produced. The EIR should show calculations on this based on this goal number for both existing and future conditions.	X								
K-3: Will this project utilize the MCWD designs for modified regional treatment plant that were part of the RUWAP project and will this portion of the GWR project be paid by MCWD? What additional work on the regional treatment plant that will be done on this project? How does MRWPCA identify and separate all costs for two different projects?						X			
K-4: What are the impacts of the GWR project on the MCWD recycled water project? What is the required separation between MRWPCA recycled pipes and MCWD recycled pipes?					X			X	
K-5: The EIR should consider the alternative of recharging the Seaside Aquifer with excess winter flow water from the Salinas River.		X			X				
K-6: How do the discharges of the proposed advanced water treatment plant and secondary source water affect the MCWD brine disposal capacity and the total capacity of the existing outfalls?							X		

Table 1
Matrix of Scoping Comments on Project Description and Alternatives

	Overall Purpose, Need, Objectives	Alternatives Suggested	Project Description: Mapping / Background	Relation to CPUC MPWS Project	Project Description Component				
					Source Water	Treatment	Disposal of Reverse Osmosis Concentrate	Product Water Conveyance	Injection/ Recharge
M-1: GWR project will not "replenish" the Seaside Groundwater Basin, as the NOP claims. It will act as an interim storage basin for the injected water until it is pumped out for municipal use.	X		X						X
M-3: The map provided in the NOP does not clearly show were the facilities are to be located; provide detailed maps of recharge facilities.			X						
M-4: The NOP states that Cal Am owns 12 wells within the Seaside Groundwater Basin, this should be changed to, "Cal Am *currently operates* 12 production wells in the Seaside Groundwater Basin."			X						
M-5: The description of the Watermaster should be changed to, "The Watermaster Board of Directors consists of nine entities, one representative from each…" The next-to-last sentence on page seven should read, "Water levels were found to be below sea level in *portions of* both…" (i.e., add "portions of")			X						
M-6: The secondary goal of assisting in the prevention of seawater intrusion in the Seaside Groundwater Basin should be removed or clarified, per comment M- 1.	X								
M-7: Due to the known contamination in Blanco Drain and Reclamation Ditch waters, the of the GWR treatment facilities should be designed to address all potential pollutants to produce water of suitable quality for injection into the Seaside Groundwater Basin, which is used for potable water supply.					X	X			
M-8: The first sentence on page 17 should he revised to read, "With groundwater levels currently below sea level in portions of both ..."			X						
O-3: In order to comply with State Water Board requirements for discharges to Areas of Special Biological Significance, Pacific Grove may divert a portion of (approximately 2,500 gpm to 12,000 gpm) its storm water to the MRWPCA treatment plant for use in the GWR project.		X			X				
O-4: Address the facilities that would be required to convey additional storm water from Pacific Grove.		X	X		X				
O-5: The benefits to local MS4 discharges should be acknowledged in the Project Objectives.	X								
P-1: Could the project scope be expanded to also consider recharging the Carmel River as either an alternative or as an option?		X						X	X
P-4: Project design is not finalized and the NOP contains language describing possible adverse constraints; change language to allow flexibility in the final project design to facilitate project implementation.			X						
P-5: Please clarify the areas and how much land in the City of Seaside are being referred to as the "Coastal Recharge Facilities" and the "Inland Recharge Facilities" as shown in Figure 2.									X

Table 1
Matrix of Scoping Comments on Project Description and Alternatives

	Overall Purpose, Need, Objectives	Alternatives Suggested	Project Description: Mapping / Background	Relation to CPUC MPWS Project	Project Description Component				
					Source Water	Treatment	Disposal of Reverse Osmosis Concentrate	Product Water Conveyance	Injection/ Recharge
P-6: Correct or clarify the NOP statement that the proposed inland recharge facilities are within a City-planned utility corridor; no City-planned utility corridor in the area shown in Figure 2.			X						X
P-7: Clarify where the four deep injection wells noted under the description of Inland Recharge Facilities on page 17 would be built, including well containment, back flush pit, fencing, treatment facility, etc.									X
P-9: Clarify or remove page 17 statement regarding Coastal Recharge Facilities since it describes potential facilities but appears to discount the value of the facilities for recharge.									X
P-10: Clarify statement on page 17 of NOP regarding available land within the City of Seaside. Suggest "The locations for the proposed coastal recharge facilities were determined based on an analysis of *potentially* available land and known aquifer characteristics." (i.e., add "potentially")									X
Q-1: Explain the process and rationale behind the project definition. In order to ensure an adequate environmental review the definition and understanding of the project must be clear, for this the scope of the project might need revision. Lack of clarity behind the background of how the project scope was defined. If revision is necessary, now is a good time for it.			X						
Q-2: Has MRWPCA considered sources water from the perspective of dry weather patterns or wet weather flows from storm drains? Identification of sources is not consistent in the NOP.		X			X				
Q-5: Will there be any credits to member entities for flows that go into the GWR and if there are, will there be any quantification of what those credits will be?		X			X				
R-2: Explore alternative source water volumes above the 3,500 AFY total specified in the NOP.	X	X			X				
R-4: Include potential for use of Marina Coast Water District's recycled water facilities for conveyance of GWR water from AWT facility to Seaside Groundwater Basin, given appropriate compensation to the district for that access.		X						X	
R-5: Recommends exploration of long-term plan for GWR Project. Will project continue injecting water into the Seaside Groundwater Basin once the Basin is recharged and operating within protective groundwater elevations and sustainable yield? Are there other uses for AWT water? Sending AWT water north to combat seawater intrusion in the Salinas Valley Groundwater Basin is a possibility.	X	X							
R-6: Encourages MRWPCA to evaluate alternatives that include variable seasonal flow rates of source waters without the need for including secondary or tertiary effluent sources. The seasonal flow of water sources for		X			X	X			

Table 1
Matrix of Scoping Comments on Project Description and Alternatives

	Overall Purpose, Need, Objectives	Alternatives Suggested	Project Description: Mapping / Background	Relation to CPUC MPWS Project	Project Description Component				
					Source Water	Treatment	Disposal of Reverse Osmosis Concentrate	Product Water Conveyance	Injection/ Recharge
the AWT facility is an operational consideration if the outflow is to be at a single predictable rate.									
T-4: Recommends clarification and emphasis on project's independent justification, purpose and utility. This is especially true for any desalination project, there is a lot of discussion of them as though they are connected.	X			X					
T-5: Regarding options A and B pipeline routing, address the pipeline from City of Salinas pump station to treatment facilities.		X							
T-7: Clarify whether source waters are from one specific source "…or a combination of the following sources…" and delineate how the determination will be made, and when.		X			X				
T-8: MRWPCA should remain flexible, if possible, with regard to detail of pipe size, capacity, pump location and size. That CEQA studies focus on routing and environmental factors rather than system design as that is not yet finalized. Also, if more than 3,500 AFY can be sourced, would environmental processing need to be repeated or is it possible to avoid going through the process again if system capacity were to increase?	X	X			X				
T-9: Regarding page 13, MRWPCA should consider two conveyance pipelines be laid rather than one, for both source and recycled water. This would accomplish both cost savings and give MRWPCA a leg up as a regional source of recycled water. The second pipeline may remain temporarily unused, but could be put to use later for recycled water or for greater intake of source water and the economics of scale would be very beneficial in the long term.		X			X				
MTG-C2: Will other alternatives to the project (besides those already included) be addressed in the EIR?		X							
MTG-F1: Is it possible that a larger scale version of the GWR project can solve the entire water supply issue, therefore eliminating the need for a desalination plant?	X	X							

6. SUPPLEMENT TO THE MAY 2013 NOTICE OF PREPARATION

As a result of ongoing engineering and technical evaluations and regional coordination efforts that occurred after the 2013 scoping process was completed, MRWPCA updated the project description and prepared a Supplement to the May 2013 NOP in December 2014. The purpose of the Supplement to the NOP was to provide public agencies, interested parties, and members of the public with an opportunity to comment on the scope of the EIR related to updates to the project description. The Supplement to the NOP was made available through the same distribution methods that were used for the May 2013 NOP. The public comment period on the Supplement to the NOP ran from December 10, 2014 to January 8, 2015. A copy of the Supplement to the NOP is included in this scoping report as Appendix E.

MRWPCA received 12 comment documents on the Supplement to the 2013 NOP. A list of the commenters, the date the comment document was received, and a summary of topics raised in the comment documents are included in Table 2. As with the comments that were received during the 2013 scoping process, topics that have been raised in the comment documents on the Supplement to the NOP that fall within the scope of CEQA will be considered in preparation of the EIR and will be addressed to the extent possible.

Table 2: Summary of Comment Letters Received on Supplement to 2013 NOP (in date order)			
Commenter (type of document)	**Type of Commenter**	**Date of Comment**	**Comment Summary**
California Office of Planning and Research – State Clearinghouse (letter)	State agency	December 9, 2014	• Copy of letter transmitting Supplemental NOP to State agencies for 30-day review.
Water Plus (email)	Organization	December 8, 2014	• Project must meet State health requirements for injecting recycled water into a drinking water basin. • Substantiate the claim that the GWR project enhances water supply diversification. • Include energy information on project. • Identify source/quantity of water supply for GWR project and fate of treatment residuals.
California Native American Heritage Commission (letter)	State agency	December 24, 2014	• Letter provides recommendations about information and impact analysis to be included in the EIR relative to archaeological resources; also provides list of Native American contacts in Monterey County for CEQA consultation.
Peter Le (email)	Individual	January 4, 2015	• Provide information on how GWR project would affect recycled water rights of Marina Coast Water District (MCWD). • Identify additional work at treatment plant needed for the project and cost to MCWD. • Identify the required separation between GWR distribution pipes and MCWD recycled water pipes. • Consider an alternative of using excess winter flow from Salinas River as recharge water for the Seaside aquifer. • Discuss effect of project on MCWD brine disposal capacity in MRWPCA outfall. • Discuss how project may affect MCWD access to its property at Armstrong Ranch. • Identify if GWR EIR will use or reference MCWD's RUWAP EIR.
Surfrider Foundation (letter)	Organization	January 7, 2015	• Consider alternatives that avoid or minimize impacts to aquatic life from proposed Tembladero Slough diversion.
Monterey Peninsula Airport District (letter)	Local agency	January 8, 2014	• Proposed Lake El Estero diversion site is located within Monterey Airport Influence Area and must be referred to the Airport Land Use Commission for consistency determination.
City of Monterey Department of Plans &	Local agency	January 8, 2015	• Recommends meeting to further refine details of the Lake El Estero diversion component of the project, and potential need for a focused watershed study.

Table 2: Summary of Comment Letters Received on Supplement to 2013 NOP (in date order)			
Commenter (type of document)	**Type of Commenter**	**Date of Comment**	**Comment Summary**
Public Works (letter)			• Provides information on groundwater level and quality data for the shallow aquifer beneath Lake El Estero. • Diversion of Lake El Estero discharges to the regional treatment plant may provide environmental benefits for water quality. • Consider impacts to biological resources at Lake El Estero. • Consider impacts to cultural resources at Lake El Estero. • Discuss whether portions of the project are in the Coastal Zone within City of Monterey. • Identify regulatory permits required for the whole of the project.
California State Water Resources Control Board (letter)	State agency	January 8, 2015	• Provides information (brochures) on the SRF Program environmental review process and additional federal requirements.
California State Department of Transportation (letter)	State agency	January 8, 2015	• Advises that any work within State right-of-way will require an encroachment permit issued from Caltrans.
California State Lands Commission (letter)	State agency	January 8, 2015	• Provides information on role of State Lands Commission (SLC), and requests more detailed information on location and extent of proposed facilities within the Salinas River and sloughs. • Attaches letter sent by SLC on the May 2013 NOP.
City of Seaside – Resource Management Services	Local agency	February 6, 2015	• Monitoring wells will need to be relocated in the future if City approves development for the area. • Any proposed above-grade features in Seaside shall be screened to minimize visual impacts. • Requests that GWR pipelines follow same route used for the Cal Am water supply project. MRWPCA and Cal Am work within Seaside right-of-way should be performed concurrently. Try to locate facilities within Seaside to areas classified as Utility Corridor or Borderlands under the Habitat Management Plan.

APPENDIX A

MONTEREY PENINSULA GROUNDWATER REPLENISHMENT PROJECT

NOTICE OF PREPARATION

MAY 30, 2013

NOTICE OF PREPARATION

Monterey Peninsula Groundwater Replenishment Project Environmental Impact Report

Introduction

In accordance with the provisions of the California Environmental Quality Act, the Monterey Regional Water Pollution Control Agency (MRWPCA), as California Environmental Quality Act lead agency, is preparing an Environmental Impact Report (EIR) for the proposed Monterey Peninsula Groundwater Replenishment Project (GWR Project). The GWR Project would create a reliable source of water supply by taking highly-treated water from a new advanced water treatment plant, and recharging the Seaside Groundwater Basin (or Seaside Basin) with the treated water using a series of shallow and deep injection wells. Once injected into the Seaside Basin, the treated water would mix with the groundwater present in the aquifers and be stored for future use. The primary purpose of the GWR Project is to provide 3,500 acre-feet per year (AFY) of high quality replacement water to California American Water Company (or Cal-Am) for delivery to its customers in the Monterey District service area; thereby enabling Cal-Am to reduce its diversions from the Carmel River system by this same amount.[1] Cal-Am is under a state order to secure replacement water supplies by December 2016.

This document serves as the Notice of Preparation (NOP) for the EIR for the GWR Project and solicits comments on the scope of environmental issues as well as alternatives and mitigation measures that should be explored in the EIR. Public agencies are invited to comment on the scope and content of the environmental information that is relevant to each agency's statutory responsibilities with regard to the proposed GWR Project. Members of the public also are invited to provide their comments on the scope of the EIR. **The 30-day public scoping period begins on May 31, 2013 and closes at 5:00 PM on Tuesday, July 2, 2013. A public scoping meeting will be held on Tuesday, June 18, 2013 from 6:00 to 8:00 PM at the Oldemeyer Center, Dance Room (986 Hilby Avenue, Seaside, CA 93955).** This NOP provides background information on relevant water supply conditions, briefly describes the proposed GWR Project, and identifies the environmental issue areas that will be analyzed in the EIR.

[1] Cal-Am is an investor-owned public utility that serves approximately 38,500 customers in the Monterey Peninsula area. Cal-Am's Monterey District service area is shown in Figure 1.

Project Location

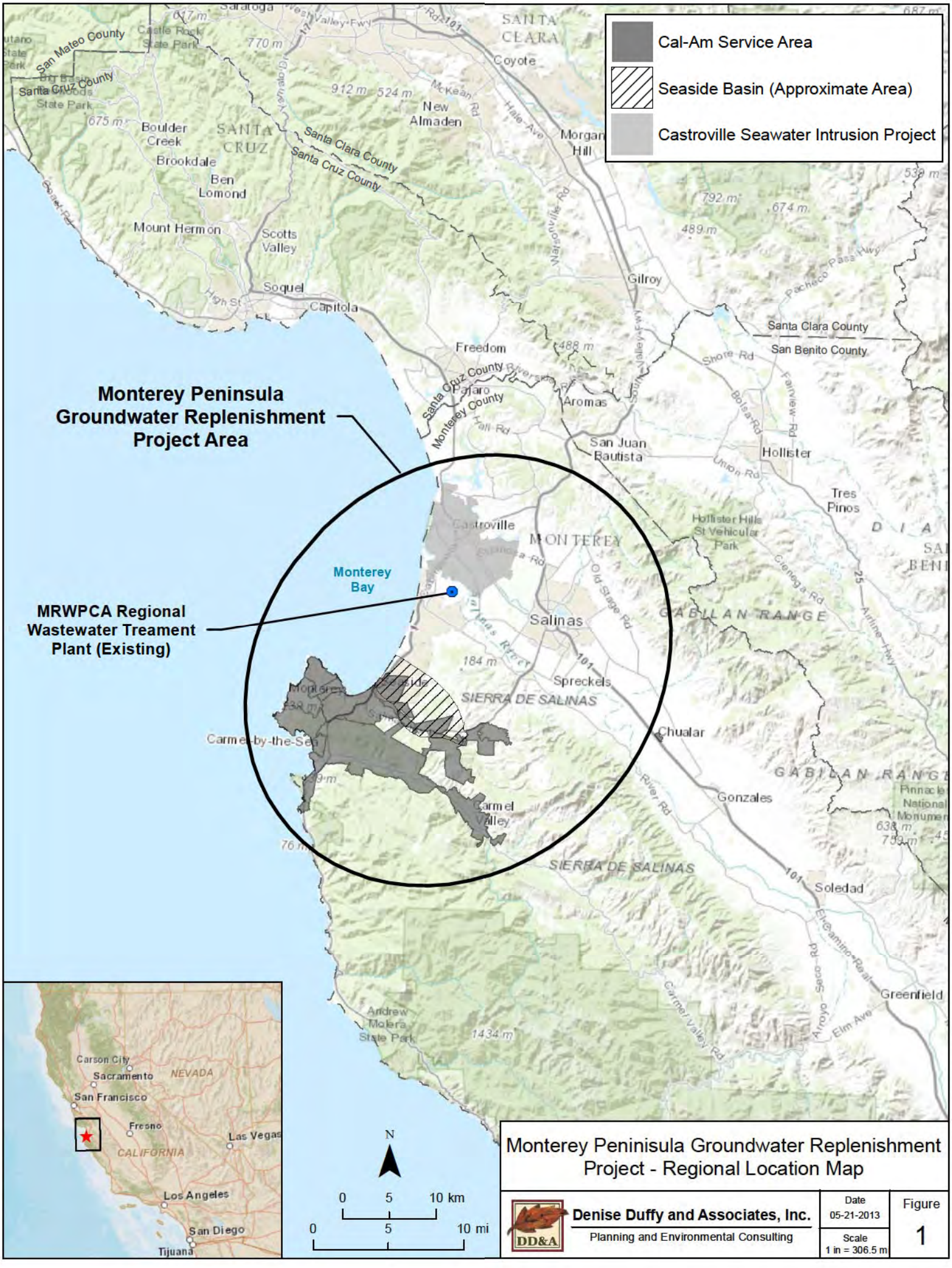
The GWR Project would be located within northern Monterey County and would include facilities located within the unincorporated areas of the Salinas Valley and the cities of Marina and Seaside as shown in **Figures 1** and **2**. The GWR Project would replenish the Seaside Basin, and would provide a portion of the replacement water supplies needed for Cal-Am's Monterey District service area.

Project Background

MRWPCA was established in 1979 under a Joint Powers Authority agreement between the City of Monterey, the City of Pacific Grove and the Seaside County Sanitation District. MRWPCA operates the regional wastewater treatment plant, including a water recycling facility (collectively known as the Regional Treatment Plant), a non-potable water distribution system known as the Castroville Seawater Intrusion Project, sewage collection pipelines, and 25 wastewater pump stations. MRWPCA member communities include Pacific Grove, Monterey, Del Rey Oaks, Seaside, Sand City, Fort Ord, Marina, Castroville, Moss Landing, Boronda, Salinas, and other unincorporated areas in northern Monterey County. See **Figure 1**.

MRWPCA's Regional Treatment Plant is located two miles north of the City of Marina, on the south side of the Salinas River, and has a permitted capacity to treat 29.6 million gallons per day (mgd) of wastewater effluent.[2] At the Regional Treatment Plant, water is treated to two different standards: 1) Title 22 California Code of Regulations standards (tertiary filtration and disinfection) for unrestricted agricultural irrigation use, and 2) secondary treatment for discharge through the ocean outfall. Influent flow that has been treated to a tertiary level is distributed to nearly 12,000 acres of farmland in the northern Salinas Valley for irrigation use (the Castroville Seawater Intrusion Project). The Regional Treatment Plant primarily treats municipal wastewater, but also accepts some dry weather urban runoff and other discrete wastewater flows.

[2] The Regional Treatment Plant currently treats approximately 19 million gallons per day of municipal wastewater from a total population of about 250,000 in the northern Monterey County area shown generally in Figure 1.



Monterey Peninisula Groundwater Replenishment Project - Regional Location Map

Denise Duffy and Associates, Inc.
Planning and Environmental Consulting

Date	Figure
05-21-2013	1
Scale: 1 in = 306.5 m	

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Existing Ocean Outfall Facilities (Approximate Location)

Option "2" Alternate Route

Existing Regional Treatment Plant

Proposed GWR Project Treatment Facilities

Proposed Blanco Drain Pump Station

Monterey Bay

Espinosa Rd

Nashua Rd

Reclamation Ditch

Cooper Rd

Option "A"

Blanco Drain

W. Market St

Proposed Reclamation Ditch Pump Station

Option "1"

Option "2"

Option "B"

Blanco Rd

Salinas River

Davis Rd

Salinas

Marina

Imjin Pky

Reservation Rd

Existing Salinas Pump Stations

2nd Ave

Proposed Storm Water Collection Pipe

Existing City of Salinas Treatment Plant\Ponds

Coastal Recharge Facilities

Monterey Rd

General Jim Moore Blvd

Existing Salinas Storm Water Outfall

Inland Recharge Facilities

Sand City

Del Monte Rd

Fremont Blvd

Seaside

Monterey

Del Rey Oaks

Carmel Valley Rd

Carmel River

1 183 68 218

Existing Pump Stations
Proposed Pump Stations\Diversions
Source Water Conveyance Pipeline Options
Product Water Conveyance Pipeline Options
Existing Castroville Seawater Intrusion Project Pipelines
Recharge Facilities
Seaside Basin (Approximate Area)
City Limits

N

0 2.5 5 Kilometers

0 2.5 5 mi

Monterey Peninsula Groundwater Replenishment Project - Overview of Key Facilities Map

Denise Duffy and Associates, Inc.
Planning and Environmental Consulting

Date 05-28-2013

Scale 1 inch equals 1.5 miles

Figure 2

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Seaside Groundwater Basin

The Seaside Basin underlies an approximately 19-square-mile area at the northwest corner of the Salinas Valley, adjacent to Monterey Bay (see Figure 1). The hydrogeology of the Seaside Basin has been the subject of numerous studies beginning with a California Department of Water Resources study in 1974. Monitoring data gathered since 1987 shows that water levels have been trending downward in many areas of the basin. A steep decline since 1995 in the northern coastal portion of the basin, where most of the groundwater production occurs, has coincided with increased extraction in that area after the State Water Resources Control Board required Cal-Am to reduce its Carmel River diversions, and instead maximize its pumping in the Seaside Basin.[3]

Groundwater is currently extracted from approximately 37 wells by 20 well owners in the Seaside Basin. Cal-Am owns 12 wells and pumps approximately 80% of the water produced in the basin. In addition, Cal-Am and Monterey Peninsula Water Management District operate a Seaside Basin Aquifer Storage and Recovery system that stores excess Carmel River water supplies during the wet season in the groundwater basin and recovers the banked water during the following dry season for consumptive use. The estimated average yield of the existing Aquifer Storage and Recovery facilities is 1,920 AFY, but varies yearly based on rainfall due to the requirement to maintain adequate Carmel River instream flows.

Historical and persistent low groundwater elevations caused by pumping have led to concerns that seawater intrusion may threaten the Basin's groundwater resources. In 2006, an adjudication process (Cal-Am v. City of Seaside et al., Case No. M66343) led to the issuance of a court decision that created the Seaside Basin Watermaster (Watermaster). The Watermaster consists of nine representatives, one representative from each: Cal-Am, City of Seaside, Sand City, City of Monterey, City of Del Rey Oaks, Monterey Peninsula Water Management District and Monterey County Water Resources Agency, and two representatives from landowner groups. The Watermaster has evaluated water levels in the basin and has determined that while seawater intrusion does not appear to be occurring at present, current water levels are lower than those required to protect against seawater intrusion. Water levels were found to be below sea level in both the Paso Robles (the shallower aquifer) and the Santa Margarita aquifers of the Seaside Basin in 2012; therefore, it is recognized that recharge into both aquifers would be beneficial for protection against seawater intrusion.

State Orders to Reduce Carmel River Diversions

The 255-square-mile Carmel River Basin is bounded by the Santa Lucia Mountains to the south and the Sierra del Salinas to the north. The Carmel Valley aquifer, which underlies the alluvial portion of the Carmel River downstream of San Clemente Dam, is about six square-miles and is approximately 16 miles long. In the summer and fall, the alluvial aquifer is drawn down by private pumpers that extract approximately 2,200 to 2,400 AFY, and Cal-Am that pumps approximately 7,880 AFY.[4] Historically, this combined pumping has resulted in dewatering of the lower six miles of the river for several months in most years and up to nine miles in dry and critically dry years. Recharge of the aquifer is derived mainly

[3] See discussion of SWRCB Order No. 95-10 in the following section.

[4] This pumping quantity is based on the mean water production from the Carmel Valley Alluvial Aquifer between Water Year 2010 and Water Year 2012.

from river infiltration which comprises 85% of the net recharge.[5] The aquifer is replenished relatively quickly each year during the rainy season, except during prolonged periods of extreme drought.

In 1995, the State Water Resources Control Board issued Order No. WR 95-10, which found that Cal-Am was diverting more water from the Carmel River Basin than it was legally entitled to divert. The State Board ordered Cal-Am, instead, to maximize diversions (to the extent feasible) from the Seaside Basin. In addition, a subsequent Cease and Desist Order (SWRCB 2009-0060) issued in 2009 requires Cal-Am to secure replacement water supplies for its Monterey District service area by December 2016 and reduce its Carmel River diversions to 3,376 AFY by the 2016-17 timeframe. Cal-Am estimates that it needs 9,752 AFY[6] of replacement water supplies to reduce its Carmel River diversions to the degree required by the Cease and Desist Order and to reduce its pumping in the Seaside Basin in accordance with the Watermaster's pumping mandates.

Cal-Am, working with local agencies, has proposed construction and operation of a Cal-Am owned and operated desalination project (known as the Monterey Peninsula Water Supply Project)[7] either to provide all of the replacement water needed to comply with the Cease and Desist Order and the Seaside Basin Adjudication, or part of the replacement water if the GWR Project would be capable of producing the rest of the replacement water in a timely manner and at a reasonable cost. The California Public Utilities Commission, as the California Environmental Quality Act lead agency for the Monterey Peninsula Water Supply Project, published a Notice of Preparation of an EIR in October 2012 and intends to circulate a Draft EIR in July 2013.

GWR Project Relationship to the Monterey Peninsula Water Supply Project

The GWR Project is designed to provide part of the replacement water needed for Cal-Am to comply with the Cease and Desist Order and the Seaside Basin Adjudication. The GWR Project could not produce all of the needed replacement water, but the primary goal of the project is to produce 3,500 AFY to be used by Cal-Am in order to reduce its Carmel River diversions by that same amount. The GWR Project could provide this quantity of replacement water regardless of whether the California Public Utilities Commission approves Cal-Am's application to construct and operate a desalination plant. In other words, the GWR Project could accomplish its objective, and be useful to reducing Carmel River diversions, independent from approval of Cal-Am's proposed desalination plant. While the GWR Project could proceed as an independent project, the GWR Project is related to the Monterey Peninsula Water Supply Project in that the GWR Project could reduce the size of Cal-Am's proposed desalination plant. Further, MRWPCA would not construct the GWR Project unless the California Public Utilities Commission

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5 U.S. Geological Survey 1984. *Analysis of the Carmel Valley Alluvial Aquifer Groundwater Basin, Monterey County, California.* USGS WRI Report 83-4280; see page 13.

6 Supplemental Testimony of Richard C. Svindland, January 11, 2013, Attachment 1, Application A.12-04-019 (*Application of CAW for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates*)"

7 In April 2012, California American Water submitted Application A.12-04-019 (*Application of CAW for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates*) to the California Public Utilities Commission that is intended to secure replacement water supplies for the Monterey District associated with the regulatory orders and legal decisions described in this section. The MPWSP includes many of the same elements previously analyzed in the Coastal Water Project EIR (CPUC/ESA, 2009); however, key components, including the seawater intake system and desalination plant, have been relocated and/or modified under the current proposal and the current proposal is for private (Cal-Am) ownership of the intake system, desalination facility and conveyance pipeline.

approves a Water Purchase Agreement that authorizes Cal-Am to purchase the water that is produced by the GWR Project.

On April 20, 2012, the Monterey Peninsula Water Management District, MRWPCA, and Cal-Am entered into a Groundwater Replenishment Project Planning Term Sheet and Memorandum of Understanding to Negotiate in Good Faith to, among other things, enable planning and environmental evaluation of a GWR project by the following:

- to commit themselves to evaluate the ways in which a groundwater replenishment project could be effectively accomplished;
- to commit themselves to negotiate in good faith to reach agreement on such a project, should it be deemed viable;
- for MRWPCA to commit to act as lead agency to achieve California Environmental Quality Act compliance for such a project, should it be deemed viable;
- for Monterey Peninsula Water Management District to assist MRWPCA in providing the necessary financial support for planning and California Environmental Quality Act compliance; and
- to identify non-binding preliminary terms of a GWR Project agreement.

In its application to the California Public Utilities Commission for approval of the Monterey Peninsula Water Supply Project, Cal-Am proposed a three-pronged approach to replace most of its Carmel River diversions, as required by the Cease and Desist Order. The three prongs consist of: (1) desalination, (2) groundwater replenishment, and (3) aquifer storage and recovery. Cal-Am's application described the groundwater replenishment "prong" as follows and identified it as water supply that would reduce the capacity of the desalination component by 3,500 AFY:

> *"California American Water has entered into a Memorandum of Understanding with the MRWPCA and MPWMD to collaborate on developing the Groundwater Replenishment Project, included as Appendix A. If the Groundwater Replenishment Project has reached certain milestones by the time California American Water begins construction of the desalination plant (currently estimated to be near the end of 2014) and the cost of the water from it is reasonable, California American Water will be able to reduce the size of its proposed desalination plant. California American Water proposes to do this by filing a Tier 2 advice letter."*

Project Objectives

The primary objective of the GWR Project is to replenish the Seaside Basin to produce 3,500 acre-feet per year (AFY) of high quality water that would replace a portion of Cal-Am's water supply as required by state orders. To accomplish this primary objective, the GWR Project would need to meet the following objectives:

- Be capable of commencing operation, or of being substantially complete, by the end of 2016 or, if after 2016, no later than necessary to meet Cal-Am's replacement water needs;
- Be cost-effective such that the project would be capable of supplying reasonably-priced water; and

- Be capable of complying with applicable water quality regulations intended to protect public health.

Secondary objectives of the GWR Project include the following:

- Assist in preventing seawater intrusion in the Seaside Basin;
- Assist in diversifying Monterey County's water supply portfolio;
- Provide additional water to the Regional Treatment Plant that could be used for crop irrigation through the Salinas Valley Reclamation Project and Castroville Seawater Intrusion Project system.

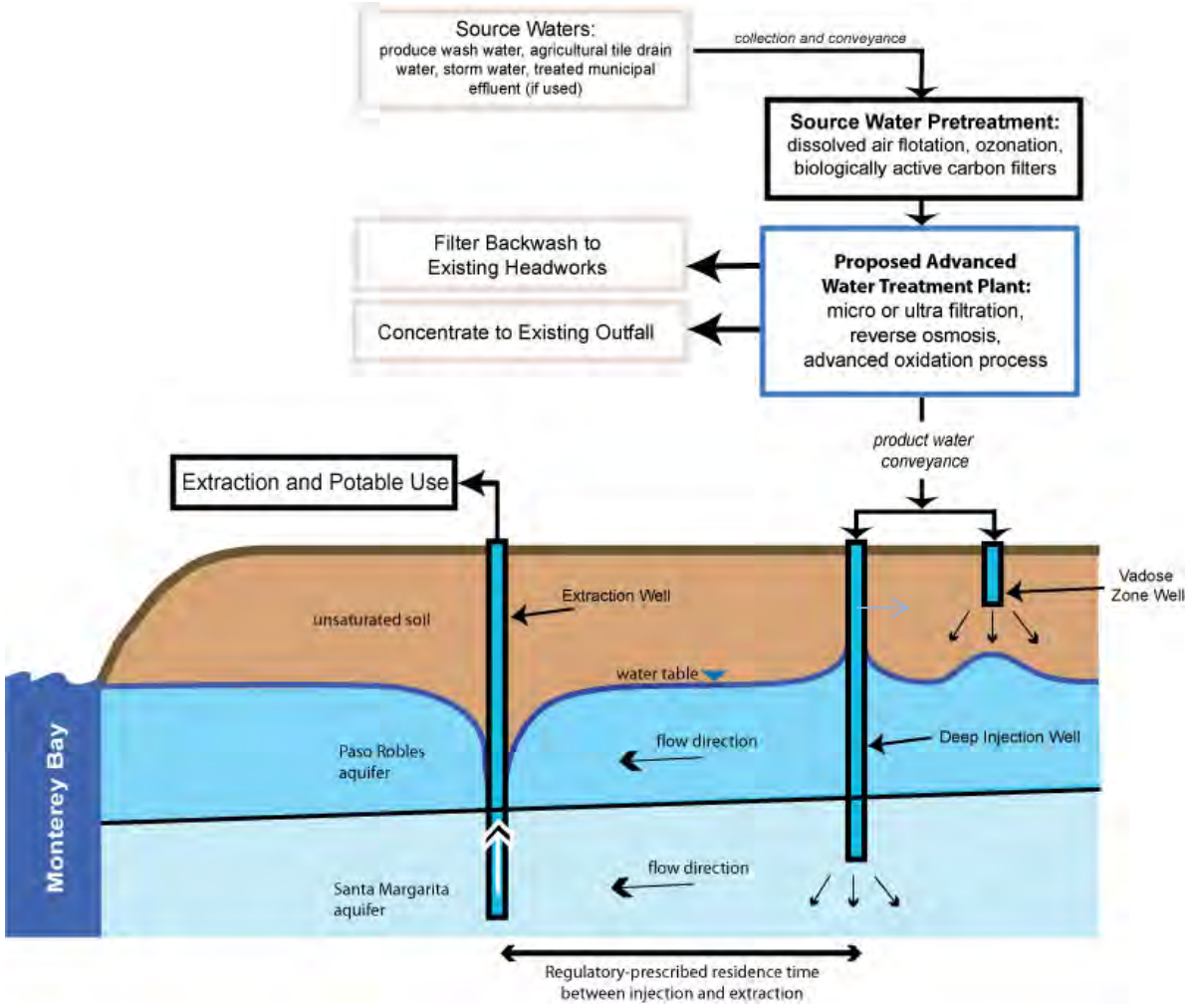
Proposed Project

MRWPCA's GWR Project proposes to produce and deliver high quality treated water for replenishment of the Seaside Basin with the goal of enabling Cal-Am to reduce diversions from the Carmel River and its alluvial aquifer in compliance with the State Water Resources Control Board's Cease and Desist Order and to comply with the Seaside Basin Adjudication. The location of the GWR Project is shown in **Figure 1**. The GWR Project would include the following new facilities as shown in **Figure 2** and described in the following sections:

- *Source Water Conveyance Facilities*: diversion and collection facilities, including pipelines and pump stations to convey source water to the new treatment facilities,
- *Treatment Facilities:* pretreatment facilities, a new Advanced Water Treatment Plant, and associated facilities at the existing Regional Treatment Plant site to filter and treat the source water,
- *Product Water Conveyance Facilities:* pipelines, pump stations, and appurtenant facilities along one of two optional alignments to convey the treated water to the Seaside Basin, and
- *Replenishment/Recharge Facilities:* pipelines, deep injection and shallow (vadose zone) wells, and backflush facilities to be located at one or both of two optional locations (coastal and/or inland recharge sites) within the Seaside Basin boundaries.

A process diagram illustrating the operation of the GWR Project is provided in **Figure 3**. MRWPCA would construct, own, and operate the GWR Project facilities from source water collection and conveyance through injection into the Seaside Basin. After the recharged water resides within the subsurface soils and aquifer for the prescribed amount of time, the water would be extracted by others at existing municipal water supply wells.

Figure 3. Overall GWR Project Process Schematic



MRWPCA is coordinating with Cal-Am, Monterey Peninsula Water Management District, the Seaside Basin Watermaster, the City of Seaside, the City of Salinas, the Marina Coast Water District, Monterey County Water Resources Agency, and other public agency stakeholders regarding the GWR Project. The GWR Project would be designed and implemented in compliance with applicable regulatory requirements to protect public health. In particular, it is anticipated that the California Department of Public Health may require specific residence times for recharged water within the aquifer prior to extraction, which would be verified using tracer tests, if required, and groundwater monitoring.

Source Water Conveyance Facilities

The GWR Project would use a combination of the following source waters as influent to the GWR Treatment Facilities:

- City of Salinas (City) Treatment Plant water,
- Blanco Drain water,
- Storm water collection systems of the City of Salinas and other MRWPCA member entities,
- Secondary or tertiary effluent from the Regional Treatment Plant, and
- Reclamation Ditch water.

A combination of these sources may be needed to meet the GWR Project objectives. The characteristics and availability of these water sources vary seasonally. Therefore, the GWR Project would be designed to accommodate a variety of flows, water quality characteristics, and delivery schedules. The following describes the potential source water types and facilities:

City of Salinas (City) Treatment Plant water. The City collects, transports, and treats water predominantly from food processing facilities within the City. Most of this water originates from the washing of produce for packaging (such as bagged lettuce). The water passes through existing pipelines to the City Treatment Plant located on the northwest side of Davis Road adjacent to the Salinas River. The water is aerated and sent to ponds and drying beds where it percolates into the shallow groundwater aquifer or evaporates.

If used as source water for the GWR Project, this water source would be collected at the City Treatment Plant and conveyed using new pipelines and pump stations to the MRWPCA's new GWR Project treatment facilities at the existing Regional Treatment Plant. One new pump station would be located at the City Treatment Plant. The maximum capacity of the pump station would be 10 mgd to allow for maintenance and operational flexibility. The conveyance would be through a new 27-inch diameter pipeline constructed along one of the following two potential routes between the City Treatment Plant and the proposed new Blanco Drain pump station (described below and shown on Figure 2):

- *City Treatment Plant Conveyance Option A.* Approximately 30,000 feet of new pipeline that would follow the farm roads north of and parallel to the Salinas River outside of the riparian vegetation area to the proposed new Blanco Drain pump station, or

- *City Treatment Plant Conveyance Option B.* Approximately 33,000 feet long of new pipeline that would follow paved roads (Blanco Road, Cooper Road, and Nashua Road), and some unpaved farm roads to the new proposed Blanco Drain pump station.

Blanco Drain water. The Blanco Drain is an existing system of dirt ditches and short pieces of pipe that collects and conveys agricultural tile drain water[8] and some storm water from about 6,000 acres of land to the Salinas River. The drainage area extends approximately from Highway 1 to Highway 68 along the Salinas River as it crosses Cooper, Blanco, Hitchcock, and Davis Roads. The water flows to an existing pump station owned and operated by Monterey County Water Resources Agency about 4,100 feet northwest of the intersection of Nashua and Cooper Roads. At this point, the water is pumped approximately 600 feet and then discharged to the Salinas River approximately 1,100 feet southeast and

[8] Tile drainage is an agriculture practice that removes excess water from soil subsurface.

upstream of the existing Salinas River Diversion Facility. The Salinas River Diversion Facility is a seasonal diversion structure operated by the Monterey County Water Resources Agency for the purpose of augmenting the irrigation water supplies for the Castroville Seawater Intrusion Project agricultural land areas (see Figure 1 for the location of the Castroville Seawater Intrusion Project and see Figure 2 for the existing agricultural irrigation supply pipelines).

If Blanco Drain water or City Treatment Plant water is used by the GWR Project as source water, then a new Blanco Drain pump station (see Figure 2) would be built near the site of the existing Monterey County Water Resource Agency pump station. A new 9,000-foot long, 30-inch diameter pipeline would transport water from the proposed new Blanco Drain pump station to the new GWR Project treatment facilities at the Regional Treatment Plant. Directional drilling would be used to cross under the Salinas River, and then the pipeline would be placed along the boundary of the Monterey Regional Waste Management District property to the MRWPCA's existing Regional Treatment Plant site.

Storm water from the City of Salinas and other MRWPCA member entities. Storm water from Salinas and other member entities may also be used for source water for the GWR Project. Storm water from the southwestern portions of the City of Salinas currently travels through existing pipelines to an existing City storm water pump station at the site of MRWPCA's existing Salinas Pump Station (see Figure 2, "Existing Salinas Pump Stations"). The water is then conveyed through an existing 66-inch diameter pipeline to an outfall structure on the Salinas River approximately 1,800 feet southeast of Davis Road (see Figure 2, "Existing Storm Water Outfall").

If this storm water is used as source water for the GWR Project (to augment treated wastewater), then dry weather and low flows of storm water would be conveyed by a new short, on-site pipeline from the City's Salinas storm water pump station to the MRWPCA's Salinas Pump Station and from there to the existing Regional Treatment Plant site. Alternatively, dry weather and low flows of storm water from the Salinas storm water pump station could be used directly for the new GWR Project through existing conveyance systems to the City Treatment Plant near Davis Road adjacent to the Salinas River. Storm water conveyance may occur using either: (1) the City's existing 33-inch diameter pipeline, or (2) when completed, the City's future proposed 42-inch diameter pipeline, both of which would provide a connection from the Salinas Pump Station site to the City Treatment Plant.

To capture and use storm water from the southwestern portions of Salinas during storm events (i.e., high flows), a new extension of the City's existing 66-inch diameter pipeline would be required to convey the storm water to the City Treatment Plant. A new, approximately 2,700-foot long, 66-inch diameter pipeline would be placed along unpaved farm roads adjacent to the Salinas River to convey water between the storm water outfall and the City Treatment Plant (see Figure 2). A new pump station, pipelines and appurtenant facilities at or near the City Treatment Plant would allow the GWR Project to conjunctively operate with the City Treatment Plant process in managing the flow of water through the ponds systems and, ultimately, to the new GWR Project treatment facilities using one of the City Treatment Plant conveyance pipelines (see Options "A" or "B" as shown on Figure 2 and described above under *"City of Salinas (City) Treatment Plant water"*).

Other MRWPCA member entities could also send storm water to the Regional Treatment Plant for use by the GWR Project by adding storm water into existing pipelines, manholes, or pump stations within the MRWPCA wastewater collection system.

Secondary or tertiary effluent from the Regional Treatment Plant. At the existing Regional Treatment Plant, water is treated to two different standards: 1) tertiary treatment for unrestricted agricultural irrigation use, and 2) secondary treatment for discharge through the ocean outfall. If water treated to secondary standards were used as source water for the GWR Project, then effluent would be withdrawn from the existing 60-inch diameter secondary effluent pipe at the Regional Treatment Plant. A new pump station at the Regional Treatment Plant would pump secondary treated water to the new GWR Project treatment facilities through a new 18-inch diameter pipeline approximately 1,900 feet long. If water treated to tertiary standards were used as source water for the GWR Project, then effluent would be withdrawn from an existing filtered effluent pipeline located at the Regional Treatment Plant (between the Filter Building and the Chlorine Contact Basins). A new pump station would be located adjacent to the Filter Building and would pump tertiary treated water to the new GWR Project treatment facilities through a new 18-inch diameter pipeline approximately 600 feet long.

Reclamation Ditch water. The Reclamation Ditch is operated by the Monterey County Water Resources Agency, and a portion of this ditch is shown on Figure 2 just north of Highway 183. The watershed of the Reclamation Ditch includes 157 square miles mostly within Monterey County. The watershed drains the northwestern slopes of the Gabilan Range as well as much of the City of Salinas and its surrounding lands. The Reclamation Ditch system is a network of excavated earthen channels used to drain surface runoff generated in the watershed. Urban runoff from the City of Salinas also drains into various channels of the Reclamation Ditch system via numerous storm water outfalls. The system drains into Tembladero Slough, then the Old Salinas River Channel, and ultimately into Moss Landing Harbor through the Potrero Tide Gates. The Reclamation Ditch system conveys and collects storm water and provides flood control during the winter, but consists mostly of agricultural tile drain water from the land north and west of the City of Salinas during the summer months.

If this source water is used by the GWR Project, the Reclamation Ditch water would be collected about 500 feet northwest of the intersection of Davis and W. Market/Highway 183 Roads. The water would enter a new pump station (see "Reclamation Ditch Pump Station" on Figure 2) constructed at that same location, and then would be pumped to an existing sewer pipeline that flows to MRWPCA's existing Salinas Pump Station. From that point, the Reclamation Ditch water would be comingled with sewage, pumped, and conveyed through an existing pipeline to the Regional Treatment Plant.

Treatment Facilities

The new proposed Advanced Water Treatment Plant would produce water suitable for subsurface application in the Seaside Basin. Because one or more potential source waters would contain municipal wastewater, the GWR Project proposes to meet the regulations of the California Department of Public Health for indirect potable reuse. The Department of Public Health has prepared Draft Groundwater Recharge Regulations (March 2013) that require full advanced water treatment for projects that intend to recharge groundwater through injection wells directly into aquifers, including requiring reverse osmosis membranes used in advanced treatment to have 99% sodium chloride removal. The regulations also limit the concentration of total organic carbon and total nitrogen values. Specified treatment levels for pathogen reduction and treatment of chemicals of emerging concern would be required to satisfy Department of Public Health permitting requirements. The GWR Project would be designed to comply with the Draft Groundwater Recharge Regulations if final regulations have not been adopted by the time

of its construction. Once final regulations are adopted, the GWR Project would comply with the final, adopted regulations. This will ensure that the GWR Project meets or exceeds all standards adopted to protect public health.

The GWR Project would include pretreatment of source waters, as needed, including pre-screening, ozone treatment, biological active carbon filtration, and dissolved air flotation. The Advanced Water Treatment Plant would include microfiltration or ultrafiltration, reverse osmosis, and advanced oxidation/disinfection using ultraviolet light with hydrogen peroxide. Post treatment and conditioning would most likely consist of decarbonation and possible introduction of pH adjusting and/or softening chemicals. Reverse osmosis concentrate would flow through a new concentrate pipeline and receiving station (allowing for mixing, sampling for water quality and flow rate) both proposed to be located within the Regional Treatment Plant site.

After mixing and sampling, the concentrate would be discharged into the on-site portion of the existing Regional Treatment Plant ocean outfall system.[9] Filter backwash waste would be routed to the Regional Treatment Plant headworks for secondary treatment, and if demand exists, tertiary treatment and use in the Castroville Seawater Intrusion Project system for agricultural irrigation.

Product Water Conveyance Facilities

MRWPCA proposes to construct a pipeline, measuring up to 36 inches in diameter, to convey the advanced treated (or "product") water from the Advanced Water Treatment Plant to the Seaside Basin for injection, along one of two potential alignments as shown in **Figure 2**.

- Product Water Conveyance Option 1 would follow a portion of the recycled water pipeline alignment of the previously approved, and partially-constructed, Regional Urban Water Augmentation Program Recycled Water Project. The pipeline would be located primarily along paved roadway rights-of-way within urban areas. The Recycled Water Project was approved by the Marina Coast Water District in 2005; however, only portions of the recycled water distribution system have been built and no recycled water has been delivered to urban users. If not committed to use with recycled water for irrigation at the time of GWR Project construction, the MRWPCA may pursue using a portion or portions of the pipeline originally proposed for the Recycled Water Project by Marina Coast Water District (i.e., converting the purpose of the pipeline for use by the GWR Project). MRWPCA is exploring the feasibility of several options, including shared use of the pipeline with Marina Coast Water District, use of the pipeline by the GWR Project only, and construction of a new parallel pipeline within the same or a parallel right of way and easement, including accommodating any regulatory-required separation distances from pipelines carrying potable and recycled water.

- Product Water Conveyance Alignment Option 2 would follow a portion of the potable product water conveyance pipeline alignment of Cal-Am's proposed desalination project that is currently the subject of California Public Utilities Commission application A.12-04-019. The pipeline alignment would start at the northern boundary of the Regional Treatment Plant access road, then

[9] The RTP's existing Waste Discharge Requirements permit allows up to 375,000 gallons per day of concentrate to be disposed through the outfall without amendment or revision to the permit; the GWR Project would exceed that amount so would require a permit amendment.

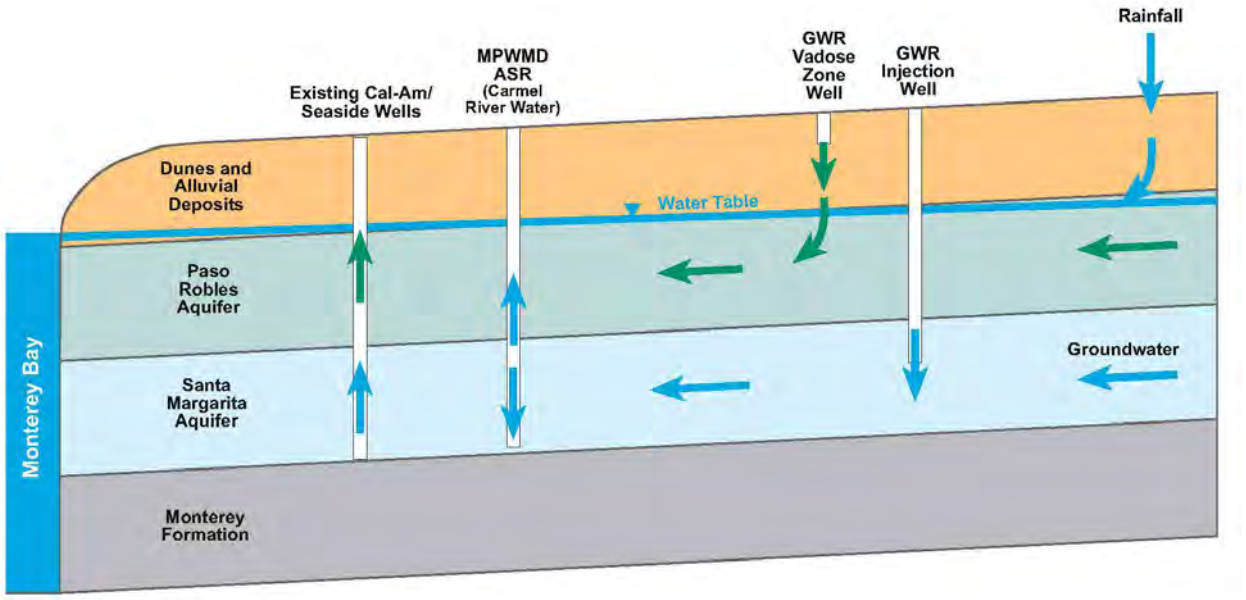
follow Charlie Benson Road to the west to Del Monte Boulevard. Alternatively, the pipeline to Del Monte Boulevard could follow the existing MRWPCA outfall pipeline alignment from the western boundary of the Regional Treatment Plant. This pipeline alignment would turn south on Del Monte Boulevard and be located either within the roadway or within land owned by the Transportation Agency for Monterey County adjacent to the roadway. After Del Monte Boulevard crosses under Highway 1, the pipeline is currently proposed to be within or parallel to the Transportation Agency's land that follows the former rail line in that location. The pipeline would continue south past Fort Ord Dunes State Park and into the City of Seaside turning east at Auto Center Parkway and Del Monte Boulevard. At this point, the pipeline would turn east following Auto Center Parkway/La Salle Avenue until either Lincoln or Havanna Streets to connect the pipeline to San Pablo Avenue. For more information about this alignment option, see the relevant CPUC NOP dated October 2012 at: www.cpuc.ca.gov/Environment/info/esa/mpwsp/index.html.

Each pipeline alignment option would also require one or more pump stations, flow control valves, and other appurtenant facilities. In addition, pipelines to connect the above alignment options to the coastal and/or inland recharge sites (described below) would be required. The selection of the appropriate pipeline alignment/locations and/or performance standards for determining the locations will be assessed as part of a feasibility study that MRWPCA is currently conducting.

Replenishment/Recharge Facilities

The GWR Project would include subsurface groundwater recharge facilities, including shallow (or vadose zone) and deep injection wells located at inland and, if feasible, coastal locations within the Seaside Basin. The vadose zone wells would inject water into the unsaturated soils overlying the uppermost aquifer (the unconfined Paso Robles Aquifer), and the deeper wells would directly replenish the confined Santa Margarita Aquifer. A conceptual diagram of the GWR Project recharge operations is provided in **Figure 4**.

Figure 4. GWR Recharge Concept Schematic



With groundwater levels currently below sea level in both the shallower Paso Robles and deeper Santa Margarita aquifers, recharge into both aquifers would be beneficial for protection against seawater intrusion. Most of the existing groundwater pumping for potable use is from wells perforated in the Santa Margarita Aquifer. Accordingly, the Santa Margarita Aquifer is targeted to receive most of the GWR Project water through direct injection. The GWR Project may also recharge high quality water into the Paso Robles Aquifer using shallower vadose zone wells. This proposed configuration of injection wells is intended to provide maximum flexibility for well operation and for optimizing both short-term groundwater production and long-term storage in the Basin.

The design for injection wells at each location has been developed based on the current understanding of the subsurface conditions and typical well capacities. The groundwater modeling evaluation to be conducted as part of the EIR will be used to optimize the number, type, location, and design of GWR Project wells. The following sections describe the proposed inland and coastal recharge facilities.

Inland Recharge Facilities. The inland recharge location is assumed to include four deep injection wells and four vadose zone wells that would be located in an approximate 3,000-foot long strip of land about 1,000 feet south of Eucalyptus Road and east of General Jim Moore Boulevard. MRWPCA has been working with the City of Seaside and the Fort Ord Reuse Authority to identify an acceptable location for the proposed inland recharge facilities, and the location that currently appears to be feasible is a City-planned utility corridor as shown in **Figure 2**. Wells would be placed approximately 1,000 feet apart to minimize pumping interference between the wells. Collectively, the eight wells at the inland location would be designed to recharge up to approximately 6,000 gallons per minute (gpm) of water into the Seaside Basin to allow for backup, well maintenance, and other operational benefits (such as optimization of replenishment effectiveness) while still meeting the annual volume objectives. It is anticipated that recharge amounts allocated to each well type and target aquifer could readily be adjusted based on basin conditions that will be determined through ongoing monitoring. Monitoring wells would be constructed in key locations surrounding the recharge facilities to measure water quality and water levels and to measure for tracer constituents during tracer tests that may be required by regulatory agencies. Well operations will be adapted to the results of the monitoring so that the GWR Project continually complies with applicable regulatory and permitting requirements established to protect human health and water quality.

Coastal Recharge Facilities. The coastal recharge facilities would include three deep injection wells and four vadose zone wells located on two undeveloped parcels immediately east of Highway 1 and west of the Bayonet and Black Horse Golf Course, as shown in **Figure 2**. Collectively, these wells would be able to recharge about 3,150 gpm of water. Due to the shallower water table at the coast, vadose zone wells would be shallower, and the long-term ability of the coastal wells to replenish both the Santa Margarita and Paso Robles aquifers would likely be less than the replenishment ability of the inland wells. The locations for the proposed coastal recharge facilities were determined based on an analysis of available land and known aquifer characteristics. The Seaside Watermaster requested the inclusion of the coastal recharge facilities in the GWR Project due to the potential benefit they may provide to preventing seawater intrusion and that organization has begun an analysis of the potential benefits of these facilities on the Seaside Basin.

Maintenance and Monitoring Characteristics. As previously described, the GWR Project would be operated based on a total annual recharge volume of 3,500 AFY to replace water supplies for Cal-Am's Monterey District service area. It is anticipated that well maintenance and rehabilitation would occur on an as-needed basis. A monitoring program, including tracer tests if required by regulatory agencies, would be implemented and coordinated with other ongoing monitoring programs in the Seaside Basin to allocate water between vadose zone and deep injection wells, and to ensure adequate residence time of the GWR Project water in the Seaside Basin in compliance with regulatory and permitting requirements adopted to protect public health. The GWR Project would be designed to allow for operational flexibility, allowing variation in the amounts of recharge by well over time.

Extraction

After the GWR Project water achieves residence time in the Seaside Basin in accordance with regulatory requirements, extraction of groundwater that includes GWR Project water would occur using existing potable wells, disinfection treatment processes, and distribution systems. No new extraction wells are proposed as part of the GWR Project. Because the GWR Project water would be produced in accordance with California Department of Public Health requirements which are protective of public health, and because the water would meet the applicable residence time requirements within the groundwater basin, no additional treatment beyond current operations would be required after the water is extracted. The amount and quality of water to be extracted and used would be monitored pursuant to applicable regulatory requirements.

Construction Methods and Schedule

The GWR Project is proposed to be constructed with typical construction methods and equipment, although directional/horizontal drilling may be used for potential source water pipeline crossing(s) of the Salinas River and installation through major intersections along the pipeline corridor. A schedule has been developed for the planning, design, and construction components of the project with a target date of December 2016 for initial groundwater recharge activities to commence.

Permits and Agreements Anticipated to be Required

As previously discussed, the Monterey Peninsula Water Management District, MRWPCA, and Cal-Am jointly entered into a Groundwater Replenishment Project Planning Term Sheet and Memorandum of Understanding to Negotiate in Good Faith on April 20, 2012. MRWPCA would need to enter into other agreements with entities/agencies who may control the source waters and rights of way, including but not limited to: 1) Monterey County Water Resources Agency to obtain water from Blanco Drain and Reclamation Ditch sources; 2) Monterey County Water Resources Agency, Marina Coast Water District, or both, for use of Regional Treatment Plant effluent and use of various water conveyance facilities and rights of way; and 3) the City of Salinas for source water from its Treatment Plant and stormwater system, and for possible electrical power purchase. MRWPCA would also need to enter into a water purchase agreement with the Monterey Peninsula Water Management District (contingent on a water purchase agreement between Cal-Am and the Monterey Peninsula Water Management District) for the GWR Project water. Other agreements not currently identified may also be required.

Table 1 is an initial list of agencies and entities that may be involved in permitting and/or approving one or more aspects of the GWR Project. This list is preliminary and may require revision as the GWR Project's design, including construction and operational characteristics, are further developed.

Table 1: Potential Permits and Approvals Required	
Agency /Entity	**Permitting Regulation/Approval Requirement**
Federal Agencies	
U.S. Environmental Protection Agency	Class V Underground Injection Control Program (Part C, Safe Drinking Water Act [SDWA])
Monterey Bay National Marine Sanctuary	Review and coordination of all RWQCB 404, Section 10, and NPDES permits
U.S. Fish and Wildlife Service	Endangered Species Act compliance (ESA Section 7 consultation)
	Fish and Wildlife Coordination Act (16 USC 661-667e; Act of March 10, 1934; ch. 55; 48 stat. 401)
U.S. Dept. of Interior: NOAA – Fisheries	Endangered Species Act compliance (ESA Section 7 consultation)
Army Corps of Engineers	Nationwide Section 404 Permit (Clean Water Act, 33 USC 1341)
	Section 10, Rivers and Harbors Act Permit (33 U.S.C. 403)
Federal Aviation Administration	Form SF 7460-1 Notice of Proposed Construction & Alteration for Airport Airspace Aeronautical
State Agencies	
California Public Utilities Commission	Coordination regarding the MPWSP Certificate of Public Convenience and Necessity (Application No. 12-04-019)
State Water Resources Control Board, Regional Water Quality Control Board	General Construction Activity Storm Water Permit (WQO 99-08-DWQ)
	Water rights permit for development of new surface water diversions
	Waste Discharge Requirements (Water Code 13000 et seq.)
	401 Water Quality Certification (CWA Section 401)
	National Pollutant Discharge Elimination System (NPDES) Permit (CWA Section 402)
California State Lands Commission	Right-of-Way Permit (Land Use Lease) (California Public Resource Code Section 1900); Lease amendment
California Department of Fish and Wildlife	Incidental Take Permits (CA Endangered Species Act Title 14, Section 783.2)
	Streambed Alteration Agreement (California Fish and Game Code Section 1602)
California Coastal Commission	Coastal Development Permit (Public Resources Code 30000 et seq.)
California Department of Public Health	Permit to Operate a Public Water System (California Health and Safety Code Section 116525)
	Approval for Recharge of Highly Treated Water
California Department of Transportation	Encroachment Permit (Streets and Highway Code Section 660)
California State Historic Preservation Officer	Section 106 Consultation, National Historic Preservation Act (16 USC 470)
California State University Monterey Bay	Right of Way Agreements and/or Easements
Regional/Local Agencies	
City of Salinas	Electricity Power Purchase Agreement
Cities of Seaside and Marina, Sand City, Salinas (potential)	Use Permits, encroachment/easement permits, grading permits and erosion control permits may be required pursuant to local city/County codes.
Fort Ord Reuse Authority	Coordination with FORA for Right of Entry
Monterey Bay Unified Air Pollution Control District	Authority To Construct (Local district rules, per Health and Safety Code 42300 et seq.) and Permit To Operate (Local district rules)
Monterey County Health Department, Environmental Health Division	Well Construction Permit (MCC, Title 15 Chapter 15.08, Water Wells)
	Hazardous Materials Business Plan (Health and Safety Code Chapter 6.95)
	Hazardous Materials Inventory (Health and Safety Code Chapter 6.95)
	Review of Discharges/WDR modifications
	Variation on Monterey County Noise Ordinance (MCC 10.60.030)
Monterey County Public Works Department	Encroachment Permit (Monterey County Code (MCC) Title 14 Chapter 14.040)
Monterey County Resource Management Agency	Use Permit (MCC Chapter 21.72 Title 21) may be required pursuant to County codes.
	Coastal Development Permit. (Public Resources Code 30000 et seq.)
	Grading Permit (M.C.C., Grading and Erosion Control Ordinance, Chapter 16.08 – 16.12)
	Erosion Control Permit (MCC, Grading and Erosion Control Ordinance, Chapter 16.08 – 16.12)
Monterey County Water Resource Agency	Coordination/agreements for components within MCWRA-controlled waterways and involving the Castroville Seawater Intrusion Project and Salinas Valley Reclamation Project
Monterey Peninsula Water Management District	Water System Expansion Permit (Monterey Peninsula Water Management District Board of Directors Ordinance 96)
Monterey Reg. Waste Management District	Electric Power Purchase Agreement
Seaside Basin Watermaster	Permit for Injection/Extraction
Transportation Agency of Monterey County	Easement
Water Agencies (other)	Participation/purchase agreements
Private Entities	
Landowners	Land lease/sale; easements and encroachment agreements
California American Water Company	Water purchase agreement with Monterey Peninsula Water Management District
PG&E	Electric Power Will-Serve Letter/Purchase Agreement

Environmental Effects to be Analyzed

The GWR Project EIR will evaluate potential environmental effects associated with construction, operation, and maintenance activities. The EIR will assess the following issues of potential environmental effect:

Aesthetic Resources: Project facilities would be sited in potentially scenic and open space areas; however most facilities would be underground or located on existing water and wastewater facility sites. Those facilities that are not located on existing water and wastewater facility sites would be designed to visually blend into the environment through use of vegetative screening and/or appropriate paint colors. The EIR will evaluate visual/aesthetic impacts related to the GWR Project's above-ground facilities.

Air Quality and Greenhouse Gas Emissions: The EIR will evaluate construction- and operation-related emissions of criteria air pollutants. The GWR Project will be evaluated in accordance with all applicable federal, state, and regional rules and guidelines. Potential human health risks at nearby sensitive receptors from emissions of diesel particulate matter and toxic air contaminants during construction and operations will be addressed. The EIR will also address greenhouse gas (GHG) emissions during construction and operations, and describe any potential conflict the GWR Project may have with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG.

Biological Resources: The EIR will evaluate potential impacts on terrestrial special-status animal and plant species, sensitive habitats, mature native trees, and migratory birds believed to occur in the GWR Project area. The GWR Project may result in changes to the quantity and quality of the treatment plant effluent discharged through the existing MRWPCA outfall to Monterey Bay; therefore, potential effects on marine resources will be evaluated. The EIR will include a summary of the federal Endangered Species Act Section 7 compliance activities and will recommend feasible mitigation measures to reduce significant impacts on biological resources.

Cultural Resources: The EIR will review cultural resource records and evaluate potential impacts on historic, archaeological, and paleontological resources, and human remains in the Project area. The EIR will include a summary of the National Historic Preservation Act Section 106 compliance activities. Standard mitigation measures to protect cultural resources will be included in the EIR.

Geology and Soils: Construction and operation will occur in a seismically active region. As such, the proposed GWR Project structures could be subject to potential seismic and geologic hazards. The EIR will identify potential seismic, liquefaction, landslide, soil erosion, and expansive soil impacts expected to result from development of the proposed GWR Project. Standard building requirements would be included to protect buildings and structures from seismic risks.

Hazards and Hazardous Materials: The EIR will summarize documented soil and groundwater contamination in the Project area, and evaluate the potential for hazardous materials to be encountered during construction. The analysis will also consider the proper handling, storage, and use of hazardous chemicals that may be used during construction and operation. Existing hazardous materials regulatory requirements would be followed to protect workers and the public from exposure to hazardous materials. Airport safety hazards will also be addressed.

Hydrogeology and Groundwater Quality: Construction and operation of the Project could affect groundwater levels and quality in the Seaside, Carmel Valley, and Salinas Valley Groundwater Basins.

Through the use of groundwater modeling and hydrogeologic analyses, the EIR will evaluate changes in local groundwater quality, storage, and levels within the groundwater basins as a whole and their subbasins, as appropriate. Potential effects on the seawater/freshwater interface (i.e., seawater intrusion) will also be evaluated. The project would be designed to comply with California Department of Public Health and Regional Water Quality Control Board standards and requirements to protect public health and water quality.

Hydrology and Surface Water Quality: Construction and operation of the Project could affect surface water quality and hydrologic systems/processes in the construction areas. Potential impacts to be evaluated include alteration of drainage patterns and increase in stormwater flows due to increase in the amount of impervious surfaces, and degradation of surface water quality as a result of erosion and sedimentation, hazardous materials release during construction, and construction dewatering discharges. The project would be designed to comply with standard construction and operational requirements and permits under the National Pollutant Discharge Elimination System and Waste Discharge Requirements.

Land Use and Planning: Implementation of the proposed GWR Project includes construction and operation of new facilities and water supply infrastructure. The EIR will evaluate the proposed GWR Project for consistency with established plans, policies, and regulations, as well as compatibility with the existing and future land use patterns in the GWR Project area, including adjacent land uses. The proposed GWR Project's functional and physical compatibility with surrounding uses will also be analyzed. Because most conveyance facilities will be underground, and because the proposed treatment facilities would be located at the existing Regional Treatment Plant, significant effects on land use patterns are not anticipated.

Noise: The EIR will evaluate construction- and operation-related noise and vibration increases and associated effects on ambient noise levels, relative to applicable noise standards, and will address the potential for impacts to nearby sensitive land uses.

Population and Housing: Implementation of the proposed GWR Project would enhance the reliability of the water supply within the Monterey Peninsula area, but the project would provide replacement water rather than new water to serve growth. The EIR will describe the relationship of water supply to population growth in the area. The EIR will identify current population and employment projections and identify local planning jurisdictions with the authority to approve growth and mitigate secondary effects of growth.

Transportation and Traffic: The EIR will generally describe the types of construction activities that would generate temporary increases in traffic volumes along local and regional roadways. The installation of pipelines within or adjacent to road rights-of-way could result in temporary lane closures and traffic delays. The analysis will use information about construction activities (e.g., the numbers of trucks and workers) to the extent such information is available. The analysis will generally describe the types of traffic control plan measures that would be used to reduce impacts to vehicular traffic, traffic safety hazards, public transportation, and other alternative means of transportation.

Other Environmental Issues: Other environmental issues that will be evaluated in the EIR include the Project's potential impacts on public services and utilities, including the Project's beneficial effect on water supply reliability; water rights for project source water; effects on energy delivery systems due to fossil-fuel resource use; and effects on agricultural, mineral, and forest resources. The EIR also will evaluate potential growth-inducing impacts that could result from implementation of the Project. The EIR

will address whether the Project could result in impacts that would be significant when combined with the impacts of other past, present and reasonably foreseeable future projects (i.e., cumulative impacts).

Alternatives: California Environmental Quality Act requires that an EIR evaluate a reasonable range of feasible alternatives to the project, or to the location of the project, that would attain most of the basic project objectives but that could avoid or substantially lessen any of the significant effects of the project. The EIR will identify the potentially significant impacts of the proposed Project. The findings of the EIR impact analysis will guide the refinement of an appropriate range of feasible alternatives to be evaluated in the EIR that would avoid or substantially lessen significant impacts, while still meeting the project objectives. MRWPCA is seeking comments from agencies, stakeholders and the public regarding feasible alternatives for evaluation in the EIR. The EIR will include, at a minimum, a discussion of impacts associated with the No Project Alternative.

Environmental Review Process

The MRWPCA has determined that the GWR Project may have a significant effect on the environment and an EIR is required. The MRWPCA is the Lead Agency for California Environmental Quality Act purposes. The MRWPCA anticipates seeking State Revolving Fund funding from the California State Water Resources Control Board. Therefore, the requirements of California Environmental Quality Act-Plus will be met and the analysis in the EIR will be conducted in compliance with those requirements. Currently, the potential for federal funding or permitting for the project is unknown; however, if a federal agency must issue a discretionary permit for the GWR project or approve some component of the project such as funding, compliance with the National Environmental Policy Act may be necessary.

The first step in the environmental review process is the formal public scoping process, for which this NOP has been prepared. Following the public scoping period, the Draft EIR will be prepared and circulated for a 45-day public review period. Public comments on the Draft EIR will be accepted in writing during the review period or verbally at a formal public meeting to be held by the MRWPCA. The MRWPCA will then prepare written responses to the comments on environmental issues raised during the public review period, and a Response to Comments document will be prepared. That document will be considered by the MRWPCA, along with the Draft EIR and any revisions to the draft based on responses to comments, for certification as the Final EIR.

Scoping and Public Meeting

The California Environmental Quality Act mandates that a scoping meeting be held for projects of statewide, regional or area-wide significance. To ensure that the public and regulatory agencies have an opportunity to ask questions and submit comments on the scope and content of the EIR, a scoping meeting will be held during the NOP review period. The location and date of the scoping meeting is:

Date: Tuesday, June 18, 2013

Time: 6:00-8:00 PM

Location: Oldemeyer Center, Dance Room (986 Hilby Avenue, Seaside, CA 93955)

The scoping meeting will start with a brief presentation providing an overview of the proposed GWR Project. Following the presentation, interested parties will be provided an opportunity to interact with MRWPCA staff and its technical consultants. Participants are encouraged to submit written comments; comment forms will be supplied at the scoping meeting. Written comments may also be submitted anytime during the NOP scoping period to the mailing address, fax number, or email address listed below.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice. The scoping comment period will close at **5:00 PM** on **Tuesday, July 2, 2013.** Please include a name, address, email address, and telephone number of a contact person in your agency for all future correspondence on this subject. **Please send your comments to:**

Monterey Regional Water Pollution Control Agency
ATTN: Bob Holden
5 Harris Court, Bldg D
Monterey, CA 93940

Phone: (831) 372-3367 or (831) 422-1001
Fax: (831) 372-6178
E-mail: GWR@mrwpca.com

This Notice of Preparation is available electronically at the MRWPCA website:

www.mrwpca.org.

APPENDIX B

DISTRIBUTION LISTS FOR THE NOTICE OF PREPARATION

MAY 30, 2013

Monterey Peninsula Groundwater Replenishment Project
NOP Distribution by Category (May 30, 2013)*
***Notice sent to one or more individuals at each group/institution listed below.**

Academic/Education

- California State University Monterey Bay: Division of Science & Environment Policy
- Carmel Unified School District
- Center for Ocean Solutions
- CSUMB
- Marine Pollution Studies Lab - UC Davis
- Monterey Bay Aquarium Research Institute
- Monterey Peninsula Unified School District
- Monterey School Board
- Moss Landing Marine Laboratories
- Stanford University- Hopkins Marine Station
- UC Berkeley Hastings Reserve
- UCMBEST
- Watershed Institute at CSUMB
- York School

City

- City of Carmel-by-the-Sea
- City of Del Rey Oaks
- City of Greenfield
- City of Marina
- City of Monterey
- City of Monterey/MPRWA
- City of Pacific Grove
- City of Salinas
- City of Seaside and Seaside County Sanitation District
- City of Soledad
- City of Gonzales
- King City
- Monterey Peninsula Chamber of Commerce

CPUC EIR Team

- CPUC
- ESA
- Sedgwick, LLP

DAC/Social equity

- California Rural Legal Assistance League
- Center for Community Advocacy
- CHISPA (Community Housing Improvement Systems and Planning Association)
- Environmental Justice Coalition for Water
- Ford Ord Environmental Justice Network
- Foundation for Housing Assistance of Monterey County
- LEAGUE OF UNITED LATIN AMERICAN CITIZENS
- Military and Veterans Affairs
- Monterey County Department of Health Services
- Monterey County Housing Authority
- Monterey County Social Services Department
- Monterey County Welfare Department
- Monterey Senior Center
- National Association for the Advancement of Colored People
- Oldemeyer Senior Center
- Rural Communities Assistance Corporation

- Seaside Family Health Center
- Shelter Outreach Plus/ I Help Program

Federal

- Department of Interior, Bureau of Reclamation
- Monterey Bay National Marine Sanctuary
- National Oceanic and Atmospheric Administration Fisheries
- U.S. Army
- U.S. Army Corps of Engineers
- U.S. Army Corps of Engineers - BRAC office
- U.S. Army, DPW
- U.S. Army, Master Plans
- U.S. Department of Interior, Bureau of Reclamation
- U.S. Department of Agriculture Natural Resources Conservation Service
- U.S. Fish and Wildlife Coastal Program
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- U.S. Geological Survey
- U.S. Navy

GMC IRWM

- Individual
- Monterey County

GWR Consultant Team

- Archaeological Consulting
- Brezack & Associates
- Denise Duffy & Associates, Inc.
- GHD
- Illingworth & Rodkin
- Independent Consultant
- Monterey Regional Water Pollution Control Agency
- Nellor Environmental Associates
- Perkins Coie
- SPI
- Todd Engineers
- Trussel Technologies
- Valerie Young Consultants

Library

- Carmel Harrison Library
- Carmel Valley Public Library
- Castroville Public Library
- CSUMB Library
- Marina Library
- Monterey Library
- Monterey Peninsula College Library
- Pacific Grove Library
- Salinas Public Libraries
- Seaside Library

Native American

Press/Media

- Cedar Street Times
- Coast Weekly
- Monterey Herald
- Salinas Californian

Private Company/Individual

Regional/County/Special District

Agriculture Water Quality Alliance
Association of Monterey Bay Area Governments
Carmel Area Wastewater District
County Clerk
County of Monterey and Clerk's Office
Fort Ord Reuse Authority
Marina Coast Water District
Marina Coast Water District
Monterey Peninsula Water Management District
Monterery Peninsula Water Management District
Monterey Bay Unified Air Pollution Control District
Monterey County
Monterey County Ag Commissioner's Office
Monterey County Environmental Health
Monterey County Farm Bureau
Monterey County Health Dept., Division of Environmental Health
Monterey County Local Agency Formation Commission
Monterey County Office of Emergency Services
Monterey County Public Works
Monterey County Public Works
Monterey County Public Works/Monterey County Service Area 50
Monterey County Resource Conservation District
Monterey County Resource Management Agency
Monterey County Water Resources Agency
Monterey Peninsula Airport District
Monterey Peninsula Regional Park District
Monterey Peninsula Water Management District
Monterey Regional Waste Management District
Moss Landing Harbor District
Pebble Beach Community- Service District
Pebble Beach Community Service District (also, PGUSD)
Santa Lucia Preserve
Seaside Basin Watermaster
Transportation Agency for Monterey County

State

California Coastal Commission
California Coastal Commission
California Coastal Conservancy
California Department of Fish & Game: Fisheries
California Department of Fish and Game
California Department of Fish and Wildlife
California Department of Parks and Recreation
California Department of Public Health
California Department of Public Health: Drinking Water
California Department of Transportation
California Department of Water Resources
California State University Monterey Bay
California State Water Resources Control Board
California State Water Resources Control Board: Division of Water Rights
Central Coast Regional Water Quality Control Board

Surrounding Counties

Fresno County Clerk
San Benito County, Office of the County Clerk
San Luis Obispo County

San Luis Obispo County, Department of Planning and Building
Santa Cruz County

Monterey Peninsula Regional Water District List

Monterey Peninsula Water Management District List

Non-Governmental Organizations

Ag Land Trust
Big Sur Land Trust
Bike Racing—CCCX Cycling
California Native Plant Society, Monterey Chapter
Carmel River Watershed Conservancy
Carmel Valley Association
Central Coast Agricultural Water Quality Coalition
Central Coast Water Quality Preservation, Inc
Central Coast Wetlands Group
Citizen
Citizen Watershed Monitoring Network
Citizens for Public Water
Citizens for Responsible Growth
Coastal Watershed Council
Conserve Collaborate
Del Monte Forest Foundation
Del Monte Forest Property Owners
Ecology Action
Elkhorn Slough Foundation
FORT Friends (Fort Ord Recreation Trails Friends)
Fort Ord Recreation Users
Friends of Fort Ord Warhorse
Friends of the River
Greater Monterey County IRWMP
Keep Fort Ord Wild
LandWatch Monterey County
League of Women Voters of the Monterey Peninsula
Marina Equestrian Center
Monterey Bay Citizen Watershed Monitoring Network
Monterey Bay Conservancy
Monterey Bay Youth Camp
Monterey Coastkeeper/The Otter Project
Monterey County Hispanic Chamber of Commerce
Monterey County Hospitality Association
Monterey County Vintner & Grower Association (MCVGA)
Monterey Search and Rescue Dogs, Inc.
MORCA (Monterey Off-Road Cycling Association, a Chapter of IMBA)
NAACP, Monterey County
Planning and Conservation League
Policy Link
Salinas River Channel Coalition
Sand City
Santa Lucia Conservancy
Save Our Shores
Save The Whales
Sierra Club
Step Up 2 Green / Sustainability Academy
Surfrider Foundation
Sustainable Marina (residents group)

Sustainable Seaside (residents group)
The Nature Conservancy
The Otter Project
Trout Unlimited
U.S. Green Building Council
Ventana Wilderness Alliance
Ventana Wildlife Society
Political Entity
Private Individual Companies
Grand Total

Monterey Peninsula Groundwater Replenishment Project NOP
Certified Mail Receipts
Delivered by June 1, 2013 – June 4, 2013

California Department of Transportation
California State University Monterey Bay Library
Carmel Harrison Library
Carmel Valley Public Library
Castroville Public Library
Community Housing Improvement Systems and Planning Association, Inc.
Foundation for Housing Assistance of Monterey County
Marina Library
Mayor Fred Ledesma, Soledad
Mayor Joe Gunter, Salinas
Mayor John Huerta Jr., Greenfield
Mayor Robert Cullen, King City
Monterey County Clerk
Monterey County Department of Health Services
Monterey County Housing Authority
Monterey County Military and Veterans Affairs
Monterey County Social Services Department
Monterey County Welfare Department
Monterey Library
Monterey Peninsula College Library
Monterey Senior Center
Monterey, City of
Oldemeyer Senior Center
Pacific Gas & Electric Local Office
Pacific Gas & Electric Service Planning Office
Pacific Grove Library
Salinas Public Libraries
Sand City, City of
Seaside Family Health Center
Seaside Library
Seaside, City of
Shelter Outreach Plus/I Help Program

APPENDIX C-1

GWR PUBLIC SCOPING MEETING - PRESENTATION

JUNE 18, 2013

Monterey Peninsula Groundwater Replenishment (GWR) Project

Environmental Impact Report Scoping Meeting

Tuesday, June 18, 2013

Oldemeyer Center, Seaside

6:00 - 8:00 PM

Agenda

1) Introductions
2) Overview of Groundwater Replenishment Project
3) Overview of CEQA / Scoping Requirements
4) EIR Environmental Issues / Topics
5) Agency and Public Comments

GWR CEQA & Technical Teams

Lead Agency

Monterey Regional Water Pollution Control Agency

Project Partner Agency

Monterey Peninsula Water Management District

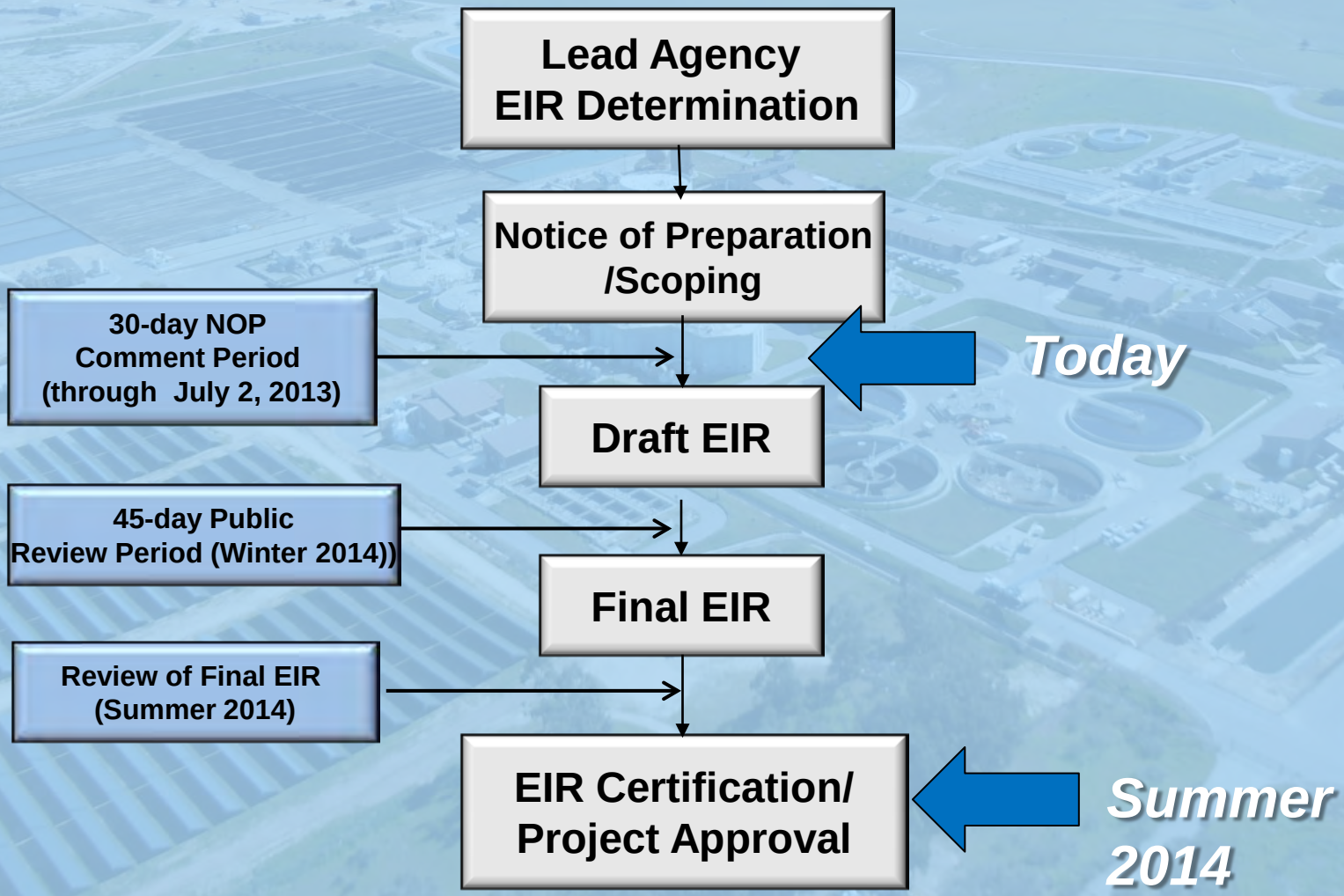
CEQA Consultants

Denise Duffy & Associates, Inc. (EIR consultants)
Valerie Young, AICP (CEQA Oversight)
Perkins Coie LLP (CEQA Attorney)

Technical Consultants

Treatment design and technology, hydrogeology/groundwater, regulatory specialists, funding and feasibility studies, civil engineering, noise, air quality, cultural resources, public health, biologists, hydrologists, wetland scientists

GWR CEQA Process



GWR Overview

To produce and deliver 3,500 AFY high quality treated water for replenishment of the Seaside Basin to reduce Cal-Am diversions from the Carmel River alluvial aquifer.

Facilities would include:

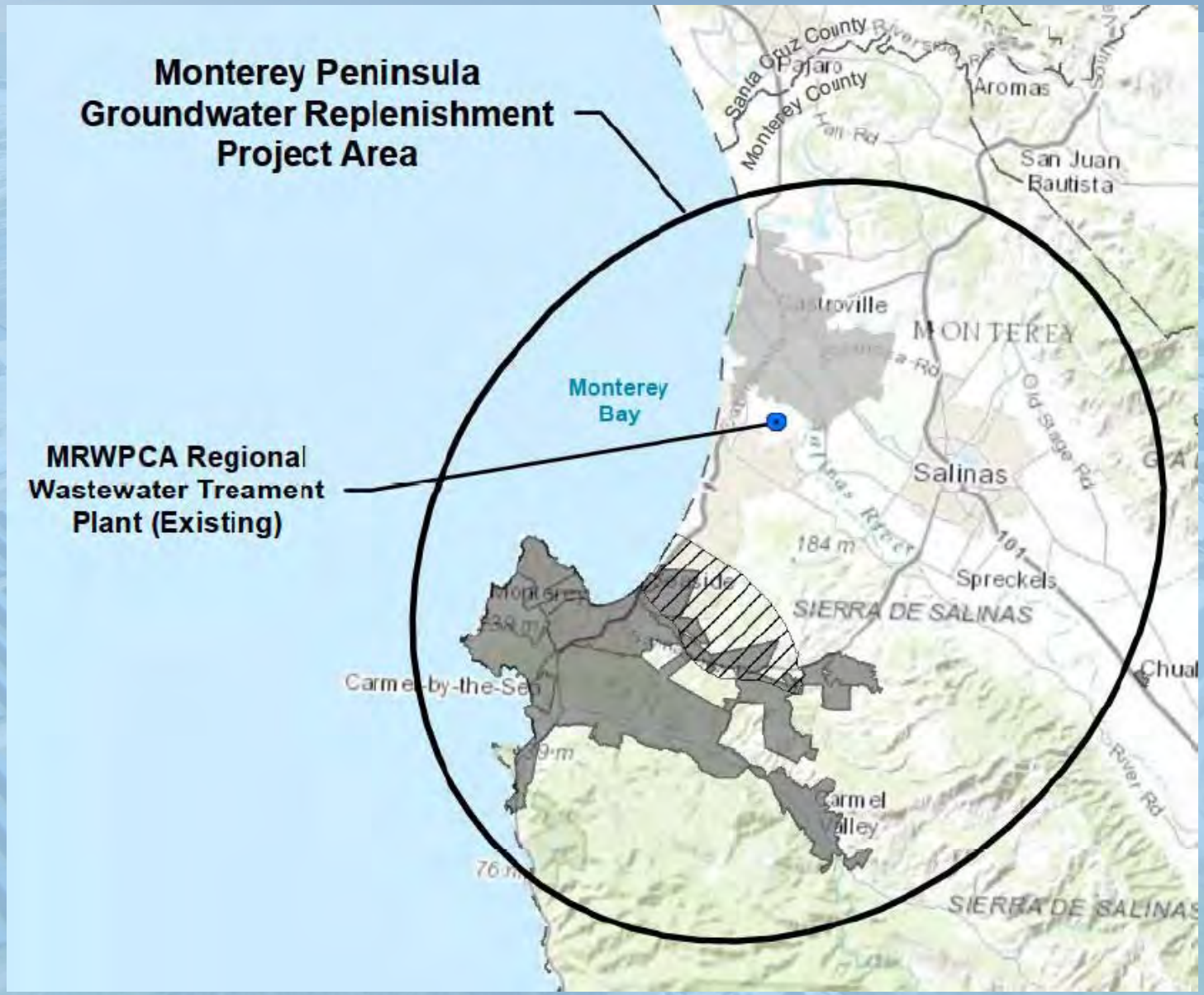
- Source Water Conveyance Facilities
- Treatment Facilities
- Product Water Conveyance Facilities
- Replenishment/Recharge Facilities

About MRWPCA

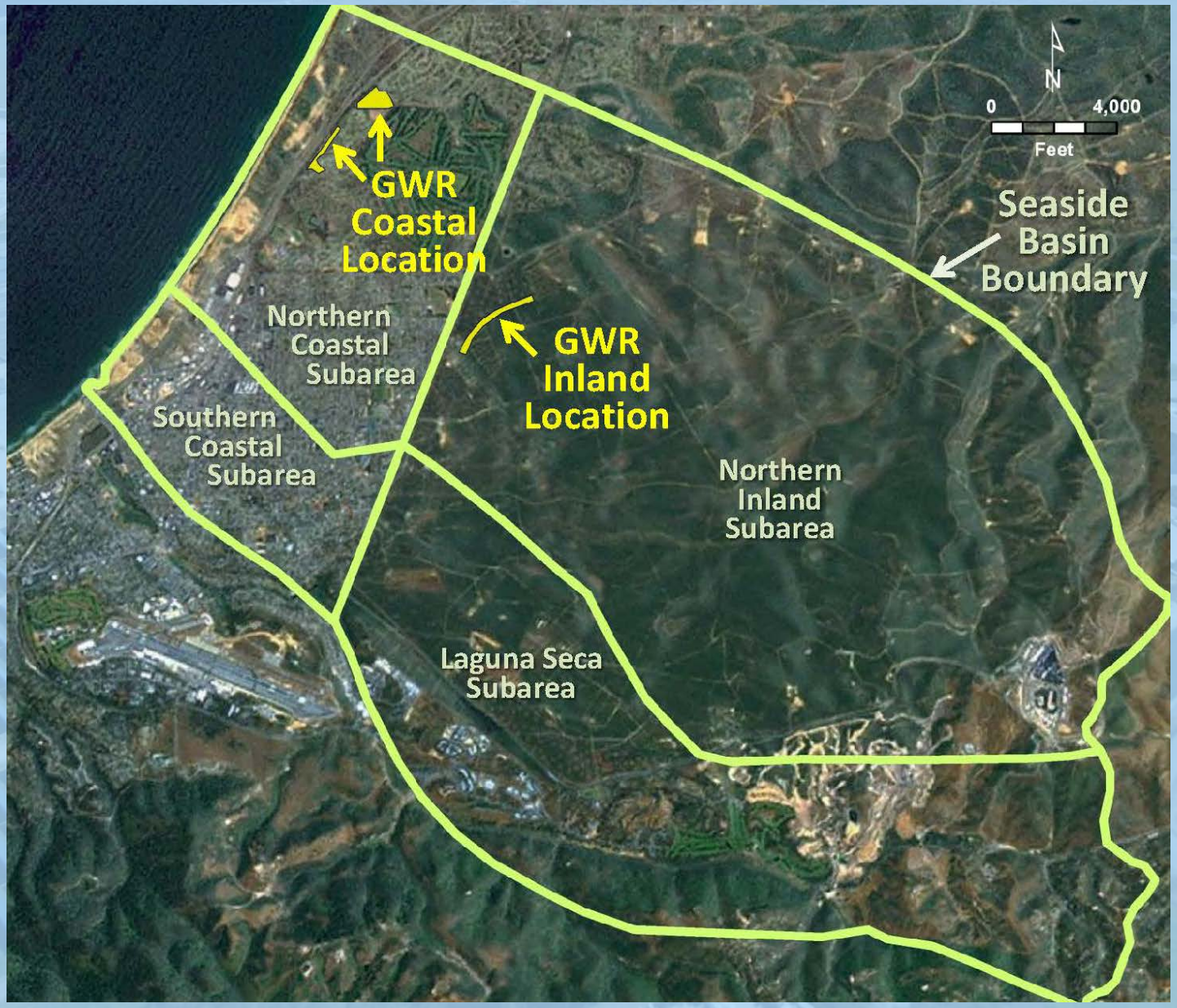
- Operates the regional wastewater treatment plant
- Maintains 25 wastewater pump stations
- Manages the water recycling facility
- Operates the distribution system that provides irrigation water to 12,000 acres of farmland.

The agency serves Del Rey Oaks, Monterey, Pacific Grove, Salinas, Sand City, Seaside, Boronda, Castroville, Moss Landing, Fort Ord, Monterey County, and Marina.

Project Location Overview



Seaside Groundwater Basin



State and Judicial Orders Reduce Cal-Am Water Supply

- State Water Resources Control Board Order No. WR 95-10 found Cal-Am was diverting more Carmel River water than allowed.
- Cease and Desist Order (CDO) follows that requires new water supply by the end of 2016.
- Seaside Basin Adjudication in 2006 found basin overdraft may result in seawater intrusion; requires reduction in pumping.

GWR Relationship to Monterey Peninsula Water Supply Project

- Can provide part of the replacement water needed for Cal-Am for CDO and Adjudication.
- Primary goal is to produce 3,500 AFY to reduce Cal-Am's Carmel River diversions.
- Independent project; can be implemented with or without Monterey Peninsula Water Supply Project, but if built reduces the size of the desalination plant needed.

Primary Project Objectives

Replenish the Seaside Basin with 3,500 AFY of high quality water that would replace a portion of Cal-Am's water supply by meeting the following objectives:

- Commence operation, or be substantially complete, by end of 2016 or, if after 2016, no later than necessary to meet Cal-Am's replacement water needs;
- Be cost-effective and capable of supplying reasonably-priced water; and
- Comply with applicable water quality regulations intended to protect public health.

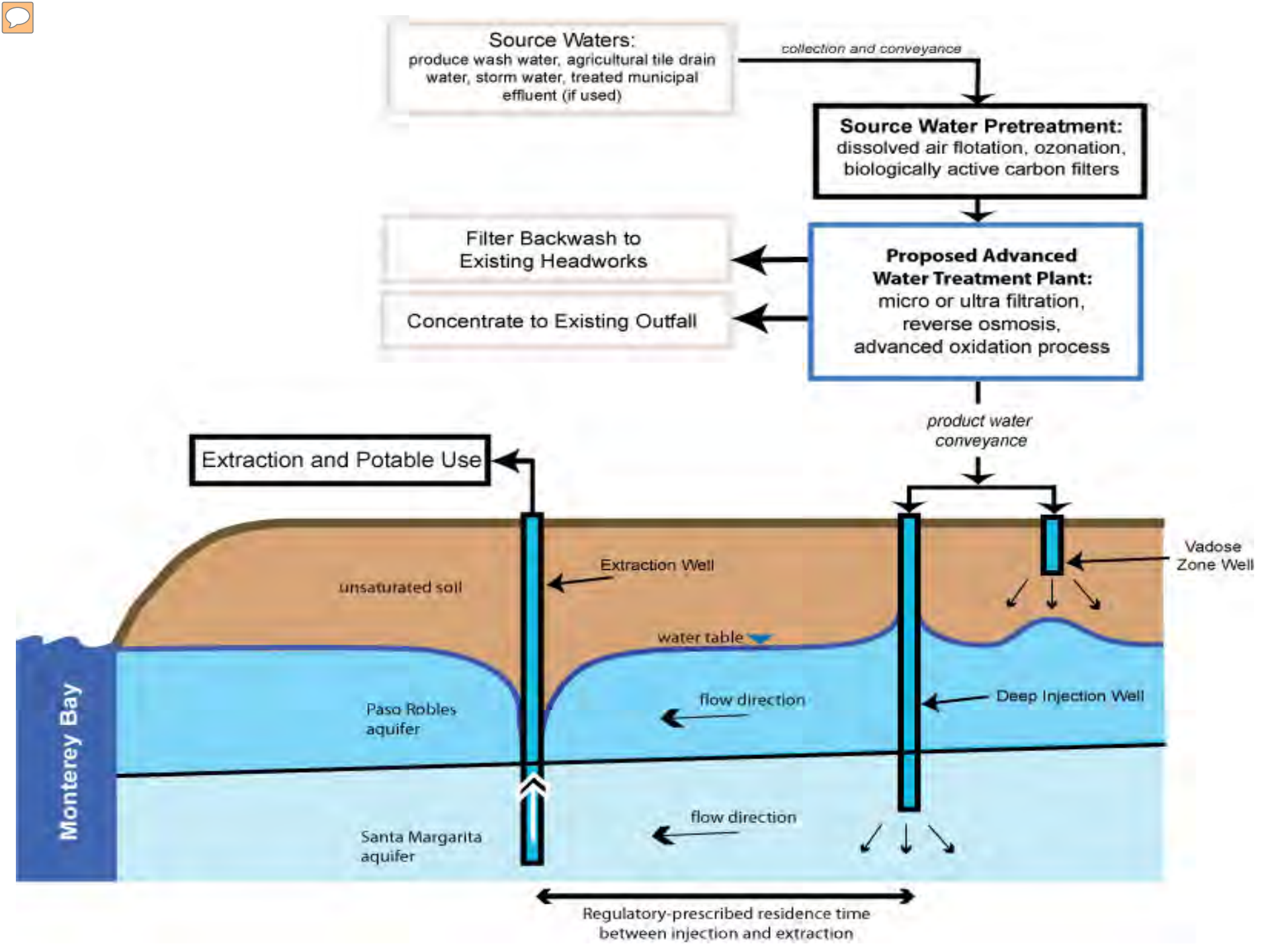
Secondary Project Objectives

- Assist in preventing seawater intrusion in Seaside Basin;
- Diversify region's water supply portfolio; and
- Provide additional water for crop irrigation through the Salinas Valley Reclamation Project and Castroville Seawater Intrusion Project system.

Overview of GWR Facilities

- **Source Water Conveyance Facilities:** pipelines/pump stations to convey source water to treatment facilities,
- **Treatment Facilities:** pretreatment facilities, a new Advanced Water Treatment Plant at the existing WWTP,
- **Product Water Conveyance Facilities:** to convey water to the Seaside Basin, and
- **Replenishment/Recharge Facilities:** pipelines, deep and shallow (vadose zone) injection wells, and backflush facilities at coast and/or inland within Seaside Basin.


Existing Ocean Outfall Facilities (Approximate Location)
Option "2" Alternate Route
Existing Regional Treatment Plant
Proposed GWR Project Treatment Facilities
Proposed Blanco Drain Pump Station
Reclamation Ditch
Cooper Rd
183
Monterey Bay
1
Option "1"
Option "2"
Option "A"
Blanco Drain
W. Market St
Proposed Reclamation Ditch Pump Station
Blanco Rd
Option "B"
Salinas River
Davis Rd
Salinas
Marina
Imjin Pky
Reservation Rd
Existing Salinas Pump Stations
2nd Ave
Proposed Storm Water Collection Pipe
Existing City of Salinas Treatment Plant\Ponds
Coastal Recharge Facilities
Monterey Rd
General Jim Moore Blvd
Existing Salinas Storm Water Outfall
Inland Recharge Facilities
Sand City
Del Monte Rd
Fremont Blvd
Seaside
68


Source Waters:
produce wash water, agricultural tile drain water, storm water, treated municipal effluent (if used)
collection and conveyance
Source Water Pretreatment:
dissolved air flotation, ozonation, biologically active carbon filters
Filter Backwash to Existing Headworks
Concentrate to Existing Outfall
Proposed Advanced Water Treatment Plant:
micro or ultra filtration, reverse osmosis, advanced oxidation process
product water conveyance
Extraction and Potable Use
Extraction Well
Vadose Zone Well
unsaturated soil
water table
Monterey Bay
Paso Robles aquifer
flow direction
Deep Injection Well
Santa Margarita aquifer
flow direction
Regulatory-prescribed residence time between injection and extraction

Source Water Collection

A combination of the following will be processed by the Advanced Water Treatment Plant:

- City of Salinas Treatment Plant water
- Blanco Drain water
- Storm water collection systems of the City of Salinas and other MRWPCA member entities
- Reclamation Ditch water
- Secondary or tertiary effluent from the Regional Treatment Plant

Source Water Collection

Salinas Treatment Plant Ponds

Blanco Drain

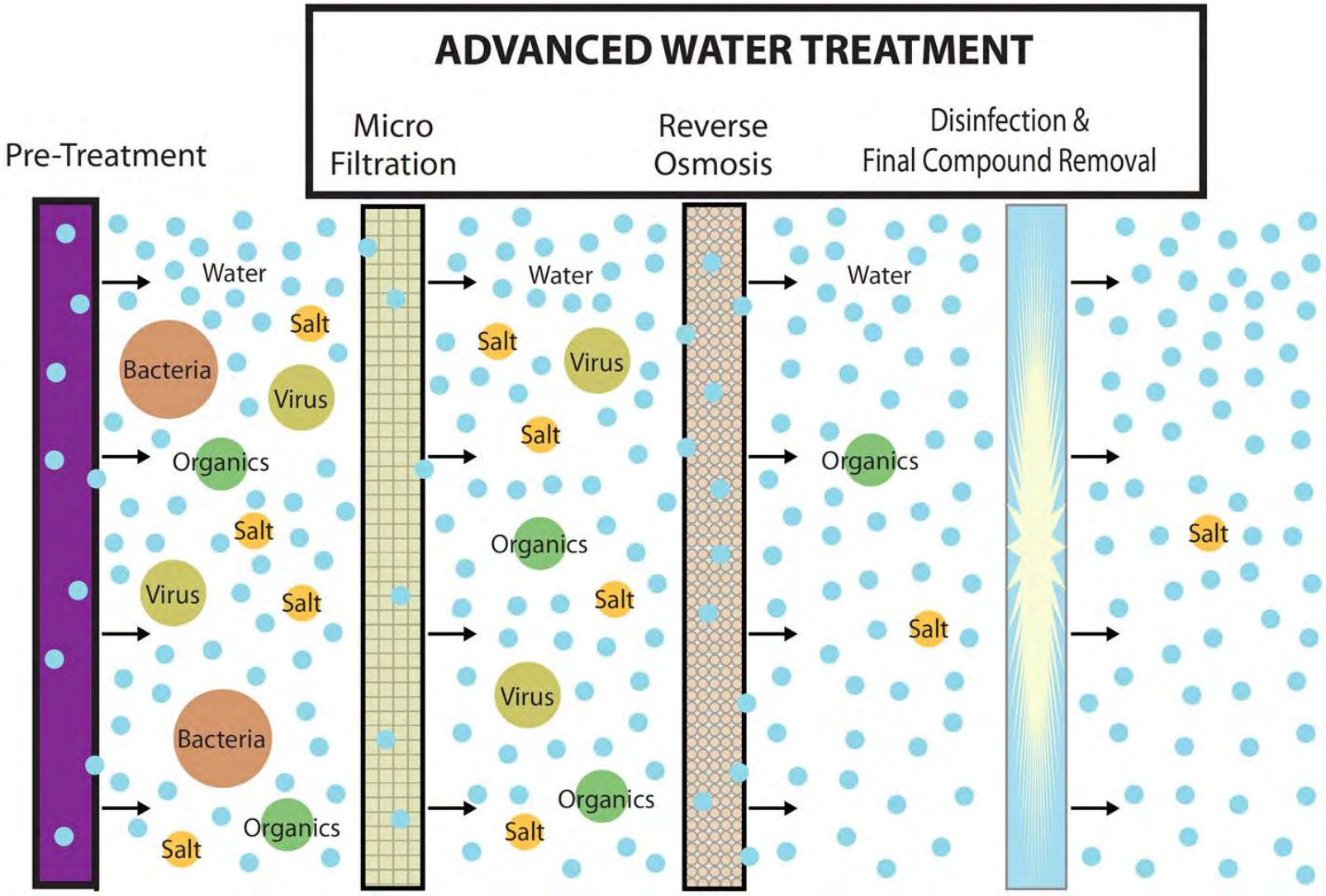
Salinas Storm Water Outfall

Salinas Pump Station

Reclamation Ditch

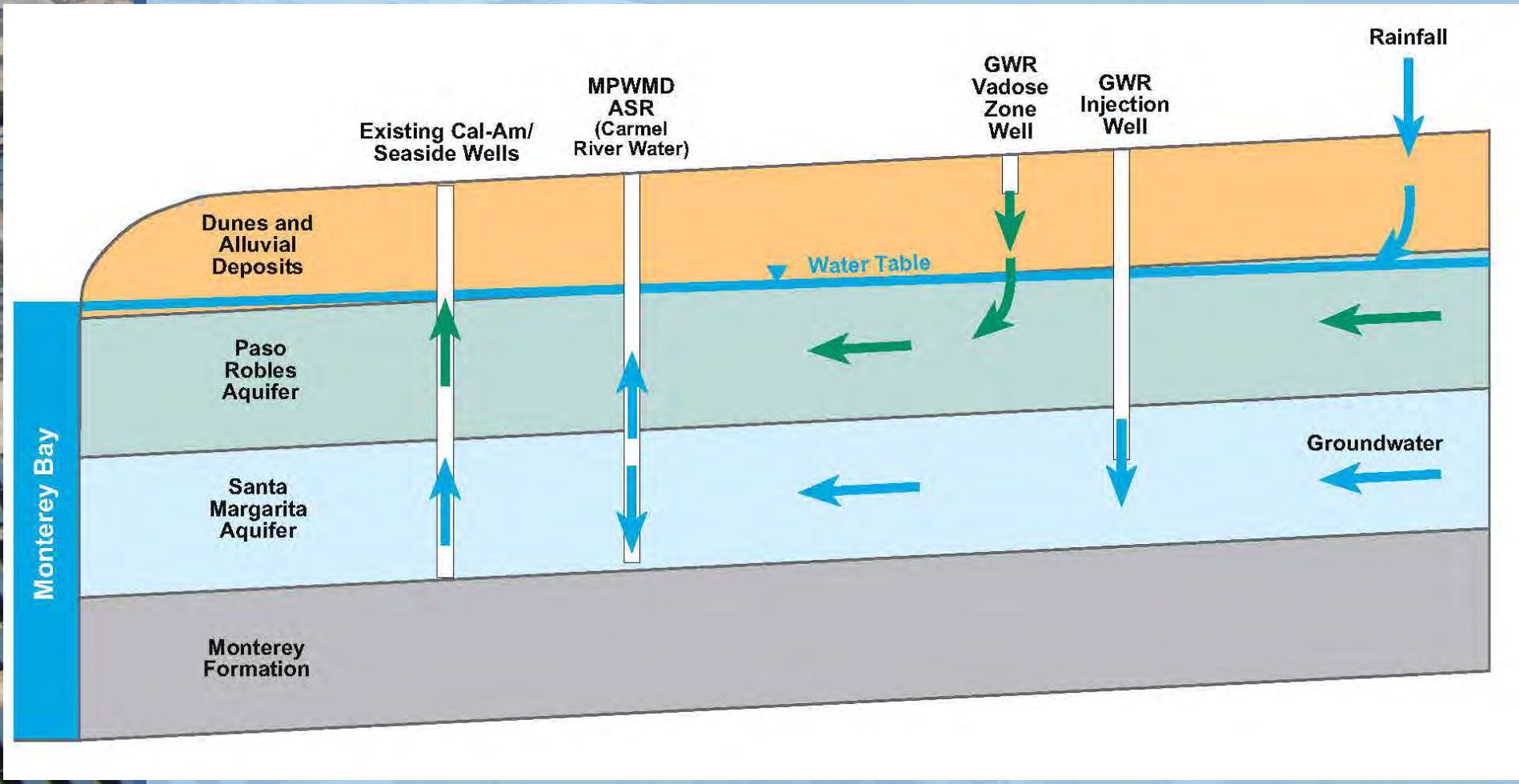
GWR Treatment Plant Site

Proposed Water Purification Process



Product Water Conveyance

GWR Recharge Concept Schematic



California Environmental Quality Act Purpose

CEQA Guidelines §15002(a)

- Inform decision-making
- Prevent significant damage to environment
- Public disclosure

Environmental Impact Report Purpose

CEQA Guidelines §15121

- Disclose the environmental effects of a proposed project
- Identify mitigation measures to avoid, reduce, minimize significant environmental effects
- Evaluate reasonable alternatives

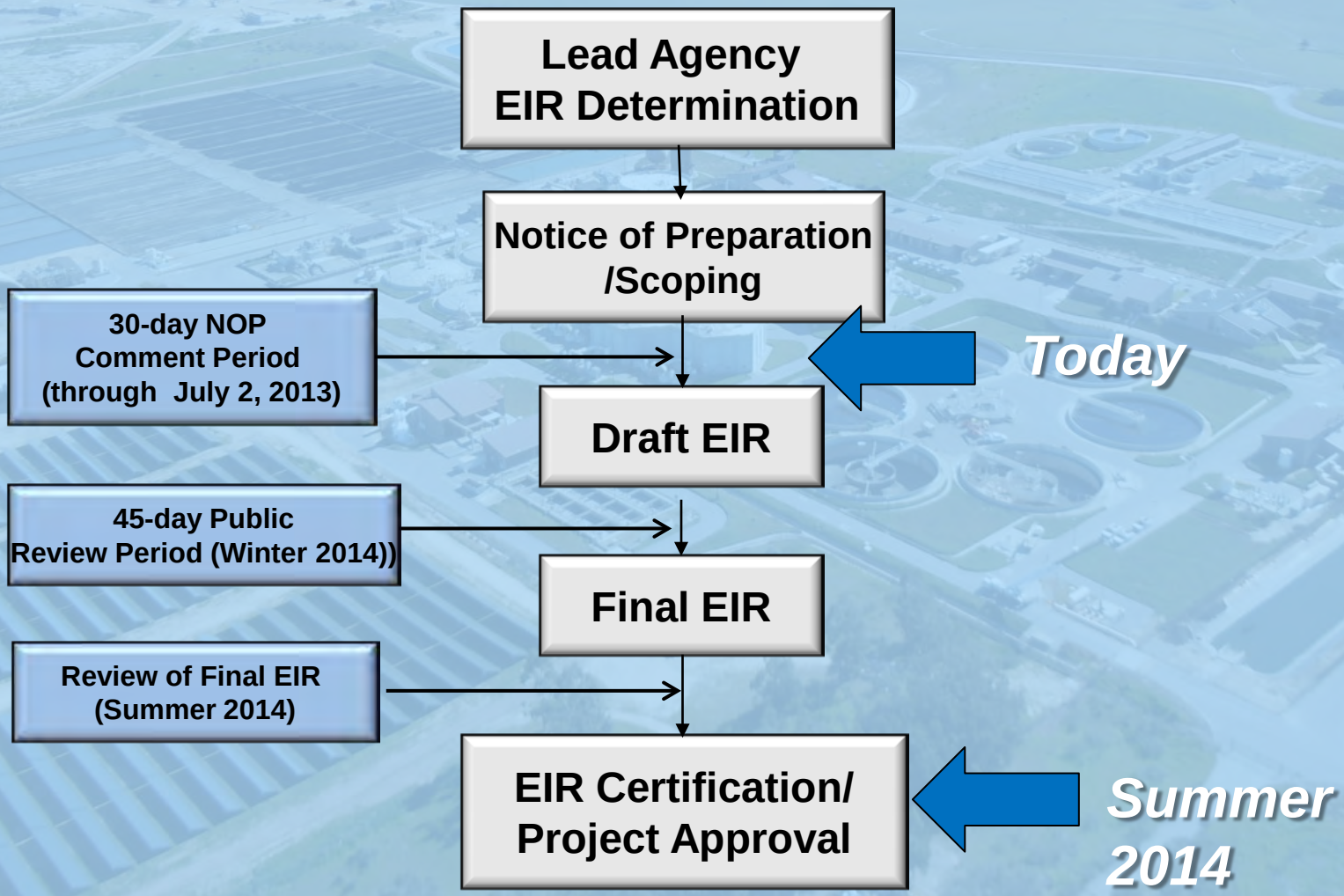
Key Topics in EIR

- Surface Water Hydrology/Quality
- Groundwater Hydrology/Quality
- Water Supply Quality/Public Health
- Construction vs. Operational Impacts
- Direct and Indirect Adverse Impacts
- Other CEQA-required issues

Purpose of Meeting: Define Scope/Content of EIR

- Verbal comments and comment cards accepted after presentation tonight
- Please follow-up with written comments today or through July 2nd at 5:00 PM.
- EIR scope /content may be modified per comments
- All comments to be assembled in scoping memo and addressed in EIR

GWR CEQA Process



For More Information

Monterey Peninsula Water Pollution Control Agency's Groundwater Replenishment Website:

http://www.mpwaterreplenishment.org/

HOME | Project Overview | Answers & Resources | News & Documents | Public Participation & Contacts

Monterey Peninsula Groundwater Replenishment Project

Providing A Safe And Sustainable Water Supply

Notice of Preparation

NOTICE OF PREPARATION: **Monterey Peninsula Groundwater Replenish… …ronmental Impact Report.** View or download the PDF

PUBLIC SCOPING MEETING: Tuesday, June 18, 2013, 6:00 to 8:00 p.m., Oldemeyer Center, Dance Room (986 Hilby Avenue, Seaside, CA 93955).

The 30-day public scoping period begins May 31, 2013, and closes Tuesday, July 2, 2013, at 5:00 p.m.

A Groundwater Replenishment Project to Help Address Critical Water Needs for the Region

In support of a sustainable, diverse water supply for the Monterey Peninsula, the Monterey Regional Water Pollution Control Agency (MRWPCA) has formed a partnership with American Water Company

Groundwater Replenishment Project Timeline

2013 **Begin CEQA and pilot test facilities.**

Comments on Scope of EIR

Please provide comments that focus on the scope and content of the EIR.

Comments Due: 5:00 pm on July 2, 2013

Ways to comment:

1. provide verbal comments tonight,
2. transmit tonight on comment cards, or
3. send to Bob Holden at:

gwr@mrwpca.com or
5 Harris Court, Bldg D
Monterey, CA 93940

Public Comments

APPENDIX C-2

GWR PUBLIC SCOPING MEETING - SIGN-IN SHEET

JUNE 18, 2013

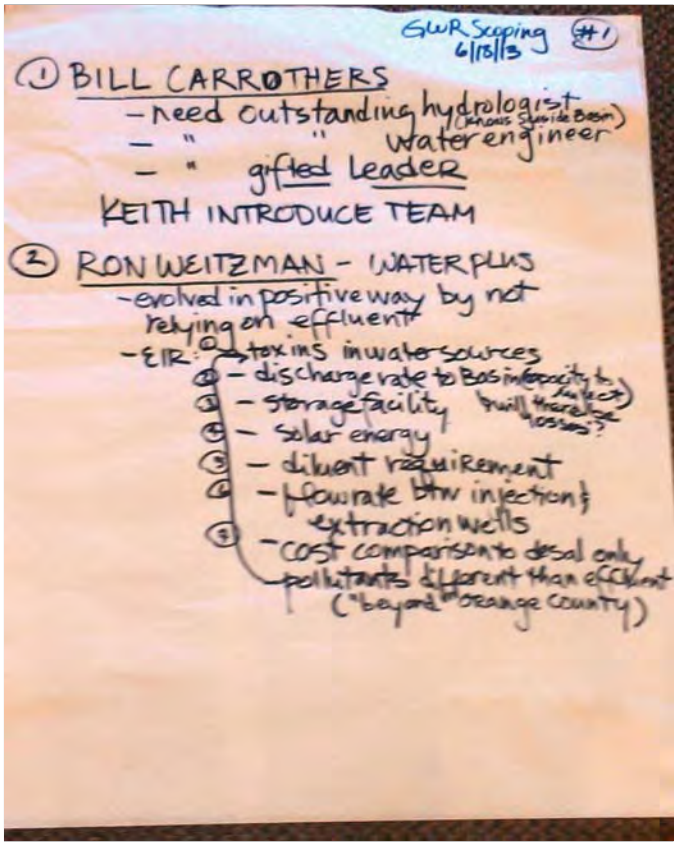
Attendee List for GWP Scoping Meeting on 6-18-13

Name	Company	E-mail
1. Roger Masuda	Marina Coast WD	rmasuda@calwaterlaw.com
2. Jim Cullem	MPRWA Executive Director	jcullem@harris-assoc.com
3. Bob Schubert	Monterey County Planning	schubert@co.monterey.ca.us
4. Eric Zigas	ESA	ezigas@esassoc.com
5. Ken Ekelund	MCWRA Board of Directors	kenekelund@redshift.com
6. George Riley	Citizens for Public Water	georgetriley@gmail.com
7. Robert Guidi	Department of Army	robert.g.guidi.civ@mail.mil
8. Joe Oliver	MPWMD	Joe@mpwmd.net
9. Helen Rucker	City of Salinas	hrucker@mpusd.k12.ca.us
10. Gary Pelear		
11. David Chardavoyne	MCWRA	chardavoyneDE@co.monterey.ca.us
12. Dave Pacheco	City of Seaside	dpacheco@ci.seaside.ca.us
13. Judi Lehman	MPWMD	jlehman@redshift.com
14. Robert Johnson	MCWRA	johnsonr@co.monterey.ca.us
15. Kenneth Mishi		
16. Terry Applebury	APT	
17. Peter Le		peter381@sbcglobal.net
18. Rudy Fischer	MRWPCA	rudyfischer@earthlink.net
19. Jonathan Lear	MPWMD	jlear@mpwmd.net
20. Kelly Nix	Carmel Pine Cone	kelly@carmelpinecone.com
21. Ron Weitzman	Water Plus	ronweitzman@redshift.com
22. Brain True	MCWD	btrue@mcwd.org
23. Bill Carrothers		cih5102@earthlink.net
24. Carmelita Garcia		
25. Keith Israel	MRWPCA	keith@mrwpca.com
26. Bob Holden	MRWPCA	bobh@mrwpca.com
27. Mike McCullough	MRWPCA	mikem@mrwpca.com
28. Chayito Ibarra	MRWPCA	chayito@mrwpca.com
29. Dave Stoldt	MPWMD	dstoldt@mpwmd.dst.ca.us
30. Denise Duffy	DD&A	dduffy@ddaplanning.com
31. Alison Imamura	DD&A	aimamura@ddalanning.com
32. Michael Gonzales	DD&A	mgonzales@ddaplanning.com
33. Rayanne Bethke	DD&A	rbethke@ddaplanning.com
34. Diana Buhler	DD&A	dbuhler@ddaplanning.com
35. Valerie Young		valerieyoung@rcn.com

APPENDIX C-3

GWR PUBLIC SCOPING MEETING – VERBAL COMMENTS OF FLIPCHARTS

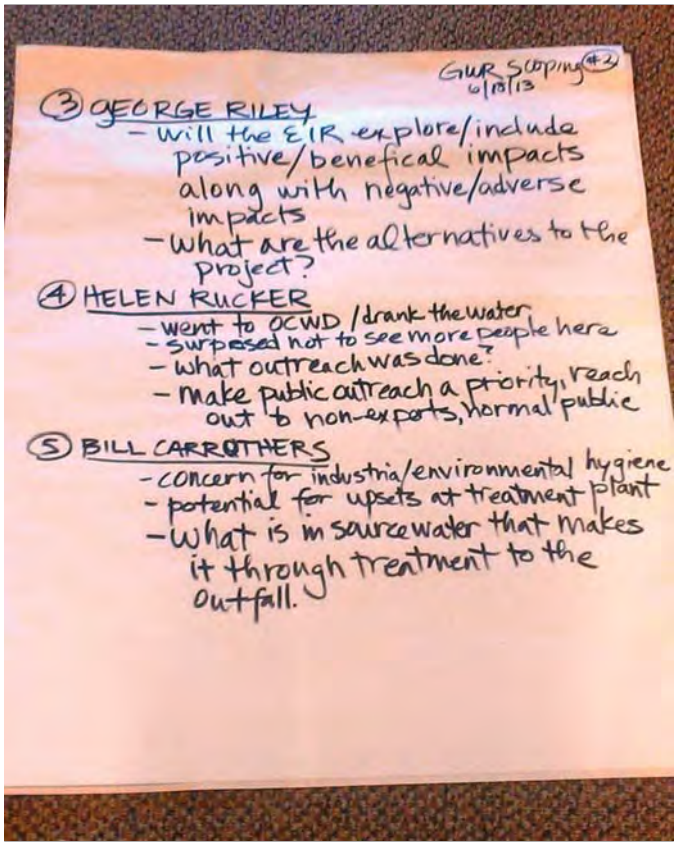
JUNE 18, 2013


GWR Scoping 6/18/13 #1

1. BILL CARROTHERS
   - need outstanding hydrologist (knows Stan's been)
   - " " water engineer
   - " gifted leader

KEITH INTRODUCE TEAM

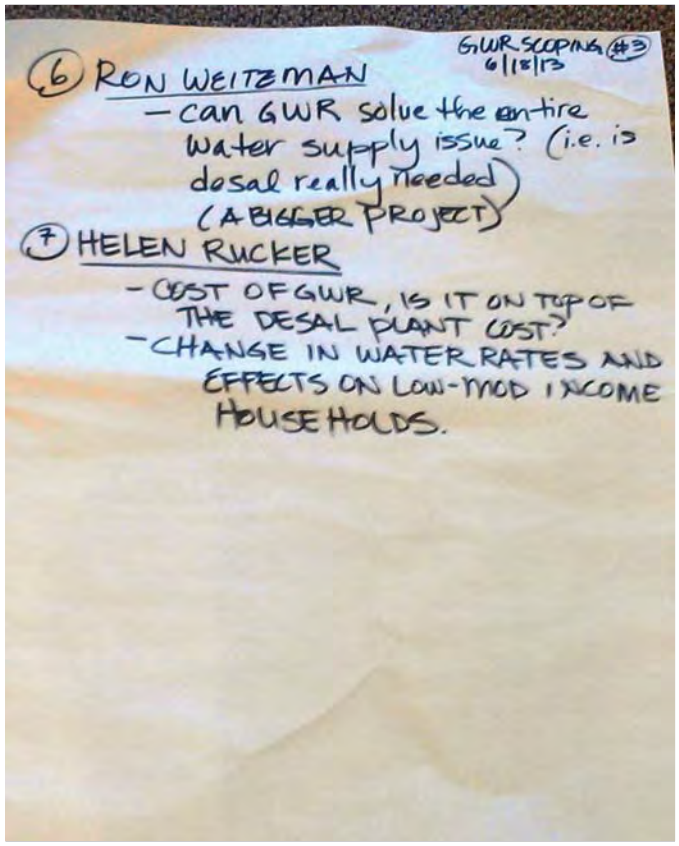
2. RON WEITZMAN - WATERPLUS
   - evolved in positive way by not relying on effluent
   - EIR:
     1. toxins in water sources
     2. discharge rate to Bas in capacity to (will there be losses?)
     3. storage facility
     4. solar energy
     5. diluent requirement
     6. flowrate btw injection & extraction wells
     7. cost comparison to desal only
     - pollutants different than effluent ("beyond" Orange County)


GWR Scoping 6/18/13 #2

3. GEORGE RILEY
   - Will the EIR explore/include positive/benefical impacts along with negative/adverse impacts
   - What are the alternatives to the project?

4. HELEN RUCKER
   - went to OCWD / drank the water
   - surposed not to see more people here
   - what outreach was done?
   - make public outreach a priority, reach out to non-experts, normal public

5. BILL CARROTHERS
   - concern for industria/environmental hygiene
   - potential for upsets at treatment plant
   - What is in source water that makes it through treatment to the outfall.


GWR SCOPING 6/18/13 #3

6. RON WEITZMAN
   - can GWR solve the entire water supply issue? (i.e. is dosal really needed) (A BIGGER PROJECT)

7. HELEN RUCKER
   - COST OF GWR, IS IT ON TOP OF THE DESAL PLANT COST?
   - CHANGE IN WATER RATES AND EFFECTS ON LOW-MOD INCOME HOUSEHOLDS.

APPENDIX C-4

GWR PUBLIC SCOPING MEETING – MEETING NOTES

JUNE 18, 2013

GROUNDWATER REPLENISHMENT (GWR) PROJECT

NOP SCOPING MEETING NOTES

OLDEMEYER CENTER
986 HILBY AVENUE
SEASIDE, CA 93955
TUESDAY, JUNE 18, 2013
6:00 P.M. - 8:00 P.M.

MEETING PRESENTERS

Keith Israel
Denise Duffy
Bob Holden
Alison Imamura

MEETING ATTENDEES

(See attached attendee list)

MEETING NOTES

PRESENTATION OUTLINE (COPY OF PRESENTATION IS ATTACHED)

(Keith Israel)
- **Title Slide and Introduction**

(Dave Stoldt, MPWMD)
- **MPWMD role, costsharing**

(Denise Duffy)
- **GWR CEQA & Technical Teams**

(Bob Holden)
- **GWR CEQA Process**
- **GWR Overview**
- **About MRWPCA**
- **Project Location Overview**
- **Seaside Groundwater Basin**
- **State and Judicial Orders Reduce Cal-Am Water Supply**
- **GWR Relationship to Monterey Peninsula Water Supply Project**
- **Primary Project Objectives**
- **Secondary Project Objectives**
- **Overview of GWR Facilities**
- **Source Water Collection**
- **Salinas Treatment Plant Ponds**

Blanco Drain
Salinas Storm Water Outfall
Salinas Pump Station
Reclamation Ditch
GWR Treatment Plant Site
Proposed Water Purification Process
Product Water Conveyance
GWR Recharge Concept Schematic

(Alison Imamura)

California Environmental Quality Act Purpose
Environmental Impact Report Purpose
Key Topics in EIR
Purpose of Meeting: Define Scope/Content of EIR
GWR CEQA Process
For More Information

(Denise Duffy)

Comments on Scope of EIR

PUBLIC COMMENTS

1. **Bill Carrothers**

- This project will need an outstanding hydrologist that is very familiar with the Seaside Basin.
- This project with also need a superb water engineer.
- A gifted leader will be essential – Keith Israel (MRWPCA)

2. **Ron Weitzman, WaterPlus (these comments were also submitted in written form)**

WaterPlus suggest that the EIR for the GWR address the following items:

1. Toxins in each potential water source
2. Discharge rate and natural capacity of Seaside aquifer
3. Cost of storage facility for excess effluent
4. Cost of solar energy for a desal-only project
5. Amount of required diluent
6. Flow rate of injection & extraction wells
7. Cost comparison with desal-only project

Justification:

Items 1, 5, and 6 are important because the currently proposed GWR project includes sources of supply water besides sewer water, the principal source in previous versions of the project proposal. These additional sources, as well as sub-surface injection for potable use (rather than to retard saltwater intrusion), go beyond the precedent of Orange County and include pollutants not addressed there. Public Health concerns are a major issue of the project as currently proposed.

Item 2 is important because GWR involves storage of water over time in the Seaside aquifer, which is considered to be quite porous. The capacity of the aquifer and its discharge rate must be determined to

estimate the amount of injected water that may be lost prior to extraction. Will this amount this is will adversely affect efforts to retard saltwater intrusion?

Items 3 and 4 are important because a storage facility for excess effluent and solar energy powering desalination are environmentally-friendly alternatives to GWR for the EIR to evaluate. The cost of the storage facility, which would allow farmers to use excess winter effluent in the summer, or the cost of solar energy for desalination may be considerably less than the cost of GWR.

Item 7 is important for the reason just given: Alternatives to GWR that are equally environmentally friendly, while affording lower risk to public health, may cost less than GWR.

3. George Riley, Citizens for Public Water

- Will the EIR explore or include any of the positive impacts (benefits) in addition to the negative impacts?
- Will other alternatives to the project (besides those already included)be addressed in the EIR?

4. Helen Rucker, City of Salinas

- Concerned about the outreach that was done for this meeting and the project in general, as she was surprised that more residents were not in attendance.
- It is important that "non-experts" are included in the scoping and made aware of project issues.

5. Bill Carrothers (a second time)

- Suggested that the EIR include information about industrial and environmental hygiene.
- Suggested that the EIR address the potential for operational failures at the Water Treatment Plant.
- Asked about the quality of water that would be sent to the outfall location as opposed to that of the water sent to Seaside for injection.

6. Ron Weitzman (a second time)

- Is it possible that a larger scale version of the GWR project can solve the entire water supply issue, therefore eliminating the need for a desalination plant?

7. Helen Rucker (a second time)

- Is the cost of the GWR project greater or less than the cost of a typical desalination plant?
- Who will bear the cost of this project; will local residents with lower incomes be able to afford to live in this area?

APPENDIX D

NOP COMMENT LETTERS

SORTED BY DATE RECEIVED AND BRACKETED BY SUB-COMMENT

MAY 30, 2013 THROUGH JULY 2, 2013

Letter A

From: Bob Holden [mailto:bobh@mrwpca.com]
Sent: Mon 6/17/2013 4:42 PM
To: GWR; Alison Imamura; Valerie J. Young; Denise Duffy
Cc: Mike McCullough; Karen Harris
Subject: Eleanor Citen

All,
Ms. Eleanor Citen, PO Box 2428, Carmel, CA 93921, came to 5 Harris Court, Bldg. D this afternoon about 3:40 PM. She wanted to talk about GWR. She indicated that she will not attend the scoping meeting tomorrow. She doesn't want to drink recycled water. She gave me materials she purchased from Aquafornia (Water Education Foundation) for my education (Bay-Delta Tours, 2013 Water Tours, Western Water magazines, and Viewer's Guide: Drinking Water-Quenching the Public Thirst) . She knew about OCWD and how they are expanding. I told her that I drank water at Orange County. She said she has heard of others drinking it and that it tastes ok. However, she did not think it was safe as it had chemicals from the fields in it. I told her that the California Department of Public Health believes it is safe and that they are looking into direct potable reuse. I explained how direct potable took the advanced treated water and either put it into the drinking water treatment plant or directly into a pipe to the consumers. She wants a project to be built to provide water. She does not want it to include water of wastewater origin. She would like me to go to meetings and get some of the water that Southern California will no longer need for us locally.

A-1

She thanked me for listening to her and gave me her card.
Thanks,
Bob

From: Ron Weitzman [mailto:ronweitzman@redshift.com]
Sent: Tuesday, June 18, 2013 4:40 PM
To: GWR
Subject: Items Suggested by WaterPlus for Inclusion in the EIR for GWR

ATTN: Bob Holden, Principal Engineer, MRWPCA

WaterPlus suggests that the EIR for GWR address the following items:

1. **Toxins in each potential water source**
2. **Discharge rate and natural capacity of Seaside aquifer**
3. **Cost of storage facility for excess effluent**
4. **Cost of solar energy for a desal-only project**
5. **Amount of required diluent**
6. **Flow rate between injection & extraction wells**
7. **Cost comparison with desal-only project**

Justification:

Items 1, 5, and 6 are important because the currently proposed GWR project includes sources of supply water in addition to sewer water, the principal source in previous versions of the project proposal. These additional sources, as well as sub-surface injection for potable use (rather than to retard saltwater intrusion), go beyond the precedent of Orange County and include pollutants not addressed there. Public

B-1

Health concerns are a major issue of the project as currently proposed.

B-1 cont.

Item 2 is important because GWR involves storage of water over time in the Seaside aquifer , which is considered to be quite porous. The size of the aquifer and its discharge rate must be determined to estimate the amount of injected water that may be lost prior to its extraction. Whatever amount this is will adversely affect efforts to retard saltwater intrusion.

B-2

Items 3 and 4 are important because a storage facility for excess effluent or solar energy powering desalination are environmentally-friendly alternatives to GWR for the EIR to evaluate. The cost of the storage facility, which would allow farmers to use excess winter effluent in the summer, or the cost of solar energy for desalination may be considerably less than the cost of GWR.

B-3

Item 7 is important for the reason just given: Alternatives to GWR that are equally environmentally friendly, while affording lower risk to public health, may cost less than GWR.

B-4

--Ron Weitzman, for WaterPlus

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

JUN 18 2013

Bob Holden
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940

Dear Mr. Holden:

NOTICE OF PREPARATION (NOP) FOR MONTEREY REGIONAL WATER POLLUTION CONTROL AGENCY (AGENCY); MONTEREY PENINSULA GROUNDWATER REPLENISHMENT PROJECT (PROJECT); MONTEREY COUNTY; STATE CLEARINGHOUSE NO. 2013051094

We understand that the Agency may be pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project. As a funding agency and a state agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information on the preparation of the California Environmental Quality Act (CEQA) for the Project. C-1

The State Water Board, Division of Financial Assistance, is responsible for administering the CWSRF Program. The primary purpose for the CWSRF Program is to implement the Clean Water Act and various state laws by providing financial assistance for wastewater treatment facilities necessary to prevent water pollution, recycle water, correct nonpoint source and storm drainage pollution problems, provide for estuary enhancement, and thereby protect and promote health, safety and welfare of the inhabitants of the state. The CWSRF Program provides low-interest funding equal to one-half of the most recent State General Obligation Bond Rates with a 20-year term. Applications are accepted and processed continuously. Please refer to the State Water Board's CWSRF website at: www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.shtml. C-2

The CWSRF Program is partially funded by the United States Environmental Protection Agency and requires additional "CEQA-Plus" environmental documentation and review. Four enclosures are included that further explain the CWSRF Program environmental review process and the additional federal requirements. The State Water Board is required to consult directly with agencies responsible for implementing federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to State Water Board approval of a CWSRF financing commitment for the proposed Project. For further information on the CWSRF Program, please contact Mr. Ahmad Kashkoli, at (916) 341-5855. C-3

It is important to note that prior to a CWSRF financing commitment, projects are subject to provisions of the Federal Endangered Species Act (ESA), and must obtain Section 7 clearance from the United States Department of the Interior, Fish and Wildlife Service (USFWS), and/or the United States Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) for any potential effects to special-status species. C-4

Please be advised that the State Water Board will consult with USFWS, and/or NMFS regarding all federal special-status species that the Project has the potential to impact if the Project is to be funded under the CWSRF Program. The Agency will need to identify whether the Project will involve any direct effects from construction activities, or indirect effects such as growth inducement, that may affect federally listed threatened, endangered, or candidate species that are known, or have a potential to occur on-site, in the surrounding areas, or in the service area, and to identify applicable conservation measures to reduce such effects. C-5

In addition, CWSRF projects must comply with federal laws pertaining to cultural resources, specifically Section 106 of the National Historic Preservation Act (Section 106). The State Water Board has responsibility for ensuring compliance with Section 106, and must consult directly with the California State Historic Preservation Officer (SHPO). SHPO consultation is initiated when sufficient information is provided by the CWSRF applicant. If the Agency decides to pursue CWSRF financing, please retain a consultant that meets the Secretary of the Interior's Professional Qualifications Standards (www.cr.nps.gov/local-law/arch_stnds_9.htm) to prepare a Section 106 compliance report. C-6

Note that the Agency will need to identify the Area of Potential Effects (APE), including construction and staging areas, and the depth of any excavation. The APE is three-dimensional and includes all areas that may be affected by the Project. The APE includes the surface area and extends below ground to the depth of any Project excavations. The records search request should be made for an area larger than the APE. The appropriate area varies for different projects but should be drawn large enough to provide information on what types of sites may exist in the vicinity. C-7

Other federal requirements pertinent to the Project under the CWSRF Program include the following:

A. Compliance with the Federal Clean Air Act: (a) Provide air quality studies that may have been done for the Project; and (b) if the Project is in a nonattainment area or attainment area subject to a maintenance plan; (i) provide a summary of the estimated emissions (in tons per year) that are expected from both the construction and operation of the Project for each federal criteria pollutant in a nonattainment or maintenance area, and indicate if the nonattainment designation is moderate, serious, or severe (if applicable); (ii) if emissions are above the federal de minimis levels, but the Project is sized to meet only the needs of current population projections that are used in the approved State Implementation Plan for air quality, quantitatively indicate how the proposed capacity increase was calculated using population projections. C-8

B. Compliance with the Coastal Zone Management Act: Identify whether the Project is within a coastal zone and the status of any coordination with the California Coastal Commission. C-9

C. Protection of Wetlands: Identify any portion of the proposed Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (USACE), or requires a permit from the USACE, and identify the status of coordination with the USACE. C-10

D. Compliance with the Farmland Protection Policy Act: Identify whether the Project will result in the conversion of farmland. State the status of farmland (Prime, Unique, or Local and Statewide Importance) in the Project area and determine if this area is under a Williamson Act Contract. C-11

E. Compliance with the Migratory Bird Treaty Act: List any birds protected under this act that may be impacted by the Project and identify conservation measures to minimize impacts. C-12

F. Compliance with the Flood Plain Management Act: Identify whether or not the Project is in a Flood Management Zone and include a copy of the Federal Emergency Management Agency flood zone maps for the area. C-13

G. Compliance with the Wild and Scenic Rivers Act: Identify whether or not any Wild and Scenic Rivers would be potentially impacted by the Project and include conservation measures to minimize such impacts. C-14

Following the preparation of the draft CEQA document for the Project, please provide us a copy of the document to review if the Agency is considering CWSRF financing. In addition, we would appreciate notices of any hearings or meetings held regarding environmental review for the Project. C-15

Thank you for the providing us a copy of your NOP, and the consideration of the CWSRF for the financing of the Agency's Project. If you have any questions or concerns, please feel free to contact me at (916) 341-5855, or by email at AKashkoli@waterboards.ca.gov, or contact Christopher Bruni at (916) 341-5799, or by email at CBruni@waterboards.ca.gov.

Sincerely,

Madeleine Hardin for

Ahmad Kashkoli
Senior Environmental Scientist

Enclosures (4)

1. SRF & CEQA-Plus
2. Quick Reference Guide to CEQA Requirements for State Revolving Fund Loans
3. Instructions and Guidance for "Environmental Compliance Information"
4. Basic Criteria for Cultural Resources Reports

Letter C (cont)

cc: State Clearinghouse
(Re: SCH# 2013051094)
P.O. Box 3044
Sacramento, CA 95812-3044

Letter C (cont)

If project emissions are **below the "de minimis" levels** and less than 10% of the emissions inventory for the non-attainment or maintenance area, then:

- **Further general conformity analysis is not required.**

If project emissions are **above the "de minimis" levels**:

- **A conformity determination for the area must be made.**

A conformity determination can be made if facilities are sized to meet the needs of current population projections used in an **approved** State Implementation Plan (SIP) for air quality. Using population projections, applicants must **quantify** their description of how the proposed capacity increase was calculated.

NATIONAL HISTORIC PRESERVATION ACT

Section 106 of the NHPA requires federal agencies to take into account effects on historic properties caused by federal actions (such as funding SRF projects) and to provide the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings through consultation with the State Historic Preservation Officer (SHPO) and with interested Indian Tribes and individuals.

***USEPA has delegated to the State Water Board the responsibility for carrying out the requirements of Section 106 of the NHPA.**

Historic properties include:

- Archaeological sites.
- Historic era buildings.
- Traditional cultural properties.

Starting point for the 106 process: Applicant's record search and cultural resource documents prepared for CEQA.

State Water Board's Cultural Resource Officer (CRO) requires:

- Copies of all original maps and studies for consultation with SHPO.

If your project has the potential to affect historic properties the consultation process can be quite lengthy. **Please contact the CRO early in your planning process to discuss what additional information may be needed for your specific project.**

Environmental Review Process Guidelines for State Revolving Fund Loan Applicants document provides additional information on the review process and can be found on the State Water Board's web site located at:

http://www.waterboards.ca.gov/funding/srf.html

Water Boards

SRF & CEQA-PLUS

Environmental Review for State Revolving Fund (SRF) Loan Applicants

- WHAT - WHY - HOW -

State Water Resources Control Board
Division of Financial Assistance
November 2005

WHAT IS CEQA-PLUS?

The SRF Loan Program is partially funded by the U.S. Environmental Protection Agency (USEPA) and subject to federal environmental regulations, including the Endangered Species Act (ESA), the National Historic Preservation Act (NHPA), and the General Conformity Rule for the Clean Air Act (CAA), among others. Federal agencies have their own policies on how they comply with federal environmental laws. Instead of the National Environmental Policy Act (NEPA), USEPA has chosen to use the California Environmental Quality Act (CEQA) as the compliance base for California's SRF Loan Program, in addition to compliance with ESA, NHPA and CAA. Collectively, the State Water Board calls these requirements **CEQA-Plus.** Additional federal regulations also may apply.

Lead Agency: The Applicant

Duties:

- Prepare, circulate and consider the environmental documents prior to approving the project.
- Provide the State Water Board with eight (8) copies of the applicant's CEQA documents.

Responsible Agency: State Water Board, Division of Financial Assistance

Duties:

- Acting on behalf of USEPA, review and consider the CEQA documents before approving the project's funding.
- Make findings as to the adequacy of the documents and require additional studies or documentation, as needed.
- Distribute the applicant's CEQA documents to selected federal agencies for review and comment before making a determination on adequacy. (This distribution is in addition to the standard State Clearinghouse distribution under CEQA.)

***The applicant must address all comments by federal agencies before funding is approved.**

ENDANGERED SPECIES ACT

Non-federal Representative (for all wastewater and water reclamation projects in California that involve an SRF loan): **State Water Board**

State Water Board - Environmental Services Staff (ES) reviews SRF projects to determine potential effects on federally listed species.

Applicant Duties:

- At the earliest possible date, provide ES with:
  - **Species lists.**
  - **Biological assessments.**
  - **Other documents related to project effects on sensitive species.**
- Notify ES **early** during the planning process of any issues regarding sensitive species.

ES Duties:

- Confer informally with the U.S. Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Service (NMFS), as necessary.
- Evaluate and inform USFWS/NMFS of project impacts to federally listed species.
- Ask USEPA to request formal consultation if ES, in conjunction with USFWS/NMFS, determines that a project will adversely affect a federally listed species.

***USEPA will act as the lead agency in the formal consultation process. In response to a formal request from USEPA, USFWS/NMFS may have up to 90 days to prepare a biological opinion. The process can last 135 days or longer.**

CLEAN AIR ACT

CAA general conformity analysis applies only to projects in areas:

- Not meeting National Ambient Air Quality Standards (NAAQS).
- Subject to a maintenance plan.

An analysis is necessary for each **criteria pollutant below** for which an area is considered as being in nonattainment or maintenance:

- **ozone**
- **carbon monoxide**
- **nitrogen dioxide**
- **sulfur dioxide**
- **lead**
- **inhalable particulate matter**

Letter C (cont)

Letter C (cont)

Cultural Resources

Compliance with Federal Section 106 of the National Historic Preservation Act

Information Needed from the Applicant:

- Current records search with maps showing all sites and surveys drawn in relation to the project area.
- Native American consultation.
- Instructions as to how to get started are found in the CEQA Guidelines, since these two items are basic to any cultural resources review.

Migratory Bird Treaty Act

Information Needed From the Applicant:

- Identification of whether or not the project is within jurisdiction of the Migratory Bird Treaty Act.

Wild and Scenic Rivers Act

Information Needed from the Applicant:

- Identification of whether or not the project will impact any Wild and Scenic Rivers.

Other Requirements

Information Needed from the Applicant:

- Eight (8) copies of the final CEQA document.
- A date-stamped copy of the Notice of Determination or the Notice of Exemption filed with the Governor's Office of Planning and Research and a receipt of the filling fees paid to the California Department of Fish and Game for Negative Declarations (ND) or Environmental Impact Reports (EIR).
- A copy of the Resolution from the lead agency, approving or certifying the CEQA document and their project. *Note: The CEQA Guidelines uses "approve" or "adopt" for ND and "certify" for EIR.*

Quick Reference Guide to the California Environmental Quality Act (CEQA)-Plus Requirements for State Revolving Fund Loans

Guide to Federal Requirements

State Water Resources Control Board
Division of Financial Assistance
January 2008

Endangered Species

Compliance with Section 7 of the Endangered Species Act

Information Needed from the Applicant:

- List of special status species (both animal and plant) likely or possibly to occur at project site. *Note: If none will possibly occur, provide supporting information.*
- Any biological assessments or special biological studies that may have been done for the project.
- Other documents that disclose information about the project's effect on sensitive species.

Protection of Wetlands

Information Needed from the Applicant:

- Identification of whether or not the project or construction activities will impact streams, flood control channels, or wetlands.

Air Quality

Compliance with the Federal Air Quality Act

Information Needed from the Applicant:

- Air quality studies that may have been done for the project.
- For those projects in non-attainment areas or attainment areas subject to maintenance plans:
  - → Emission data for each criteria pollutant for which the area has been designated non-attainment or maintenance; and
  - → Summary of the emissions that are expected from both the construction and operation of the project for each criteria pollutant in a non-attainment or maintenance area.
- If emissions are above the federal de minimis levels, but the project is sized to meet only the needs of current population projections that are used in the approved State Implementation Plan for air quality:
  - → Quantitatively indicate how the proposed capacity increase was calculated using population projections.

Floodplain Management

Information Needed from the Applicant:

- Identification of whether or not the project is in a Flood Management Zone and a copy of the Federal Emergency Management Agency flood zone maps for the project area.

Farmland Protection Policy Act

Information Needed from the Applicant:

- Identification of whether or not the proposed project will impact any important farmland or land under Williamson Act control.

Coastal Zone Management Act

Information Needed from the Applicant:

- Identification of whether or not the proposed project is in the Coastal Zone.

Letter C (cont)

BASIC CRITERIA FOR CULTURAL RESOURCES REPORTS

FOR SECTION 106 CONSULTATION WITH THE STATE HISTORIC PRESERVATION OFFICER (SHPO) UNDER THE NATIONAL HISTORIC PRESERVATION ACT (NHPA)

CULTURAL RESOURCES REPORTS

The Section 106 compliance efforts and reports must be prepared by a qualified researcher that meets the Secretary of the Interior's Professional Qualifications Standards (www.cr.nps.gov/local-law/arch_stnds_9.htm).

REPORT TERMINOLOGY

A cultural resources report used for Section 106 consultation should use terminology consistent with 36 CFR, Section 800.16 of the NHPA. This doesn't mean that the report needs to "filled" with passages and interpretations of the regulations, the SHPO reviewer already knows the law.

- If "findings" are made they must be one of the four "findings" listed in Section 106. These include:

  "No historic properties affected" (no properties are within the APE, including the below ground APE).

  "No effect to historic properties" (properties may be near the APE but the project will not impact them).

  "No adverse effect to historic properties" (the project may affect historic properties but the impacts will not be adverse)

  "Adverse effect to historic properties". *Note: the SHPO must be consulted at this point. If your consultant proceeds on his own, his efforts may be wasted.*

CURRENT RECORDS SEARCH INFORMATION

- A current (less than a year old) records search from the appropriate Information Center is necessary. The records search should include maps that show all recorded sites and surveys in relation to the area of potential effects (APE) for the project.

- The APE is three-dimensional and includes all areas that may be affected by the project. It includes the surface area and extends below ground to the depth of any project excavations.

- The records search request should be made for an area larger than the APE. The appropriate area varies for different projects but should be drawn large enough to provide information on what types of sites may exist in the vicinity.

NATIVE AMERICAN AND INTERESTED PARTY CONSULTATION

- Native American and interested party consultation should be initiated at the beginning of any cultural resource investigations. The purpose is to gather information from people with local knowledge that may be used to guide research.

- A project description and map should be sent to the Native American Heritage Commission (NAHC) requesting a check of their Sacred Lands Files. The Sacred Lands Files include religious and cultural places that are not recorded at the information centers.

- The NAHC will include a list of Native American groups and individuals with their response. A project description and maps should be sent to everyone on the list asking for information on the project area.

- Similar letters should be sent to local historical organizations.

- Follow-up contact should be made by phone if possible and a phone log should be included in the report.

WARNING PHRASES IN ALREADY PREPARED CEQA REPORTS

- A finding of **"no known resources"**, this doesn't mean anything. The consultant's job is to find out if there are resources within the APE or to explain why they are not present.

- **"The area is sensitive for buried archaeological resources",** followed by a statement that **"monitoring is recommended as mitigation".** Monitoring is not an acceptable mitigation. A reasonable effort should be made to find out if buried resources are present in the APE.

- **"The area is already disturbed by previous construction",** this may be true, but documentation is still needed to show that the new project will not affect cultural resources. As an example, an existing road can be protecting a buried archaeological site. Or, previous construction may have impacted an archaeological site that was never documented.

- No mention of **"Section 106"**, a report that gives adequate information for CEQA may not be sufficient to comply with Section 106.

SHPO CONSULTATION LETTER

- A Section 106 consultation letter should be prepared by a qualified researcher, and submitted along with the Section 106 Report to the State Water Board to use to consultant with the State Historic Preservation Officer.

STATE WATER BOARD CONTACT INFORAMTION

Please contact Mr. Ahmad Kashkoli 916-341-5855 or akashkoli@waterboards.ca.gov if you have any questions related to CWSRF Program cultural resources compliance.

CLEAN WATER STATE REVOLVING FUND PROGRAM
INSTRUCTIONS AND GUIDANCE FOR
"ENVIRONMENTAL COMPLIANCE INFORMATION"

Letter C (cont)

Introduction:

The State Water Resources Control Board (State Water Board) uses the California Environmental Quality Act (CEQA) review process and compliance with federal environmental laws and regulations to satisfy the environmental requirements of the Clean Water State Revolving Fund (CWSRF) Program Operating Agreement between the United States Environmental Protection Agency (USEPA) and the State Water Board. The CWSRF Program is partially funded by a capitalization grant from the USEPA. The issuance of funds from the CWSRF Program is equivalent to a federal action, and thus, compliance with federal environmental laws and regulations is required for projects being funded under the CWSRF Program.

All CWSRF Program applicants must submit adequate and complete environmental documentation to the State Water Board. Following submittal of an applicant's environmental documents, the State Water Board will review the documents to determine if the information is sufficient to document compliance with the CWSRF Program environmental requirements, including making a determination if consultation with federal authorities is required, and may request additional environmental information, when needed. The State Water Board encourages all applicants to initiate early consultation, so that the State Water Board can better streamline the environmental review process.

CEQA Information:

All projects coming to the State Water Board for funding are considered "projects" under CEQA because of the State Water Board's discretionary decision to approve funding.

Detailed information, including CEQA statutes and guidelines can be found online at the California Natural Resources Agency website at http://ceres.ca.gov/ceqa. A CEQA Process Flowchart that shows interaction points between lead and responsible agencies can be found at http://ceres.ca.gov/topic/env_law/ceqa/flowchart/index.html. In addition, State Water Board environmental staff is available to answer questions about the CEQA process, as well as the CWSRF Program environmental requirements. Please contact your assigned Project Manager at the State Water Board, regarding contact information for the appropriate environmental staff.

CEQA requires full disclosure of all aspects of the project, including impacts and mitigation measures that are not only regulated by state agencies, but also by federal agencies. Early consultation with state and federal agencies in the CEQA process will assist in minimizing changes to the project when funding is being requested from the State Water Board.

The types of CEQA documents that may apply to an applicant's project include one or a combination of the following: 1) Notice of Exemption (NOE); 2) Initial Study and Negative Declaration (ND); 3) Initial Study and Mitigated Negative Declaration (MND) with a Mitigation Monitoring and Reporting Program (MMRP); 4) Environmental Impact Report (EIR) with an MMRP; and/or 5) Addendum, Supplemental and Subsequent ND, MND or EIR. The applicant must determine the appropriate document for its project and submit the supporting information listed under the applicable section of the Environmental Package Checklist for Applicant (Attachment 1), along with a completed copy of the Evaluation Form for Environmental Review and Federal Coordination (Attachment 2). Please submit two copies of all CEQA documents.

Letter C (cont)

The applicant must ensure the CEQA document is specific to the project for which funding is being requested. Program or Master Plan EIRs may not be suitable for satisfying the State Water Board environmental requirements if these documents are not project-specific. When an applicant uses an Addendum, Supplemental or Subsequent CEQA document for a project, the associated Program or Master Plan EIR must also be submitted, especially if the Addendum, Supplemental or Subsequent CEQA document includes references to pertinent environmental and mitigation information contained in the Program or Master Plan EIR.

If the applicant is using a CEQA document that is older than five years, the applicant must re-evaluate environmental and project conditions, and develop and submit an updated environmental document (such as an Addendum, Supplemental or Subsequent CEQA document) based on the results of that re-evaluation. The updated environmental document must be circulated through the State Clearinghouse for public review. The applicant must adopt the final updated environmental document, including any new identified measures, make CEQA findings, and file a Notice of Determination (NOD) with the local county clerk(s) and the Governor's Office of Planning and Research, State Clearinghouse (State Clearinghouse).

Each applicant, if it is a public agency, is responsible for approving the CEQA documents it uses regardless of whether or not it is a lead agency under CEQA. Non-profit organizations shall only be responsible for approving and ensuring implementation of the applicable project mitigation measures identified in the MMRP. All public agencies applying for CWSRF Program funding shall file either an NOE or an NOD with the State Clearinghouse and the local county clerk(s). Date stamped copies of those notices must be submitted with all the applicable environmental documents.

If the CEQA document was jointly prepared by a federal public governmental agency to satisfy the National Environmental Policy Act (NEPA) requirements, then the applicant must submit the corresponding NEPA documents, including a Finding of No Significant Impact, or a Record of Decision completed by the federal NEPA lead agency.

Federal Information:

In addition to CEQA compliance, the State Water Board is required to document environmental compliance with federal environmental laws and regulations, including:

1. Federal Endangered Species Act (ESA), Section 7:

The United States Department of the Interior, Fish and Wildlife Service (USFWS) and the United States Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) must be consulted for any project that will have the potential to adversely impact a federal special-status species. The USEPA delegated the State Water Board to act as the non-federal lead for initiating informal Section 7 ESA consultation with the USFWS. The State Water Board will coordinate with the USEPA for projects requiring formal Section 7 ESA consultation with the USFWS and projects that will impact federal special-status fish species under the NMFS jurisdiction. The USFWS and NMFS must provide written concurrence prior to a CWSRF financing agreement. USFWS and NMFS comments may include conservation measures, for which the applicant's CWSRF financing agreement will be conditioned to ensure compliance.

For further information on the federal ESA law, regulation, policy, and notices, go to http://www.fws.gov/endangered/laws-policies/index.html and http://www.nmfs.noaa.gov/pr/laws/esa/. Note that compliance with both the state and federal ESAs is required of projects having the potential to impact state and federal special-status species. Although overlap exists between the state and federal ESAs, there might be additional or more restrictive state requirements. For further information on the state ESA, refer to the California Department of Fish and Game website at http://www.dfg.ca.gov/habcon/cesa/.

Letter C (cont)

2. Magnuson-Stevens Fishery Conservation and Management Act, Essential Fish Habitat (EFH):

The Magnuson-Stevens Fishery Conservation and Management Act, as amended, is designed to manage and conserve national fishery resources. EFH consultations are only required for actions that may adversely effect EFH. The applicant needs to determine whether the proposed project may adversely affect EFH. NMFS is responsible for publishing maps and other information on the locations of designated EFH, and can provide information on ways to promote conservation of EFHs to facilitate this assessment. If a project may adversely affect a designated EFH, the applicant must complete an EFH consultation.

The State Water Board will coordinate with the USEPA to request an EFH consultation from the NMFS. NMFS is required to respond informally or in writing. NMFS comments may include conservation measures, for which the applicant's CWSRF financing agreement will be conditioned to ensure compliance. For more information, see the brochure at http://www.nmfs.noaa.gov/sfa/reg_svcs/Council%20stuff/council%20orientation/2007/2007TrainingCD/TabT-EFH/EFH_CH_Handout_Final_3107.pdf.

3. National Historic Preservation Act (NHPA), Section 106:

The NHPA focuses on federal compliance. Section 106 requires Federal agencies to take into account the effects of their undertakings on historic properties. The Section 106 process seeks to accommodate historic preservation concerns with the needs of Federal undertakings through consultation among the agency official and other parties with an interest in the effects of the undertaking on historic properties. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. The Section 106 compliance efforts and reports must be prepared by a qualified researcher that meets the Secretary of the Interior's Professional Qualifications Standards (www.cr.nps.gov/local-law/arch_stnds_9.htm).

In addition, CEQA requires that impacts to cultural and historic resources be analyzed. The "CEQA and Archeological Resources" section from the Governor's Office of Planning and Research CEQA Technical Advice Series states that the lead agency obtains a current records search from the appropriate California Historical Resources Information System Center. Also, to contact the Native American tribes that are culturally affiliated with a project area from the list obtained from the Native American Heritage Commission (NAHC).

The NAHC can be contacted at:

915 Capitol Mall, Room 364
Sacramento, CA 95814
Tele: (916) 653-4082

4. Clean Air Act:

For CWSRF financed projects, we recommend including a general conformity section in the CEQA documents so that another public review process will not be needed, should a conformity determination be required. The applicant should check with its local air quality management district and review the Air Resources Board California air emissions map for information on the State Implementation Plan. For information on the analysis steps involved in evaluating conformity, please contact the State Water Board environmental staff through the assigned Project Manager.

Letter C (cont)

5. Coastal Zone Management Act:

Projects proposing construction in the Coastal Zone will require consultation with either the California Coastal Commission (or the designated local agency with a Local Coastal Program), or the San Francisco Bay Conservation and Development Commission (for projects located in the San Francisco Bay area). The applicant must submit a copy of the approved Coastal Development permit to the State Water Board to satisfy this requirement.

For more information on Coastal Zone Management Act requirements refer to the following agencies websites:

- United States Coastal Zone Boundaries through the NMFS website at http://coastalmanagement.noaa.gov/mystate/docs/StateCZBoundaries.pdf;
- California Coastal Commission website at http://www.coastal.ca.gov/ccatc.html; and/or
- San Francisco Bay Conservation and Development Commission website at http://www.bcdc.ca.gov/.

6. Coastal Barriers Resources Act:

The Coastal Barriers Resources Act is intended to discourage development in the Coastal Barrier Resources System and adjacent wetlands, marshes, estuaries, inlets, and near-shore waters. Since there is no designated Coastal Barrier Resources System in California, no impacts from California projects are expected. However, should the applicant believe there may be impacts to the Coastal Barrier Resources System due to special circumstances, please use the following information as a guide.

During the planning process, the applicant should consult with the appropriate Coastal Zone management agency (e.g., City or County with an approved Local Coastal Program, the California Coastal Commission, or the San Francisco Bay Conservation and Development Commission) to determine if the project will have an effect on the Coastal Barrier Resources System. If the project will have an effect on the Coastal Barrier Resources System, the State Water Board must consult with the appropriate Coastal Zone management agency and the USFWS. Any recommendations from the Coastal Zone management agency and USFWS will be incorporated into the project's design prior to approval of CWSRF financing.

For more information and to ensure that no modifications to Coastal Barrier Resources System have occurred, please visit: http://www.fws.gov/CBRA/.

7. Farmland Protection Policy Act:

Projects involving impacts to farmland designated as prime and unique, local and statewide importance, or under a Williamson Act Contract, will require consultation with the United States Department of Agriculture, Natural Resources Conservation Service and/or California Department of Conservation. For more information on the Farmland Protection Policy Act go to http://www.nrcs.usda.gov/programs/fppa, and regarding the Williamson Act Contact go to http://www.consrv.ca.gov/dlrp/lca.

Letter C (cont)

8. Floodplain Management – Executive Order 11988:

Each agency shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities. Before taking an action, each agency shall determine whether the proposed action will occur in a designated floodplain. The generally established standard for risk is the flooding level that is expected to occur every 100 years. If an agency determines or proposes to, conduct, support, or allow an action to be located in a floodplain, the agency shall consider alternatives to avoid adverse effects and incompatible development in the floodplains.

For further information regarding Floodplain Management requirements, please consult the United States Department of Homeland Security, Federal Emergency Management Agency website at http://www.fema.gov, as well as the USEPA floodplain management Executive Order 11988 at http://www.epa.gov/owow/wetlands/regs/eo11988.html.

9. Migratory Bird Treaty Act (MBTA):

The MBTA restricts the killing, taking, collecting and selling or purchasing of native bird species or their parts, nests, or eggs. The MBTA, along with subsequent amendments to this act, provides legal protection for almost all breeding bird species occurring in the United States and must be addressed under CEQA. In the CEQA document, each agency must make a finding that a project will comply with the MBTA. For further information, please consult the Migratory Bird Program through the USFWS website at http://www.fws.gov/laws/lawsdigest/migtrea.html.

10. Protection of Wetlands – Executive Order 11990:

Projects, regardless of funding, must get approval for any temporary or permanent disturbance to federal and state waters, wetlands, and vernal pools. The permitting process through the United States Army Corps of Engineers (USACE) can be lengthy, and may ultimately require project alterations to avoid wetlands and waters of the United States. Applicants must consult with the USACE early in the planning process if any portion of the project site contains wetlands, or other federal waters. The USACE Wetland Delineation Manual is available at http://www.wetlands.com/regs/tlpge02e.htm. Also note that the California State Water Boards are involved in providing approvals through the Clean Water Act Section 401 Water Quality Certification Program and/or Waste Discharge Requirements. For more information, please go to http://www.waterboards.ca.gov/water_issues/programs/cwa401/index.shtml.

11. Wild and Scenic Rivers Act:

There are construction restrictions or prohibitions for projects near or in a designated "wild and scenic river." A listing of designated "wild and scenic rivers" can be obtained at http://www.rivers.gov/rivers/california.php. Watershed information can be obtained through the "Watershed Browser" at http://cwp.resources.ca.gov/map_tools.php.

12. Safe Drinking Water Act, Source Water Protection:

Projects must comply with the Safe Drinking Water Act and document whether or not a project has the potential to contaminate a sole source aquifer. For projects impacting a listed sole source aquifer, the applicant must identify an alternative project location, or develop adequate mitigating measures in consultation with the USEPA. For more information, please go to the Sole Source Aquifer Program website at http://epa.gov/region09/water/groundwater/ssa.html.

Letter C (cont)

13. Environmental Justice – Executive Order No. 12898:

Identify and address any disproportionately high and adverse human health or environmental effects of the project's activities on minority and low-income populations. USEPA has defined environmental justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."

Fair Treatment means that no group of people should bear a disproportionate burden of environmental harms and risks, including those resulting from the negative consequences of industrial, governmental, and commercial operations or programs and policies.

Meaningful Involvement means that: 1) potentially affected community members have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; 2) the public's contribution can influence the agency's decision; 3) the concerns of all participants involved will be considered in the decision-making process; and 4) the decision-makers seek out and facilitate the involvement of those potentially affected.

The term "environmental justice concern" is used to indicate the actual or potential lack of fair treatment or meaningful involvement of minority, low-income, or indigenous populations, or tribes in the development, implementation, and enforcement of environmental laws, regulations, and policies.

Your project may involve an "environmental justice concern" if the project could:

a) Create new disproportionate impacts on minority, low-income, or indigenous populations;
b) Exacerbate existing disproportionate impacts on minority, low-income, or indigenous populations; or
c) Present opportunities to address existing disproportionate impacts on minority, low-income, or indigenous populations that are addressable through the project.

Attachment 1

Letter C (cont)

ENVIRONMENTAL[1] PACKAGE CHECKLIST FOR APPLICANT (What to Submit to Project Manager)

Required for all CWSRF Projects:

- ❑ **Evaluation Form for Environmental Review and Federal Coordination with the substantiating information** (i.e. USFWS species list/biological assessment, cultural resources documentation, air quality data, flood map etc.)
- ❑ **Project Report, Scope of Work and Map(s)**

Based on the type of CEQA documents prepared for the project, provide additional information as identified in the following boxes.

If project is covered under a **CEQA Categorical or Statutory Exemption**, submit a copy of the following:

- ❑ **Notice of Exemption** (filed and date stamped by the county clerk and the Governor's Office of Planning and Research)

If project is covered under a **Negative Declaration**, submit a copy of the following:

- ❑ **Draft and Final Initial Study/Negative Declaration (IS/ND)**
  - ❑ Comments and Responses to the Draft IS/ND
- ❑ **Resolution approving the CEQA documents**
  - ❑ Adopting the Negative Declaration
  - ❑ Making CEQA Findings
- ❑ **Notice of Determination** (filed and date stamped by the county clerk and the Governor's Office of Planning and Research)

If project is covered under a **Mitigated Negative Declaration**, submit a copy of the following:

- ❑ **Draft and Final Initial Study/Mitigated Negative Declaration (IS/MND)**
  - ❑ Comments and Responses to the Draft IS/MND
  - ❑ Mitigation Monitoring and Reporting Plan/Program (MMRP)
- ❑ **Resolution approving the CEQA documents**
  - ❑ Adopting the Mitigated Negative Declaration and the MMRP
  - ❑ Making CEQA Findings
- ❑ **Notice of Determination** (filed and date stamped by the county clerk and the Governor's Office of Planning and Research)

If project is covered under an **Environmental Impact Report (EIR)**, submit a copy of the following:

- ❑ **Draft and Final EIR**
  - ❑ Comments and Responses to the Draft EIR
  - ❑ Mitigation Monitoring and Reporting Plan/Program (MMRP)
- ❑ **Resolution approving the CEQA documents**
  - ❑ Certifying the EIR and adopting the MMRP
  - ❑ Making CEQA Findings
  - ❑ Adopting a Statement of Overriding Considerations for any adverse environmental impact(s), if applicable
- ❑ **Notice of Determination** (filed and date stamped by the county clerk and the Governor's Office of Planning and Research)

If EIR is a joint CEQA/National Environmental Policy Act document (EIR/Environmental Impact Statement or EIR/Environmental Assessment), submit the applicable Record of Decision and/or the Finding of No Significant Impact.

---

[1] If the CEQA document is more than five years old applicant shall provide an updated CEQA document (eg. subsequent, supplemental, or addendum CEQA documents) or a letter that describes the current status of the environmental condition for the project's location.

Letter C (cont)

State Water Resources Control Board (State Water Board)
Clean Water State Revolving Fund Program

Evaluation Form for Environmental Review and Federal Coordination

CWSRF No.: _____
Applicant Name: _____
Date: _____
Project Title: _____

1. **Federal Endangered Species Act (ESA), Section 7:**
Does the project involve any direct effects from construction activities, or indirect effects such as growth inducement that may affect federally listed threatened or endangered species or their critical habitat that are known, or have a potential, to occur on-site, in the surrounding area, or in the service area?

   a. **Required documents: Attach project-level biological surveys, evaluations analyzing the project's direct and indirect effects on special-status species, and an up-to-date species list (from the United States Fish and Wildlife Service and the California Natural Diversity Database) for the project area.**

☐ No. Discuss why the project will not impact any federally listed special status species:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

☐ Yes. Provide information on federally listed species that could potentially be affected by this project and any proposed avoidance and compensation measures so that the State Water Board can initiate informal/formal consultation with the applicable federally designated agency. Document any previous ESA consultations that may have occurred for the project. Include any comments below:

_____
_____
_____
_____
_____
_____
_____
_____
_____

Letter C (cont)

2. **Magnuson-Stevens Fishery Conservation and Management Act, Essential Fish Habitat: Does the project involve any direct effects from construction activities, or indirect effects such as growth inducement that may adversely affect essential fish habitat?**

☐ No. Discuss why the project will not impact essential fish habitat:

☐ Yes. Provide information on essential fish habitat that could potentially be affected by this project and any proposed avoidance and compensation measures. Document any consultations with the National Marine Fisheries Service that may have occurred for the project. Include any comments below:

3. **National Historic Preservation Act, Section 106:**
Identify the area of potential effects (APE), including construction, staging areas, and depth of any excavation. (Note: the APE is three dimensional and includes all areas that may be affected by the project, including the surface area and extending below ground to the depth of any project excavations).

- **Required documents: Cultural Resources Assessment** prepared by a prepared by a qualified researcher that meets the Secretary of the Interior's Professional Qualifications Standards (www.cr.nps.gov/local-law/arch_stnds_9.htm). **Current records search** with maps showing all sites and surveys drawn in relation to the project area, and records of **Native American consultation.** Include any comments below:

Letter C (cont)

4. **Federal Clean Air Act:**

Identify Air Basin Name _____

Name of the Local Air District for Project Area: _____

Is the project subject to a State Implementation Plan (SIP) conformity determination?

☐ No. The project is in an attainment or unclassified area for all federal criteria pollutants.

☐ Yes. The project is in a nonattainment area or attainment area subject to maintenance plans for a federal criteria pollutant. Include information to indicate the nonattainment designation (e.g. moderate, serious, severe, or extreme), if applicable. If estimated emissions (below) are above the federal de minimis levels, but the project is sized to meet only the needs of current population projections that are used in the approved SIP for air quality, then quantitatively indicate how the proposed capacity increase was calculated using population projections.

- **If you checked "Yes" above, provide the estimated project construction and operational air emissions (in tons per year) in the chart below, and attach supporting calculations.**
- **Also, attach any air quality studies that may have been done for the project.**

Pollutant	Federal Status (Attainment, Nonattainment, Maintenance, or Unclassified)	Nonattainment Rates (i.e., moderate, serious, severe, or extreme)	Threshold of Significance for Project Air Basin (if applicable)	Construction Emissions (Tons/Year)	Operation Emissions (Tons/Year)
Ozone (O_3)					
Carbon Monoxide (CO)					
Oxides of Nitrogen (NO_x)					
Reactive Organic Gases (ROG)					
Volatile Organic Compounds (VOC)					
Lead (Pb)					
Particulate Matter less than 2.5 microns in diameter ($PM_{2.5}$)					
Particulate Matter less than 10 microns in diameter (PM_{10})					
Sulfur Dioxide (SO_2)					

5. **Coastal Zone Management Act:**

Is any portion of the project site located within the coastal zone?

☐ No. The project is not within the coastal zone.

☐ Yes. Describe the project location with respect to coastal areas and the status of the coastal zone permit, and provide a copy of the coastal zone permit or coastal exemption:

_____

_____

_____

_____

_____

_____

Letter C (cont)

6. **Coastal Barriers Resources Act:**
Will the project impact or be located within or near the Coastal Barrier Resources System or its adjacent wetlands, marshes, estuaries, inlets, and near-shore waters? Note that since there is currently no Coastal Barrier Resources System in California, projects located in California are not expected to impact the Coastal Barrier Resources System in other states. If there is a special circumstance in which the project may impact a Coastal Barrier Resource System, indicate your reasoning below.

☐ No. The project will not impact or be located within or near the Coastal Barrier Resources System or its adjacent wetlands, marshes, estuaries, inlets, and near-shore waters.

☐ Yes. Describe the project location with respect to the Coastal Barrier Resources System, and the status of any consultation with the appropriate Coastal Zone management agency and the United States Fish and Wildlife Service:

_____

_____

_____

_____

7. **Farmland Protection Policy Act:**
Is any portion of the project located on important farmland?

☐ No. The project will not impact farmland.

☐ Yes. Include information on the acreage that would be converted from important farmland to other uses. Indicate if any portion of the project boundaries is under a Williamson Act Contract and specify the amount of acreage affected:

_____

_____

_____

_____

_____

8. **Flood Plain Management:**
Is any portion of the project located within a 100-year floodplain as depicted on a floodplain map or otherwise designated by the Federal Emergency Management Agency?

- **Required documents: Attach a floodplain map.**

☐ No. Provide a description of the project location with respect to streams and potential floodplains:

_____

☐ Yes. Describe the floodplain, and include a floodplains/wetlands assessment. Describe any measures and/or project design modifications that would be implemented to minimize or avoid project impacts:

_____

_____

_____

_____

Letter C (cont)

9. **Migratory Bird Treaty Act:**
Will the project affect protected migratory birds that are known, or have a potential, to occur on-site, in the surrounding area, or in the service area?

☐ No. Provide an explanation below.

_____
_____
_____
_____

☐ Yes. Discuss the impacts (such as noise and vibration impacts, modification of habitat) to migratory birds that may be directly or indirectly affected by the project and mitigation measures to reduce or eliminate these impacts. Include a list of all migratory birds that could occur where the project is located:

_____
_____
_____
_____

10. **Protection of Wetlands:**
Does any portion of the project boundaries contain areas that should be evaluated for wetland delineation or require a permit from the United States Army Corps of Engineers?

☐ No. Provide the basis for such a determination:

_____
_____
_____
_____

☐ Yes. Describe the impacts to wetlands, potential wetland areas, and other surface waters, and the avoidance, minimization, and mitigation measures to reduce such impacts. Provide the status of the permit and information on permit requirements:

_____
_____
_____
_____

11. **Wild and Scenic Rivers Act:**
Identify watershed where the project is located: _____

Is any portion of the project located within a wild and scenic river?

☐ No. The project is not located near a wild and scenic river.

☐ Yes. Identify the wild and scenic river watershed and project location relative to the affected wild and scenic river:

_____
_____
_____
_____

Letter C (cont)

12. **Safe Drinking Water Act, Sole Source Aquifer Protection:**
Is the project located in an area designated by the United States Environmental Protection Agency, Region 9, as a Sole Source Aquifer?

☐ No. The project is not within the boundaries of a sole source aquifer.

☐ Yes. Contact USEPA, Region 9 staff to consult, and identify the sole source aquifer (e.g., Santa Margarita Aquifer, Scott's Valley, the Fresno County Aquifer, the Campo/Cottonwood Creek Aquifer or the Ocotillo-Coyote Wells Aquifer) that will be impacted:

_____

_____

13. **Environmental Justice:**
Does the project involve an activity that is likely to be of particular interest to or have particular impact upon minority, low-income, or indigenous populations, or tribes?

☐No. Selecting "No" means that this action is not likely to be of any particular interest to or have an impact on these populations or tribes. Explain.

_____

_____

_____

_____

_____

☐Yes. If you answer yes, please check at least one of the boxes and provide a brief explanation below:

☐ The project is likely to impact the health of these populations.

☐ The project is likely to impact the environmental conditions of these populations.

☐ The project is likely to present an opportunity to address an existing disproportionate impact of these populations.

☐ The project is likely to result in the collection of information or data that could be used to assess potential impacts on the health or environmental conditions of these populations.

☐ The project is likely to affect the availability of information to these populations.

☐ Other reasons, describe: _____

_____

_____

_____

_____

_____

_____

Letter D

From: Guidi, Robert G CIV (US) [mailto:robert.g.guidi.civ@mail.mil]
Sent: Wednesday, June 19, 2013 12:05 PM
To: GWR
Cc: Elliott, John H CIV (US); Grover-Bullington, Lenore R CIV (US); Preciado, Rogelio E CIV (US)
Subject: GWR EIR Scoping

Dear Bob,

Thank you for the opportunity to provide input on the Monterey Peninsula GWR EIR. Undoubtedly this proposed project and associated environmental analysis will receive a substantial amount of scrutiny.

Having listened to the various presentations and read the NOP for the EIR here are a few initial comments for consideration during the CEQA public scoping process as follows:

1. Water Quality – MRWPCA and DDA are planning to address the potential environmental impacts thereof. The depth or extent of that analysis is critical because of the safety concerns associated with the proposed technology. People must be highly assured the groundwater pumped out the aquifer is safe for consumption. The effluent from the six sources of recovered water is an initial concern. These sources vary significantly in concentrations and types of contaminates. Once these source waters are pumped and treated at the regional wastewater treatment facility the quality of the product water injected into the Seaside Basin Groundwater Aquifer comes into question (e.g. potential to contaminate the existing groundwater aquifer). Likewise, there are concerns about the quality of the "mixed" groundwater being provided for reuse. Bottom line – this environmental analysis must be thorough and flawless leaving no unanswered questions about safe drinking water. D-1

2. Socio-economic – This proposed project will probably add another water user fee to overburdened business and property owners. The costs of not only this project bit also the cumulative socio-economic impacts of multiple regional water projects need to be analyzed in detail. Various financial impacts, both adverse and beneficial must be explained clearly. The economic ripple effects throughout the communities from water rate increases such as higher costs for goods/services and gains/losses in jobs must be fully analyzed. The estimated range of the per unit costs in AF/yr for this proposed "new" source of water should be assessed against other proven supplemental water supplies and clearly explained to the water rate payers . D-2

3. Biological impacts – Three "barriers" have been identified for the treatment of the groundwater. Other types of barriers such as exposure to high intensity ultra-violet light combined with H2O2 should be addressed. Explaining the environmental reasons for selecting and eliminating alternative technologies provides a better analysis. D-3

Hopefully these initial comments are helpful in the scoping the EIR. Please keep POM DPW informed of any upcoming meetings and the availability of the Draft EIR.

Robert Guidi
USAG POM DPW
Master Planning
831-242-7928

DEPARTMENT OF PARKS AND RECREATION
Major General Anthony L. Jackson, USMC (Ret), *Director*
2211 GARDEN Road
Monterey, CA 93940

June 19, 2013

Monterey Regional Water Pollution Control Agency
ATTN: Bob Holden
5 Harris Court, Bldg. D
Monterey, CA 93940

RE: Notice of Preparation: Monterey Peninsula Groundwater Replenishment Project EIR.

Dear Mr. Holden,

Thank you for the opportunity to comment on the Notice of Preparation for the Monterey Peninsula Groundwater Replenishment Project EIR. The California Department of Parks and Recreation owns and operates Fort Ord Dunes State Park (FODSP). In reviewing the NOP, State Parks has concern over the project's product water conveyance facilities that are proposed to be installed within the TAMC Right-Of-Way (ROW). Conveyance facilities within the TAMC ROW may require that construction related activities have access through FODSP. Any such access would require close coordination and approval from State Parks in advance. State Parks requests that staff be included in any conceptual design and or pre-construction meetings that involve the use of FODSP. Should the project require access through FODSP there will need to be close coordination with district and real property staff for the issuance of any needed temporary construction easements. Such easements can take up to 18 months to process. E-1

Other concerns include placing construction equipment on existing park roads and trails that are being used by the public, any associated traffic control needs, and avoiding impacts to park natural resources. E-2

Again, thank you for the opportunity to comment on the Notice of Preparation for the Monterey Peninsula Groundwater Replenishment Project EIR.

Sincerely,

Stephen Bachman
Senior Planner
(831) 649-2862

Letter F

Coalition of Peninsula Businesses

A coalition of the 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, Community Hospital of the Monterey Peninsula, Associated General Contractors – Monterey District
to resolve the Peninsula water challenge to comply with the CDO at a reasonable cost

June 27, 2013

Bob Holden
Monterey Regional Water Pollution Control Agency
#5 Harris Court, Building D
Monterey, California 93940

Transmitted by e-mail to GWR@mrwpca.org

Dear Mr. Holden:

The Coalition of Peninsula Businesses (CPB) submits these comments on the Notice of Preparation (NOP) for the Monterey Groundwater Replenishment Project Environmental Impact Report.

Purpose of project

The project description should be more specific as to the purpose of the project; it is variously described as intended to help resist Seaside Basin seawater intrusion, as a source of replenishment water to help Cal Am meet its water needs with other than its illegal pumping of Carmel River Basin water and Seaside Basin water in excess of the water master-determined safe yield limits, and as a means to reduce the desal plant size of Cal Am's Monterey Peninsula Water Supply Project.

The project description needs to be amended to establish a clearer project purpose, explain the project's relationship or inter-relationship with the regional water project pending before the PUC, and to provide a clearer definition of its intended goal. Whether the Groundwater Replenishment Project is intended to be a stand-alone project or as a supplement to Cal Am's project should be spelled out clearly. The NOP seems to be geared to Peninsula water supply replacement only but it is not clear how or when or why that decision was made, if in fact a decision had been made. F-1

Inter-relationship with the CSIP project

MRWPCA apparently intends to use or build upon the facilities built for and financed by the landowners in the CSIP area. The rights of those landowners for use of reclaimed water up to the first 19,500 AFY and MRWPCA's right to divert any portion of that reclaimed water to another use must be explained. F-2

Source water

Sources of water to be reclaimed clearly must be spelled out, the status of agreements for acquisition and transportation of source water must be disclosed and legal rights to the use the source water and then to distribute recycled water need to be clearly established. The legal dispute between MRWPCA and ag interests as to rights to recycled water and the quantity of recycled water assured to ag interests must be resolved. If necessary, the sources of water to be recycled must be sufficient to meet the assurances to ag interests and provide water for sale to Cal Am for drinking water. F-3

OCEAN & MISSION• SUITE 201• P.O. BOX 223542 • CARMEL, CA • 93922
PHONE: 831-626-8636 • FAX: 831-626-4269 • EMAIL: jrbobmck@gmail.com or badams@adcomm4.com

Quality of source water

Rec ditch and other ag sources of water to be recycled are mentioned as possibilities. The Monterey County Water Resources Agency has conducted several studies of the quality of rec ditch and other ag runoff waters and found those waters to be highly polluted and contaminated. The instant EIR should reflect those prior studies and explain in some detail how the pollution and contamination will be dealt with to elevate the recycled water to California Department of Public Health standards. Specific examples of where source water of this quality has been successfully reclaimed to drinking water standards and at what cost should be provided. F-4

Reliability of the continuing quantity of source water

Due to highly increased water conservation measures throughout MRWPCA's service area, the amount of inflow has decreased over the last several years. This trend should be projected and the effect on MRWPCA's ability to produce reclaimed wastewater assessed. F-5

The same question should be answered in light of the proposed source water given the increased emphasis on water conservation, recycling and reduction in ag and urban runoff. F-6

Growth and growth-inducing impacts

The cities and county areas served by Cal Am already have adopted and EIR-certified General Plans that address growth issues and mitigation measures. The instant EIR should review and reflect those documents. F-7

Alternatives

If it is clearly established that the GWR project is intended as a supplement to Cal Am's project or as a Peninsula water supply replenishment-only project, study of a GWR project as an independent source of additional Peninsula water supply must be studied. F-8

Thank you for your attention to our concerns.

Sincerely,

Coalition of Peninsula Businesses

John Narigi, Co-chair

Bob McKenzie, Consultant

Letter G

FARM BUREAU MONTEREY

June 28, 2013

Mr. Bob Holden
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940

RE: Scoping for draft EIR on Groundwater Replenishment Project

Dear Mr. Holden:

Monterey County Farm Bureau represents family farmers and ranchers in the interest of protecting and promoting agriculture throughout our County. We strive 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.

Our primary concern with the proposed groundwater replenishment program is that of sufficient source water to supply the project in a reliable and effective manner throughout the life of the project. As you are well aware, there is a dispute over how much reclaimed water is available for this project, and it remains the Agricultural community's assertion that additional sources of water must be obtained to satisfy the desired annual acre feet of reclaimed water for this project. Our contention is that all the water that is currently committed to the Castroville Seawater Intrusion Project and Marina Coast Water District is not available for use within the scope of this project.

Until this issue is settled to the satisfactory understanding of the Agricultural community, which we hope will happen through a process that involves all stakeholders and included in the CEQA process, we reserve our support for this project. G-1

While we understand that groundwater replenishment is an important part of managing a groundwater basin intruded by saltwater, there must be a clear understanding of what water rights are used for the project. Successful groundwater replenishment programs, such as in Orange County, prove that the technology and science support the benefits of this type of program. G-2

Monterey County Farm Bureau hopes the CEQA process will identify additional water sources that can be used, and potentially be contracted for, to supply reclaimed water for this program. G-3

Thank you for the opportunity to comment on the scope of this CEQA process.

Sincerely,

Norman C. Groot
Executive Director

T: (831) 751-3100 • F: (831) 751-3167 • 931 Blanco Circle, Salinas, CA 93901 • P.O. Box 1449, Salinas, CA 93902-1449

www.montereycfb.com

Letter H

MONTEREY COUNTY
RESOURCE MANAGEMENT AGENCY

Benny J. Young, Director
Carl P. Holm, AICP, Deputy Director
Michael A. Rodriguez, C.B.O., Chief Building Official
Michael Novo, AICP, Director of Planning
Robert K. Murdoch, P.E., Director of Public Works

168 W. Alisal Street, 2nd Floor
Salinas, CA 93901
http://www.co.monterey.ca.us/rma

June 28, 2013

Monterey Regional Water Pollution Control Agency
ATTN: Bob Holden
5 Harris Court, Bldg. D
Monterey, CA 93940

Subject: NOP for Monterey Peninsula Groundwater Replenishment Project EIR (REF130047)

Dear Mr. Holden;

Thank you for the opportunity to review the NOP for the subject project. The Monterey County land use departments have reviewed the NOP and have the following comments:

Land Use. The EIR should include a consistency analysis with the Monterey County 2010 General Plan, applicable Land Use Plans as well as Titles 20 (Coastal Zoning) and Title 21 (Inland Zoning). The analysis should include a map showing the Coastal Zone boundary as well as the boundaries of the applicable Area Plans and Land Use Plans. The project will require Use Permits and Coastal Development Permits and Monterey County will be a Responsible Agency under CEQA. H-1

Construction Impacts. The project description should identify the location and size of all proposed construction staging areas. The traffic analysis should evaluate any temporary construction impacts due to installation of infrastructure in the public right-of-way. H-2

Biology. If any protected trees are proposed for removal, a Forest Management Plan will be required. Protected trees are identified in the corresponding Area Plans and Land Use Plans. The Forest Management Plan should be prepared by one of the consultants on the County's list (available on the County website). H-3

Alternatives. The alternatives should include alternate locations of the proposed facilities to minimize environmental impacts. In particular, if protected trees are proposed for removal and/or improvements are proposed on 25% slopes (Inland) or 30% (Coastal), alternatives should be considered to minimize tree removals and/or development on steep slopes. H-4

Since Monterey County will be a Responsible Agency, we request that the Administrative Draft EIR be submitted for our review. This would help ensure that the EIR meets the County's requirements when decisions are made on the Use Permits and Coastal Development Permits. H-5

Finally, it is strongly recommended that a Pre-Application meeting on this project be scheduled as soon as possible. This would help to identify any land use issues early in the review process and to allow for the project to adjusted prior to submitting a formal application. Including all of the County land use agencies in the Pre-Application meeting would also help to achieve a more complete application upon formal submittal. If you are interested in a Pre-Application meeting, let me know and I will send you an application form. H-6

Feel free to call me if you have any questions.

Sincerely,

Bob Schubert

Bob Schubert, AICP
Senior Planner

STATE OF CALIFORNIA

EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

Our 75th Year

1938 - 2013

JENNIFER LUCCHESI, *Executive Officer*
(916) 574-1800 *Fax* **(916) 574-1810**
California Relay Service TDD Phone **1-800-735-2929**
from Voice Phone **1-800-735-2922**

Contact Phone: **(916) 574-1900**
Contact Fax: **(916) 574-1885**

received July 1, 2013

June 27, 2013

File Ref: SCH # 2013051094

Bob Holden
Principal Engineer
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940

Subject: Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for the Monterey Peninsula Groundwater Replenishment Project, Monterey County

Dear Mr. Holden:

The California State Lands Commission (CSLC) staff has reviewed the subject NOP for the Monterey Peninsula Groundwater Replenishment Project (Project), which is being prepared by the Monterey Regional Water Pollution Control Agency (MRWPCA). MRWPCA, as a public agency proposing to carry out a project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The CSLC is a trustee agency because of its trust responsibility for projects that could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses, and the public easement in navigable waters. Additionally, if the Project involves work on sovereign lands, the CSLC will act as a responsible agency. I-1

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat I-2

preservation, and open space. On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections. I-2 cont

In order to determine the CSLC's leasing interest, if any, in the proposed Project, please provide more detailed maps showing the exact locations of all pipelines or other proposed improvements crossing the Salinas River. In addition, should any deep injection or shallow wells be located within the Salinas River or Monterey Bay, please provide CSLC staff with the exact locations as soon as they are known. I-3

Project Description

The MRWPCA proposes to produce and deliver high quality treated water for replenishment of the Seaside Basin to meet the Agency's and California American Water Company's (Cal-Am's) objectives and needs as follows:

- Reduce Water Diversions. Cal-Am has been ordered by the State Water Resources Control Board to reduce its diversions from the Carmel River to 3,376 AFY by 2017. The proposed Project will supply 3,500 AFY of replacement water to Cal-Am and reduce diversions from the Carmel River by the same amount;
- Provide a Cost-Effective Water Source. The Project should be capable of supplying reasonably-priced water;
- Regulatory Compliance. The Project should be capable of complying with water quality regulations intended to protect public health; and
- Additional Objectives. The Project should also assist in preventing seawater intrusion into the Seaside Basin, diversifying Monterey County's water supply portfolio, and provide additional water that could be used for crop irrigation.

I-4

From the Project Description, CSLC staff understands that the Project would include the following components:

- Source Water Conveyance Facilities. Diversion and collection facilities, including pipelines and pump stations to convey source water to the new treatment facilities;
- Treatment Facilities. Pretreatment facilities, a new Advanced Water Treatment Plant, and associated facilities at the Regional Treatment Plant site to filter and treat the source water;
- Product Water Conveyance Facilities. Pipelines, pump stations, appurtenant facilities along one of two optional alignments to convey the treated water to the Seaside Basin; and
- Replenishment and Recharge Facilities. Pipelines, deep injection and shallow (vadose zone) wells, and backflush facilities to be located at one or both of two optional recharge site (coastal and inland) within the Seaside Basin Boundaries.

Environmental Review

CSLC staff requests that the following potential impacts be analyzed in the EIR.

General Comments

1. Project Description: A thorough and complete Project Description should be included in the EIR in order to facilitate meaningful environmental review of potential impacts, mitigation measures, and alternatives. The Project Description should be as precise as possible in describing the details of all allowable activities (e.g., types of equipment or methods that may be used, maximum area of impact or volume of sediment removed or disturbed, seasonal work windows, locations for material disposal, etc.), as well as the details of the timing and length of activities. Thorough descriptions will facilitate CSLC staff's determination of the extent and locations of its leasing jurisdiction, make for a more robust analysis of the work that may be performed, and minimize the potential for subsequent environmental analysis to be required. I-5

Biological Resources

2. Sensitive Species: The EIR should disclose and analyze all potentially significant effects on sensitive species and habitats in and around the Project area, including special-status wildlife, fish, and plants, and if appropriate, identify feasible mitigation measures to reduce those impacts. The MRWPCA should conduct queries of the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) and U.S. Fish and Wildlife Service's (USFWS) Special Status Species Database to identify any special-status plant or wildlife species that may occur in the Project area. The EIR should also include a discussion of the MRWPCA's consultation with CDFW and USFWS, including any recommended mitigation measures and potentially required permits identified by these agencies. I-6

3. Invasive Species: One of the major stressors in California waterways is introduced species. In light of the recent decline of native pelagic organisms and in order to protect at-risk fish species, the EIR should examine if any elements of the Project (e.g., changes in amount and timing of freshwater flow) would favor non-native fisheries within the Salinas River. The CDFW's Invasive Species Program could assist with this analysis as well as with the development of appropriate mitigation (information at http://www.dfg.ca.gov/invasives/) I-7

4. Construction Noise: The EIR should also evaluate noise and vibration impacts on fish and birds from directional drilling of the pipelines and for associated land-side activity. Mitigation measures could include species-specific work windows as defined by CDFW, USFWS, and the National Oceanic and Atmospheric Administration's Fisheries Service (NOAA Fisheries). Again, staff recommends early consultation with these agencies to minimize the impacts of the Project on sensitive species. I-8

5. Frac-Out: If directional drilling will occur under the Salinas River to lay a pipeline, the EIR should evaluate the potential for frac-out to occur during drilling and analyze the potential impacts of frac-out to biological resources, including sensitive species and habitats. If impacts are found to be significant, the EIR should identify feasible mitigation measures to reduce the impacts of frac-out. CSLC staff may request documentation of mitigation for frac-out before issuing a lease. An example of a frac-out contingency plan that generally meets the CSLC's leasing requirements is the Contingency and Resource Protection Plan developed for the Construction of the AT&T Fiber Optic Cable Installation Project, Las Vegas to Victorville FTB Clark County, Nevada, and San Bernardino Counties, which is available at http://www.slc.ca.gov/division_pages/DEPM/DEPM_Programs_and_Reports/ATT_Fiber_Optic/PDF/Appendices/Ap-I_HDD_Plan.pdf. I-9

Climate Change

6. Greenhouse Gases: A greenhouse gas (GHG) emissions analysis consistent with the California Global Warming Solutions Act (AB 32) and required by the State CEQA Guidelines[1] should be included in the EIR. This analysis should identify a threshold for significance for GHG emissions, calculate the level of GHGs that will be emitted as a result of construction and ultimate build-out of the Project, determine the significance of the impacts of those emissions, and, if impacts are significant, identify mitigation measures that would reduce them to less than significant. I-10

7. Sea Level Rise: The EIR should also consider the effects of sea level rise on all resource categories potentially affected by the proposed Project. One of the Project's objectives is to prevent saltwater intrusion into groundwater basins. Since the EIR's impacts analysis will be used to develop a range of alternatives to the Project, please consider how sea level rise may increase or accelerate saltwater intrusion into the Project's groundwater basins and determine the Project's resiliency to sea level rise. If sea level rise is found to reduce the Project's effectiveness and impact CEQA resource categories, consider creating an alternative to the Project that would be more resilient to sea level rise. I-11

   At its meeting on December 17, 2009, the CSLC approved the recommendations made in a previously requested staff report, "A Report on Sea Level Rise Preparedness" (Report), which assessed the degree to which the CSLC's grantees and lessees have considered the eventual effects of sea level rise on facilities located within the CSLC's jurisdiction. (The Report can be found on the CSLC's website, www.slc.ca.gov.) One of the Report's recommendations directs CSLC staff to consider the effects of sea level rise on hydrology, soils, geology, transportation, recreation, and other resource categories in all environmental determinations associated with CSLC leases.

[1] The State "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Please note that, when considering lease applications, CSLC staff is directed to (1) request information from applicants concerning the potential effects of sea level rise on their proposed projects, (2) if applicable, require applicants to indicate how they plan to address sea level rise and what adaptation strategies are planned during the projected life of their projects, and (3) where appropriate, recommend project modifications that would eliminate or reduce potentially adverse impacts from sea level rise, including adverse impacts on public access. I-11 cont

Cultural Resources

8. Submerged Resources: The EIR should evaluate potential impacts to submerged cultural resources in the Project area, including the Salinas River. The CSLC maintains a shipwrecks database that can assist with this analysis. CSLC staff requests that the MRWPCA contact Senior Staff Counsel Pam Griggs (see contact information below) to obtain shipwrecks data from the database and CSLC records for the Project site. The database includes known and potential vessels located on the State's tide and submerged lands; however, the locations of many shipwrecks remain unknown. Please note that any submerged archaeological site or submerged historic resource that has remained in State waters for more than 50 years is presumed to be significant. I-12

9. Title to Resources: The EIR should also mention that the title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the CSLC. CSLC staff requests that the MRWPCA consult with Senior Staff Counsel Pam Griggs (see contact information below), should any cultural resources on state lands be discovered during construction of the proposed Project. I-13

Additional Review

10. Deferred Mitigation: In order to avoid the improper deferral of mitigation, mitigation measures should either be presented as specific, feasible, enforceable obligations, or should be presented as formulas containing "performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way" (State CEQA Guidelines, §15126.4, subd. (b)). I-14

Thank you for the opportunity to comment on the NOP for the Project. As a responsible agency, the CSLC will need to rely on the Final EIR for the issuance of any amended or new lease as specified above and, therefore, we request that you consider our comments during development of the EIR. Please send additional information on the Project to the CSLC as plans become finalized.

Please send copies of future Project-related documents, including electronic copies of the Draft and Final EIR, Mitigation Monitoring and Reporting Program (MMRP), Notice of Determination (NOD), CEQA Findings and, if applicable, Statement of Overriding Considerations when they become available, and refer questions concerning

environmental review to Holly Wyer, Environmental Scientist, at (916) 574-2399 or via e-mail at Holly.Wyer@slc.ca.gov. For questions concerning archaeological or historic resources under CSLC jurisdiction, please contact Senior Staff Counsel Pam Griggs at (916) 574-1854 or via email at Pamela.Griggs@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Drew Simpkin, Public Land Management Specialist, at (916) 574-2275, or via email at Drew.Simpkin@slc.ca.gov.

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
Drew Simpkin, LMD, CSLC
Holly Wyer, DEPM, CSLC
Shelli Haaf, Legal, CSLC

Letter J

MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT

Home of the Last Chance Mercantile

July 1, 2013

Via Electronic Mail (GWR@mrwpca.com)

Monterey Regional Water Pollution Control Agency
5 Harris Court, Bldg D
Monterey, CA 93940

ATTN: Bob Holden

RE: Comments to Notice of Preparation (NOP) for Monterey Peninsula Groundwater Replenishment Project Environmental Impact Report

Dear Mr. Holden:

The Monterey Regional Waste Management District staff has reviewed the NOP document and found the document to be very well prepared.

We offer one comment adding to the existing language on Page 20, Table 1 as follows:

Agency/Entity	Permitting Regulation/Approval Requirement
Monterey Reg. Waste Management District	Electric Power Purchase Agreement, **Construction, Access, and Right of Way Easements**

J-1

Thank you for the opportunity to review and comment on the NOP.

Very truly yours,

William M. Merry, P.E.
General Manager

cc: MRWMD Board of Directors

o:\rds\groundwater monit\nop for gwr letter7.1.13.docx

Letter K

Michael Gonzales

From: Mike McCullough [MikeM@mrwpca.com]
Sent: Tuesday, July 02, 2013 3:51 PM
To: Michael Gonzales; Alison Imamura; Denise Duffy; valerieyoung@rcn.com
Cc: Brad Hagemann; Keith Israel
Subject: Comments from an individual - Peter Le

July 1, 2013

I have the following comments on the scope and contents of the GWR EIR prepared by MRWPCA:

The EIR needs to analyze thoroughly how the proposed project affects the agreed recycled water capacity of the MCWD in the approximate amount of 2.1 MGD. If MCWD utilizes it full 2.1 MGD recycled water, how much treated water the proposed project can provide. K-1
Similarly, if the farmers insist on their share of 19,500 AFY of recycled water, how does this affect the proposed project?

How does the 3,500 AFY arrive at? The EIR needs to show calculations on this proposed quantity for the existing and future conditions. K-2

The MRWPCA claimed that it has spent about 3 million dollars on modifying the regional treatment plant to provide recycled water to MCWD under the 2009 RUWAP agreement. Will this project utilize the MCWD designs or modified regional treatment that will be paid by MCWD for this project? What additional work on the regional treatment plant that will be done on this project? How does MRWPCA identify and separate all costs for two different projects, MCWD and GWR? K-3

K-4 [What impacts does this proposed project affect the MCWD recycled water project?][What is the required separation between MRWPCA recycled pipes and MCWD recycled pipes?] K-5 K-4/K-5

The EIR needs to consider the alternative of pumping excess winter flow from the Salinas River, treat it, and recharge the Seaside Aquifer.

How do the discharges of the proposed advanced water treatment plant and secondary source water affect the MCWD brine disposal capacity and the total capacity of the existing outfalls? K-6

How does the cooperation between MRWPCA and MCWD involve as described in page 11 of the NOP? K-7

MRWPCA proposes to use the partially MCWD completed recycled water system for this GWR project as described on page 15. Has MRWPCA discussed with any Director or staff on this proposal? K-8
How does this project affect MCWD access to the acquired Armstrong Ranch property?
What is the current residence time of the recharged water as specified by the State?

I would like to ask MRWPCA to make a presentation to the MCWD Board on their expectations of the MCWD roles on this proposed project. K-9

The above comments are mine and they do not represent the official comments from MCWD. Let me know if you have any questions.

Sincerely,

Peter Le

Letter L

State of California—Health and Human Services Agency
California Department of Public Health

Ron Chapman, MD, MPH
Director

EDMUND G. BROWN JR.
Governor

NOP
7/1/13
C

RECEIVED
JUL 01 2013
STATE CLEARING HOUSE

July 1, 2013

Bob Holden, Senior Planner
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940

RE: Comment Letter for Monterey Regional Water Pollution Control Agency, Monterey Peninsula Groundwater Replenishment Project, Environmental Impact Report, SCH# 2013051094

Dear Mr. Medina:

Thank you for the opportunity to review the Environmental Impact Report, titled Monterey Peninsula Groundwater Replenishment Project. The California Department of Public Health (CDPH), Division of Drinking Water and Environmental Management is responsible for issuing water supply permits administered under the Safe Drinking Water Program. A project triggers a permit if it includes changes to the water supply, storage, treatment of drinking water, or consolidation of one or more public water systems. CDPH will need to issue a new or amended Water Supply Permit for the above referenced project should the project proceed under the alternatives described. CDPH will be a "responsible agency" pursuant to the California Environmental Quality Act (CEQA). L-1

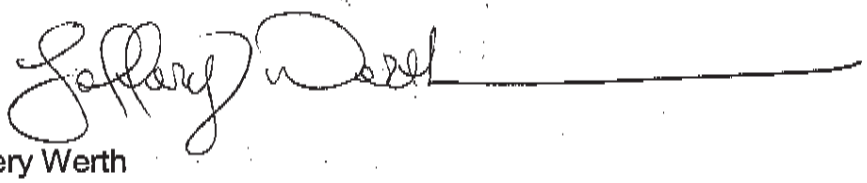
The proposed project would provide a replacement water supply for the California American Water Company's - Monterey District service area and would assist with prevention of seawater intrusion into a coastal aquifer. CDPH would like to provide the following comment in regards to the proposed project: L-2

> The proposed project must comply with any draft or adopted regulations, frequent communication with CDPH is highly recommended to ensure there are no compliance issues.

Please contact Jan Sweigert, CDPH Monterey District Office, at (831) 655-6939 or e-mail Jan.Sweigert@cdph.ca.gov if you have any questions regarding the comments

provided. If you have any questions regarding CDPH CEQA permit requirements, please call Jeffery Werth at (916) 449-5285 or e-mail to jeffery.werth@cdph.ca.gov.

Sincerely,



Jeffery Werth
CDPH Drinking Water Program, Environmental Review Unit

Cc: CDPH Monterey Office
Bridget Binning, Environmental Review Unit
State Clearinghouse

Seaside Basin Watermaster
2600 Garden Road
Suite 228
Monterey, CA 93940

July 1, 2013

Mr. Bob Holden
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940

Subject: Notice of Preparation of Environmental Impact Report for the Monterey Peninsula Groundwater Replenishment Project, May 30, 2013

Dear Mr. Holden:

The Seaside Basin Watermaster submits the following comments on the Subject document:

1. There are numerous statements in the NOP that the GWR Project will "replenish" the Seaside Groundwater Basin (SGWB). These occur on pages 2, 9, 10, 16, and 17. As noted on page 10, since all of the GWR Project water currently being contemplated for injection into the SGWB will be pumped back out by existing municipal supply extraction wells not long after it has been injected, the GWR Project water will not provide long-term replenishment of the SGWB. The SGWB, as described in the NOP, will simply serve as an interim storage basin for this water. This should be clarified in the EIR. M-1

2. There have been recent discussions with MRWPCA staff regarding the potential for the GWR Project to provide additional water that could truly be beneficial to the SGWB by injecting it and leaving it in the aquifers, rather than pumping it back out. A quantity of 1,000 AFY had been proposed by MRWPCA as recently as May 2013. Apparently the project proponents decided not to include this additional water in the scope of the project for which the NOP was prepared. The Watermaster strongly urges that, if at all possible, the GWR Project be designed and configured such that it could provide additional water to replenish the SGWB. While the Watermaster does not currently have funds that could be used to purchase such additional water, if additional water could be made available once the GWR Project is operational, and if funds to purchase additional water became available, the additional water could be used to help raise groundwater levels to protective elevations to protect the SGWB from seawater intrusion. Accordingly, this potential to provide additional water via future expansion of the GWR Project should be addressed in the EIR. M-2

3. The map in Figure 1 does not clearly show where the GWR Project facilities are located. The "Monterey Peninsula Groundwater Replenishment Area" balloon is so large that it is really not helpful in understanding where the facilities described in the NOP will be located. M-3

4. It is very difficult to see exactly where the proposed Recharge Facilities are located in the map in Figure 2. Two detailed maps with a larger scale, one for each site, would be preferable. M-3 cont

5. On page 7 it states that Cal Am owns 12 wells in the SGWB. It would be more accurate to indicate that Cal-Am *currently operates* 12 production wells in the SGWB. M-4

6. On page 7 the sentence in the third paragraph pertaining to the makeup of the Watermaster should be corrected to read "The Watermaster Board of Directors consists of nine entities, one representative from each:..." The next-to-last sentence in this paragraph should be revised to read "Water levels were found to be below sea level in portions of both...". M-5

7. On page 10 the statement is made that one of the secondary objectives of the project will be to "Assist in preventing seawater intrusion in the Seaside Basin." As noted in Comment No. 1, since all of the GWR Project water will be pumped out after it is injected into the SGWB, it does not appear that the GWR Project, as described in the NOP, will assist in preventing seawater intrusion in the SGWB. This statement should be removed or clarified. M-6

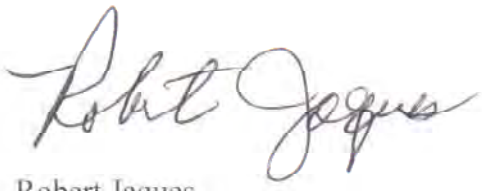
8. A number of water sources for the GWR Project are listed on pages 12-14. Two of the source waters proposed for the GWR Project on pages 12 and 14 are the Blanco Drain and the Reclamation Ditch. Both of these sources have historically shown high levels of contamination, such as a broad spectrum of pesticides, as well as metals and bacterial organisms. The design of the GWR Project Treatment Facilities should address this in order to ensure that the plant is able to reliably produce water of suitable quality for direct injection into the SGWB, which serves as a potable water supply to the public. M-7

9. The first sentence on page 17 should be revised to read "With groundwater levels currently below sea level in portions of both..." M-8

10. Table 1 on page 20 lists a "Permit for Injection/Extraction" that will be needed from the Watermaster. The Watermaster's term for this permit is "Agreement for Storage and Recovery of Non-Native Water from the Seaside Groundwater Basin." The Watermaster adopted a formal process for applicants wishing to obtain such a permit to use, as well as specific requirements the Watermaster will impose if such an agreement were to be prepared for the GWR Project. Details on this can be obtained by contacting the Watermaster's office. M-9

Thank you for the opportunity to submit these comments so they can be addressed in the EIR.

Sincerely,



Robert Jaques
Technical Program Manager
(831) 375-0517
bobj83@comcast.net

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

received July 2, 2013
hand delivered

July 1, 2013

Monterey Regional Water Pollution Control Agency
Administration Office
ATTN: Mr. Bob Holden, Principal Engineer
5 Harris Court, Building D
Monterey, CA 93940

SUBJECT: Notice of Preparation of Environmental Impact Report for the Monterey Peninsula Groundwater Replenishment Project, May 30, 2013

Dear Mr. Holden:

At its June 17, 2013 meeting, the Monterey Peninsula Water Management District (MPWMD) Board of Directors reviewed the Notice of Preparation (NOP) for the Monterey Peninsula Groundwater Replenishment (GWR) Project Environmental Impact Report. In addition, MPWMD staff have worked with you during the development of the NOP. As you know, MPWMD is strongly in favor of moving ahead with this EIR and a project that allows 3,500 acre-feet per year (AFY) to be extracted from the Seaside Groundwater Basin (SGB) for municipal use. We have the following comment on the NOP and recommendation for the EIR:

Water injection and subsequent extraction in the Seaside Groundwater Basin

Page 17 of the NOP states:

> "It is anticipated that recharge amounts allocated to each well type and target aquifer could readily be adjusted based on basin conditions that will be determined through ongoing monitoring."

MPWMD monitoring of the Santa Margarita aquifer suggests that not all water injected by the GWR Project would be expected to be extracted at existing municipal supply wells completed in the aquifer. While a bypassed portion of injected water may not be "lost" to the aquifer and could eventually help stabilize water levels, it is important that this effect should be better understood with respect to the GWR Project. N-1

MPWMD recommends that the EIR contain an evaluation of both the travel time and volume of water moved between injection and extraction sites in order to determine what portion of injected water can be safely extracted and when. It is possible that in the initial stages of the GWR Project more than 3,500 AFY will need to be injected into the basin in order to provide a net of 3,500 AFY without temporarily or permanently exacerbating the potential for seawater intrusion at extraction sites. An alternative approach could be to develop an operating rule for the basin that would define what period of time must pass between the initiation of injection operations and the N-2

initiation of extraction operations. In other words, there could be a "buffer" amount of water that is injected into the basin that would increase water levels at extraction sites to a condition that is determined to be "safe" for initiating extraction.

N-2 (cont)

I appreciate the work done over the past several years by the Monterey Regional Water Pollution Control Agency to develop this project and look forward to working with you in the future. If you have questions or comments about this letter, please contact me at (831) 658-5650.

Sincerely,

David J. Stoldt, General Manager

cc: MPWMD Board of Directors

Letter O

CITY OF PACIFIC GROVE
300 Forest Avenue ▫ Pacific Grove, California

July 2, 2013

Monterey Regional Water Pollution Control Agency
ATTN: Bob Holden
5 Harris Court, Bldg D
Monterey, CA 93940

RE: **Comments on Notice of Preparation – Monterey Peninsula Groundwater Replenishment Project Environmental Impact Report (EIR)**

Dear Mr. Holden:

The City of Pacific Grove appreciates the opportunity to comment on the Notice of Preparation for the Groundwater Replenishment Project (GWR) EIR. As a founding member of the Monterey Regional Water Pollution Control Agency (MRWPCA), we are supportive of the Agency's goals to expand recycled water uses to the GWR and reduce or eliminate winter discharges to the Monterey Bay. Pacific Grove has similar goals to maximize recycled water opportunities and eliminate wastewater discharges to the Monterey Bay. O-1

Because of the City's distance from the regional treatment plant, the urban areas between, the nature of the local topography, and the resulting poor cost effectiveness for extending recycled water delivery, MRWPCA has not previously considered opportunity sites within Pacific Grove as feasible to serve recycled water. Therefore, Pacific Grove is independently developing a non-potable recycled water supply project for irrigation of the Pacific Grove Golf Links, El Carmelo Cemetery, and other potential opportunities for recycled water use nearby on the Monterey Peninsula. The Pacific Grove Local Water Project (LWP) includes construction of a new satellite recycled water treatment facility at the existing Point Pinos wastewater treatment plant site to produce an initial 125 acre feet per year. The City plans to reclaim its wastewater from the City's sewage collection system, over which the City has sole control and ownership. O-2

In addition, Pacific Grove faces significant challenges in meeting the State Water Resources Control Board's requirements for discharges to the Pacific Grove Area of Special Biological Significance (ASBS). As previously permitted by MRWPCA and noted in the NOP, the City of Pacific Grove has already constructed portions of a dry weather storm water diversion system in order to meet the ASBS discharge regulations, which prohibit dry weather discharges. The LWP is evaluating the redirection of dry weather storm water flows from its current pumping to the MRWPCA regional treatment plant. O-3

We support the NOP statement that MRWPCA member entities could send storm water to the Regional Treatment Plant for use in the GWR Project. In collaboration with the City of Monterey, the City is refining its investigation of alternative means of diverting and potentially treating wet weather storm water flows as part of a compliance project for the ASBS. The ASBS/Stormwater Reuse Project is included within the Monterey Bay Integrated Regional Water Management Plan ("IRWMP") project and has obtained funding through the IRWMP program. These investigations are analyzing the feasibility of options for localized storage at the California American Water-owned David Avenue Reservoir and conveyance of stormwater to the regional treatment plant operated by MRWPCA. Initial modeling of wet weather discharges has identified total flows ranging from 2,500 gallons per minute ("gpm") in an 85th percentile storm event to 12,000 gpm in a 1-year storm event. These flows may be partially diverted to the PGLWP and related facilities, or to MRWPCA as an additional supply source to the GWR. Average annual volumes that could be diverted are still being determined.

O-3 (cont)

As MRWPCA moves forward with the GWR, we hope to continue to coordinate our respective efforts and projects. We anticipate the need to further discuss the capacity of the MRWPCA conveyance and treatment systems to be able to accept wet weather storm flows and the total flows from Pacific Grove to serve the GWR Project. The GWR facilities required to convey and inject the additional storm water volume available from the Cities should be addressed in the GWR EIR. These issues are more project-design related yet are likely to also produce environmental effects requiring additional review. The City believes that the GWR Project EIR should also consider the locally proposed projects, particularly in its analysis of cumulative effects.

O-4

The GWR Project, particularly if augmented by storm water flows and elimination of discharges to the Monterey Bay, has potential benefits to local MS4 dischargers that should be acknowledged in the Project Objectives. The Seaside Groundwater Basin has adequate storage capacity and need for replenishment that the opportunity to cost effectively incorporate wet weather storm flows should be fully explored and maximized.

O-5

Sincerely,

THOMAS FRUTCHEY

Thomas Frutchey, City Manager
City of Pacific Grove

cc: Sarah Hardgrave, Environmental Programs Manager
James Brezack, Brezack and Associates Planning

CITY OF SEASIDE
440 Harcourt Avenue
Seaside, CA 93955
Telephone (831) 899-6736
FAX (831) 899-6211

July 2, 2013

Mr. Bob Holden
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940
Via email gwr@mrwpca.com

Subject: Notice of Preparation of Environmental Impact Report for the Monterey Peninsula Groundwater Replenishment Project, May 30, 2013

The City of Seaside submits the following comments on the subject document:

1. The project proposes to recharge the Seaside Groundwater Basin with treated water. Could the project scope be expanded to also consider recharging the Carmel River as either as an alternative or as an option? P-1

2. The project proposes to use storm water as a potential water source. On page 13, the NOP states, "Other MRWPCA member entities could also send storm water to the Regional Treatment Plant for use by the GWR Project by adding storm water into existing pipelines, manholes, or pump stations within the MRWPCA wastewater collection system." Does this project propose to revise the MRWPCA NPDES permit to allow storm water to be conveyed and treated by the existing sewer facilities? P-2

3. The Product Water Conveyance Alignment Option 2 (see page 15) would more or less follow Cal-Am's proposed pipeline alignment. Since available space is limited and the installation of two large pipes within the public right of way in the City of Seaside, especially in La Salle Avenue, would be very disruptive, the installation of MRWPCA and Cal-Am facilities should be coordinated to minimize potential impacts. P-3

4. There are numerous statements in the NOP that are very specific as to project design details that may adversely constrain the final project design. For example, on page 16 the NOP states "The GWR Project would include subsurface groundwater recharge facilities, including shallow (or vadose zone) and deep injection wells located at inland and, if feasible, coastal locations within the Seaside Basin." Could this statement be revised to allow some flexibility in the final project design and implementation?

   "The GWR Project could include subsurface groundwater recharge facilities, including shallow (or vadose zone) and deep injection wells located within the Seaside Basin."

   Another example of modifying the project description to facilitate project implementation is incorporating the following changes on page 17:

   "*Coastal Recharge Facilities*. The coastal recharge facilities would include up to three deep injection wells and up to four vadose zone wells located east of Highway 1 and west of the Bayonet and Black Horse Golf Course, as shown in Figure 2." P-4

5. Please clarify which areas and how much land in the City of Seaside are being referred to as the 'Coastal Recharge Facilities' and the 'Inland Recharge Facilities' as shown in Figure 2. P-5

6. The inland recharge facilities location is described on page 17 as "...an acceptable location for the proposed inland recharge facilities, and the location that currently appears to be feasible is a City-planned utility corridor as shown in Figure 2." There is no City-planned utility corridor in the area shown in Figure 2. Please clarify. P-6

7. Please clarify where the 4 deep injection wells noted under the description of Inland Recharge Facilities on Page 17 would be constructed (e.g. area of well containment, back flush pit, fencing, treatment facility, etc.). P-7

8. Provide information related to coordination with the City of Seaside regarding traffic control and construction for the implementation of the underground pipeline within the City of Seaside. P-8

9. On page 17, the following statement under 'Coastal Recharge Facilities' is unclear and should either be removed or clarified. That is, the paragraph is describing the proposed facilities but this statement seems to be trying to discount their value: P-9

> "Due to the shallower water table at the coast, vadose zone wells would be shallower, and the long□term ability of the coastal wells to replenish both the Santa Margarita and Paso Robles aquifers would likely be less than the replenishment ability of the inland wells." P-10

10. On page 17, the following statement about 'available land' within the City of Seaside under 'Coastal Recharge Facilities' is unclear and should clarified. For example, P-11

> "The locations for the proposed coastal recharge facilities were determined based on an analysis of potentially available land and known aquifer characteristics."

11. Table 1, "Potential Permits and Approvals Required" on page 20 should include Seaside Highlands Homeowners Association if some of the land being considered for Coastal Injection Wells is within their jurisdiction. P-12

The City of Seaside appreciates the opportunity to comment on the NOP and looks forward to working with the MRWPCA on the subject project. Please contact the undersigned to discuss any questions or comments.

Sincerely,

Tim O'Halloran
City Engineer / Public Works Services Manager

Copy Diana Ingersoll, Deputy City Manager – Resource Management Services
Rick Riedl, Associate Civil Engineer
Rick Medina, Senior Planner

Letter Q

CITY OF MONTEREY

Colton Hall, California Constitution Hall 1849

DEPARTMENT OF PLANS & PUBLIC WORKS

July 2, 2013

Monterey Regional Water Pollution Control Agency
Administration Office
Attn: Bob Holden, Principal Engineer
5 Harris Court, Building D
Monterey, CA 93940

Subject: Comments Regarding the Notice of Preparation – Monterey Peninsula Groundwater Replenishment Project Environmental Impact Report

Dear Mr. Holden:

We have reviewed the subject Notice of Preparation (NOP) and don't have any specific concerns about the NOP but we do have concerns about the process and rationale behind how the Project was defined. Potentially the scope of the Project, should it come to light, needs to be revised. The cornerstone to any adequate environmental review is a clear definition and understanding of the Project. Q-1

Specifically, we have the following questions and concerns. These comments are based upon a general lack of clarity behind the background as to how the Project scope was defined. If the Project scope needs to be revised or clarified, now would be the opportune time to do that before the EIR is prepared:

1. Has MRWPCA considered and quantified all of the potential sources of water flowing into its plant including, but not limited to, dry weather and certain wet weather flows from storm drains? On page 12 of the NOP, storm water collection is mentioned as one of the sources. However, in the subsequent sections of the NOP, the only quantification of flows is related to the City of Salinas Treatment Plant, Blanco drain, the reclamation ditch and storm water flows from the City of Salinas. As for the other member entities non-storm and storm water flows, there is only a passing reference at the bottom of page 13 of the NOP. Q-2

2. If the limitation of 3500 acre-feet per year (AFY) is a function of the source water availability or the capacity of the treatment system, why wasn't a greater capacity considered so that all of the member entities could convey all non-storm/dry weather flows as well as some portion of storm water flows? Q-3

3. How will the ability of member entities to convey non-storm water and storm water flows going to be apportioned? Will enlargements of the conveyance systems need to be made in order to achieve an equitable distribution of the apportionment? Q-4

4. Will there be any consideration for member entities receiving credits for flows that go into the groundwater recharge (GWR) and if so, will there be any quantification of what those credits will be to each entity? Q-5

5. There are certain existing and pending future regulatory reasons to divert both dry and certain wet weather storm drain flows to the MRWPCA Sewage Treatment Plant (STP) and these reasons are based upon removing pollutants from the receiving water (the Monterey Bay). Therefore, have there been any discussions with the State Water Resource Control Board with regard to the potential for discharging filter reject concentrate as described on page 15 of the NOP into the same receiving water that the diversions are intended to protect? Q-6

Please call me at (831) 646-3448 if you require any additional information or clarification on any issues pertaining to these comments.

Sincerely,

Tom Reeves
City Engineer

e: James Cullem, Executive Director, MPRWA
Chip Rerig, Chief of Planning, Engineering, and Environmental Compliance

MARINA COAST WATER DISTRICT

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

July 2, 2013

Mr. Robert Holden
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93949

RE: Comments on the Groundwater Replenishment Project's Notice of Preparation of an Environmental Impact Report

Dear Mr. Holden,

Marina Coast Water District (MCWD, District) is pleased to provide Monterey Regional Water Pollution Control Agency (MRWPCA) with comments to the Notice of Preparation (NOP) for the planned Environmental Impact Report (EIR) associated with the proposed Groundwater Replenishment Project (GWR Project).

In general, MCWD supports the GWR Project. MCWD provides these comments within the NOP's described framework of alternatives, mitigation measures and statutory responsibilities.

The District's comments are:

1) The District encourages incorporating the GWR project into both the Greater Monterey County Integrated Regional Water Management Plan (IRWMP) and the Monterey Peninsula IRWMP. R-1

2) The District encourages MRWPCA to explore alternative source water volumes above the 3,500-acre-feet total specified in the NOP. R-2

3) The District's senior rights to return water from MRWPCA's treatment plant need to be recognized when discussing available plant output. The District is willing to consider leasing a portion of those senior rights for a predetermined period. R-3

4) The District is willing to discuss with MRWPCA potential access to District recycled water (RW) facilities for conveyance of GWR water from the Advanced Water Treatment (AWT) facility to the Seaside Groundwater Basin, with appropriate compensation to the District for that right of access. The District requests the inclusion of this option in the EIR. R-4

5) The District suggests exploring the long term plan (beyond 15-years) for the GWR Project. Will the GWR project continue injecting water into the Seaside Groundwater Basin once the Seaside Groundwater Basin is recharged and is operating within protective groundwater elevations and sustainable yield? Are there other potential uses for Advanced Water Treatment (AWT) water? One future possibility would be to send AWT water northward to combat seawater intrusion in the Salinas Valley Groundwater Basin. R-5

6) The District encourages MRWPCA to evaluate project alternatives that include variable seasonal flow rates of the source waters without the need for including secondary or tertiary effluent water sources. Part of the rationale expressed in the NOP appears to be to obtain and treat enough impaired water to allow the AWT facility to run at a single, predictable flow rate; therefore the seasonality of the water sources appears to be an operational consideration and leads MRWPCA to include effluent water sources in the project. The District would recommend that a project alternative be prepared that uses a treatment facility flow rate model that fluctuates and does not use effluent water sources. R-6

7) The District requests that MRWPCA confirm with the California Department of Public Health (DPH) the required residence time (between injection and extraction) for all the proposed water sources prior to publication of the Draft EIR. R-7

8) MCWD requests confirming that the capacity of the Seaside Groundwater Basin is sufficient, within that pre-determined residence time, for the injection of additional GWR Project water. R-8

9) MCWD requests confirming with DPH, prior to Draft EIR publication, the horizontal distance that will be required between points of injection and points of extraction in the event that those two modes of operation are simultaneously occurring. Will the well spacing requirement and the limited horizontal distance between the proposed coastal recharge facility and the Bay preclude the use of the coastal recharge facility for the GWR? R-9

The District hopes these comments are beneficial and we look forward to working with MRWPCA in advancing regional goals through implementation of the GWR Project.

Sincerely,

Thomas P. Moore

Dr. Thomas P. Moore
President, MCWD Board of Directors

Brian C. Lee, P.E.
Interim General Manager / District Engineer

Fort Ord Community Advisory Group (FOCAG)
P.O. Box 969
Seaside, CA 93955
Phone: 831-484-6659
Email: focagemail@yahoo.com

The "Fort Ord Community Advisory Group is a public interest group formed to review, comment and advise on the remediation (cleanup) of the Fort Ord Army Base, Superfund Site, to ensure that human health, safety and the environment are protected to the greatest extent possible." - Mission Statement.

Monterey Regional Water Pollution Control Agency (MRWPCA)
ATTN: Bob Holden
5 Harris Court, Bldg D
Monterey, CA 93940
Via E-mail: GWR@mrwcpa.com, hard copy to follow via U.S. Mail

Re: Notice of Preparation, Scoping Comments
Monterey Peninsula Groundwater Replenishment Project Environmental Impact Report

July 2, 2013

Dear Bob Holden,

The Fort Ord Community Advisory Group (FOCAG) offers the following comments on the scope of environmental issues. The scope should include existing hazards to drinking water and potential increasing hazards to the drinking water supply due to the migration and leaching of toxic chemicals from former Army training ranges. These would include proposed ground disturbing activities including a horse park. The Seaside Aquifer lies directly beneath the Army Training Ranges, known as Site #39 of former Fort Ord. This area includes the area known as Parker Flats that had, among other uses, Army tank training areas. S-1

Fort Ord is a National Superfund Site, first put on the National Superfund Priority List because of discovered contamination of area groundwater. S-2

There have been multiple issues with the Upper 180, the Lower 180, and the 400-foot aquifers beneath areas of former Fort Ord. Site #39, perhaps the largest munitions impact/training area in the country, sits over the Seaside Groundwater Basin. This should be of concern to MRWPCA and others for the possibility of leaching and migration of chemicals into underground aquifers.

S-2 cont

It is understood residual munitions chemicals from 77-years of munitions use, remain in Fort Ord training areas, including Site 39. The cleanup thus far, has concentrated on remaining unexploded munitions, but failed to identify many munitions constituents even though numerous munitions chemistry books were and are readily available. How can the extent of contamination be known unless all known munitions constituents are looked for? The cleanup has used a sampling rationale of looking for a few constituents but only reporting levels above a certain threshold. There potentially are hundreds of chemicals below threshold levels. For example, hypothetically, if there are two hundred chemicals each at 2 ppm, well below the reporting level, there potentially could be a toxic chemical brew of 200-400 ppm. Could the cumulative, low levels of chemicals potentially be a health hazard? Are the human health risks known for this level of exposure? What are the synergistic effects of munitions chemicals and pesticides on organisms? Are there studies available on the effects of low-level exposure to these chemicals?

Hundreds of munitions chemicals and pesticides at very low levels may be a potential toxic brew creating a health and safety hazard in the underground water aquifers. The cleanup has failed to make the public aware of the actual levels of munitions and pesticide contaminates throughout training areas.

a) What might be the justification for the cleanup failing to identify all the munitions and pesticide chemicals in Tables 3,4,5, and 6? (See Attachment 2, Tables 1-7). The Army BRAC has been asked the following questions:

b) Because the Army kept abysmal records of training ranges, training areas and specific activities, what is the justification for failing to look for all munitions chemicals and pesticides in all training areas, including Site #39?

c) What is the justification for the cleanup failing to include all the munitions and pesticide chemicals identified in Attachment 2, Tables 3,4,5, and 6?

d) What is the extent of out-gassing from munitions and pesticide chemicals

S-3

in former training areas?
e) What is the justification for failing to report the actual levels of munitions and pesticide chemicals in all training areas? S-3 cont

On 3-24-10 (fortordcleanup.com, Document BW-2532), and 2-7-11 (fortordcleanup.com, Document BW-2557), the FOCAG raised questions regarding pesticide use at Fort Ord and in training areas. The 2-7-11 FOCAG letter specifically addresses Army's failure to thoroughly investigate pesticides in training areas. Despite Army's claim that it has thoroughly investigated pesticides in training areas, our review of the cited cleanup documents did not support the Army's claim. The only sampling we have found for pesticides in the Parker Flats and Site 39 training areas was for a total of 4 sample locations that only looked for 8 organochlorine pesticides.

It is our understanding Army BRAC remains responsible for identifying and sampling for chemicals potentially used in training areas, including Site 39. However, the chemicals being looked for in former Army training sites is woefully inadequate. The FOCAG includes, with this letter, 7 Tables of munitions chemicals and pesticides potentially found in former Fort Ord including a list of Training Areas and the chemicals actually being looked for in. (See attachment 2, Tables 1-7) S-4

There are several hundred chemicals potentially leaching out of ordnance into the ground as well as residual chemicals from decades of weapons/ordnance training and pyrotechnics. Herbicides were used to keep vegetation down and minimize threats of wildfires from munitions training exercises. Attached are 6 Tables identifying munitions chemicals and pesticides used in training areas include Table 1, is the Fort Ord Cleanup 1994 list of potential Training Range chemicals. Table 2 is the Fort Ord Cleanup 2003 Sampling and Analysis list of potential Training Range chemicals. Tables 3, and 4 are lists of munitions constituents found in munitions chemistry books, many of which the cleanup has not included in its list(s). Tables 5, and 6 are lists of pesticides; known and suspected as being used at Fort Ord. Particularly alarming is Table 5 that identifies 23 munitions chemicals also known to be pesticides. This may explain why some training areas are virtually devoid of insects and birds. Not only has

the cleanup thus far failed to identify all munitions chemicals and pesticides; it has also failed to extensively look for all munitions chemical and pesticides in all training areas.

S-4 cont

The FOCAG is not aware of any Basewide training maps pre-1940. We do know the entire pre-1940 Fort Ord footprint was the Gigling Artillery Range 1917-1940. It is understood this artillery range primarily trained with 37mm, 75mm, 105mm, and 155mm projectiles. These projectiles are found throughout most of the pre-1940 footprint. One of the known impact areas for the pre-1940's 37mm and 75mm projectiles is "Artillery Hill". This area, OE-50 and OE-53 (Veterans Cemetery and Endowment Parcels), when sampled and cleared to a depth of 4' discovered significant amounts of 37mm and 75mm fragments and unexploded projectiles. According to the Archives Search Report and interviews with range control personnel, these Sites were target areas for rifle grenades and shoulder launched projectiles in the 1940's, 1950's and 1960's. Other projectiles found include 60mm, 81mm, 3 inch stokes, and 4.2 inch mortars, and Levin's projectors. The latter ground tube launched munitions range(s) was not known prior to the sampling and removal actions. The FOCAG is unaware of historical training maps showing the firing points, range fans, or target areas of any of the ranges within or firing out of Sites OE-50 and OE-53 yet these areas were obviously extensively used for munitions training.

S-5

The proposed Veteran's Cemetery site among other uses was a former 1920-30's; 37mm and 75mm artillery target range known as "Artillery Hill". The Veteran's site also includes a Chemical, Biological, Radiological, (CBR) site. Training devices and munitions discovered nearby include non-metallic landmines and Chemical Agent Identification Sets (CAIS) in glass vials. The detection equipment used to clear this site is incapable of detecting non-metallic, and deeply buried munitions. Although the munitions cleanup was to a depth of 4.0', the 37mm has a maximum detection depth of 0.9' and the 75mm has a maximum detection depth of 2.5'. There are other munitions found onsite that cannot be reliably detected within 4' of the surface.

Again, there have been multiple issues with the Upper-180, the Lower-180, and the 400-foot aquifers beneath areas of former Fort Ord. Site 39, perhaps the largest munitions impact/training area in the country, sits over the Seaside Groundwater Basin. This should be of concern to MRWPCA and

S-6

others for the possibility of leaching chemicals into underground aquifers. Project Scoping should include:
a) What is the migration and fate of munitions and pesticide chemicals into this drinking water supply?
b) Where did all the chemicals go?
c) What Fort Ord document fully investigated the potential munitions and pesticide contamination?
d) Is there ongoing monitoring and reporting of the potential munitions and pesticide contamination of the Seaside Groundwater Basin? Where is it?
e) What might construction, development, and irrigating in the area above the Seaside Groundwater Basin do for migrating chemicals?

S-6 cont

Thank you for the opportunity to comment on this NOP/Scoping for the EIR for the proposed Monterey Peninsula Groundwater Replenishment Supply.

Respectfully,

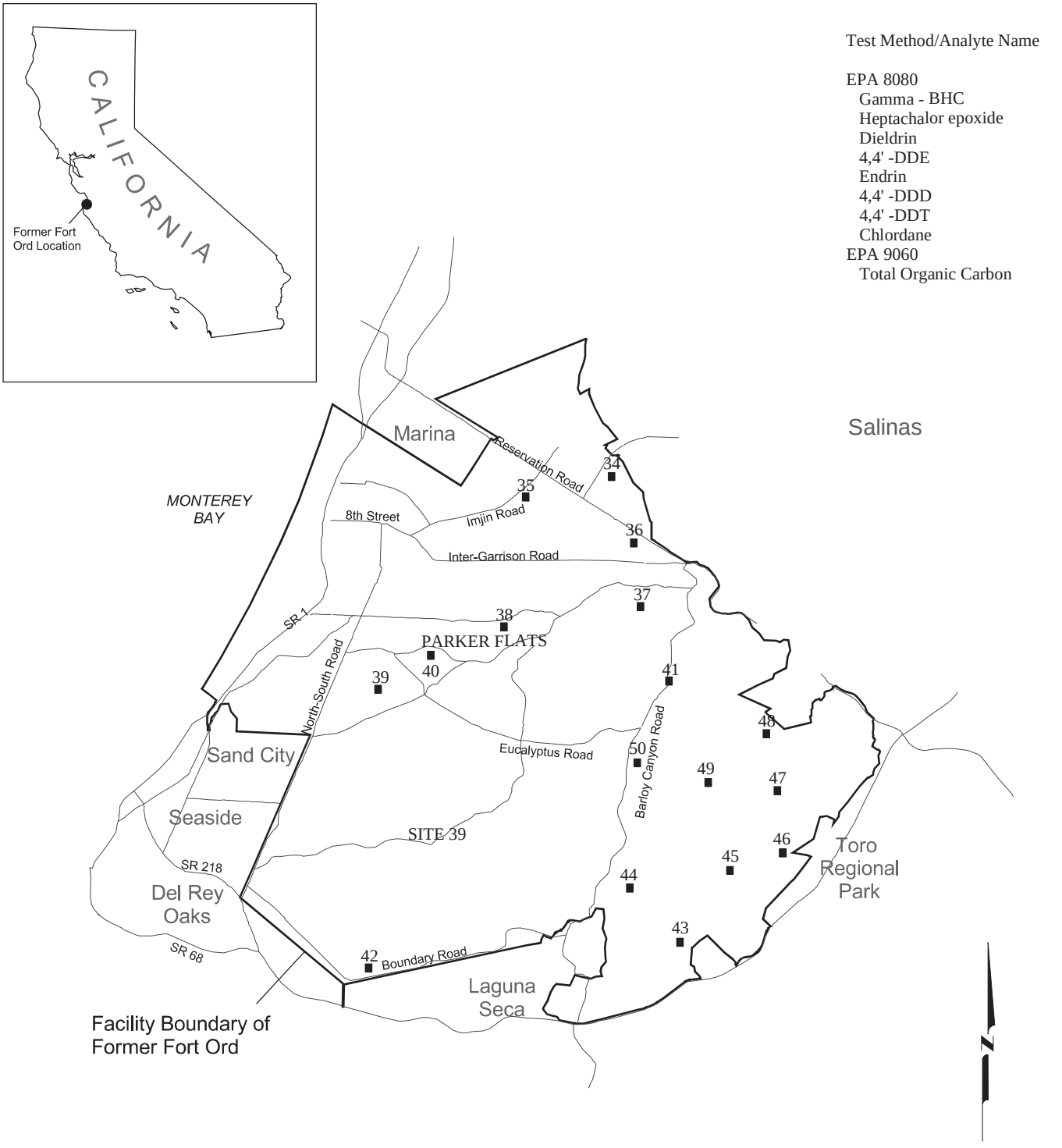
Mike Weaver
Co-Chair, FOCAG

Attachment #1
Reference the following link:

http://fortordcleanup.com/adminrec/ar_pdfs/AR-ESCA-0100/ESCA-0100.PDF

This link is regarding Site 39. August 12, 2008, Fort Ord Community Advisory Group Position Paper
80-pages of research, statistics, commentary, analysis, and questions.

Attachment #2
(Reference the attachment to this letter sent via email. Hard copy to follow.)
Tables 1-7 (34 pages total)
Fort Ord known and suspected Munitions and Pesticide Chemicals used in Training Areas



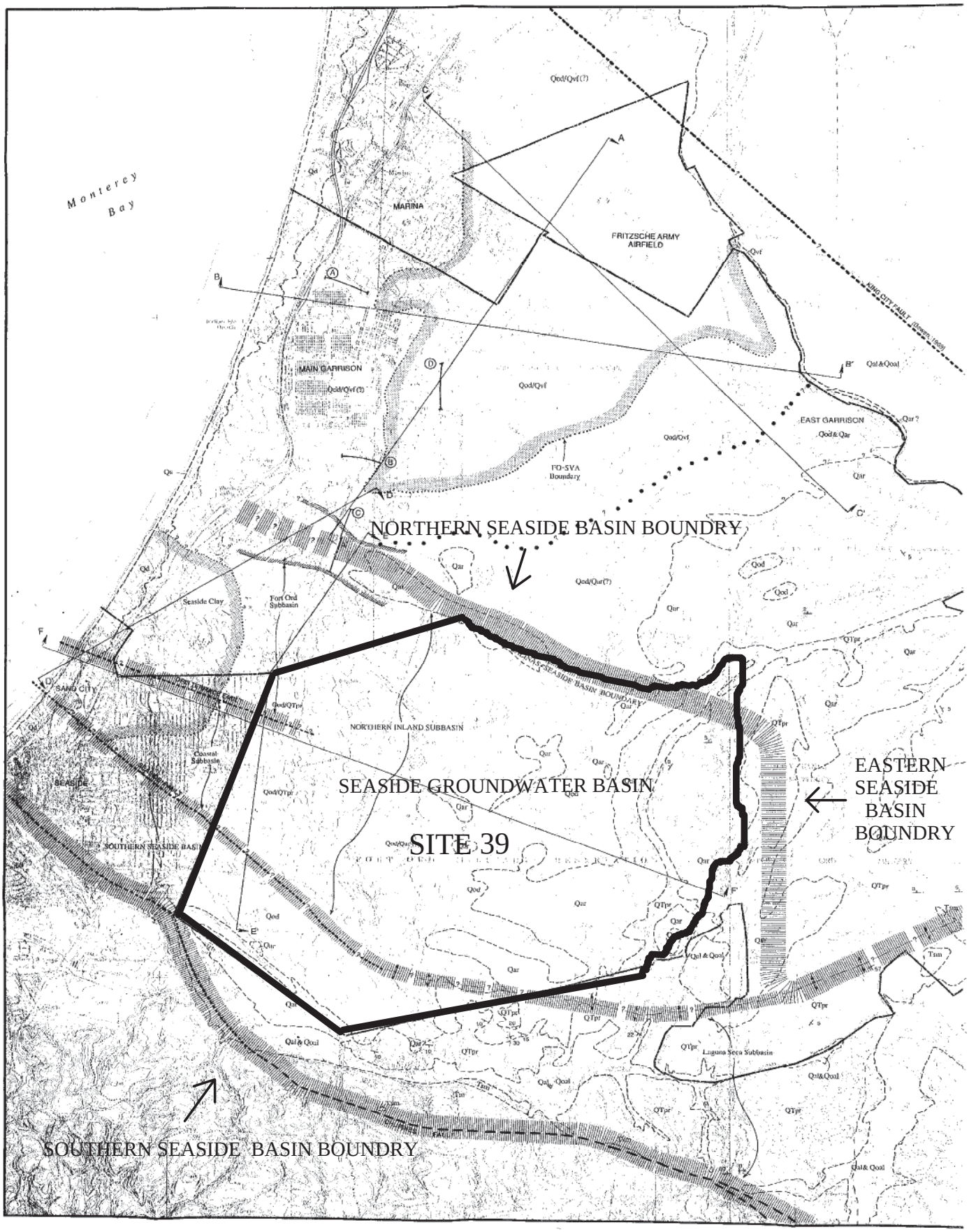
Pesticide Sampling
Fort Ord RI/FS 1995, Vol II - Remedial Investigation
Basewide Background Soil Investigation
BW-1283E

SEASIDE GROUNDWATER BASIN / SITE 39 IMPACT AREA

Letter S (cont)

Basewide Hydrogeologic Characterization

BW-0608 PLATE 3



SITE 39 BOUNDRY (8000 Acres, one of the countries largest munitions training areas.)

SEASIDE GROUNDWATER BASIN BOUNDRY (Supplies City of Seaside drinking water.)

Where did all the munitions chemicals go? What chemicals where looked for? What where the actual chemical detection levels?

Fort Ord known and suspected Munitions and Pesticide Chemicals used in Training Areas

Table 1: List of munitions chemicals compiled from 1994 Site 39 Remedial Investigation
Note: very few are being looked for in training areas.

Table 2: List of munitions chemicals compiled from 2003 Sampling and Analysis Plan
Note: very few are being looked for in training areas.

Table 3: List of munitions chemicals Military Explosives (Chemistry) 30 September 1984
Note: many of these munitions chemicals are not included in Tables 1 & 2

Table 4: List of munitions chemicals found in practice and pyrotechnic
Note: many of these munitions chemicals are not included in Tables 1 & 2

Table 5: List of 23 pyrotechnic chemicals also used as Pesticides
Note: may explain why some training areas appear to be devoid of life
(very few bugs, birds, ground squirrels, etc.)

Table 6: List of 48 pesticides used at Fort Ord
Note: none of these chemicals have been looked for in training areas.

Table 7: Munitions Chemicals looked for in transferred training areas FORA ESCA RP parcels
Note: in training areas, very few and in some sites **no** munitions chemicals have been looked for. **No** Training areas have been tested for pesticide chemicals.

Table 1: Munitions Chemicals identified by the Fort Ord Superfund cleanup; 1994 RI/FS BW-1283K Tables

Phenol
Bis(2-chloroethyl) ether
2-Chlorophenol
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Benzyl alcohol
1,2-Dichlorobenzene
2-Methylphenol
4-Methylphenol
n-Nitrosodipropylamine
Hexachloroethane
Nitrobenzene
Isophorone
2-Nitrophenol
2,4-Dimethylphenol
Benzoic acid
Bis(2-chloroethox)methane
2,4-Dichlorophenol
1,2,4-Trichlorobenzene
Naphthalene
4-Chloroaniline
Hexachlorobutadiene
4-Chloro-3-methylphenol
2-Methlnaphthalene
Hexachorocyclopentadiene
2,4,6-Trichlorophenol
2,4,5-Trichlorophenol
2-Chloronaphthalene
2-Nitroaniline
Dimethl phthalate
Acenaphthylene
2,6-Dinitrotoluene
3-Nitroaniline
Acenaphthene
2,4-Dinitrophenol
4-Nitrophenol
Dibenzofuran
2,4-Dinitrotoluene
Diethyl phthalate
4-Chlorophenyl phenylether
Fluorene
4-Nitroaniline
4,6-Dinitro-2-methyl phenol
n-Nitrosodiphenylamine
4-Bromophenylphenylether
Hexachlorobenzene

Pentachlorophenol
Phenanthrene
Anthracene
Di-n-butlphthalate
Fluoranthene
Pyrene
Butylbenzylphthalate
3,3-Dichlorobenzidine
Benzo(a)anthracene
Chrysene
Bis(2-ethlhexyl)phthalate
Di-n-octylphthalate
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Benzo(a)pyrene
Indeno(l,2,3-cd)pyrene
Dibenzo(a,h)antkracene
Benzo(ghi)perylene
Bis(2-chloroisopropyl)ether
TPH-Diesel
TPH-Extractable Unknown Hydrocarbon
TPH-Gasoline
TPH-Purgeable Unknown Hydrocarbon
Benzene
Ethylbenzene
Toluene
Xylenes
HMX
RDX
1,3,5-Trinitrobenzene
1,3-Dinitrobenzene
Tetryl
Nitrobenzene
2,4,6-Trinitrotoluene
2,4-Dinitrotoluene
2,6-Dinitrotoluene
o-NitroToluene
m-NitroToluene
p-ilitrotoluene
2-Amino-dinitrotoluene
4-Amino-dinitrotoluene
Nitroalvcerin
Picri;-hcid
Nitroguanidine
PETN

Table 2: Munitions Chemicals identified by the Superfund cleanup: 2003 Sampling and Analysis Plan, Revision 0; Fort Ord, California; BW-2214D

Gasoline (C -C)	8006-61-9
4-Bromofluorobenzene	460-00-4
Diesel (C -C)	68334-30-5
Motor Oil (C -C)	ADR-02-001
ortho-terphenyl	84-15-1
Acetone	67-64-1
Benzene	71-43-2
Bromobenzene	108-86-1
Bromochloromethane	74-97-5
Bromodichloromethane	75-27-4
Bromoform	75-25-2
Bromomethane	74-83-9
2-Butanone	78-93-3
n-Butylbenzene	104-51-8
sec-Butylbenzene	135-98-8
tert-Butylbenzene	98-06-6
Carbon disulfide	75-15-0
Carbon tetrachloride	56-23-5
Chlorobenzene	108-90-7
Chloroethane	75-00-3
2-Chloroethyl vinyl ether	110-75-8
Chloroform	67-66-3
Chloromethane	74-87-3
2-Chlorotoluene	95-49-8
4-Chlorotoluene	106-43-4
Dibromochloromethane	124-48-1
1,2-Dibromo-3-chloropropane	96-12-8
1,2-Dibromoethane	106-93-4
Dibromomethane	74-95-3
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
Dichlorodifluoromethane	75-71-8
1,1-Dichloroethane	75-34-3
1,2-Dichloroethane	107-06-2
1,1-Dichloroethene	75-35-4
cis-1,2-Dichloroethene	156-59-2
trans-1,2-Dichloroethene	156-60-5
1,2-Dichloropropane	78-87-5
1,3-Dichloropropane	142-28-9
2,2-Dichloropropane	594-20-7
1,1-Dichloropropene	563-58-6
cis-1,3-Dichloropropene	10061-01-5
trans-1,3-Dichloropropene	10061-02-6
Ethylbenzene	100-41-4

Hexachlorobutadiene	87-68-3
2-Hexanone	591-78-6
Isopropylbenzene	98-82-8
p-Isopropyltoluene	99-87-6
Methyl tert-butyl ether	1634-04-4
Methylene chloride	75-09-2
4-Methyl-2-pentanone	108-10-1
n-Propylbenzene	103-65-1
Styrene	100-42-5
1,1,1,2-Tetrachloroethane	630-20-6
1,1,2,2-Tetrachloroethane	79-34-5
Tetrachloroethene	127-18-4
Toluene	108-88-3 75-125
1,2,3-Trichlorobenzene	87-61-6
1,2,4-Trichlorobenzene	120-82-1
1,1,1-Trichloroethane	71-55-6
1,1,2-Trichloroethane	79-00-5
Trichloroethene	79-01-6
Trichlorofluoromethane	75-69-4
1,2,3-Trichloropropane	96-18-4
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1
1,2,4-Trimethylbenzene	95-63-6
1,3,5-Trimethylbenzene	08-67-8
Vinyl acetate	108-05-4
Vinyl chloride	75-01-4
m,p-Xylene	1330-20-7
o-Xylene	95-47-6
4-Bromofluorobenzene	1868-53-7
Dibromofluoromethane	460-00-4
1,2-Dichloroethane-d4	17060-07-0
Toluene-d8	2037-26-5
Acenaphthene	83-32-9
Acenaphthylene	208-96-8
Anthracene	120-12-7
Benzoic acid	65-85-0
Benzo[a]anthracene	56-55-3
Benzo[b]fluoranthene	205-99-2
Benzo[k]fluoranthene	207-08-9
Benzo[g,h,i]perylene	191-24-2
Benzo[a]pyrene	50-32-8
Benzyl alcohol	100-51-6
Bis(2-chloroethoxy)methane	111-91-1
Bis(2-chloroethyl)ether	111-44-4
Bis(2-chloroisopropyl)ether	108-60-1
Bis(2-ethylhexyl)phthalate	117-81-7
4-Bromophenyl phenyl ether	101-55-3
Butylbenzylphthalate	85-68-7
Carbazole	86-74-8

4-Chloroaniline	106-47-8
4-Chloro-3-methylphenol	35421-08-0
2-Chloronaphthalene	91-58-7
2-Chlorophenol	95-57-8
4-Chlorophenyl phenyl ether	7005-72-3
Chrysene	218-01-9
Dibenzo(a,h)anthracene	53-70-3
3,3'-Dichlorobenzidine	91-94-1
Dibenzofuran	132-64-9
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
2,4-Dichlorophenol	120-83-2
Diethylphthalate	84-66-2
2,4-Dimethylphenol	105-67-9
Dimethyl phthalate	131-11-3
Di-n-butylphthalate	84-74-3
4,6-Dinitro-2-methylphenol	534-52-1
2,4-Dinitrophenol	51-28-5
2,4-Dinitrotoluene	121-14-2
2,6-Dinitrotoluene	606-20-2
Di-n-octyl phthalate	117-84-0
Fluoroanthene	206-44-0
Fluorene	86-73-7
Hexachlorobenzene	118-74-1
Hexachlorobutadiene	87-68-3
Hexachlorocyclopentadiene	77-47-4
Hexachloroethane	67-72-1
Indeno(1,2,3-cd)pyrene	193-39-5
Isophorone	78-59-1
2-Methylnaphthalene	91-57-6
2-Methylphenol	95-48-7
3-Methylphenol	108-39-4
4-Methylphenol	106-44-5
Naphthalene	91-20-3
2-Nitroaniline	88-74-4
3-Nitroaniline	99-09-2
4-Nitroaniline	100-01-6
Nitrobenzene	98-95-3
2-Nitrophenol	88-75-5
4-Nitrophenol	100-02-7
N-Nitroso-di-n-butylamine	924-16-3
N-Nitrosodiethenolamine	1116-54-7
N-Nitrosodiphenylamine	86-30-6
N-Nitroso-di-n-propylamine	621-64-7
Pentachlorophenol	87-86-5
Phenanthrene	85-01-8
Phenol	108-95-2

Pyrene	129-00-0
Pyridine	110-86-1
1,2,4-Trichlorobenzene	120-82-1
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
2,4,6-Tribromophenol	118-79-6
2-Fluorobiphenyl	321-60-8
2-Fluorophenol	367-12-4
Nitrobenzene-d5	20810-28-0
Phenol-d6	4165-62-2
Terphenyl-d14	98904-43-9
HMX	2691-41-0
sym-Trinitrobenzene	99-35-4
RDX	121-82-4
1,3-Dinitrobenzene	99-65-0
Nitrobenzene	98-95-3
2,4,6-Trinitrotoluene	118-96-7
Tetryl	479-45-8
2,4-Dinitrotoluene	121-14-2
2,6-Dinitrotoluene	606-20-2
2-Am-DNT	35572-78-2
4-Am-DNT	1946-51-0
2-Nitrotoluene	88-72-2
3-Nitrotoluene	99-08-1
4-Nitrotoluene	99-99-0
Nitroglycerin	55-63-0
1,4-Dinitrobenzene	100-25-4
Aluminum	7429-90-5
Antimony	7440-36-0
Arsenic	7440-38-2
Barium	7440-39-3
Beryllium	7440-41-7
Cadmium	7440-43-9
Calcium	7440-70-2
Chromium	7440-47-3
Cobalt	7440-48-4
Copper	7440-50-8
Iron	7439-89-6
Lead	7439-92-1
Magnesium	7439-95-4
Manganese	7439-96-5
Molybdenum	7439-98-7
Nickel	7440-02-0
Potassium	7440-09-7
Selenium	7782-49-2
Silver	7440-22-4
Sodium	7440-23-5
Strontium	7440-24-6

Thallium	1314-32-5
Titanium	7440-32-6
Vanadium	7440-62-2
Zinc	7440-66-6
Mercury	7439-97-6
Perchlorate	14797-73-0

Table 3. Munitions Chemical Compositions

Explosives, Propellants, Pyrotechnics
Military Explosives (Chemistry) 30 September 1984

Explosives

Chapters 7 & 8

Lead Azide: Pb(N3)2, is a salt of hydrazoic acid, HN3. The compound is white, has a nitrogen content of 28.86 percent and a molecular weight of 291.26. At the melting point, 245°C to 250°C, decomposition into lead and nitrogen gas occurs. The pure compound has two crystal modifications: an orthorhombic form and a monoclinic form. The orthorhombic form, which is also called the alpha form, has a density of 4.68 grams per cubic centimeter and unit cell dimensions of a = 11.31 Angstroms, b = 16.25 Angstroms, and c = 6.63 Angstroms. The monoclinic form, which is also called the beta form, has a density of 4.87 grams per cubic centimeter and unit cell dimensions of a = 18.49 Angstroms, b = 8.84 Angstroms, and c =5.12 Angstroms. The compound is usually prepared as colorless, needlelike crystals.

Other Lead Azide Types:

Dextrinated Lead Azide (DLA)
Service Lead Azide (SLA)
Colloidal Lead Azide (CLA)
Polyvinylalcohol Lead Azide (PVA-LA)
RD-1333 lead azide
Dextrinated Colloidal Lead Azide (DCLA)

Mercury Fulminate Hg(ONC)2, is a salt of fulminic or paracyanic acid. The acid undergoes polymerization very rapidly in both aqueous and ethereal solutions, and so cannot be isolated. The structure of fulminic acid, and thus the salts of this acid, is undetermined. Mercury fulminate has an oxygen balance to CO2 of-17 percent, an oxygen balance to CO of -5.5 percent, a nitrogen content of 9.85 percent, and a molecular weight of 284.65. When mercury fulminate is crystallized from water, a hydrate, Hg(ON: C).1/2 H20, is formed that has a nitrogen content of 9.55 percent and a molecular weight of 293.64. The anhydrous form, which is crystallized from alcohol, is white when pure but normal manufacturing yields a gray product of only 98 to 99 percent purity. The crystals formed are octahedral but are usually truncated. Only the smaller crystals are fully developed. The crystal density is 4.43 grams per cubic centimeter.

Diazodinitrophenol (DDNP) This explosive is also known as 4,5-dinitrobenzene-2-diazo-1-oxide, dinol, diazol and may be referred to as DADNP. The compound is a greenish yellow to brown solid with tabular crystals. DDNP has a crystal density of 1.63 to 1.65 grams per cubic centimeter at 25°C and a molecular weight of 210.108. DDNP is not dead pressed even at a pressure of 896,350 kilopascals (130,000 pounds per square inch).

Lead Styphnate Two forms of lead styphnate are used as primary explosives: basic and normal. Basic lead styphnate has a nitrogen content of six percent and a molecular weight of 705.53.

The compound has two crystal forms: yellow needles with a density of 3.878 grams per cubic centimeter and red prisms with a density of 4.059 grams per cubic centimeter. The apparent density is 1.4 to 1.6 grams per cubic centimeter. Normal lead styphnate has a nitrogen content of nine percent and the monohydrate has a molecular weight of 468.38.

Tetracene is also known as guanyldiazoguanyl tetrazene and 4-guanyl-1 -(nitrosoaminoguanyl)-1tetrazene. The compound is a colorless to pale yellow, fluffy material with needle crystals, an oxygen balance to CO2 of-57.6 percent, an oxygen balance to CO of-43 percent, a nitrogen content of 74.4 percent, and a molecular weight of 188.15. Tetracene forms a hydrate with three molecules of water. The melting point of the pure compound is between 140°C and 160°C accompanied by decomposition and explosion. The apparent density is only 0.45 grams per cubic centimeter. When compressed at 20,685 kilopascals (3,000 pounds per square inch), the density is 1.05 grams per cubic centimeter. The crystal density is 1.7 grams per cubic centimeter. The compound can be easily dead pressed. Tetracene is practically insoluble in water and ethanol and so can be stored wet with water or a mixture of water and ethanol. The compound is also insoluble in ether, benzene, acetone, carbon tetrachloride, and ethylene dichloride. Tetracene is soluble in dilute nitric acid or strong hydrochloric acid. In a solution with hydrochloric acid, the hydrochloride is precipitated by the addition of ether. Tetracene may then be recovered by treatment with sodium acetate or ammonium hydroxide. The heat of formation is 270 calories per gram and the heat of detonation is 658

Potassium Dinitrobenzofuroxane (KDNBF) is a red crystalline solid with a nitrogen content of 21.21 percent and molecular weight of 264.20. The oxygen balance of the compound to CO2, H2O, and K2O is -42.4 percent. The anhydrous salt has a density of 2.21 grams per cubic centimeter and a melting point, with explosive decomposition, of 210°C. KDNBF is soluble to the extent of 0.245 grams per 100 grams of water at 30°C. Between the temperatures of 50C to 50°C the specific heat is 0.217 calories per gram per degree centigrade. KDNBF is used in primary compositions.

Lead Mononitroresorcinate (LMNR) has a nitrogen content of 3.89 percent, an NO2 content of 12.77 percent, a lead content of 57.51 percent, and a molecular weight of 360.30. The compound forms microscopic reddish brown crystals. LMNR has slow burning properties and a low combustion temperature. The compound is used in electric detonators with DLA as the spot charge to initiate a PETN base charge, as an upper charge, and as an ingredient in primary compositions.

Primary Compositions are mixtures of primary explosives, fuels, oxidizers, and other ingredients used to initiate detonation in high explosive charges or ignite propellants and pyrotechnics. The ingredients and the portions of the ingredients for individual priming compositions are determined empirically from the use the composition is intended for. Fuels commonly used in priming compositions are lead thiocynate, antimony sulfide, and calcium silicide. The last two also serve to

sensitize the composition to friction or percussion. Oxidizing agents include potassium chlorate and barium nitrate. Other ingredients include primary explosives and binders. The major determining factor in ingredient selection is the impetus which is to detonate the priming composition. The types of impetus commonly used are percussion and electrical.

Percussion Priming Compositions FA959, FA982, FA956, Compounds:

Normal lead styphnate
Tetracene
Barium nitrate
Antimony sulfide
Powdered zirconium
Lead dioxide
PETN
Aluminum
Gum Arabic

Stab Detonator Priming Compositions NOL130, PA101, NOL 60, Compounds:

Lead azide
Basic lead styphnate
Tetracene
Barium nitrate
Antimony sulfide
Powdered aluminum

Electric Priming Compositions I, II, III, IV, V, VI, Compounds:

Potassium chlorate
Lead mononitroresorcinate
Nitrocellulose
Lead thiocynate
DDNP
Charcoal
Nitrostarch
Titanium
Aluminum

Aliphatic Nitrate Esters compounds in this class are prepared by O-type nitration in which a nitro group is attached to an oxygen atom of the compound being nitrated.

1,2,4-Butanetriol Trinitrate (BTN) This explosive is also known as a, b, g-trihydroxybutane trinitrate and is sometimes referred to as BTTN. The compound is a light yellow liquid with a density of 1.520 at 20°C, a molecular weight of 241, a melting point of -27°C, an oxygen balance to CO2 of 17 percent, and a refractive index of 1.4738 at 20°C. The liquid has a viscosity of 62 centipoises at 20°C. 1,2,4- Butanetriol trinitrate is slightly soluble in water, miscible with alcohol, ether, acetone, and a solution of 2 parts ether and 1 part alcohol. BTN has a heat of

formation of 368 calories per gram, a heat of combustion of 2,167 calories per gram, and a heat of detonation of 1,458 calories per gram. This compound is a good gelatinizer for nitrocellulose and can be used as a substitute for nitroglycerin in double-base propellants. Heat, vacuum stability, and volatility tests indicate more stability than nitroglycerin. Impact sensitivity is about the same as for nitroglycerin. Brisance, as measured by the sand test, is about the same: 49 grams crushed versus 51.5 grams for nitroglycerin or 47 grams for TNT. The five second explosion temperature is 230°C versus 220°C for nitroglycerin. BTN can be manufactured by the nitration of 1,2,4-butanetriol with a mixture of nitric and sulfuric acids.

Diethyleneglycol Dinitrate (DEGN) This explosive is also known as dinitrodiglycol or 2,2'-oxybisethanol dinitrate and is sometimes referred to as DEGDN. The compound is a clear, colorless, odorless liquid with a nitrogen content of 14.29 percent, a theoretical maximum density of 1.39 grams per cubic centimeter, an oxygen balance to C02 of-41 percent, and a molecular weight of 196. DEGN boils between 160° and 161°C and can, upon cooling, form a stable solid with a melting point of 2°C or remain liquid to a freezing point of -11.2° to 11.40°C. Other characteristics of the liquid are: refractive index at 20°C with sodium light, 1.450; viscosity at 20°C, 8.1 centipoises; vapor pressure at 20°C, 0.0036 torr; vapor pressure at 25°C, 0.00593 torr; vapor pressure at 600C, 0.130 torr; specific gravity, 1.385. At 60°C DEGN has a volatility of 0.19 milligrams per square centimeter per hour. At constant pressure, the heat of combustion is 2,792 calories per gram. The heat of formation is-99.4 kilogram calories per mole. The heat of detonation is 1,161 calories per gram. DEGN is readily soluble in ether, acetone, chloroform, benzene, nitrobenzene, toluene, nitroglycerin, and glacial acetic acid but is insoluble in ethanol, carbon tetrachloride, and carbon disulfide. Solubility in water at 25°C and 60°C is 0.40 and 0.46 gram per 100 grams, respectively. DEGN's chemical reactivity is similar to nitroglycerin's, but is less subject to hydrolysis and is not readily saponified by alcoholic sodium hydroxide. DEGN can be used as an explosive and can be used in propellants as a colloiding agent for nitrocellulose. Propellants based on DEGN and nitrocellulose develop relatively low temperatures and cause relatively little erosion of guns, but are unduly volatile.

Nitrocellulose (NC) or cellulose nitrate is a mixture of nitrates obtained by nitrating cellulose. Cellulose is a long chain polymer of anhydroglucose units (C5H10O5). The number of anhydroglucose units or degree of polymerization (DP) is variable. Cellulose used for preparation of military grades of nitrocellulose have a DP of approximately 1,000 to 1,500. Cellulose threads possess micellar structure and consist of numerous rod-like crystallites oriented with their long axis parallel to the thread axis, thus forming a fiber. Almost pure cellulose is found in the pith of certain plants, in absorbent cotton, and in some filter papers. Pure cellulose is most readily obtained from cotton by treating with a dilute acid or base solution then thoroughly washing with water. At the present time most of the cellulose for nitrocellulose preparation is obtained from coniferous wood, which is 50 to 60 percent cellulose. Another source is straw, which is 30 to 40 percent cellulose. The nitration of cellulose involves replacement of the hydrogen in the

three hydroxyl (OH) groups in the anhydroglucose units with NO2 groups. A representative formula for the nitrated cellulose may be written as C6H7(OH)*x* (ONO2) *y* where *x*+ *y*=3. The mononitrate, *x* =2 and *y* =1, has a nitrogen content of 6.76 percent; the dinitrate, *x*=1 and *y* =2, has a nitrogen content of 11.11 percent; the trinitrate, *x* =0 and *y* =3, has a nitrogen content of 14.14 percent. As a practical matter, however, any desired degree of nitration up to 14.14 percent may be obtained by adjusting the composition of the mixed acid used for nitration, the acid to cellulose ratio, the time of nitration, or the temperature of nitration. In nitrocellulose with less than 14.14 percent nitrogen, the NO2 groups are distributed randomly along the entire length of the cellulose polymer, so *x* and *y* should be regarded as average values over the entire length of the chain. The nitrogen content determines the chemical and physical properties of any particular nitrocellulose. The five grades of nitrocellulose listed below are recognized and used.

Other Nitrocellulose Types:

Pyroxylin or collodion,
Pyrocellulose
Guncotton
High nitrogen nitrocellulose
Blended nitrocellulose

Nitroglycerin (NG), glycerol trinitrate, or 1,2,3-propanetriol trinitrate, is a clear, colorless, odorless, oily liquid with a theoretical maximum density of 1.596 grams per cubic centimeter. Nitroglycerin has a sweet, burning taste and a molecular weight of 227.1. Nitroglycerin is soluble in one liter of water to the extent of only 0.173, 0.191, 0.228, and 0.246 gram at 20°, 30°, 50° and 60°C, respectively and is essentially nonhygroscopic when exposed to atmospheric humidity.

Nitrostarch (NS) is a mixture of nitrates obtained by nitrating starch. The general formula for starch is C6H10O5. The structure of starch is the same as for nitrocellulose, with the exception that the polymer chains are spiral rather than straight. The starch molecule consists of approximately 1,000 anhydroglucose units. The nitration of starch involves replacement of the hydrogen in the three hydroxyl (OH) groups in the anhydroglucose units with NO2 groups. A representative formula for the nitrated starch may be written as C6H7(OH) *x* (ONO2)*y* where *x* +*y* =3. The NO2 groups are distributed randomly along the entire length of the starch molecule, so *x* and *y* should be regarded as averages over the entire length of the chain. The following empirical formula can be employed to obtain *y* as a function of the nitrogen content *N*: *y*=162N/(1400-45*N*)

Pentaerythritol Tetranitrate (PETN) is also known as 2,2-bis [(nitrooxy) methyl]-1,3-propanediol dinitrate; penthrite; or nitropenta and may be referred to as TEN. The compound is a white solid with a molecular weight of 316.2. PETN has two polymorphs: one with a tetragonal crystalline structure and the other with an orthorhombic crystalline structure. The phase change between the two

polymorphs occurs at 130°C. The tetragonal crystals have a density of 1.778 grams per cubic centimeter and the orthorhombic crystals have a density of 1.716 grams per cubic centimeter. Normal manufacturing yields tetragonal crystals. The unit cell dimensions of the tetragonal crystals are a=9.38 Angstroms, b=9.38 Angstroms, and c =6.71 Angstroms. The dimensions for the orthorhombic crystals are a=13.29 Angstroms, b = 13.49 Angstroms, c = 6.83 Angstroms. There are two molecules per cell in the tetragonal form and four molecules per cell in the orthorhombic form. The interatomic distances have been determined as 1.50 Angstroms for the C-C bonds, 1.37 Angstroms for the C-O bonds, 1.36 Angstroms for O-N bonds, and 1.27 Angstroms for N-O bonds. PETN melts at 141.3°C. The boiling point is 160°C under a pressure of 2 torr; 180°C under a pressure of 50 torr. Under atmospheric pressure at temperatures above 21 0°C, PETN decomposes rapidly and in some cases detonates. The vapor pressure of solid PETN can be found by the empirical equation: log p = 16.73 -7750/T. PETN is more sensitive to initiation than nitrocellulose, RDX, or tetryl, as judged by the sand test. This is shown, also, by the fact that PETN with 35 percent of water present can be detonated by a No. 6 electric blasting cap, whereas RDX fails to explode if more than 14 percent of water is present. PETN is one of the most sensitive of the standardized military explosives.

Triethylene Glycoldinitrate (TEGN) This explosive is also referred to as TEGDN. The compound is a light yellow, oily liquid with a nitrogen content of 11.67 percent, a molecular weight of 240.20, and an oxygen balance to CO2 of -66.6 percent. The melting point of the solid is - 19°C. Other characteristics of the liquid are: refractive index, 1.4540; viscosity at 20°C, 13.2 centipoises; vapor pressure at 25°C, less than 0.001 torr; volatility at 60°C, 40 milligrams per square centimeter per hour; and density, 1.335 grams per cubic centimeter. At constant pressure, TEGN's heat of combustion is 3428 calories per gram, heat of explosion is 725 kilocalories per kilogram, and heat of formation is -603.7 kilocalories per kilogram. TEGN is very soluble in acetone, ether, and a solution of 2 parts ether and 1 part ethanol. TEGN is soluble in carbon disulfide and slowly soluble in water. The primary use of TEGN is as a gelatinizing agent for nitrocellulose in propellants, but TEGN can also be used as a component in a liquid explosive, a plasticizer in the fabrication of flexible explosive sheets, and as a plasticizer in pytrotechnic flares.

1,1,1 Trimethylolethane Trinitrate (TMETN) This explosive is also known as metriol trinitrate and is sometimes referred to as MTN. The compound is a slightly turbid, viscous oil with a nitrogen content of 16.41 percent and a molecular weight of 255.15. TMETN has a melting point of -3°C and an apparent boiling point of 182°C, but this is merely the temperature at which decomposition becomes vigorous enough to resemble boiling. Other properties of the liquid are a density of 1.47 grams per cubic centimeter at 22°C and a refractive index of 1.4752 at 25°C. TMETN is practically insoluble in water. Less than 0.015 grams dissolved per 100 grams of water at up to 60°C. TMETN is soluble in alcohol and many other organic solvents. At 60°C TMETN's volatility is 24 milligrams per square centimeter. The heat of formation is 422 calories per gram at constant volume and 446 calories per gram at constant pressure. The heat of combustion is 2,642 calories per gram at constant volume with the water being liquid. In an acid bath,

TMETN is hydrolyzed to the extent of 0.018 percent in 10 days at 220°C and 0.115 percent in 5 days at 60°C. TMETN can be used as a flash and erosion reducing additive in propellants and an ingredient of commercial explosives. TMETN alone does not gelatinize nitrocellulose unless the temperature is raised to 100°C, which would be dangerous. But if mixed with only 8 percent of metriol triacetate, gelatinization takes place at 80°C. When TMETN is mixed with nitroglycerin, the mechanical properties of double-base cast propellants are improved. Combinations with triethylene glycol dinitrate are used as plasticizers for nitrocellulose.

Cyclotetramethylenetetranitramine (HMX) is also known as: octahydro-1,3,5,7-tetranitro-1 ,3,5,7-tetrazocine; 1,3,5,7-tetranitro-1 ,3,5,7-tetrazacyclooctane; cyclotetramethylene tetranitramine; or octogen. HMX is a white, crystalline solid with a nitrogen content of 37.84 percent, a theoretical maximum density of 1.905 grams per cubic centimeter, a nominal density of 1.89 grams per cubic centimeter, a melting point of 285°C, and a molecular weight of 296.17. There are four polymorphs of HMX: an alpha, beta, gamma, and delta form. Each polymorph has a range of stability and there are differences among them in physical properties such as density, solubility, and refractive index. The most common polymorph is the beta form. The term HMX without an alpha, gamma or delta qualifier refers to the beta form throughout the rest of this text. The crystalline structure of beta HMX is monoclinic with a density of 1.903 grams per cubic centimeter. The unit cell dimensions are a=6.54 Angstroms, b=11.05 Angstroms, and c=8.70 Angstroms. Beta HMX is stable to about 102°C to 104.5°C, when the crystalline structure is converted to the alpha form. The crystals of the alpha form are orthorhombic with a density of 1.82 grams per cubic centimeter. The unit cell dimensions are a=15.14 Angstroms, b =23.89 Angstroms, c = 5.91 Angstroms. At approximately 160°C to 164°C the meta stable gamma form exists. The crystals of the gamma form are monoclinic with a density of 1.76 grams per cubic centimeter. The unit cell dimensions are a=10.95 Angstroms, b =7.93 Angstroms, and c = 14.61 Angstroms. Above the 160°C to 164°C range to the melting point, the delta form exists. The crystals of the delta form are hexagonal with a density of 1.80 grams per cubic centimeter. The unit cell dimensions are a=7.71 Angstroms and b=32.55 Angstroms. The polymorphs may also be prepared by precipitation from solution under various conditions. The beta form is precipitated from a solution of HMX in acetic acid, acetone, nitric acid, or nitrometrane with very slow cooling. The alpha form is precipitated from the same solution with more rapid cooling and the gamma form is precipitated with even more rapid cooling. The delta form is crystallized from solution such as acetic acid orbetachloroethyl phosphate, in which HMX is only slightly soluble. Very rapid chilling of the solution is required.

Cyclotrimethylenetrinitramine (RDX) This explosive is also known as: hexahydro-1,3,5-trinitro-1,3,5-triazine; 1,3,5-trinitro1,3,5-triazacyclohexane; cyclotrimethylene trinitramine; hexogen; cyclonite; or 1,3,5-trinitrotrimethylene-triamine.The compound is a white solid with a density of 1.806 grams per cubic centimeter, a nitrogen content of 37.84 percent, and a molecular weight of 222.13. RDX has orthorhombic crystals with a wide variety of habits; from needles when precipitated from HNO3, to plates when precipitated from acetic acid, to a massive

form when precipitated from nitroethane or acetone. The unit cell dimensions are a=13.18 Angstroms, b = 1 1.57 Angstroms, and c = 10.71 Angstroms, and there are eight molecules per cell unit. On the Moh's scale RDX has a scratch hardness of 2.5. Other properties of pure RDX include a specific heat as shown in table 8-15 and a heat of combustion at constant pressure of 2,307.2 calories per gram. The heat of formation value is + 14.71 kilocalories per mole. RDX has an extremely low volatility. Pure RDX is used in press loaded projectiles but not in cast loaded projectiles because of extensive decomposition at the melting point. Cast loading is accomplished by blending RDX with a relatively low melting point substance. Compositions in which the RDX particles are coated with wax are called Composition A, in mixtures with TNT, Composition B, and blends with a nonexplosive plasticizer, Composition C. Straight RDX is used as a base charge in detonators and in some blasting caps, and as an oxidizer in specialized gun propellant.

Ethylenediamine Dinitrate (EDDN) This explosive is also designated EDD or EDAD. The compound is composed of white crystals with a specific gravity of 1.595 at 25/40, a nitrogen content of 30.10 percent, an oxygen balance to C02 of-25.8 percent, a melting point of 185° to 187°C, and a molecular weight of 186.13. The compound is soluble in water, but insoluble in alcohol or ether. EDDN has a heat of combustion of 374.7 kilocalories per mole at constant pressure, a heat of formation of 156.1 kilocalories per mole, and a heat of explosion of 127.9 to 159.3 kilocalories per mole. Eutectics are formed with ammonium nitrate, but EDDN is immiscible with molten TNT. An aqueous solution of EDDN is distinctly acidic. EDDN has been used to a limited extent as a bursting charge pressed in shells and as a cast charge in eutectic mixtures with ammonium nitrate. Mixtures with wax were used in boosters during World War II by the Germans.

Ethylenedinitramine (Haleite) This compound is also known as N’ N'-dinitroethylene diamine; ethylene dinitramine; or 1,2-dinitrodiaminoethane, and is sometimes designated EDNA. The name Haleite is in recognition of the development of this compound as a military explosive by the late Dr. G. C. Hale of Picatinny Arsenal. The compound is white with an orthorhombic crystal structure, a nitrogen content of 37.33 percent, anoxygen balance to CO2 of-32 percent, an oxygen balance to CO of-10.5 percent, and a molecular weight of 150.10. The density of the crystals vary from 1.66 to 1.77 depending on the solvent from which the crystallization took place.

Nitroguanidine (NQ) This explosive is also known as picrite or guanylnitramine. The compound has a nitrogen content of 53.84 percent, an oxygen balance to CO2 of -30.8 percent, a theoretical maximum density of 1.81 grams per cubic centimeter, a nominal density of 1.55 to 1.75 grams per cubic centimeter, and a molecular weight of 104.1. The melting point of nitroguanidine varies somewhat with the rate of heating. The pure material melts with decomposition at 232°C, but values from 220°C to 250°C are obtainable with various heating rates. At least two crystalline forms exist for nitroguanidine; alpha and beta.

2, 4,6Trinitrophenylmethylnitramine (Tetryl) This explosive is also known as: 2,4,6tetranitro-N-methyl aniline; N-methyl-N,2,4,6tetranitro-benzenamine; 2,4,6-trinitrophenylmethylnitramine; tetranitromethylamulene; or picrylmethylnitramine and is sometimes referred to as pyronite, tetrylit, tetralite, tetralita, or CE. The compound is colorless when freshly prepared and highly purified, but rapidly acquires a yellow color when exposed to light. Tetryl has a nitrogen content of 24.4 percent, an oxygen balance to CO2 of-47 percent, a nominal density of 1.71 grams per cubic centimeter with a theoretical maximum density of 1.73 grams per cubic centimeter, and a molecular weight of 287.15. The melting point of the pure substance is 129.45°C and of the technical grade, 129°C.

Nitroaromatics. Compounds in this class are prepared by C-type nitration in which a nitrogroup is attached to a carbon atom of the compound being nitrated.

Ammonium Picrate This explosive is also known as ammonium 2,4,6-trinitrophenolate, explosive D, and Dunnite. The compound has a nitrogen content of 22.77 percent, an oxygen balance to C02 of- 52 percent, a maximum crystal density of 1.717 grams per cubic centimeter, a nominal density of 1.63 grams per cubic centimeter, a melting point with decomposition
of about 280°C and a molecular weight of 246. Ammonium picrate exists in a stable form as yellow,
monoclinic crystals and a meta stable form as red, orthorhombic crystals. The unit cell dimensions are a =13.45 Angstroms, b

1,3-Diamino-2,4,6-Trinitrobenzene (DA TB) This explosive is also known as 2,4,6trinitro-1,3-diaminobenzene; 2,4,6-trinitro-7,3benzenediamine trinitro-m-phenylenediamine; or 2,4,6-trinitro-1 ,3-diaminobenzol and may be referred to as DATNB. The compound is a yellow, crystalline solid with a nitrogen content of 28.81 percent, a melting point of 2860C to 301°C with decomposition, and a molecular weight of 243.14.

1,3,5Triamino-2, 4,6Trinitrobenzene (TA TB) This explosive is also known as 2,4,6trinitro-1,3,5-benzenetriamine and may be referred to as TATNB. TATB has a nitrogen content of 32.56 percent, an oxygen balance to C02 of -55.78 percent, and a molecular weight of 258.18. TATB is yellow but exposure to sunlight or ultraviolet light causes a green coloration which, with prolonged exposure, turns brown. The compound has a theoretical maximum density of 1.937 grams per cubic centimeter and a nominal density of 1.88 grams per cubic centimeter. An instantaneous hot bar decomposition temperature of 450°C to 451 °C was reported with rapid thermal decomposition above 320°C. The structure of the crystalline lattice of TATB contains many unusual features. Some of these are the extremely long C-C bonds in the benzene ring, the very short C-N bonds, amino bonds, and the six furcated hydrogen bonds. Evidence of a strong intermolecular interaction, hydrogen bonds, in TATB is indicated by the lack of an observable melting point and very low solubility. The intermolecular network results in a graphite-like lattice structure with the resulting properties of lubricity and intercalaction.

2,4,6-Trinitrotoluene (TNT) This explosive is also known as trotyl, tolit, triton, tritol, trilite, and 1-methyl-2,4,6-trinitrobenzene. TNT has been the most widely used military explosive from World War I to the present time. The advantages of TNT include low cost, safety in handling, fairly high explosive power, good chemical and thermal stability, favorable physical properties, compatibility with other explosives, a low melting point favorable for melt casting operations, and moderate toxicity. There are six possible ring nitrated TNT isomers. The alpha isomer, which is the one of military interest is symmetrical and will be referred to as TNT. The other five meta isomers will be identified by the Greek letters beta through eta excluding zeta. TNT is a yellow, crystalline compound with a nitrogen content of 18.5 percent, an oxygen balance to CO2 of-73.9 percent, a molecular weight of 227.13, and a melting point of 80°C to 81°C. TNT shows no deterioration after 20 years storage in a magazine.

Impurities Present in TNT

2,4,5-Trinitrotoluene
2,3,4-Trinitrotoluene
2,3,6-Trinitrotoluene
2,3,5-Trinitrotoluene
3,4,5-Trinitrotoluene
2,6-Dinitrotoluene
2,4-Dinitrotoluene
2,3-Dinitrotoluene
2,5-Dinitrotoluene
3,4-Dinitrotoluene
3,5-Dinitrotoluene
1,3-Dinitrobenzene
1,3,5-Trinitrobenzene
2,4,6-Trinitrobenzyl alcohol
2,4,6-Trinitrobenzaldehyde
2,4,6-Trinitrobenzoic acid
Alpha-nitrato-2,4,6-trinitrotoluene
Tetranitromethane
2,2'-Dicarboxy-3,3',5,5'-tetranitroazoxybenzene (white compound)
2,2',4,4',6,6'-Hexanitrobibenzyl (HNBB)
3-Methyl-2',4,4',6,6'-pentanitrodiphenylmethane(MPDM)
3,3',5,5'-Tetranitroazoxybenzene

Compositions are explosives in which two or more explosive compounds are mixed to produce an explosive with more suitable characteristics for a particular application. Generally, the characteristics of the composition are intermediate between the characteristics of the individual explosive ingredients. For example, the addition of TNT to RDX reduces brisance somewhat but considerably improves sensitivity. The composition explosives are categorized by the number of ingredients contained in the mixture.

Binary Mixtures

Amatols are binary mixtures of ammonium nitrate and TNT. The percentages of ammonium nitrate and TNT are reflected in the nomenclature for each mixture, for example, 80/20 amatol consists of 80 percent ammonium nitrate and 20 percent TNT. Ammonium nitrate is insoluble in TNT. The chemical and physical properties of the constituents determine the properties of the amatol. The mixture begins to melt at TNT's melting point but the ammonium nitrate, which has a higher melting point, remains solid.

Composition A explosives consist of a series of formulations of RDX and a desensitizer. Compositions A and A2 contain the same percentages of materials as composition A3 but the type of wax used and the granulation requirements for the RDX are different. Composition A contains beeswax, while composition A2 contains a synthetic wax. Compositions A and A2 are no longer used. All of the composition A explosives are press loaded. The density of composition A3 is 1.47 and 1.65 grams per cubic centimeter when pressed to 20,685 kilopascals (3,000 pounds per square inch) and 82,740 kilopascals (12,000pounds per square inch), respectively.

Composition B type explosives are mixtures of RDX and TNT. Composition B refers to mixtures of approximately 60 percent RDX and 40 percent TNT. Other portions of RDX and TNT are called cyclotols.

Composition C During World War II, the British used a plastic demolition explosive that could be shaped by hand and had great shattering power. As standardized by the United States, this explosive was designated as composition C and contained 88.3 percent RDX and 11.7 percent of a nonexplosive oily plasticizer. Included in the plasticizer was 0.6 percent lecithin, which helped to prevent the formation of large crystals of RDX which would increase the sensitivity of the composition.

Ednatols are mixtures of halite (ethylene dinitramine) and TNT. The most used haleite/TNT portions are 60/40, 55/45, and 50/50. Ednatols are yellowish, uniform blends with a melting point of 80°C. The eutectic temperature is about 80°C. In an extrudation test at 65°C there was no extrudate. Ednatols are considered satisfactory for bursting charges in ammunition. All of the following data in the discussion of the properties of ednatol refer to the 55/45 mixture. 55/45 Ednatol has an oxygen balance to carbon dioxide of -51 percent and to carbon monoxide of - 17 percent. The density of the cast explosive is 1.62 grams per cubic centimeter, which is four percent greater than that of cast TNT or haleite pressed under 206,850 kilopascals (30,000 pounds per square inch).

LX-14 is an explosive which consists of 95.5 percent HMX and 4.5 percent estane 5702-F1. The mixture is a white solid with violet spots. LX-14 has a theoretical maximum density of 1.849 grams per cubic centimeter, a nominal density of 1.83 grams per cubic centimeter, and a melting point of greater than 270°C, with decomposition. The heat of formation is 1.50 kilocalories per mole. The calculated heats of detonation are 1.58 kilocalories per gram with liquid water and 1.43 kilocalories per gram with gaseous water. At a density of 1.835 grams per cubic centimeter the detonation velocity is 8,830 meters per second.

Octols are mixtures of HMX and TNT. Octol is used as an oil well formation agent and in fragmentation and shaped charges. In fragmentation tests using a 105 millimeter M1 shell, 15 percent more fragments are produced and the average velocity of the fragments is 100 meters per second faster than with a similar shell loaded with composition B. This improvement is attributed to both the higher rate of detonation of octol and the greater density of octol which permits a greater weight of explosive in the same volume.

Pentolite are castable explosive mixtures containing PETN and TNT. The most commonly used blend consists of 50/50 PETN/TNT. Other blends such as 75/25, 40/60, 30/70, and 10/90 have been occasionally employed but the 50/50 blend is superior in the characteristics of sensitivity to initiation, brisance, and suitability for melt loading. 87 percent TNT and 13 percent PETN form a eutectic with a freezing point of 76.7°C. Cast 50/50 pentolite, therefore, consists of 42.2 percent PETN, and 57.8 percent of the eutectic mixture.

Picratol is a mixture of 52 percent ammonium picrate and 48 percent TNT. Molten TNT has little or no solvent action on ammonium picrate, and consequently, cast picratol consists essentially of a physical mixture of crystals of the two explosives. The density of cast picratol is 1.61 to 1.63. This permit's a weight of charge almost equal to that

Tetrytols are light yellow to buff mixtures of TNT and tetryl. As is the case for tetryl, tetrytols are no longer used by the United States but are still being used by other nations including various NATO allies. Tetrytols resemble tetryl more closely than they resemble TNT. They are more powerful but less sensitive than TNT. Tetrytols can be cast into munitions, which is an advantage over press loading. Table 8-73 compares the physical characteristics of various detritus compositions.

Ternary Mixtures

Amatex 20 The mixture has a nominal density of 1.61 grams per cubic centimeter and is used as a filler in ammunition items.

Amatex 20 consists of:

RDX	40 percent
TNT	40 percent
Ammonium nitrate	20 percent

Ammonal

Ammonals are mixtures containing, as principle ingredients, ammonium nitrate and powdered aluminum incorporated with high explosives such as TNT, DNT, and RDX. Powdered carbon was also used in earlier ammonals. In the ammonals that do not contain carbon, the mixture of ammonium nitrate and high explosive detonates developing a very high temperature which causes volatilization of the aluminum powder. In general, ammonals are fairly insensitive and stable mixtures but are hygroscopic due to the presence of ammonium nitrate. In the presence of

moisture, ammonals react with the same metals as amatols: copper, bronze, lead, and copper plated steel.

(HTA-3) are mixtures of HMX, TNT, and aluminum

Minol-2 are mixtures of TNT, ammonium nitrate, and aluminum.

Torpex is a silvery white solid when cast. The composition of torpex is 41.6 percent RDX, 39.7
percent TNT, 18.0 percent aluminum powder, and 0.7 percent wax.

Quanternary Mixtures

Depth bomb explosive (DBX) is the only explosive covered under quanternary mixtures. DBX consists of:

TNT	40 percent
RDX	21 percent
Ammonium nitrate	21 percent
Aluminum	18 percent

Industrial Explosives

Dynamites Military operations frequently necessitate excavation, demolition, and cratering
operations for which the standard high explosives are unsuited. Recourse is made to commercial and special compositions. Commercial blasting explosives, with the exception of black powder, are referred to as dynamites although in some cases they contain no nitroglycerin.

Ammonium nitrate fuel oil explosives (ANFO) When ammonium nitrate is mixed with
approximately 5.6 percent of a combustible material such as fuel oil, the heat liberated on detonation is increased by almost three-fold.

Propellants

CHAPTER 9
UNITED STATES PROPELLANTS

Introduction Selection of a propellant for an application is made on the basis of the requirements of that specific application. In general, guns are designed to meet specified performance standards and withstand a specific pressure in the barrel. With a knowledge of the properties of the constituents normally used for propellants, the propellant designer creates a formulation to satisfy the performance standards and limitations of the gun. When ignited, the propellant produces large quantities of hot, gaseous products. Complete combustion or deflagration of the propellant occurs in milliseconds in guns and the pressure produced accelerates the projectile down the barrel.

Single-base propellants M1, M6, M10, and IMR.

Double-base gun propellants M2, M5, M8 and M18.

Triple-base gun propellants contain nitroguanidine as additional energizer which increases the energy content of the formulation without raising the flame temperature.

Composite propellants, used in solid fuel rockets, contain a polymer binder, a fuel, and an oxidizer.

Ball Propellants

Propellants Compounds: M1, M2, M5, M6, M8, M10, M31, M30, IMR, M18

Nitrocellulose (NC)
Nitrogen
Nitroglycerin
Barium nitrate
Potassium nitrate
Potassium sulfate
Lead carbonate
Nitroguanidine
Dinitrotoluene
Dibutylphthalate
Diethylphthalate
Diphenylamine
Ethyl centralite
Graphite
Cryolite
Ethyl alcohol (residual)

Diphenylamine, (C6H5)2NH, is an ammonia derivative in which two of the hydrogens have been replaced by phenyl groups. Each phenyl ring has three hydrogens which can be replaced with nitro groups. Therefore, DPA can be

nitrated to the hexanitrate by absorbing the nitrogen oxides produced during the decomposition of nitrocellulose. DPA is nitrated relatively easily and the reaction is not exothermic. During the decomposition of nitrocellulose, DPA nitrates to the following compounds in succession.

N-nitrosodiphenylamine
2-nitrodiphenylamine
4-nitrodiphenylamine
N-nitroso-2-nitrodiphenylamine
N-nitroso-4-nitrodiphenylamine
4,4', 2,4', 2,2', and 2,4-dinitrodiphenylamines
N-nitroso-4, 4'-dinitrodiphenylamine
N-nitroso-2, 4'-dinitrodiphenylamine
2, 4, 4' and 2, 2', 4-trinitrodiphenylamines
2,2', 4,4'-tetranitrodiphenylamine
2,2', 4,4', 6-pentanitrodiphenylamine
Hexanitrodiphenylamine

The propellant does not start to become unstable until most of the diphenylamine has been converted to hexanitrodiphenylamines. A very accurate test to measure the remaining safe storage life in a propellant lot is to analyze the distribution profile of the nitro DPAs. Only about one percent DPA can be added to a propellant because its nitrated products change the ballistic properties.

Centralite I (which is also called ethyl centralite or symmetrical diethyldiphenylurea), OC [N-(C2H5) (C6H5)]2, was developed in Germany for use in double base propellants. The compound acts as a stabilizer, gelatinizer, and waterproofing agent. Unlike diphenylamine, centralite can be used in relatively large proportions and some propellant compositions contain as much as eight percent of this material. Like diphenylamine, centralite is nitrated by the products of nitrocellulose decomposition. The following compounds are formed successively, as many as four being present simultaneously, as deterioration of the powder proceeds.

4-nitrocentralite
4,4' dinitrocentralite
N-nitroso-N-ethylaniline
N-nitroso-N-ethyl-4-nitraniline
2,4, dinitro-N-ethyl-aniline

Centralite II (which is also called methyl centralite or symmetrical dimethyl diphenylurea), OC[N(CH3) (C6H5)]2, also has been used as a stabilizer but is not considered to be as effective as the ethyl analogue

Three akardites, or acardites, are used to stabilize propellants. Akardite II is often used in DEGN containing propellants.

Pyrotechnic Devices

Military Explosives (Chemistry) 30 September 1984

CHAPTER 10
UNITED STATES PYROTECHNICS

Pyrotechnics are used to send signals, to illuminate areas of interest, to simulate other weapons during training, and as ignition elements for certain weapons.(1)

All pyrotechnic compositions contain oxidizers and fuels. Additional ingredients present in most compositions include binding agents, retardants, and waterproofing agents. Ingredients such as smoke dyes and color intensifiers are present in the appropriate types of compositions.

Oxidizers: are substances in which anoxidizing agent is liberated at the high temperatures of the chemical reaction involved.

Fuels: include finely powdered aluminum, magnesium, metal hydrides, red phosphorus, sulfur, charcoal, boron, silicon, and suicides. The most frequently used are powdered aluminum and magnesium.

Binding agents: include resins, waxes, plastics, and oils. These materials make the finely divided particles adhere to each other when compressed into pyrotechnic items.

Retardants are materials that are used to reduce the burning rate of the fuel-oxidizing agent mixture, with a minimum effect on the color intensity of the composition.

Waterproofing agents are necessary in many pyrotechnic compositions because of the susceptibility of metallic magnesium to reaction with moisture, the reactivity of metallic aluminum with certain compounds in the presence of moisture, and the hygroscopicity of nitrates and peroxides.

Color intensifiers:

hexachloroethane (C2CI6)
hexachlorobenzene (C6CI6)
polyvinyl chloride
dechlorane (C1oCI12).

Smoke dyes are azo and anthraquinone dyes. These dyes provide the color in smokes used for signaling, marking, and spotting.

Flares and Signals The illumination provided by a flare is produced by both the thermal radiation from the product oxide particles and the spectral emission from excited metals.

Infrared Flare Formulas:

Silicon
KNO3
CsNO3
RbNO3
Hexamethylene
tetramine
Epoxy resin

Red-Green Flare System:

Barium nitrate
Strontium nitrate 13
Potassium perchlorate
Magnesium
Dechlorane
Polyvinyl acetate resin

Signal flares are smaller and faster burning than illuminating flares. Various metals are added these compositions to control the color of the flame.

Colored and White Smoke The pyrotechnic generation of smoke is almost exclusively a military device for screening and signaling. Screening smokes are generally white because black smokes are rarely sufficiently dense. Signal smokes, on the other hand, are colored so as to assure contrast and be distinct in the presence of clouds and ordinary smoke.

Venturi thermal generator type. The smoke producing material and the pyrotechnic fuel block required to volatilize the smoke material are in separate compartments. The smoke producing material is atomized and vaporized in the venturi nozzle by the hot gases formed by the burning of the fuel block.

Burning type. Burning type smoke compositions are intimate mixtures of chemicals. Smoke is produced from these mixtures by either of two methods. In the first method, a product of combustion forms the smoke or the product reacts with constituents of the atmosphere to form a smoke. In the second method, the heat of combustion of the pyrotechnic serves to volatilize a component of the mixture which then condenses to form the smoke. White phosphorus, either in bulk or in solution, is one example of the burning type of smoke generator.

Explosive dissemination type. The smoke producing material is pulverized or atomized and then vaporized, or a preground solid is dispersed by the explosion of a bursting charge. The explosive dissemination smoke generator may contain metallic chlorides which upon dispersal, hydrolyze in air. Examples are titanium, silicon, and stannic tetrachloride.

Smoke Agent Mixtures:

White phosphorus
Sulfur trioxide

FS agent
HC mixture
FM agent
Crude oil

The preferred method of dispersing colored smokes involves the vaporization and condensation of a colored organic volatile dye. These dyes are mixed to the extent of about 50 percent with a fuel such as lactose (20 percent) and an oxidizer (30 percent) for which potassium chlorate is preferred.

Tracers and Fumers The principal small arms application of military pyrotechnics is in tracer munitions where they serve as incendiaries, spotters, and as fire control. Two types of tracers are used. The difference between the two types is the method of tracking. The more frequently used tracer uses the light produced by the burning tracer composition for tracking. Smoke tracers leave a trail of colored smoke for tracking. Red is the flame color most often employed in tracers.

Igniter and Tracer Compositions

Strontium peroxide
Magnesium
1-136 Igniter
Calcium resinate
Barium peroxide
Zinc stearate
Toluidine red (identifier)
Strontium nitrate
Strontium oxalate
Potassium perchlorate
Polyvinyl chloride

Incendiaries Two types of incendiaries are commonly used. The traditional type is a bomb containing a flammable material. These materials include thermite (a mixture of aluminum and rust), phosphorus, and napalm. In addition, the case of the bomb may be constructed of a material such as magnesium that will burn at a high temperature once ignited.Depleted uranium is used extensively in pyrotechnics which have armor piercing capabilities.

Depleted uranium deficient in the more radioactive isotope U235, is the waste product of the uranium enrichment process. The depleted uranium is formed into projectiles that can penetrate armor because of their high density and mechanical properties. The impact of the projectile causes the uranium to form many pyrophoric fragments which can ignite fuel and munition items.

Pyrophoric Metals

U	Uranium
Th	Thorium
Zr	Zirconium
Hf	Hafnium

Ce Cerium
La Lanthanum
Pr Praseodymium
Nd Neodymium
Sm Samarium
Y Yttrium
Ti Titanium

Delays and Fuses Delay compositions are mixtures of oxidants and powdered metals which produce very little gas during combustion.

Photoflash Compositions Photoflash compositions are the single most hazardous class of pyrotechnic mixtures. The particle size of the ingredients is so small that burning resembles an explosion. The various photoflash devices are similar, differing principally in size and the amount of delay.

Colored smokes:

Yellow: Auramine hydrochloride
Green: 1,4-Di-p-toluidinoanthraquinone with auramine hydrochloride
Red: 1-Methylanthraquinone
Blue: Not suitable for signaling because of excessive light scatter.

Currently used dyes:

Orange: 1-(4-Phenylazo)-2-naphthol
Yellow: N, N-Dimethyl-p-phenylazoaniline
Blue: 1,4-Diamylaminoanthraqdinone

Black Powders Used in Pyrotechnics

Potassium nitrate
Sodium nitrate
Charcoal
Coal (semibituminous)
Sulfur

Ignition Mixtures Components

Aluminum (powdered)
Ammonium dichromate
Asphaltum
Barium chromate
Barium peroxide
Boron (amorphous)
Calcium resinate
Charcoal
Diatomaceous earth (See also superfloss)
Fe203 (Red)
Fe304 (Black)
Potassium nitrate
Potassium perchlorate

Laminac
Magnesium (powdered)
Sodium nitrate
Nitrocellulose
Parlon (chlorinated rubber)
Pb02 -
Pb304
Sr peroxide
Sugar
Superfloss
Titanium
Toluidine red toner
Vegetable oil
Vistanex (polyisobutylene)
Zinc Stearate
Zirconium

Table 4. Pyrotechnic Munitions Chemicals

Chemicals found in practice and pyrotechnic munitions [1] [2]

Aluminum	Copper powder	Potassium chromate
Ammonium chloride	Chlorinated rubber (Parlon)	Potassium chlorate
Ammonium perchlorate	Cupric oxide	Polyvinyl acetate
Amorphous boron	Cuprous chloride	Polyvinylchloride (PVC)
Antimony sulfide	Calcium silicide	Perchlorate
Antimony metal powder	Cellulose-nitrate-plastic	Potassium dichromate
Anthracene	Dichloromethane	Potassium perchlorate
Asphaltum	Gilsonite	Resin (laminac)
Barium nitrate	Graphite	Red phosphorous
Barium chromate	Hexachlorobenzene	Selenium
Barium chlorate	Hexachloroethane (HC)	Sodium oxalate
Barium peroxide	Iron oxide	Sodium bicarbonate
Barium sulfate	Infusorial earth	Stearic acid
Bismuth tetroxide	Lead dioxide	Strontium nitrate
Butyl rubber	Lithium peroxide	Strontium carbonate
Calcium resinate	Lithium perchlorate	Strontium nitrate
Calcium fluoride	Magnesium	Strontium peroxide
Carbon tetrachloride	Magnese dioxide	Shellac
Calcium metal	Mercurous chloride	Tellurium
Cobalt naphthenate	Polyisobutylene (vistanex)	Titanium
Copper carbonate	Potassium iodate	Tungsten
Zirconium hydride	Zinc stearate	White phosphorous
Polychlorotrifluoroethylene	Manganese	Magnesium aluminum
Lead monoxide	Lead chromate	Diatomaceous Earth
Saltpeter	Cupric Oxide	Charcoal
Calcium Resinate	Sulphur	Calcium Phosphide
Red Gum	Barium Oxalate	Adhesive, Dextrin
Dextrin	Ammonium Nitrate	Orange Shellac
Auramine Hydrochloride	Stearin	Arsenic Disulphide

Dyes

1-(2-Methoxyphenylazo)-2-Napthol Sudan Red G	4-Dimethylamino Azobenzene
1, 4 Dimethylamino Anthraquinone Fast Blue B	1, 4 Diphenyl Toluidino Anthraquinone
2-(4-Dimethylamino Phenylazo) Napthalene	1-Amino Anthraquinone Fast Red A1
Indanthrene Dye Golden Yellow GKAC	4-Methylamino Anthraquinone

[1] Book: Military Pyrotechnics, 1919; Henry B. Faber; Dean of Pyrotechnic Schools Ordnance Department U.S. Army
[2] Book: Military and Civilian Pyrotechnics, 1968; Dr. Herbert Ellern

Table 5. 23 Pyrotechnic munitions chemicals also used as Pesticides

Chemical		CAS	Pesticide/Biocide/Repellant
Arsenic sulfide	12344-68-2	12612-21-4	Herbicide, Insecticide, Rodenticide
Ammonium Nitrate		6484-52-2	Microbiocide, Rodenticide
Ammonium Chloride		12125-02-9	Algaecide, Microbiocide
Anthracene		120-12-7	Herbicide, Insecticide, Rodenticide
Barium nitrate		10022-31-8	Repellant
Calcium phosphide		1305-99-3	Rodenticide
Carbon tetrachloride		56-23-5	Fumigant,
Cobalt naphthenate		61789-51-3	Fungicide, Insecticide
Copper powder		7440-50-8	Fungicide,
Copper carbonate		12069-69-1	Algaecide, Fungicide, Insecticide
Cupric oxide		1317-38-0	Fungicide, Insecticide
Cuprous chloride		7758-89-6	Fungicide
Dichloromethane		75-09-2	Dog and Cat Repellant
Diatomaceous Earth		61790-53-2	Insecticide, Molluscicide
Iron oxide		1309-37-1	Herbicide
Potassium chlorate		3811-04-9	Defoliant, Herbicide, Microbiocide
Saltpeter		7757-79-1	Microbiocide, Rodenticide
Sodium bicarbonate		144-55-8	Fungicide
Sodium oxalate		62-76-0	Microbiocide
Sulphur		7704-34-9	Fungicide, Insecticide
Stearic acid		57-11-4	Adjuvant
Naphthalene (smoke dye)		91-20-3	Insecticide, insect repellant
Anthraquinone (smoke dye) (found in 4 smoke dye formulas)		84-65-1	Bird Repellant

Note: May explain why training areas are devoid of a robust insect and bird population.

Pesticide Use Information Source:
Pesticide Action Network North America: www.pesticideinfo.org/Search_Chemicals.jsp

Table 6 Pesticides used at Fort Ord

48 Pesticides known as used at Fort Ord

Calcium Cyanide Gas	**Mercury**	**DDT**
DDD	**DDE**	**2,4-D**
Malathion	**Chlordane**	**Dieldrin**
Warfarin	**Diazinon**	**Baygon**
Altosid SR-10	**Tordon 101**	**Hyvar X**
Sevin (Carbyrl Dust)	**1080**	**Diphacinone**
Chlorophacinone	**Zinc Phosphide**	**Endrin**
Heptachlor Epoxide	**Gamma-BHC**	**Derzan-T**
Derzvan	**Methyl Bromide**	**Cyntroid 3-EC**
Pyrethrum	**Permaguard**	**Ficam W**
Gophercide	**Diphacin**	**Weed-Rhap LY-4P**
Monuron	**Ded-Weed Silvex LV**	**Simazine**
Aertex	**Paraquat CL, Banvel**	**Betasan**
Trexsan	**Amino Triazole**	**Amitrol-T**
Diquat	**Tok-E-25**	**Surflan**
Enide	**Metalde HTDE**	**Arochlor 1254**

Note: Pesticides where applied to training areas for decades. Pesticides where applied by air and ground to manage pests (rodents, insects, fungi, and vegetation) the extent of which is not known.

Former Fort Ord Pesticide Use; Research Documents:

Available at Fort Ord Administrative Record ; http://fortordcleanup.com/adminrec/arsearch.asp enter record number, example: BW-0013

1) Fort Ord Installation Assessment 1983; BW-0013, pesticide types and uses
2) Fort Ord Base Closure Preliminary Assessment1990; BW-2427, pesticide types and uses
3) Fort Ord Literature review and Base Inventory Report Vol I, 1991; RI/FS BW-0136
4) Fort Ord Basewide Background Soil Investigation draft 1992; BW-0289
5) Fort Ord Basewide Background Soil Investigation draft final 1993; BW-0352
6) Fort Ord Basewide Background Soil Investigation final 1995; BW-1283E Basewide RI/FS
7) Fort Ord 2003 Burn ATSDR Health Consultation; OE-0522

Table 7. Munitions Chemicals looked for in training areas transferred to the Fort Ord Reuse Authority (FORA) for development

All these development parcels are known training areas

Historical Area (HA) Training Areas and total chemicals looked for:

HA-161,CSUMB Booby Traps, Mines, Projectiles, Pyrotechnics - Development

TPH-Diesel	TPH-Motor Oil	Bis(2-ethylhexyl)phthalate
TPH-Gasoline	Di-n-butyl phthalate	Di-n-octylphthalate
Antimony	Copper	Lead
Cadmium		

HA-175, OE-45 Tactical Training Area - Development

No Sampling Required

HA-103, OE-13B Mortar Range / Parker Flats portion - MST/Horse Park Development

No Sampling Required: based on off-site sampling results

HA-110, DRO.1 Site 39 Multi-use Training/Impact Area - Del Rey Oaks Development

No Sampling Required: based on off-site sampling results

HA-111, DRO.2 Site 39 Multi-use Training/Impact Area - Del Rey Oaks Development

No Sampling Required: based on off-site sampling results

HA-112, SEA.1 Site 39 Multi-use Training/Impact Area - Seaside Development

No Sampling Required: based on “no stressed vegetation or impacts to soil”

HA-112, SEA.2 Site 39 Multi-use Training/Impact Area - Seaside Development

No Sampling Required: based on “no stressed vegetation or impacts to soil”

HA-112, SEA.3 Site 39 Multi-use Training/Impact Area - Seaside Development

No Sampling Required: based on “no stressed vegetation or impacts to soil”

HA-112, SEA.4 Site 39 Multi-use Training/Impact Area - Seaside Development

No Sampling Required: based on "no stressed vegetation or impacts to soil"

HA-116, MOCO1 Site 39 Multi-use Training/Impact Area - Monterey Co Development

No Sampling Required: based on "no MEC was identified during sampling"

HA-117, MOCO2 Site 39 Multi-use Training/Impact Area - Monterey Co Development

Antimony	Copper	Lead

HA-118, Site 39 Site 39 Impact Area - Habitat Management Area

2,4,6-Trinitrotoluene	2-Amino-trinitrotoluene	4-Amino-dinitrotoluene
HMX	RDX	1,3,5-Trinitrobenzene
Tetryl		

Note: Pyrotechnics were used day and night, over a 77 year period. Pyrotechnics were used for all types of troops training including non-live fire, live-fire, bivouac, and maneuvers activities.

Compiled from Fort Ord documents AR BW-2300J, Basewide Range Assessment Reports Final 2009

CITY OF SALINAS
Public Works Department • 200 Lincoln Avenue • Salinas, California 93901 • (831) 758-7241

July 2, 2013

Monterey Regional Water Pollution Control Agency
ATTN: Bob Holden
5 Harris Court, Building D
Monterey, CA 93940

Re: City of Salinas Response to Notice of Preparation, Monterey Peninsula Ground Water Replenishment Project Environmental Impact Report

Mr. Holden,

The City of Salinas, via this letter, is providing general and specific comments that we believe should be addressed as part of the Environmental Impact Study Process, or considered in the context of the Ground Water Replenishment Project as it moves forward.

General Comments:

1. **National Environmental Policy Act (NEPA):** Varied and significant streams of funding will be required to complete implementation of the GWR project. We offer the observation that several aspects of this project could be and should be eligible for federal funding. (In fact the City of Salinas Industrial Waste Water Improvement Project that will link to this project is partially funded by a federal Economic Development Grant and will also include funding from loans secured by federal Community Development Block Grant funding). Given this possibility we believe it is prudent and wise to develop CEQA information in that could be used to satisfy compliance with the National Environmental Policy Act (NEPA). Meeting NEPA requirements sooner rather than later could serve to open other sources of funding. T-1

2. **California Regional Water Quality Control Board (Water Board):** Numerous permits issue by the regional and state California Water Boards will be required to implement this project.. We recommend that serious consideration be given, as soon as possible to secure these permits. Our expectation is that it would take the Water Board upwards of two years to issue new, or change existing permits previously issued. Given the aggressive timeline of this project, we believe a process that runs parallel with the environmental study processes be developed. We would also recommend that the Water Board be consulted early on to help define the process that would be required to obtain these permits. In other jurisdictions, similar projects have been issued "Master Permits" for water recycling and reuse projects. We recommend that this possibility also be explored. T-2

3. **Funding for Public Outreach:** After reviewing recent budget decisions made by the MRWPCA Board to fund Public Outreach for the GWR project, we believe funding is inadequate for the scale of project being proposed. MRWPCA needs to accept its role as a leader in water reuse and T-3

recycling and begin the effort required to gain approvals or agreements from two major economic engines (Agricultural and Hospitality), multiple local jurisdictions, agencies and citizen committees, as well as State and Federal organizations. We are concerned that MRWPCA has not in the past operated as an agency subject to high visibility in a heavily controversial environment. The recent history of major water projects in the County are a testament to how disagreement and lack of communication can cause essential projects to fail. MRWPCA must take the lead to ensure that all information associated with this project be broadly disseminated across multiple media platforms with honesty and transparency. This project will require the highest level of communication skills and effort to build community consensus if it is to succeed. This effort needs to begin immediately and with adequate funding. We believe that the environment in which this project will be developed is such that MRWPCA will need to "rethink" its communication strategies for this project, and that this effort will require far more funding than is currently provided.

T-3 cont

4. **Independent Utility:** We encourage the MRWPCA to clarify and emphasize that the GWR Project stands on its own and has independent justification, purpose and utility separate from other water resource projects, including the desalination efforts. There is too much discussion about the extent to which the two are integrated and/or dependent on each other when it is not the case.

T-4

5. **Options:** The NOP identifies and discusses Options A and B for potential routing of the pipelines to move the water from Salinas to the MRWPCA treatment facility in Marina. Both of these options start at the City of Salinas, agricultural wash-water settling ponds. There is also a pipeline that goes from the City of Salinas pump station at TP1 to the treatment facilities; Shouldn't this pipeline also be addressed as well?

T-5

Specific Comments:

1. On page 8 the NOP states "*The GWR Project could not produce all of the needed replacement water, but the primary goal of the project is to produce 3,500 AFY to be used by Cal-Am in order to reduce its Carmel River diversions by that same amount.*" Recent presentations to the CPUC made by MRWPCA representatives indicate a potential of 9,500 AFY to 12,500 AFY of available source water that could be used for GWR purposes. With the understanding that it takes approximately 4,200 AFY to produce 3,500 AFY of potable water via the GWR, we are concerned that the advanced treatment plan as proposed is inadequately sized to process the source water. We understand that the source water could also be recycled and used to satisfy irrigation needs (this of course would be supported by the City of Salinas) however there is only limited discussion of the actual amount of available source water and how it would ultimately be processed and distributed. This concern is also extended to the tertiary treatment with questions about the ability to process high amounts of source water. At the very minimum designing the advanced treatment facility so that it could be rapidly expanded is an important consideration

T-6

2. On page 12, the NOP refers to the source water being provided from a combination of sources listed. We recommend that the MRWPCA clarify that the water may come from one of the options listed, or some combination of the potential sources listed. How will the MRWPCA determine which source or sources are used or drawn from and when?

T-7

3. On page 12 (and a number of other places), there is a fair amount of detail specific to pipe sizes, capacity, pump location and pump sizes. We recommend that the MRWPCA remain flexible, where possible. We recommend that the CEQA study focus on routing and those issues of potential environmental significance and defer being too specific on some of the system details until the design is further along. If more than 3,500 AFY can be sourced from City of Salinas storm and agricultural wash water, and the MRWPCA can use that water for the greater good, would increasing the system capacity require new environmental processing? If so, is it possible to avoid his? T-8

4. On page 13 the NOP states "*A new 9,000-foot long, 30-inch diameter pipeline would transport water from the proposed new Blanco Drain pump station to the new GWR Project treatment facilities at the Regional Treatment Plant. Directional drilling would be used to cross under the Salinas River, and then the pipeline would be placed along the boundary of the Monterey Regional Waste Management District property to the MRWPCA's existing Regional Treatment Plant site.*" In terms of water conveyance systems, for both source and recycled water, it is important to extend our thinking into the future in terms of MRWPCA becoming a regional source of recycled water. Given this thinking, we recommend that two pipelines be placed simultaneously under the river while this work project is taking place. The cost saving and future benefits we believe would prove to be invaluable as MRWPCA began to provide recycle water back into the Salinas Valley for irrigation, or to increase volume of source water intake. The second pipeline would not necessarily be required to come into immediate use but could be capped at both ends until needed. However, the economies of scale realized by locating two pipelines with one permit under one contract should prove in the long term very cost effective and provide the kind of flexibility needed for this project. T-9

The City of Salinas appreciates the opportunity to comment on this important document. Should you have questions or wish clarification on our comments please contact me at 831-758-7390.

Regards,

Gary E. Petersen
Public Works Director

cc: Ray Corpuz, City Manager
Frank Aguayo, Senior Civil Engineer
Kevin Flynn, Kimley-Horn and Associates

Letter U

Bill Carrothers Comment - my only comment on the GWR Project is the same as George Riley's. He and I are both interested in the costs associated with scaling up the proposal, and what it would cost to design the project to have the potential for future capacity increases. U-1

APPENDIX E

SUPPLEMENT TO MAY 2013 NOP

SUPPLEMENT TO THE MAY 2013 NOTICE OF PREPARATION FOR THE MONTEREY PENINSULA GROUNDWATER REPLENISHMENT (PURE WATER MONTEREY) PROJECT ENVIRONMENTAL IMPACT REPORT

TO: Agencies, Interested Parties, and Members of the Public
DATE: December 8, 2014
SUBJECT: Supplement to May 2013 Notice of Preparation of an EIR
PROJECT TITLE: Pure Water Monterey Groundwater Replenishment Project
PROJECT LOCATION: Northern Monterey County, California
LEAD AGENCY: Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940

Staff contact: Mr. Bob Holden, Principal Engineer
Phone: (831) 372-3367 Fax: (831) 372-6178
Email: gwr@mrwpca.com

The Monterey Regional Water Pollution Control Agency (MRWPCA) is the Lead Agency for preparation of an Environmental Impact Report (EIR) under the California Environmental Quality Act (CEQA) for the Monterey Peninsula Groundwater Replenishment Project (now called the Pure Water Monterey GWR Project). MRWPCA commenced the CEQA process for the proposed project on May 31, 2013 when a Notice of Preparation (NOP) of an EIR was circulated for a 30-day public review period (SCH# 2013051094). MRWPCA considered and incorporated comments on the May 2013 NOP, and the Draft EIR for the project is well underway. On a parallel track, as a result of ongoing engineering and technical evaluations and regional coordination efforts, MRWPCA has updated the project description.

To provide public agencies, interested parties and members of the public with an opportunity to comment on the scope of the EIR related to updates to the project description, MRWPCA has decided to supplement the May 2013 NOP.

Comment Period for Supplement to NOP
MRWPCA invites public agencies, organizations and members of the public to submit written comments providing specific details about the scope and content of the environmental information in the EIR related to the updates to the project description. If commenting on behalf of a responsible or trustee agency, please also identify your specific areas of statutory responsibility. The public comment period on the Supplement to the NOP begins on December 10, 2014 and ends on January 8, 2014. Please send your written comments to Mr. Bob Holden at the address identified above, including your name, address, and contact information. If a response is not received from you within 30 days, the Lead

Agency will assume, in accordance with CEQA Guidelines section 15082(b)(2) that you have no comments on the Supplement to the NOP.

Project Location and Background

The Pure Water Monterey GWR Project would be located within northern Monterey County, and would include new facilities located within the unincorporated areas of the Salinas Valley and the cities of Salinas, Marina, Seaside, Monterey, and Pacific Grove. Figure 1 shows the proposed location of project facilities; locations that have been updated since publication of the May 2013 NOP are indicated by red dashed-line circles.

The Pure Water Monterey Groundwater Replenishment Project would create a reliable source of water supply for northern Monterey County. The project would provide purified water for recharge of the Seaside Groundwater Basin, and recycled water to augment the existing Castroville Seawater Intrusion Project's (CSIP) agricultural irrigation supply. The project is jointly sponsored by the MRWPCA and the Monterey Peninsula Water Management District (Water Management District).

The sources of water proposed to be recycled, treated and reused by the project are the same as those presented in the May 2013 NOP: municipal wastewater, industrial wastewater, urban stormwater runoff, and surface water diversions from the Blanco Drain and Reclamation Ditch. The source waters would be conveyed to the Regional Treatment Plant, which is located two miles north of the City of Marina and operated by MRWPCA.

The project objectives also have not changed. The primary objective of the project is to produce 3,500 acre-feet per year (AFY) of high quality replacement water to California American Water Company (CalAm) for delivery to its customers in the Monterey District Service area; thereby enabling CalAm to reduce its diversions from the Carmel River system by this same amount. CalAm is under a state order to secure replacement water supplies to reduce its Carmel River diversions by December 2016. CalAm also is required to reduce its pumping in the Seaside Groundwater Basin in accordance with the Watermaster's pumping mandates. Under the proposed project, highly treated water would be injected into the Seaside Basin. This highly-treated water would be produced from a new advanced water treatment facility that would be constructed at the Regional Treatment Plant and would treat the source waters identified 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 highly-treated water would then mix with the existing groundwater and be stored for future urban use by CalAm.

Another purpose of the project is to provide additional recycled water for crop irrigation in the CSIP area. Currently, the only sources of supply for the existing water recycling facility at the Salinas Valley Reclamation Plant (located at the Regional Treatment Plant site) are municipal wastewater and small amounts of urban dry weather runoff. Municipal wastewater flows have declined in recent years due to aggressive water conservation efforts by the MRWPCA member entities. By increasing the amount and type of source waters entering the wastewater collection system, additional recycled water can be provided for use in the CSIP area.

Updates to the Pure Water Monterey GWR Project Description

As noted above, ongoing engineering and technical evaluations and regional coordination efforts have resulted in some updates to the project description since the May 2013 NOP was issued. The full original project description is included in the *"Monterey Peninsula Groundwater Replenishment Project*

Environmental Impact Report Notice of Preparation" (May 2013), and is available for review at the MRWPCA Administrative Offices (5 Harris Court, Building D, Monterey, CA 93940) and on the project website: www. purewatermonterey.org. Following is a description of the project description updates.

- **Source waters:** All of the source waters identified in the May 2013 NOP are still being evaluated in the EIR as potential sources for the project. Ongoing engineering studies have now identified the volume of additional recycled water that could be provided to the CSIP area from the project. As source flows for the proposed project were studied and the seasonal variability of each was understood, the stakeholder agencies entered into a Memorandum of Understanding Regarding Source Waters and Water Recycling (MOU). The Parties to the MOU are the MRWPCA, the Monterey County Water Resources Agency, the City of Salinas, the Marina Coast Water District (MCWD), and the Monterey Peninsula Water Management District. The MOU is an agreement to "negotiate a Definitive Agreement to establish contractual rights and obligations of all Parties," that would include (1) protection of MCWD's recycled water right entitlement, (2) provision of up to 5,292 AFY of recycled water to Monterey County Water Resources Agency for the CSIP, and (3) provision of 3,500 AFY of highly treated water for injection into the Seaside Groundwater Basin and extraction by CalAm. The MOU also includes provisions for creation of a drought reserve, as discussed below. The MOU reflects the stakeholder agencies' positions regarding the combined benefits and conditions that would be required to secure the necessary rights and agreements to use the source waters needed for the proposed project.
- **Drought reserve storage and recovery:** The proposed project now includes a drought reserve component to support crop irrigation during dry years. Under this component, an extra 200 AFY of advanced treated water would be injected in the Seaside Basin during normal and wet years, up to a total of 1,000 AF, to create a "banked reserve." During drought years, MRWPCA would reduce the amount of water that it provides to the Seaside Groundwater Basin in order to increase production of recycled water for crop irrigation. CalAm would be able to extract the banked water in the Seaside Groundwater Basin to make up the difference to its supplies, such that its extractions and deliveries would not fall below 3,500 acre-feet per year.
- **Project facilities:** Ongoing technical and engineering evaluations have resulted in some new proposed project facilities and updates to other proposed facilities, as noted below.
    - *Optimization of recycled water production at the Salinas Valley Reclamation Project*: New improvements at the existing reclamation plant would enable it to produce more continuous flows in the winter and enhanced delivery to the CSIP area. Proposed improvements would include new sluice gates, a new pipeline between the existing inlet and outlet structures within the storage pond, chlorination basin upgrades, and a new storage pond platform. All of the modifications would occur within the existing Salinas Valley Reclamation Plant footprint. (Item #1 on Figure 1)
    - *Diversion location at Tembladero Slough.* The proposed project now includes a proposed diversion from Tembladero Slough, which is part of the Reclamation Ditch drainage system. This diversion would consist of a new intake structure on the channel bottom, which would connect to a new lift station on the channel bank via a new gravity pipeline. The new intake would be screened to prevent fish and trash from entering the new pump station. The new pump station would discharge through a new force main to the existing wet well at the MRWPCA Castroville Pump Station. The channel banks and invert near the pump station intake would be lined with concrete to prevent scouring. (Item #2 on Figure 1)

- *Removal of coastal recharge facilities as an injection location option in the Seaside Basin*: Groundwater modeling indicates that the coastal location is not feasible for injection. The proposed project now includes only the inland location for the injection facilities. Product water pipelines to that site have also been eliminated as a component of the proposed project. (Item #3 on Figure 1)
- *Inclusion of CalAm's proposed new distribution system pipelines as part of the GWR project*: Because the CalAm water supply system was initially built to deliver water from Carmel Valley to Monterey Peninsula cities, a hydraulic trough currently exists in the peninsula distribution system that prevents water delivery at adequate quantities from the Seaside Groundwater Basin to most of Monterey, and all of Pacific Grove, Pebble Beach, Carmel Valley, and City of Carmel areas. CalAm is proposing to construct two new pipelines, the Transfer and Monterey pipelines (located in Monterey), to bridge this trough. These pipelines are being studied in the EIR for the Monterey Peninsula Water Supply Project proposed by CalAm. Because the pipelines are also needed to deliver the full amount of GWR water injected into the Seaside Basin to CalAm customers, they are now also included as part of the GWR project. (Item #4 on Figure 1)
- *Method of collecting and conveying agricultural wash water from the Salinas Treatment Facility:* The May 2013 NOP envisioned that agricultural washwater would be conveyed by a new pump station and pipeline to a proposed new Blanco Drain pump station, and from there to the Regional Treatment Plant. This water is now proposed to be diverted from the existing Salinas collection and treatment facilities to the existing Salinas Pump Station. The wash water would then mix with the municipal wastewater and be conveyed through the existing 36-inch diameter Salinas interceptor to the Regional Treatment Plant. (Item #5 on Figure 1)

Environmental Analysis

As described within the May 2013 NOP, the EIR will assess the following issues of potential environmental effect: aesthetic resources, air quality and greenhouse gas emissions, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrogeology and groundwater quality, hydrology and surface water quality, land use and planning, noise and vibration, population and housing, transportation and traffic, other environmental issues (e.g., public services and utilities; energy delivery systems; agricultural, mineral and forest resources). The EIR will also evaluate growth-inducing effects that could result from implementation of the project, as well as cumulative impacts and alternatives to the project.

Availability of Supplement to the NOP

The Supplement to the NOP is available for a 30-day public review period beginning December 10, 2014 and ending January 8, 2015. Copies of the document are available for review at MRWPCA, 5 Harris Court, Building D, Monterey CA 93940 and on the MRWPCA website at: www.purewatermonterey.org. Additionally, copies of this document are available for review at the following libraries:

Seaside Public Library
Marina Public Library
Salinas Public Libraries
Castroville Public Library
Monterey Public Library
Carmel Valley Public Library
Harrison Memorial Library (Carmel)

New and Updated Project Facilities:

1. Salinas Valley Reclamation Plant Modifications

2. New Reclamation Ditch Source Water Diversion (Tembladero Slough at Castroville)

3. Elimination of Coastal Recharge Facilities and Product Water Pipeline segments

4. Inclusion of CalAm Proposed Distribution System

5. New Agricultural Washwater Diversion, including Salinas Treatment Facility Storage and Recovery

Monterey Bay

Tembladero Slough Diversion

2

Tembladero Slough

Castroville

Monterey County

Existing Ocean Outfall

Treatment Facilities at Regional Treatment Plant

1

Blanco Drain Diversion

Reclamation Ditch

Coastal Option

Marina

Blanco Drain

Reclamation Ditch Diversion

Salinas

RUWAP Option

Coastal Booster Pump Station Option

RUWAP Booster Pump Station Option

Salinas Pump Station Diversion

Salinas Industrial Wastewater Treatment Facility Storage and Recovery

5

3

Salinas River

Seaside

Fort Ord National Monument

Pacific Grove

Sand City

4

Injection Well Facilities

Lake El Estero Diversion

Monterey

N

0 1.5 3

Legend

- New and Updated Project Facilities
- City Limits
- Proposed Booster Pump Station Options
- Proposed Diversion Site
- Existing Ocean Outfall
- Existing Wastewater Pipelines
- Proposed Source Water Pipeline
- Proposed Product Water Pipeline Options
- Proposed CalAm Distribution System Pipelines
- Proposed Injection Well Facilities

New and Updated Project Facilities

December 2014

Pure Water Monterey GWR Project
Supplemental Notice of Preparation

Figure
1

APPENDIX F

SUPPLEMENT TO NOP COMMENT LETTERS

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

Notice of Preparation

December 9, 2014

To: Reviewing Agencies

Re: Monterey Peninsula Groundwater Replenishment (Pure Water Monterey) Project
SCH# 2013051094

Attached for your review and comment is the Notice of Preparation (NOP) for the Monterey Peninsula Groundwater Replenishment (Pure Water Monterey) Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Bob Holden
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2013051094
Project Title Monterey Peninsula Groundwater Replenishment (Pure Water Monterey) Project
Lead Agency Monterey Regional Water Pollution Control Agency

Type NOP Notice of Preparation

Description The Pure Water Monterey Groundwater Replenishment Project would create a reliable source of water supply for northern Monterey County. The project would provide purified water for recharge of the Seaside Groundwater Basin, and recycled water to augment the existing Castroville Seawater Intrusion Project's agricultural irrigation supply. The project would be located within northern Monterey County, and would include new facilities located within the unincorporated areas of the Salinas Valley and the cities of Salinas, Marina, Monterey and Pacific Grove.

Lead Agency Contact

Name Bob Holden
Agency Monterey Regional Water Pollution Control Agency
Phone 831 372 3367 **Fax**
email
Address 5 Harris Court, Building D
City Monterey **State** CA **Zip** 93940

Project Location

County Monterey
City Seaside, Marina
Region
Cross Streets
Lat / Long
Parcel No. numerous
Township **Range** **Section** **Base**

Proximity to:

Highways Hwy 1, 156, 68
Airports Monterey Peninsula, Marina
Railways
Waterways Salinas and Carmel Rivers, other creeks/ditches, sloughs
Schools numerous
Land Use Various

Project Issues Agricultural Land; Archaeologic-Historic; Air Quality; Biological Resources; Coastal Zone; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects; Aesthetic/Visual; Forest Land/Fire Hazard

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 4; Office of Emergency Services, California; Native American Heritage Commission; State Lands Commission; Caltrans, District 5; Air Resources Board; State Water Resources Control Board, Divison of Financial Assistance; State Water Resources Control Board, Division of Drinking Water; State Water Resources Control Board, Division of Water Quality; State Water Resources Control Board, Division of Water Rights; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 3

Date Received 12/09/2014 **Start of Review** 12/09/2014 **End of Review** 01/07/2015

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #2013051094

Project Title: Monterey Peninsula Groundwater Replenishment (Pure Water Monterey) Project

Lead Agency: Monterey Regional Water Pollution Control Agency
Contact Person: Bob Holden, Principal Engineer
Mailing Address: 5 Harris Court, Building D
Phone: (831)372-3367
City: Monterey Zip: 93940
County: Monterey

Project Location: County: Monterey City/Nearest Community: Seaside, Marina, Unincorporated County
Cross Streets: not applicable Zip Code: _____
Longitude/Latitude (degrees, minutes and seconds): ____° ____' ____" N / ____° ____' ____" W Total Acres: _____
Assessor's Parcel No.: numerous Section: _____ Twp.: _____ Range: _____ Base: _____
Within 2 Miles: State Hwy #: 1, 156, 68 Waterways: Salinas and Carmel Rivers, other creeks/ditches/sloughs
Airports: Monterey Peninsula Railways: _____ Schools: numerous

Document Type:

CEQA: ☒ NOP ☐ Draft EIR NEPA: ☐ NOI Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR ☐ EA ☐ Final Document
☐ Neg Dec (Prior SCH No.) _____ ☐ Draft EIS ☐ Other: _____
☐ Mit Neg Dec Other: Supplement to NOP ☐ FONSI

RECEIVED
STATE CLEARINGHOUSE

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☒ Other: Project approval

Development Type:

☐ Residential: Units _____ Acres _____
☐ Office: Sq.ft. _____ Acres _____ Employees _____
☐ Commercial: Sq.ft. _____ Acres _____ Employees _____
☐ Industrial: Sq.ft. _____ Acres _____ Employees _____
☐ Educational: _____
☐ Recreational: _____
☒ Water Facilities: Type water supply MGD 6

☐ Transportation: Type _____
☐ Mining: Mineral _____
☐ Power: Type _____ MW _____
☐ Waste Treatment: Type _____ MGD _____
☐ Hazardous Waste: Type _____
☐ Other: _____

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Fiscal ☒ Recreation/Parks ☒ Vegetation
☒ Agricultural Land ☒ Flood Plain/Flooding ☒ Schools/Universities ☒ Water Quality
☒ Air Quality ☒ Forest Land/Fire Hazard ☐ Septic Systems ☒ Water Supply/Groundwater
☒ Archeological/Historical ☒ Geologic/Seismic ☒ Sewer Capacity ☒ Wetland/Riparian
☒ Biological Resources ☒ Minerals ☒ Soil Erosion/Compaction/Grading ☒ Growth Inducement
☒ Coastal Zone ☒ Noise ☒ Solid Waste ☒ Land Use
☒ Drainage/Absorption ☒ Population/Housing Balance ☒ Toxic/Hazardous ☒ Cumulative Effects
☒ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☐ Other: _____

Present Land Use/Zoning/General Plan Designation:

Various

Project Description: *(please use a separate page if necessary)*

The Pure Water Monterey Groundwater Replenishment Project would create a reliable source of water supply for northern Monterey County. The project would provide purified water for recharge of the Seaside Groundwater Basin, and recycled water to augment the existing Castroville Seawater Intrusion Project's agricultural irrigation supply. The project would be located within northern Monterey County, and would include new facilities located within the unincorporated areas of the Salinas Valley and the cities of Salinas, Marina, Seaside, Monterey and Pacific Grove.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

NOP Distribution List

County: Monterey

SCH# 2013051094

Resources Agency

- [ ] Resources Agency
  Nadell Gayou
- [ ] Dept. of Boating & Waterways
  Nicole Wong
- [x] California Coastal Commission
  Elizabeth A. Fuchs
- [ ] Colorado River Board
  Lisa Johansen
- [ ] Dept. of Conservation
  Elizabeth Carpenter
- [ ] California Energy Commission
  Eric Knight
- [ ] Cal Fire
  Dan Foster
- [ ] Central Valley Flood Protection Board
  James Herota
- [ ] Office of Historic Preservation
  Ron Parsons
- [ ] Dept of Parks & Recreation
  Environmental Stewardship Section
- [ ] California Department of Resources, Recycling & Recovery
  Sue O'Leary
- [ ] S.F. Bay Conservation & Dev't. Comm.
  Steve McAdam
- [x] Dept. of Water Resources
  Resources Agency
  Nadell Gayou

Fish and Game

- [ ] Depart. of Fish & Wildlife
  Scott Flint
  Environmental Services Division
- [ ] Fish & Wildlife Region 1
  Donald Koch
- [ ] Fish & Wildlife Region 1E
  Laurie Harnsberger
- [ ] Fish & Wildlife Region 2
  Jeff Drongesen
- [ ] Fish & Wildlife Region 3
  Charles Armor
- [x] Fish & Wildlife Region 4
  Julie Vance
- [ ] Fish & Wildlife Region 5
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] Fish & Wildlife Region 6
  Tiffany Ellis
  Habitat Conservation Program
- [ ] Fish & Wildlife Region 6 I/M
  Heidi Sickler
  Inyo/Mono, Habitat Conservation Program
- [ ] Dept. of Fish & Wildlife M
  George Isaac
  Marine Region

Other Departments

- [ ] Food & Agriculture
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] Depart. of General Services
  Public School Construction
- [ ] Dept. of General Services
  Anna Garbeff
  Environmental Services Section
- [ ] Delta Stewardship Council
  Kevan Samsam
- [ ] Housing & Comm. Dev.
  CEQA Coordinator
  Housing Policy Division

Independent Commissions,Boards

- [ ] Delta Protection Commission
  Michael Machado
- [x] OES (Office of Emergency Services)
  Dennis Castrillo
- [x] Native American Heritage Comm.
  Debbie Treadway
- [ ] Public Utilities Commission
  Leo Wong
- [ ] Santa Monica Bay Restoration
  Guangyu Wang
- [x] State Lands Commission
  Jennifer Deleong
- [ ] Tahoe Regional Planning Agency (TRPA)
  Cherry Jacques

Cal State Transportation Agency CalSTA

- [ ] Caltrans - Division of Aeronautics
  Philip Crimmins
- [ ] Caltrans – Planning
  HQ LD-IGR
  Terri Pencovic
- [ ] California Highway Patrol
  Suzann Ikeuchi
  Office of Special Projects

Dept. of Transportation

- [ ] Caltrans, District 1
  Rex Jackman
- [ ] Caltrans, District 2
  Marcelino Gonzalez
- [ ] Caltrans, District 3
  Eric Federicks – South
  Susan Zanchi - North
- [ ] Caltrans, District 4
  Erik Alm
- [x] Caltrans, District 5
  Larry Newland
- [ ] Caltrans, District 6
  Michael Navarro
- [ ] Caltrans, District 7
  Dianna Watson
- [ ] Caltrans, District 8
  Mark Roberts
- [ ] Caltrans, District 9
  Gayle Rosander
- [ ] Caltrans, District 10
  Tom Dumas
- [ ] Caltrans, District 11
  Jacob Armstrong
- [ ] Caltrans, District 12
  Maureen El Harake

Cal EPA

Air Resources Board

- [x] All Other Projects
  Cathi Slaminski
- [ ] Transportation Projects
  Nesamani Kalandiyur
- [ ] Industrial/Energy Projects
  Mike Tollstrup
- [x] State Water Resources Control Board
  Regional Programs Unit
  Division of Financial Assistance
- [x] State Water Resources Control Board
  Jeffery Weith
  Division of Drinking Water
- [x] State Water Resources Control Board
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [x] State Water Resouces Control Board
  Phil Crader
  Division of Water Rights
- [x] Dept. of Toxic Substances Control
  CEQA Tracking Center
- [ ] Department of Pesticide Regulation
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] RWQCB 1
  Cathleen Hudson
  North Coast Region (1)
- [ ] RWQCB 2
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [x] RWQCB 3
  Central Coast Region (3)
- [ ] RWQCB 4
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] RWQCB 5S
  Central Valley Region (5)
- [ ] RWQCB 5F
  Central Valley Region (5)
  Fresno Branch Office
- [ ] RWQCB 5R
  Central Valley Region (5)
  Redding Branch Office
- [ ] RWQCB 6
  Lahontan Region (6)
- [ ] RWQCB 6V
  Lahontan Region (6)
  Victorville Branch Office
- [ ] RWQCB 7
  Colorado River Basin Region (7)
- [ ] RWQCB 8
  Santa Ana Region (8)
- [ ] RWQCB 9
  San Diego Region (9)

- [ ] Other _____
- [ ] _____
  Conservancy

Last Updated 10/13/2014

18 December 2014

Mr. Bob Holden, Principal Engineer
Monterey Regional Water Pollution Control Agency
Email: gwr@mrwpca.com

Re: SUPPLEMENT TO THE MAY 2013 NOTICE OF PREPARATION FOR THE MONTEREY PENINSULA GROUNDWATER REPLENISHMENT (PURE WATER MONTEREY) PROJECT ENVIRONMENTAL IMPACT REPORT

Dear Mr. Holden:

Following are comments by WaterPlus on the 8 December 2014 supplement to the NOP for the Pure Water Monterey Project.

- **Claimed project benefits.** An overview of the project claimed the project would meet these goals:

  - Create a reliable, publicly owned, safe water supply for Monterey Peninsula.
  - Allow other, more energy-intensive, options such as seawater desalination to be smart-sized, thus enhancing the overall environmental benefits.
  - Diversify the community's water supply portfolio for a more secure water supply.
  - Be online sooner and use far less energy than most other water supply alternatives

To assure a safe water supply from advanced-level purification of municipal sewer water, you would need, in addition to the processes described, either an amount of fresh water equal to the amount of treated water for combined injection into the Seaside Aquifer or the filtration of the treated water in settlement ponds prior to aquifer injection, as in Santa Ana. The report makes no mention of these state Health Department requirements or of how the project intends to meet them. Does the project still intend to process municipal sewer water for injection into the Seaside Aquifer? If not, the supplement should say as much.

What does the overview mean by “smart-sized”? Reduced energy use? That in itself may be smart but still has to be demonstrated with comparable numbers describing this and alternative projects. The cost of this alternative must also be

compared with the cost of others. The report claims $3,000 an acre-foot but needs to break down that figure into components and update it if necessary (for example, if it now includes the cost of DDT and other pesticide purification from agricultural run-off sources). The cost of desal per unit decreases with increasing plant size, and so down-sizing a desal plant only increases its cost. That is not smart. The large desal plant at Carlsbad is about $1,000 less costly per acre-foot than the proposed GWR project, and so the implication for smart-sizing would be to increase rather than decrease the desal-plant size. This conflict requires discussion and resolution.

Dependence on diversified water-supply sources can make a community vulnerable to the failure of the least reliable of the sources, which in this case would be GWR along with aquifer storage and recovery because both are vulnerable to drought while the first is also vulnerable to conservation efforts for whatever reason, as the supplement itself acknowledges. Diversification is not a given as a good thing. It needs objective discussion and substantiation.

Every water-supply option requires an energy audit, and this one is no exception. A desal plant at Moss Landing may be powered by solar and wind energy, for example, and the cost effect of that may still keep desal more than competitive with GWR. These comparisons need to be made objectively in an EIR if it is not to be merely a Public Relations document in disguise.

- **The MOU underlying the NOP supplement.** The supplement is at least partly the product of an MOU described as "an agreement to negotiate a Definitive Agreement to establish contractual rights and obligations of all Parties, that would include (1) protection of MCWD's recycled water right entitlement, (2) provision of up to 5,292 AFY of recycled water to Monterey County Water Resources Agency for the CSIP, and (3) provision of 3,500 AFY of highly treated water for injection into the Seaside Groundwater Basin and extraction by Cal Am."

This MOU does not indicate specifically how the parties to the agreement would deal with the 19,500 acre-feet of treated sewer water that Salinas Valley growers claim the right to use. Will the growers continue to have this right or will it be reduced? If any reduced amount is to be treated for injection into the Seaside Aquifer, as originally planned, has this option been presented to the public for approval by Cal Am customers and, particularly, by authorized representatives of

the local hospitality industry? The NOP supplement must specify how much untreated water is needed to meet the treated-water requirement and indicate both (a) the sources of this water, together with the amount of water available annually from each, and (b) where the treatment residuals will go--important information for inclusion in an EIR .

In summary, the NOP document needs transformation from what in too many portions appears to be a Public Relations endorsement of the project to an objective and reliably documented project report.

Very respectfully,

Ron Weitzman
President, WaterPlus

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

Edmond G. Brown, Jr., *Governor*

December 24, 2014

Bob Holden
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940

RE: SCH # 2013051094 Monterey Peninsula Groundwater Replenishment (Pure Water Monterey) Project, Monterey County.

Dear Mr. Holden,

The Native American Heritage Commission (NAHC) has reviewed the Notice of Preparation (NOP) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate regional archaeological Information Center for a record search. The record search will determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. **USGS 7.5-minute quadrangle name, township, range, and section required**
  - A list of appropriate Native American contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached.**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) Guidelines §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered cultural items that are not burial associated, which are addressed in Public Resources Code (PRC) §5097.98, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, PRC §5097.98, and CEQA Guidelines §15064.5(e), address the process to be followed in the event of an accidental discovery of any human remains and associated grave goods in a location other than a dedicated cemetery.

Sincerely,

Katy Sanchez

Katy Sanchez
Associate Government Program Analyst

CC: State Clearinghouse

Native American Contacts
Monterey County
December 16, 2014

Jakki Kehl
720 North 2nd Street
Patterson , CA 95363
jakkikehl@gmail.com
510-701-3975
Ohlone/Costanoan

Amah MutsunTribal Band
Valentin Lopez, Chairperson
P.O. Box 5272
Galt , CA 95632
vlopez@amahmutsun.org
(916) 743-5833
Ohlone/Costanoan
Northern Valley Yokuts

Coastanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
240 E. 1st Street
Pomona , CA 91766
rumsen@aol.com
(909) 524-8041 Cell
(909) 629-6081
Ohlone/Costanoan

Amah MutsunTribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road
Woodside , CA 94062
amahmutsuntribal@gmail.
(650) 400-4806 Cell
(650) 332-1526 Fax
Ohlone/Costanoan

Ohlone/Coastanoan-Esselen Nation
Louise Miranda-Ramirez, Chairperson
P.O. Box 1301
Monterey , CA 93942
ramirez.louise@yahoo.com
(408) 629-5189
(408) 205-7579 Cell
Esselen
Ohlone/Costanoan

Ohlone/Coastanoan-Esselen Nation
Christianne Arias, Vice Chairperson
P.O. Box 552
Soledad , CA 93960
(831) 235-4590
Esselen
Ohlone/Costanoan

Trina Marine Ruano Family
Ramona Garibay, Representative
30940 Watkins Street
Union City , CA 94587
soaprootmo@comcast.net
(510) 972-0645
Ohlone/Costanoan
Bay Miwok
Plains Miwok
Patwin

Amah MutsunTribal Band
Edward Ketchum
35867 Yosemite Ave
Davis , CA 95616
aerieways@aol.com
Ohlone/Costanoan
Northern Valley Yokuts

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting locative Americans with regard to cultural resources for the proposed SCH # 2013051094 Monterey Peninsula Groundwater Replenishment (Pure Water Monterey) Project, Monterey County.

Native American Contacts
Monterey County
December 16, 2014

Ohlone/Coastanoan-Esselen Nation
Pauline Martinez-Arias, Tribal Council woman
1116 Merlot Way
Gonzales , CA 93926
maklici0-us@gmail
(831) 596-9897

Esselen
Ohlone/Costanoan

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister , CA 95024
ams@indiancanyon.org
(831) 637-4238

Ohlone/Costanoan

Amah MutsunTribal Band of Mission San Juan Bautista
Michelle Zimmer
789 Canada Road
Woodside , CA 94062
amahmutsuntribal@gmail.com
(650) 851-7747 Home
(650) 332-1526 Fax

Ohlone/Costanoan

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting locative Americans with regard to cultural resources for the proposed SCH # 2013051094 Monterey Peninsula Groundwater Replenishment (Pure Water Monterey) Project, Monterey County.

From: PETER LE [mailto:peter381@sbcglobal.net]
Sent: Sunday, January 04, 2015 8:30 PM
To: GWR
Subject: Comments on the Supplement to May 2013 NOP dated December 8, 2014

January 4, 2015

Mr. Bob Holden
Principal Engineer, MRWPCA
Phone: 372-3367 Fax: 372-6178
gwr@mrwpca.com

I have the following comments on the scope and contents of the GWR (Pure Water Monterey) EIR prepared by MRWPCA based on the Supplement to May 2013 NOP dated December 8, 2014:

1. The EIR needs to analyze thoroughly, calculate and show in table format how the proposed project affects the agreed recycled water capacity and rights of the MCWD in the approximate amount of 1.1 MGD. If MCWD utilizes it 300 AF per month during summer months and the full 1.1 MGD recycled water during remaining months (not including any unused recycled water), how much treated water the proposed project can provide from different water sources? The EIR cannot assume that MCWD will not utilize its senior water rights of the recycled water in any given month and/or any given year. The EIR cannot assume that MCWD gives up its senior water rights of the recycled water either.

2. The MRWPCA claimed that it has spent about 3 million dollars on planning, designing and modifying the regional treatment plant to provide recycled water to MCWD under the executed 2009 RUWAP agreement. Will this project utilize the MCWD designs or modified regional treatment that will be paid by MCWD for this project? What additional work on the regional treatment plant that will be done on this project? How does MRWPCA identify and separate all costs for two different projects, MCWD and Pure Water Project?

3. What impacts does this proposed project affect the MCWD recycled water or RUWAP project in terms of completed designs? What is the required separation between MRWPCA recycled pipes and MCWD recycled pipes?

4. The EIR needs to consider the alternative of pumping excess winter flow from the Salinas River, treat it, and recharge the Seaside Aquifer.

5. How do the discharges of the proposed advanced water treatment plant and secondary source water affect the MCWD brine disposal capacity as described in the executed agreement with MRWPCA and the total capacity of the existing outfalls? What is the status of the executed MCWD brine disposal agreement with MRWPCA?

6. How does this project affect access to the District's property at the Armstrong Ranch and adjacent to the MRWPCA property and impact the proposed use of the District's property?

7. Will this EIR utilize any part of the adopted and paid for by MCWD RUWAP EIR and/or any previously EIR's adopted and paid for by MCWD?

The above comments are mine and they do not represent the official comments from MCWD. Let me know if you have any questions.

Sincerely,

signed by Peter Le

January 7, 2015

Monterey Regional Water Pollution Control Agency
Attn: Bob Holden, Principal Engineer
5 Harris Court, Building G
Monterey, CA 93940
gwr@mrwpca.com

Re: comments on Supplement to the Notice of Preparation for Monterey Peninsula Groundwater Replenishment Project - SCH#2013051094

Via electronic mail

Dear Mr. Holden,

Thank you for the opportunity to comment on the Supplement to the Notice of Preparation ("Supplement to the NOP") for the Monterey Peninsula Groundwater Replenishment Project. Surfrider Foundation is a non-profit environmental organization dedicated to the protection and enjoyment of oceans, waves, and beaches through a powerful activist network. In support of this mission, and specifically in support of protecting water quality and marine ecosystems, the Surfrider Foundation Monterey Chapter has been very engaged in the effort to identify water supply and demand offsetting solutions for peninsula cities, which would replace the deficit of water that was formerly supplied by the Carmel River and Seaside Groundwater Basin.

The Surfrider Foundation Monterey Chapter ("Surfrider") wishes to offer the following comments on the document:

On page three of the Supplement to the NOP, it ~~is mentioned~~ states that one of the project changes is the addition of a water diversion at Tembladero Slough, comprised of a new intake structure on the channel bottom screened to "prevent fish" from entering the pump system.

Although the Tembladero Slough is very impaired (--it is a Clean Water Act Section 303d-listed water body for impairments from pesticides, nutrients, fecal coliform, and ammonia), it serves an important role in delivering

freshwater into the Elkhorn Slough and also supports aquatic life, including the federally listed tidewater goby. Surfrider is concerned that the proposed water diversion intake could adversely impact aquatic species through impingement and/or entrainment, and also that the loss of freshwater to this system could exacerbate the current impairments and further reduce the environmental services provided by the Tembladero Slough.

To ensure that the project is consistent with various environmental laws (including Endangered Species Act, Clean Water Act, Porter-Cologne Water Quality Control Act and the California Coastal Act, and others) and ~~therefore~~ also specifically to comply with the California Environmental Quality Act ("CEQA") Surfrider believes it would be advisable to consider project alternatives that appropriately avoid or minimize impacts to aquatic life by a) using the Best Available Site, Design, and Technology to minimize impingement and entrainment to aquatic species at all life stages and b) minimizing the loss of freshwater from the Tembladero Slough to prevent further degradation of the water body. To achieve these objectives, it may be necessary to consider a project alternative that does not rely on water from the Tembladero Slough.

Thank you for consideration of these comments. Please continue to include the Surfrider Foundation Monterey Chapter in future notices related to this project.

Sincerely,

Antony Tersol
Vice Chair
Surfrider Foundation Monterey Chapter

319 Forest Ave.
Pacific Grove, CA 93950
atersol@gmail.com

Fly MONTEREY
Monterey Peninsula Airport District

200 Fred Kane Drive, Suite 200
Monterey, CA 93940
(831) 648-7000
(831) 648-7021 FAX

January 8, 2014

Monterey Regional Water Pollution Control Agency
Attn: Mr. Bob Holden
Principal Engineer
5 Harris Court
Building D
Monterey, CA 93940

RE: MONTEREY PENINSULA AIRPORT DISTRICT COMMENTS FOR THE SUPPLEMENT TO MAY 2013 NOP OF AN EIR FOR THE MONTEREY PENINSULA GROUNDWATER REPLENISHMENT PROJECT

Dear Mr. Holden:

Thank you for allowing the Monterey Peninsula Airport District (District) to comment on the project in subject. On behalf of the District, we are very interested in the outcome of this project and would like to be kept in the loop for future notifications.

We highly encourage you to inform the Monterey County Airport Land Use Commission (ALUC) of said project if you have not already done so. Currently, the proposed Lake El Estero Diversion Site is located within the Monterey Airport Influence Area (AIA) and therefore must be referred to the ALUC for a determination of consistency under the 1987 Comprehensive Land Use Plan (CLUP) for Monterey Peninsula Airport.

Additionally, the District is currently drafting a new Airport Land Use Compatibility Plan (ALUCP) that is estimated to be complete in 2016/2017. According to the Draft ALUCP, the Lake El Estero Diversion Site will not only be located within the AIA, but will also be located within the Outer Approach/Departure Safety Zone.

Please contact me if you have any questions.

Thank you,

Shelley Glennon
Planning Manager - Environmental
Planning & Development Department
Phone: (831) 648-7000 Ext. 209
Mobile: (831) 402-0731
sglennon@montereyairport.com

CITY OF MONTEREY

Colton Hall, California Constitution Hall 1849

DEPARTMENT OF PLANS & PUBLIC WORKS

January 8, 2015

Mr. Bob Holden, Principal Engineer
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940

Subject: Comment Letter - Supplement to May 2013 Notice of Preparation (NOP) of an Environmental Impact Report (EIR), Pure Water Monterey Groundwater Replenishment Project

Dear Mr. Holden,

Thank you for the opportunity to comment on the Pure Water Monterey Groundwater Replenishment Project (Project) Supplement to the NOP and related to the scope of the Environmental Impact Report (EIR) as a result of the updates to the project description. The City appreciates the efforts of the Monterey Regional Water Pollution Control Agency (MRWPCA) staff and project partners to continue the engineering and technical evaluations and regional coordination and collaboration efforts.

The project as currently defined includes a proposed water diversion from Lake El Estero pump station into the sanitary sewer collection system for regional treatment and future water use(s). As an agency with the jurisdictional responsibility for this portion of the project and in carrying out and/or approving the project under review, the City submits the following comments for consideration related to the scope and content of the environmental information to be included and/or considered in the EIR:

- **Project Description**: City staff has recognized a need to work with the MRWPCA to further refine the project description and scope to define parameters for the proposed water diversion from Lake El Estero to support the EIR analyses. To do this, the City suggests follow-up meeting(s) to discuss those parameters and to reflect a volume, timing, duration, and any other proposed parameters necessary to adequately characterize this diversion portion of the Project Description for environmental review.
- **Potentially Significant Environmental Issues and/or Environmental Information**: Below are potentially significant environmental issues and/or environmental information for consideration/review related to the project and Lake El Estero diversion, and as pertinent to hydrology and water quality, geology and soils, biological resources, cultural resources, and coastal resources (land use/planning) in the City of Monterey:
    - **Hydrology and Water Quality, and Geology and Soil Resources**: The City is aware a relatively shallow, unconfined aquifer exists in the vicinity of Lake El Estero, though its extent, surface connectivity/recharge, water quality, and seasonal fluctuations are not documented nor well understood. However, recent and localized geologic, soil, and

groundwater level and quality data were collected and analyzed by Trinity Source Group Inc. The data were collected as a result of on-going soil and groundwater clean-up action related to legacy groundwater contamination at 951 Del Monte Avenue, a City property located across Del Monte Avenue from the proposed diversion facility. This information and these data are available for review.

- In the 1970s the City pumped groundwater for maintenance use/purposes from a City well along Aquajito Road near Washerwoman's Pond, which is a sediment basin with overflow connection to Lake El Estero. As described by City staff account, due to this groundwater withdrawal and use, an adjacent hotel structure began to experience land subsidence and associated structural impacts. Consequently, the City ceased pumping groundwater at this location. The exact date of the subsidence is unknown, and thus the climatic conditions that precipitated the event are also unknown, as are the volume and frequency of City well pumping at that time. As mentioned, the geologic and hydrologic setting in this watershed is largely undocumented or unknown, including the relationship between surface and groundwater resources. Although the subsidence account is based on institutional knowledge of this drainage area, this one occurrence may or may not be indicative of a local unconfined aquifer/groundwater table sensitive to changes in water table elevation due to withdrawals from its system.

- **Water Quality Resources**: Majors Creek is one tributary to Lake El Estero, and is listed with the Environmental Protection Agency (EPA) and State Water Resources Control Board (SWRCB) on the Clean Water Act Section 303(d) list for impaired water bodies. This relatively small urban creek with short open channel ephemeral drainage has a body of historic volunteer water quality data (Years 2000-2012) demonstrating total metals (copper, lead, zinc) and bacteria (E. coli) exceedances of water quality objectives of the Central Coast Basin Plan. And, recent water quality data collected as a part of a California State University Monterey Bay Majors Creek Existing Conditions study by A. Goodmansen (2014) confirmed similar results with continued metals and bacterial exceedances. The report highlights, among other possible factors, high traffic volumes in the upper watershed on State Highway 1 as a possible urban source for metals introduced to this ephemeral creek's flow. E. coli sources are unknown, and currently assumed to be natural as the City has no known issues with sewerage pipes in that location. If further DNA-typing of the E. coli is feasible in 2015, the City may gain greater clarity as to possible source(s). Also, Lake El Estero is signed by the Monterey County Health Department for "No Swimming. Contact with lake water may cause illness due to naturally occurring high bacteria levels". For these water quality reasons, the diversion of Lake El Estero discharges to the regional treatment facility instead of to the Monterey Bay may be a significant environmental benefit, depending on the defined diversion parameters to be analyzed.
- **Biological Resources**: Per City of Monterey General Plan EIR Figure 6 Major Habitat Types, the Lake El Estero vicinity is mapped with riparian/wetland habitat. Also tributary drainages are mapped to support Monterey Pine and Mixed Monterey Pine Forest habitat. More biological information is available in the technical supporting documentation titled *Biological Assessment for the City of Monterey* by Denise Duffy & Associates (2003). Further biological study may be necessary to determine or confirm the current day presence of biological resources that may exist since the 2003 biological assessment.

- **Cultural Resources:** Per City of Monterey General Plan EIR Figure 8, Archaeological Sensitivity Map, this diversion facility and proposed California American Distribution System Pipelines in the City of Monterey fall within an area of high probability of prehistoric artifacts, and will necessitate an Archaeological Report to conclude the likelihood of impact to cultural resources.
- **Coastal Resources (Land Use and Planning):** It is unclear if portions of this project are proposed in the Coastal Zone within the City of Monterey. This aspect will need to be examined.
- **Regulatory Permitting:** As is assumed will be explored by the environmental team, the City wishes to note that various permits may be necessary from other agencies such as the U.S. Army Corps of Engineers, State Water Resources Control Board/Regional Water Quality Control Board, California Department of Fish and Wildlife, Coastal Commission, and possibly others as necessary, to implement the whole of this project.

As a critical natural and economic resource to the community and region, the City desires to ensure long-term coordinated water resources management and stewardship of Lake El Estero and its associated resources. Consequently and prior to City or regional consideration of a long-term sustainable water diversion effort from this watershed, a focused watershed study may be a necessary tool to understand existing, baseline geologic, hydrologic, and biological conditions. Such a study may include the extent and connectivity of surface and groundwater resources and associated environmental dynamics at work and resources present, including watershed recharge areas and rates, potential necessary minimum in-lake water levels and/or groundwater table elevations needed to healthfully maintain/sustain the lake and associated drainages and biological resources. Depending on any determined diversion parameters, such a study may behoove this environmental review effort and to support conclusions drawn as a part of the EIR analyses. Accordingly, the City would like to discuss this study potential further with the regional project team.

It's important to note that the City Council has yet to review any policy considerations related to this project. Accordingly, the comments herein are offered based on preliminary discussions and understanding of the collaborative and envisioned project, which is conceptually supported by City staff who are eager to assist in the refinement of the project description as it relates to those areas within the City's jurisdiction and looks forward to sharing information and data with the project team to further the study of this regional water project for environmental review.

Thank you for this opportunity to comment. Please feel free to contact me with questions.

Sincerely,

Dino Pick
Deputy City Manager Plans and Public Works

ec: Michael McCarthy, City Manager
Hans Uslar, Assistance City Manager
Chip Rerig, Chief of Planning, Engineering, and Environmental Compliance
Kimberly Cole, Principal Planner

From:	Denise Duffy
To:	Diana Buhler; Alison Imamura
Subject:	FW: Supplement to NOP for MRWPCA GWR project (8028-110)
Date:	Friday, January 09, 2015 8:02:21 AM
Attachments:	CWSRF-FedralCrossCutterTrifoldBrochure(2-19-2014).pdf CWSRF-CEQA Flyer(2-19-2014).pdf CWSRF-BCBRR-Flyer(2-19-2014).pdf

FYI on another NOP comment –see below - 3 brochures explaining the SRF program

From: Mike McCullough [mailto:MikeM@mrwpca.com]
Sent: Thursday, January 8, 2015 3:15 PM
To: Denise Duffy; bschussman@perkinscoie.com
Subject: FW: Supplement to NOP for MRWPCA GWR project (8028-110)

FYI

From: Kashkoli, Ahmad@Waterboards [mailto:Ahmad.Kashkoli@waterboards.ca.gov]
Sent: Thursday, January 08, 2015 3:11 PM
To: valerieyoung@rcn.com
Cc: Bob Holden; Mike McCullough; Brezack, Jim; Stewart, Susan@Waterboards; Alison Imamura; Hack, Jody@Waterboards
Subject: RE: Supplement to NOP for MRWPCA GWR project (8028-110)

Hello Valarie,

I just realized that we have not responded to your NOP, and the due date is today. Attached are three brochures that further explain the CWSRF Program environmental review process and the additional federal requirements. For the complete environmental application package please visit: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml. The State Water Board is required to consult directly with agencies responsible for implementing federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to State Water Board approval of a CWSRF financing commitment for the proposed Project.

Thank you for considering our requirements. Please let me or Susan Stewart know if any questions or need additional information.

Ahmad Kashkoli, Senior Environmental Scientist
Division of Financial Assistance
State Water Resources Control Board
1001 I Street, Sacramento, CA 95814
Telephone: (916) 341-5855
Fax: (916) 341-5707
akashkoli@waterboards.ca.gov

From: Stewart, Susan@Waterboards
Sent: Wednesday, December 10, 2014 2:30 PM
To: valerieyoung@rcn.com; Kashkoli, Ahmad@Waterboards; Hack, Jody@Waterboards

Cc: Bob Holden; Mike McCullough; Brezack, Jim; Alison Imamura
Subject: RE: Supplement to NOP for MRWPCA GWR project (8028-110)

Hello Valerie,

Thank you for sending us early notice, and a copy of the Supplement to the NOP for the Groundwater Replenishment Project. I will be sure Ahmad is aware of this document so we can review the changes to the Project and provide comment as needed.

Susan Stewart
susan.stewart@waterboards.ca.gov
(916) 341-5879

From: valerieyoung@rcn.com [mailto:valerieyoung@rcn.com]
Sent: Wednesday, December 10, 2014 10:18 AM
To: Kashkoli, Ahmad@Waterboards; Stewart, Susan@Waterboards
Cc: Bob Holden; Mike McCullough; Brezack, Jim; Alison Imamura
Subject: Supplement to NOP for MRWPCA GWR project

Hi Ahmad and Susan,
Attached please find Supplement to May 2013 Notice of Preparation (NOP) for the Monterey Regional Water Pollution Control Agency Groundwater Replenishment Project. You will recall we met with you back in January of this year to describe the project and discuss environmental review protocols. The project description has been updated since then, and we have issued this NOP Supplement to enable agency and public comment on the environmental review of the project updates. The NOP Supplement has been submitted to the State Clearinghouse and they will do their normal distribution, which includes the SWRCB. We wanted you to receive this directly from out team as well.

Please let us know if you have any questions, and wishing you both a happy holiday season.

Cheers,
Valerie Young
for MRWPCA

Valerie J. Young, AICP
Environmental Planning Consultant
550 Battery Street #1904
San Francisco, CA 94111
415.341.4671

National Historic Preservation Act (NHPA)

Section 106 of the NHPA requires an analysis of the effects on "historic properties." The Section 106 process is designed to accommodate historic preservation concerns for federal actions with the potential to affect historic properties. Early consultation with appropriate government agencies, Indian tribes, and members of the public, will ensure that their views and concerns are addressed during the planning phase.

Historic properties (i.e., buildings, structures, objects, and archaeological sites 50 years or older) are properties that are included in the National Register of Historic Places or meet the criteria for the National Register.

Required Documents:

✓ A draft State Historic Preservation Officer consultation request letter; and

✓ A cultural resources report on historic properties conducted according to the Secretary of the Interior's Standards, including:

- A clearly defined Area of Potential Effect (APE), specifying the length, width, and depth of excavation, with a map clearly illustrating the project APE;
- A records search, less than one year old, extending to a half-mile beyond the project APE;
- Written description of field methods;
- Identification and evaluation of historic properties within the project's APE; and
- Documentation of consultation with the Native American Heritage Commission and local Native American tribes.

ADDITIONAL INFORMATION

If your project has the potential to affect biological resources or historic properties, the consultation process can be lengthy. Please contact the State Water Board staff early in your planning process to discuss what additional information may be needed for your specific project.

Please contact your State Water Board Project Manager or Mr. Ahmad Kashkoli at (916) 341-5855 or *Ahmad.Kashkoli@waterboards.ca.gov* for more information related to the CWSRF Program environmental review process and requirements.

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to keep California's **water clean**.
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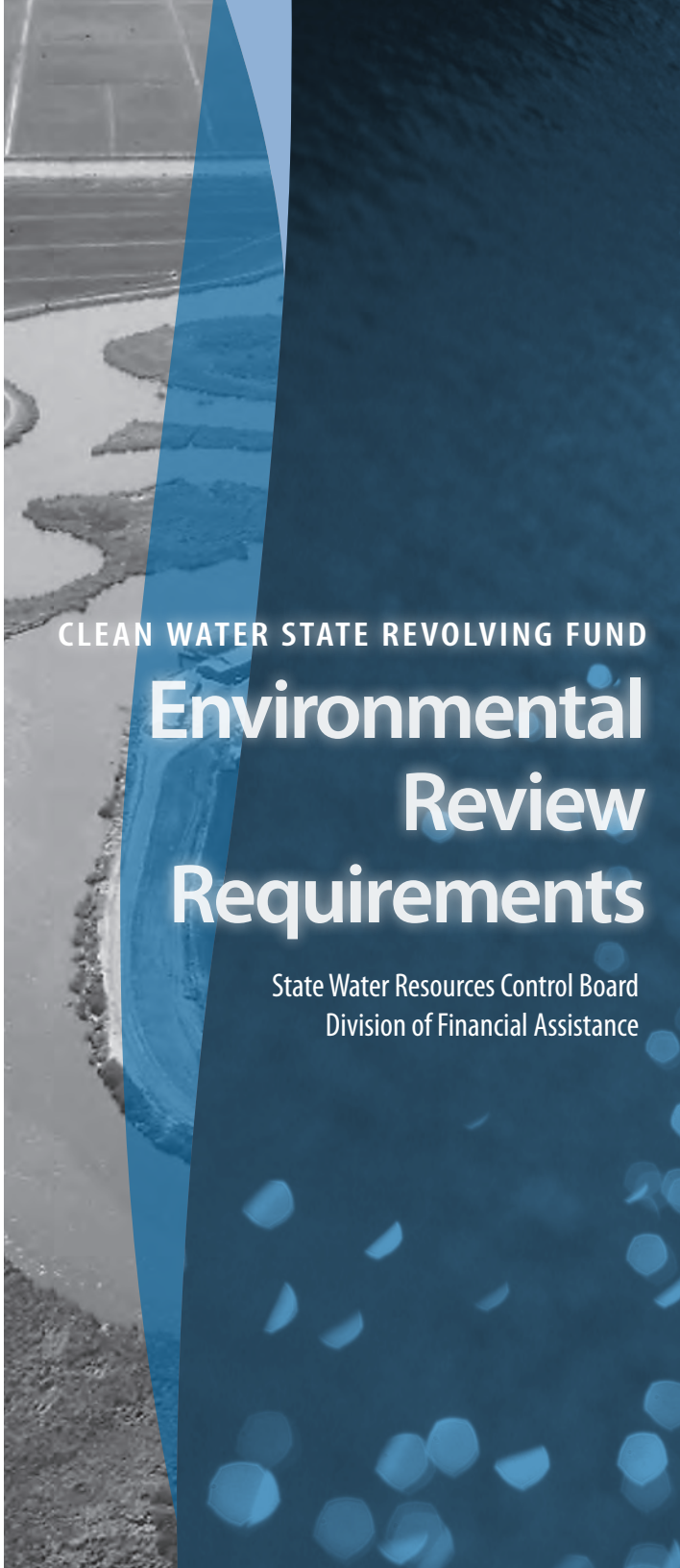
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

www.waterboards.ca.gov



CLEAN WATER STATE REVOLVING FUND

Environmental Review Requirements

State Water Resources Control Board
Division of Financial Assistance

REVISED: FEB. 2014

ENVIRONMENTAL REVIEW REQUIREMENTS

The Clean Water State Revolving Fund (CWSRF) Program is partially funded by the United States Environmental Protection Agency (EPA), and is subject to federal environmental regulations as well as the California Environmental Quality Act (CEQA). All applicants seeking CWSRF financing must comply with both CEQA and the federal cross-cutting regulations. The "**Environmental Package**" provides the forms and instructions needed to complete the environmental review requirements for CWSRF financing. The forms and instructions are available at: *http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml.*

Lead Agency/Applicant

The applicant will generally act as the "Lead Agency" for environmental review. It will prepare, circulate, and consider the environmental documents prior to approving the project. It also provides the State Water Board with copies of the CEQA documents, and a completed "**Environmental Evaluation Form for Environmental Review and Federal Coordination**" *(http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/forms/application_environmental_package.pdf)* with supporting documents as part of the "**Environmental Package**."

Responsible Agency/State Water Board

The State Water Board acts on behalf of EPA to review and consider the environmental documents before approving financing. The State Water Board may require additional studies or documentation to make its own CEQA findings, as well as circulate CEQA documents and other environmental reports to relevant federal agencies for consultation before making a determination about the project financing.

The Applicant must address all relevant federal agencies' comments before project financing is approved.

FEDERAL CROSS-CUTTING REGULATIONS

The CWSRF Program requires consultation with relevant federal agencies on the following federal environmental regulations, if applicable to the project:

- Clean Air Act
- Coastal Barriers Resources Act
- Coastal Zone Management Act
- Endangered Species Act
- Environmental Justice
- Farmland Protection Policy Act
- Floodplain Management
- Magnuson-Stevens Fishery Conservation and Management Act
- Migratory Bird Treaty Act
- National Historic Preservation Act
- Protection of Wetlands
- Safe Drinking Water Act, Sole Source Aquifer Protection
- Wild and Scenic Rivers Act

The following is a brief overview of requirements for some of the key regulations.

Clean Air Act (CAA)

The CAA general conformity analysis only applies to projects in areas not meeting the National Ambient Air Quality Standards or subject to a maintenance plan.

If project emissions are below the federal "de minimis" levels then:

- A general conformity analysis is not required.

If project emissions are above the federal "de minimis" levels then:

- A general conformity determination for the project must be made. A general conformity determination can be made if facilities are sized to meet the needs of current population projections used in an approved State Implementation Plan for air quality.
- Using population projections, applicants must explain how the proposed capacity increase was calculated.

An air quality modeling analysis is necessary of all projects for the following criteria pollutants, regardless of attainment status:

- Carbon monoxide
- Lead
- Oxides of nitrogen
- Ozone
- Particulate matter (PM2.5 and PM10)
- Sulfur dioxide

Endangered Species Act (ESA)

The ESA requires an analysis of the effects on federally listed species. The State Water Board will determine the project's potential effects on federally listed species, and will initiate informal/formal consultation with the United States Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service, as necessary under Section 7 of the ESA.

Required Documents:

- ✓ A species list, less than one year old, from the USFWS and the California Department of Fish and Wildlife's Natural Diversity Database;
- ✓ A biological survey conducted during the appropriate time of year;
- ✓ Maps or documents (biological reports or biological assessments, if necessary); and
- ✓ An assessment of the direct or indirect impacts to any federally listed species and/or critical habitat. If no effects are expected, explain why and provide the supporting evidence.

CLEAN WATER STATE REVOLVING FUND

Basic Criteria for Cultural Resources Report Preparation

State Water Resources Control Board
Division of Financial Assistance

For Section 106 Consultation with the State Historic Preservation Officer (SHPO) under the National Historic Preservation Act

CULTURAL RESOURCES REPORT

The Cultural Resources Report must be prepared by a qualified researcher that meets the Secretary of the Interior's Professional Qualifications Standards. Please see the Professional Qualifications Standards at the following website at: *http://www.cr.nps.gov/local-law/arch_stnds_9.htm*

The Cultural Resources Report should include one of the four "findings" listed in Section 106. These include:

"No historic properties affected"
(no properties are within the area of potential effect (APE; including below the ground).

"No effect to historic properties"
(properties may be near the APE, but the project will not have any adverse effects).

"No adverse effect to historic properties"
(the project may affect "historic properties", but the effects will not be adverse).

"Adverse effect to historic properties"
Note: Consultation with the SHPO will be required if a "no adverse effect to historic properties" or an "adverse effect to historic properties" determination is made, to develop and evaluate alternatives or modifications to the proposed project that could avoid, minimize or mitigate adverse effects on "historic properties."

RECORDS SEARCH

- A records search (less than one year old) extending to a half-mile beyond the project APE from a geographically appropriate Information Center is required. The records search should include maps that show all recorded sites and surveys in relation to the APE for the proposed project, and copies of the confidential site records included as an appendix to the Cultural Resources Report.
- The APE is three-dimensional (depth, length and width) and all areas (e.g., new construction, easements, staging areas, and access roads) directly affected by the proposed project.

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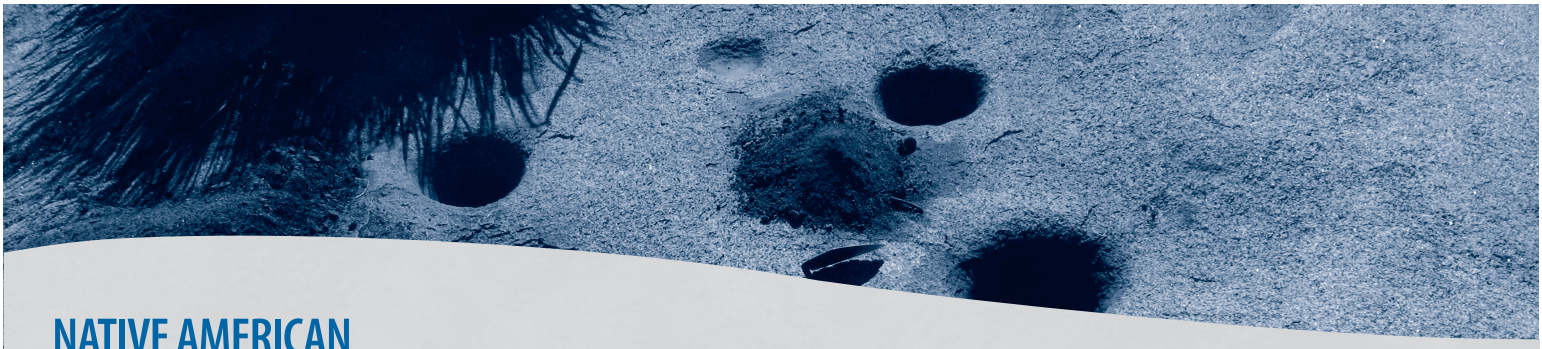
to keep California's **water clean**.
CLEAN WATER STATE REVOLVING FUND



NATIVE AMERICAN and INTERESTED PARTY CONSULTATION

- Native American and interested party consultation should be initiated at the planning phase of the proposed project to gather information to assist with the preparation of an adequate Cultural Resources Report.
- The Native American Heritage Commission (NAHC) must be contacted to obtain documentation of a search of the Sacred Lands Files for or near the project APE.
- All local Native American tribal organizations or individuals identified by the NAHC must be contacted by certified mail, and the letter should include a map and a description of the proposed project.
- Follow-up contact should be made by telephone and a phone log maintained to document the contacts and responses.
- Letters of inquiry seeking historical information on the project area and local vicinity should be sent to local historical societies, preservation organizations, or individual members of the public with a demonstrated interest in the proposed project.

Copies of all documents mentioned above (project description, map, phone log and letters sent to the NAHC and Native American tribal organizations or individuals and interested parties) must be included in the Cultural Resources Report.

Contact Information: For more information related to the CWSRF Program Cultural Resources and Requirments, please contact Mr. Ahmad Kashkoli at 916-341-5855 or Ahmad.Kashkoli@waterboards.ca.gov

PRECAUTIONS

A finding of ***"no known resources"*** without supporting evidence is unacceptable. The Cultural Resources Report must identify resources within the APE or demonstrate with sufficient evidence that none are present.

"The area is sensitive for buried archaeological resources," followed by a statement that ***"monitoring is recommended."*** Monitoring is not an acceptable option without good-faith effort to demonstrate that no known resource is present.

If ***"the area is already disturbed by previous construction"*** documentation is still required to demonstrate that the proposed project will not affect "historic properties." An existing road can be protecting a buried archaeological deposit or may itself be a "historic property." Additionally, previous construction may have impacted an archaeological site that has not been previously documented.

SHPO CONSULTATION LETTER

Submit a draft consultation letter prepared by the qualified researcher with the Cultural Resources Report to the State Water Resources Control Board. A draft consultation letter template is available for download on the State Water Board webpage at: *http://www.waterboards.ca.gov/water_issues/programs/grants_loans/cwsrf_requirements.shtml*

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS
waterboards.ca.gov

REVISED: JAN. 2014

CLEAN WATER STATE REVOLVING FUND

California Environmental Quality Act Requirements

State Water Resources Control Board
Division of Financial Assistance

The State Water Resources Control Board (State Water Board), Division of Financial Assistance, administers the Clean Water State Revolving Fund (CWSRF) Program. The CWSRF Program is partially funded by grants from the United States Environmental Protection Agency. All applicants seeking CWSRF financing must comply with the California Environmental Quality Act (CEQA), and provide sufficient information so that the State Water Board can document compliance with federal environmental laws. The "Environmental Package" provides the forms and instructions needed to complete the environmental review requirements for CWSRF Program financing. It is available at: *http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml*

LEAD AGENCY

The applicant is usually the "Lead Agency" and must prepare and circulate an environmental document before approving a project. Only a public agency, such as a local, regional or state government, may be the "Lead Agency" under CEQA. If a project will be completed by a non-governmental organization, "Lead Agency" responsibility goes to the first public agency providing discretionary approval for the project.

RESPONSIBLE AGENCY

The State Water Board is generally a "Responsible Agency" under CEQA. As a "Responsible Agency," the State Water Board must make findings based on information provided by the "Lead Agency" before financing a project.

ENVIRONMENTAL REVIEW

The State Water Board's environmental review of the project's compliance with both CEQA and federal cross-cutting regulations must be completed before a project can be financed by the CWSRF Program.

DOCUMENT REVIEW

Applicants are encouraged to consult with State Water Board staff early during preparation of CEQA document if considering CWSRF financing. Applicants shall also send their environmental documents to the State Water Board, Environmental Review Unit during the CEQA public review period. This way, any environmental concerns can be addressed early in the process.

REQUIRED DOCUMENTS

The Environmental Review Unit requires the documents listed below to make findings and complete its environmental review. Once the State Water Board receives all the required documents and makes its own findings, the environmental review for the project will be complete.

- ✓ Draft and Final Environmental Documents: Environmental Impact Report, Negative Declaration, and Mitigated Negative Declaration as appropriate to the project
- ✓ Resolution adopting/certifying the environmental document, making CEQA findings, and approving the project
- ✓ All comments received during the public review period and the "Lead Agency's" responses to those comments
- ✓ Adopted Mitigation Monitoring and Reporting Plan, if applicable
- ✓ Date-stamped copy of the Notice of Determination or Notice of Exemption filed with the County Clerk(s) and the Governor's Office of Planning and Research
- ✓ CWSRF Evaluation Form for Environmental Review and Federal Coordination with supporting documents

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to keep California's **water clean**.
CLEAN WATER STATE REVOLVING FUND

Contact Information: For more information related to the CWSRF Program environmental review process and requirements, please contact your State Water Board Project Manager or Mr. Ahmad Kashkoli at 916-341-5855 or Ahmad.Kashkoli@waterboards.ca.gov

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS
waterboards.ca.gov

REVISED: FEB. 2014

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Serious drought
Help save water!

January 8, 2015

MON-1-Var.
SCH# 2013051094

Bob Holden
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940

Dear Mr. Nichols:

COMMENTS TO PURE WATER MONTEREY PROJECT

The California Department of Transportation (Caltrans), District 5, Development Review, has reviewed the above referenced project and offers the following comments in response to your summary of impacts.

- Any work within the State right-of-way will require an encroachment permit issued from Caltrans. Detailed information such as complete drawings, biological and cultural resource findings, hydraulic calculations, environmental reports, traffic study, etc., may need to be submitted as part of the encroachment permit process.

If you have any questions, or need further clarification on items discussed above, please don't hesitate to call me at (805) 542-4751.

Sincerely,

JOHN J. OLEJNIK
Associate Transportation Planner
District 5 Development Review Coordinator
john.olejnik@dot.ca.gov

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

JENNIFER LUCCHESI, *Executive Officer*
(916) 574-1800 *Fax* (916) 574-1810
California Relay Service TDD Phone 1-800-735-2929
from Voice Phone 1-800-735-2922

Contact Phone: **(916) 574-1890**
Contact FAX: **(916) 574-1885**

Established in 1938

January 8, 2015

File Ref: SCH # 2013051094

Bob Holden
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940

Subject: Supplemental Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for the Pure Water Monterey Groundwater Replenishment (GWR) Project,[1] Monterey County

Dear Mr. Holden:

The California State Lands Commission (CSLC) staff has reviewed the subject Supplemental NOP for an EIR for the Pure Water Monterey GWR Project (Project), which is being prepared by the Monterey Regional Water Pollution Control Agency (MRWPCA). The MRWPCA, as a public agency proposing to carry out a project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The CSLC is a trustee agency for projects that could directly or indirectly affect sovereign lands and their accompanying Public Trust resources or uses. Additionally, if the Project involves work on sovereign lands, the CSLC will act as a responsible agency. CSLC staff requests that MRWPCA consult with us on preparation of the draft EIR as required by CEQA section 21153, subdivision (a), and the State CEQA Guidelines section 15086, subdivisions (a)(1) and (a)(2).

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

[1] Previously called the Monterey Peninsula Groundwater Replenishment Project

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

In order to determine if any portions of the Project will encroach onto lands under the jurisdiction of the CSLC, which would require a lease, please provide more detailed maps depicting the location and extent of proposed facilities within any rivers, particularly the Salinas River, and sloughs. From review of the supplemental NOP, it appears that the coastal groundwater recharge facilities have been removed from the Project. If any remaining facilities or infrastructure associated with the Project are planned for construction in the Pacific Ocean, please also provide detailed maps of these facilities.

Project Description

The MRWPCA proposes to produce and deliver high quality treated water for replenishment of the Seaside Basin to meet its and California American Water Company's (CalAm's) objectives and needs to reduce water diversions from the Carmel River.

From the Supplemental NOP, CSLC staff understands that the river crossings and in-water equipment discussed in the original NOP remain part of the Project, but that the following additions and deletions have been made to the Project proposal:

- Addition of a water diversion intake and associated equipment at Tembladero Slough;
- Addition of CalAm's water distribution pipelines; and
- Removal of the proposed coastal injection wells and recharge facilities.

Environmental Review

CSLC staff reviewed the May 2013 NOP and provided comments in a letter dated June 27, 2013 (enclosed). Although the Supplemental NOP discusses the above-mentioned Project changes, the comments submitted by CSLC staff in June 2013 are still applicable to Project activities that may occur on sovereign land. Please refer to the June 2013 letter for specific comments on the NOP.

Thank you for the opportunity to comment on the Supplemental NOP for the Project. As a trustee and responsible agency, the CSLC staff requests that you consult with us on this Project and keep us advised of changes to the Project description and all other important developments. Please send additional information on the Project to the CSLC staff listed below as the EIR is being prepared.

Please refer questions concerning environmental review to Holly Wyer, Environmental Scientist, at (916) 574-2399 or via e-mail at Holly.Wyer@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Drew Simpkin, Public Land Management Specialist, at (916) 574-2275, or via email at Drew.Simpkin@slc.ca.gov.

Sincerely,

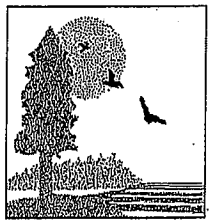
Cy R. Oggins, Chief
Division of Environmental Planning
and Management

Enclosure (June 27, 2013 Comment Letter)

cc: Office of Planning and Research
H. Wyer, CSLC
D. Simpkin, CSLC
J. Rader, CSLC

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

Our 75th Year



1938 - 2013

JENNIFER LUCCHESI, *Executive Officer*
(916) 574-1800 *Fax* (916) 574-1810
California Relay Service TDD Phone 1-800-735-2929
from Voice Phone 1-800-735-2922

Contact Phone: **(916) 574-1900**
Contact Fax: **(916) 574-1885**

June 27, 2013

File Ref: SCH # 2013051094

Bob Holden
Principal Engineer
Monterey Regional Water Pollution Control Agency
5 Harris Court, Building D
Monterey, CA 93940

Subject: Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for the Monterey Peninsula Groundwater Replenishment Project, Monterey County

Dear Mr. Holden:

The California State Lands Commission (CSLC) staff has reviewed the subject NOP for the Monterey Peninsula Groundwater Replenishment Project (Project), which is being prepared by the Monterey Regional Water Pollution Control Agency (MRWPCA). MRWPCA, as a public agency proposing to carry out a project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The CSLC is a trustee agency because of its trust responsibility for projects that could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses, and the public easement in navigable waters. Additionally, if the Project involves work on sovereign lands, the CSLC will act as a responsible agency.

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat

preservation, and open space. On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

In order to determine the CSLC's leasing interest, if any, in the proposed Project, please provide more detailed maps showing the exact locations of all pipelines or other proposed improvements crossing the Salinas River. In addition, should any deep injection or shallow wells be located within the Salinas River or Monterey Bay, please provide CSLC staff with the exact locations as soon as they are known.

Project Description

The MRWPCA proposes to produce and deliver high quality treated water for replenishment of the Seaside Basin to meet the Agency's and California American Water Company's (Cal-Am's) objectives and needs as follows:

- Reduce Water Diversions. Cal-Am has been ordered by the State Water Resources Control Board to reduce its diversions from the Carmel River to 3,376 AFY by 2017. The proposed Project will supply 3,500 AFY of replacement water to Cal-Am and reduce diversions from the Carmel River by the same amount;
- Provide a Cost-Effective Water Source. The Project should be capable of supplying reasonably-priced water;
- Regulatory Compliance. The Project should be capable of complying with water quality regulations intended to protect public health; and
- Additional Objectives. The Project should also assist in preventing seawater intrusion into the Seaside Basin, diversifying Monterey County's water supply portfolio, and provide additional water that could be used for crop irrigation.

From the Project Description, CSLC staff understands that the Project would include the following components:

- Source Water Conveyance Facilities. Diversion and collection facilities, including pipelines and pump stations to convey source water to the new treatment facilities;
- Treatment Facilities. Pretreatment facilities, a new Advanced Water Treatment Plant, and associated facilities at the Regional Treatment Plant site to filter and treat the source water;
- Product Water Conveyance Facilities. Pipelines, pump stations, appurtenant facilities along one of two optional alignments to convey the treated water to the Seaside Basin; and
- Replenishment and Recharge Facilities. Pipelines, deep injection and shallow (vadose zone) wells, and backflush facilities to be located at one or both of two optional recharge site (coastal and inland) within the Seaside Basin Boundaries.

Environmental Review

CSLC staff requests that the following potential impacts be analyzed in the EIR.

General Comments

1. Project Description: A thorough and complete Project Description should be included in the EIR in order to facilitate meaningful environmental review of potential impacts, mitigation measures, and alternatives. The Project Description should be as precise as possible in describing the details of all allowable activities (e.g., types of equipment or methods that may be used, maximum area of impact or volume of sediment removed or disturbed, seasonal work windows, locations for material disposal, etc.), as well as the details of the timing and length of activities. Thorough descriptions will facilitate CSLC staff's determination of the extent and locations of its leasing jurisdiction, make for a more robust analysis of the work that may be performed, and minimize the potential for subsequent environmental analysis to be required.

Biological Resources

2. Sensitive Species: The EIR should disclose and analyze all potentially significant effects on sensitive species and habitats in and around the Project area, including special-status wildlife, fish, and plants, and if appropriate, identify feasible mitigation measures to reduce those impacts. The MRWPCA should conduct queries of the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) and U.S. Fish and Wildlife Service's (USFWS) Special Status Species Database to identify any special-status plant or wildlife species that may occur in the Project area. The EIR should also include a discussion of the MRWPCA's consultation with CDFW and USFWS, including any recommended mitigation measures and potentially required permits identified by these agencies.

3. Invasive Species: One of the major stressors in California waterways is introduced species. In light of the recent decline of native pelagic organisms and in order to protect at-risk fish species, the EIR should examine if any elements of the Project (e.g., changes in amount and timing of freshwater flow) would favor non-native fisheries within the Salinas River. The CDFW's Invasive Species Program could assist with this analysis as well as with the development of appropriate mitigation (information at http://www.dfg.ca.gov/invasives/)

4. Construction Noise: The EIR should also evaluate noise and vibration impacts on fish and birds from directional drilling of the pipelines and for associated land-side activity. Mitigation measures could include species-specific work windows as defined by CDFW, USFWS, and the National Oceanic and Atmospheric Administration's Fisheries Service (NOAA Fisheries). Again, staff recommends early consultation with these agencies to minimize the impacts of the Project on sensitive species.

5. Frac-Out: If directional drilling will occur under the Salinas River to lay a pipeline, the EIR should evaluate the potential for frac-out to occur during drilling and analyze the potential impacts of frac-out to biological resources, including sensitive species and habitats. If impacts are found to be significant, the EIR should identify feasible mitigation measures to reduce the impacts of frac-out. CSLC staff may request documentation of mitigation for frac-out before issuing a lease. An example of a frac-out contingency plan that generally meets the CSLC's leasing requirements is the Contingency and Resource Protection Plan developed for the Construction of the AT&T Fiber Optic Cable Installation Project, Las Vegas to Victorville FTB Clark County, Nevada, and San Bernardino Counties, which is available at http://www.slc.ca.gov/division_pages/DEPM/DEPM_Programs_and_Reports/ATT_Fiber_Optic/PDF/Appendices/Ap-I_HDD_Plan.pdf.

Climate Change

6. Greenhouse Gases: A greenhouse gas (GHG) emissions analysis consistent with the California Global Warming Solutions Act (AB 32) and required by the State CEQA Guidelines[1] should be included in the EIR. This analysis should identify a threshold for significance for GHG emissions, calculate the level of GHGs that will be emitted as a result of construction and ultimate build-out of the Project, determine the significance of the impacts of those emissions, and, if impacts are significant, identify mitigation measures that would reduce them to less than significant.

7. Sea Level Rise: The EIR should also consider the effects of sea level rise on all resource categories potentially affected by the proposed Project. One of the Project's objectives is to prevent saltwater intrusion into groundwater basins. Since the EIR's impacts analysis will be used to develop a range of alternatives to the Project, please consider how sea level rise may increase or accelerate saltwater intrusion into the Project's groundwater basins and determine the Project's resiliency to sea level rise. If sea level rise is found to reduce the Project's effectiveness and impact CEQA resource categories, consider creating an alternative to the Project that would be more resilient to sea level rise.

   At its meeting on December 17, 2009, the CSLC approved the recommendations made in a previously requested staff report, "A Report on Sea Level Rise Preparedness" (Report), which assessed the degree to which the CSLC's grantees and lessees have considered the eventual effects of sea level rise on facilities located within the CSLC's jurisdiction. (The Report can be found on the CSLC's website, www.slc.ca.gov.) One of the Report's recommendations directs CSLC staff to consider the effects of sea level rise on hydrology, soils, geology, transportation, recreation, and other resource categories in all environmental determinations associated with CSLC leases.

[1] The State "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Please note that, when considering lease applications, CSLC staff is directed to (1) request information from applicants concerning the potential effects of sea level rise on their proposed projects, (2) if applicable, require applicants to indicate how they plan to address sea level rise and what adaptation strategies are planned during the projected life of their projects, and (3) where appropriate, recommend project modifications that would eliminate or reduce potentially adverse impacts from sea level rise, including adverse impacts on public access.

Cultural Resources

8. Submerged Resources: The EIR should evaluate potential impacts to submerged cultural resources in the Project area, including the Salinas River. The CSLC maintains a shipwrecks database that can assist with this analysis. CSLC staff requests that the MRWPCA contact Senior Staff Counsel Pam Griggs (see contact information below) to obtain shipwrecks data from the database and CSLC records for the Project site. The database includes known and potential vessels located on the State's tide and submerged lands; however, the locations of many shipwrecks remain unknown. Please note that any submerged archaeological site or submerged historic resource that has remained in State waters for more than 50 years is presumed to be significant.

9. Title to Resources: The EIR should also mention that the title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the CSLC. CSLC staff requests that the MRWPCA consult with Senior Staff Counsel Pam Griggs (see contact information below), should any cultural resources on state lands be discovered during construction of the proposed Project.

Additional Review

10. Deferred Mitigation: In order to avoid the improper deferral of mitigation, mitigation measures should either be presented as specific, feasible, enforceable obligations, or should be presented as formulas containing "performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way" (State CEQA Guidelines, §15126.4, subd. (b)).

Thank you for the opportunity to comment on the NOP for the Project. As a responsible agency, the CSLC will need to rely on the Final EIR for the issuance of any amended or new lease as specified above and, therefore, we request that you consider our comments during development of the EIR. Please send additional information on the Project to the CSLC as plans become finalized.

Please send copies of future Project-related documents, including electronic copies of the Draft and Final EIR, Mitigation Monitoring and Reporting Program (MMRP), Notice of Determination (NOD), CEQA Findings and, if applicable, Statement of Overriding Considerations when they become available, and refer questions concerning

environmental review to Holly Wyer, Environmental Scientist, at (916) 574-2399 or via e-mail at Holly.Wyer@slc.ca.gov. For questions concerning archaeological or historic resources under CSLC jurisdiction, please contact Senior Staff Counsel Pam Griggs at (916) 574-1854 or via email at Pamela.Griggs@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Drew Simpkin, Public Land Management Specialist, at (916) 574-2275, or via email at Drew.Simpkin@slc.ca.gov.

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
Drew Simpkin, LMD, CSLC
Holly Wyer, DEPM, CSLC
Shelli Haaf, Legal, CSLC

CITY OF SEASIDE - RESOURCE MANAGEMENT SERVICES
440 Harcourt Avenue
Seaside, CA 93955
Telephone (831) 899-6736
FAX (831) 899-6211

February 6, 2015

Bob Holden, Principal Engineer
Monterey Regional Water Pollution Control Agency
5 Harris Court, Bldg. D
Monterey, CA 93940
Via Email: gwr@mrwpca.com

Subject: **NOP for Supplement to May 2013 Notice of Preparation of an EIR for the Pure Water Monterey Groundwater Replenishment Project**

Dear Mr. Holden,

This letter transmits comments for the proposed subject project. The City of Seaside respectfully requests that the following comments be considered for incorporation into the environmental documents.

1) The proposed monitoring wells will be relocated, if necessary and at the owner's expense, as soon as the City has approved development plans for the area. The monitoring wells shall be relocated to be within a proposed future public right of way or an accessible public area.

2) The proposed monitoring wells should not include any above grade features.

3) Proposed above grade features, such as injection well appurtenances, shall be screened to minimize visual impacts.

4) The proposed backwash pits should be designed to minimize visual impacts.

5) In the event that new underground piping is required, the City requests that the same route be used as for the proposed Cal-Am Monterey Peninsula Water Supply Project.

6) MRWPCA shall coordinate with Cal-Am on work within the public right of way within the City of Seaside, such as pipeline installation, so that all work is performed concurrently with Cal-Am.

7) To the greatest extent possible, locate the facilities within the City of Seaside that cannot be located within a public right of way to areas classified as the Utility Corridor or Borderlands under the Habitat Management Plan.

We look forward to working with your staff to complete the proposed project in a timely manner. You may contact me or Rick Riedl of my staff at 831-899-6825 or RRiedl@ci.seaside.ca.us to discuss any questions or comments.

Sincerely,

Tim O'Halloran
City Engineer / Public Works Services Manager

Cc: Diana Ingersoll, Deputy City Manager – Resource Management Services
Lisa Brinton, Community and Economic Development Services Manager
Rick Riedl, Senior Civil Engineer
Rick Medina, Senior Planner