BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Application of California-American Water Company (U210W) for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates.	A.12-04- (Filed April 23, 2012)

DIRECT TESTIMONY OF KEITH ISRAEL

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Q1. Please state your name and business address.

A1. My name is Keith Israel. My business address is 5 Harris Court, Building D, Monterey, CA 93940.

Q2. By whom are you employed and in what capacity?

A2. I am employed by the Monterey Regional Water Pollution Control Agency (MRWPCA) as the General Manager.

Q3. What are your responsibilities?

A3. I serve as chief executive officer for the Agency carrying out Board of Director's policies and objectives, providing leadership and direction to all Agency operations, and overseeing all programs and activities of the Agency.

Q4. Briefly describe your education background?

A4. I hold a Masters in Environmental Engineering (1977) and a Masters in Business Administration (1980) both from the University of Houston. This is in addition to a Bachelor of Science degree in Chemical Engineering (1972) from the University of Missouri (Columbia).

Q5. Please describe your professional experience related to this application?

A5. I have served as General Manager of the Monterey Regional Water Pollution Control Agency since 1988. Prior to that, for five years I held a similar position with Victor Valley Wastewater Reclamation Authority. This was preceded by six years working for the Gulf Coast Waste Disposal Authority (Houston, Texas), holding positions of Assistant Facility Manager and Staff Environmental Engineer.

Q6. Have you previously testified before the California Public Utilities Commission (CPUC)?

A6. No.

Q7. What is the purpose of this testimony?

A7. The purpose of my testimony is to describe the proposal to develop a Monterey Peninsula Groundwater Replenishment Project ("Groundwater Replenishment Project"), which is included as part of the new water application for California American Water.

Q8. What is the MRWPCA and its purpose?

A8. The MRWPCA is a regional wastewater organization that provides wastewater collection, treatment, water recycling and disposal. MRWPCA owns and operates a 29.6 million gallon per day capacity regional wastewater treatment plant. This plant is located two miles north of Marina. MRWPCA also maintains 30 miles of interceptor pipelines and 25 pump stations connected to the treatment plant. Secondary treatment discharge is implemented by an ocean outfall owned and operated by the MRWPCA, which discharges at a location approximately two miles into Monterey Bay.

MRWPCA is a joint powers agency (JPA), which serves the communities of Pacific Grove, Monterey, Del Rey Oaks, Seaside, Sand City, Fort Ord, Marina, Castroville, Moss Landing, Boronda, Salinas and some unincorporated areas in northern Monterey County.

Additionally, MRWPCA operates the water recycling facility at the Regional Treatment Plant, known as the Salinas Valley Reclamation Project (SVRP). This facility provides tertiary treatment of wastewater, which product water is often referred to as "recycled" water. Sixty percent of incoming wastewater is recycled. The present recycling program is called the Castroville Seawater Intrusion Project (CSIP), wherein treatment and distribution of recycled water is paid for by Salinas Valley agricultural growers and property owners. The recycling operations provide irrigation water to approximately 12,000 acres of Castroville farmland. The MRWPCA also manages the distribution system under contract with the Monterey County Water Resources Agency. This project has provided over 53 billion gallons of recycled water for irrigation of food crops over the past 13 years.

See Attachment A for the Service Area and Facilities Location Diagram.

Q9. Can you briefly describe the Monterey Peninsula Groundwater Replenishment Project?

A9. The objective of the proposed Groundwater Replenishment Project is to apply advanced treatment processes to the secondary treated water currently being produced at the MRWPCA Regional Treatment Plant. These processes treat the wastewater to a higher degree than tertiary treatment. The resulting purified water could then be conveyed to an area overlying the Seaside Basin, injected into the soil and naturally percolate into the Seaside aquifer where it would mix with other waters in the aquifer.

Advanced water treatment includes microfiltration, reverse osmosis (RO) and oxidation with ultraviolet light and hydrogen peroxide — all commonly used in numerous industries and food manufacturing, such as bottled water.

MRWPCA plans to evaluate alternatives, including the no project alternative, and mitigation measures in the environmental review process. What I describe in this

testimony is not intended to in any way constrain that evaluation, but to provide a better understanding of the MRWPCA's project objectives, and some of the methods by which those objectives may be met.

See Attachment B and Attachment C for schematics of the treatment process and Attachment D for a Recharge Area Map.

Q10. How much water will the Groundwater Replenishment Project provide?

A10. The Groundwater Replenishment Project is proposed to provide approximately 3,500 acre-feet annually (AFY) to the Seaside Basin.

Q11. How can MRWPCA reliably provide this volume of water for this project?

A11. Between 8,000 and 11,000 acre feet per year of water treated at the Regional Treatment Plant is not re-used. Instead, it is discharged into the Monterey Bay National Marine Sanctuary through an existing 60" outfall pipe extending over 2 miles into the Monterey Bay. Most of this discharge occurs during the late fall, winter, and early spring months. This is due to the fact that the other uses of recycled water, for agricultural (existing) and urban (proposed) irrigation, occur largely during the summer months.

Q12. How many months out of the year do you plan on operating the Groundwater Replenishment Project?

A12. Our plan is to have the Groundwater Replenishment Project provide water to the Seaside Basin up to eight months of the year. The Groundwater Replenishment Project could typically start during September and operate through April.

Q13. Has MRWPCA been involved in other projects of this magnitude?

A13. Yes, we have been involved in several: design, construction, construction management, operation and maintenance of 30 miles of interceptor pipeline, 10 pumping stations, a 4

mile 60" outfall pipeline, a river water disinfection facility, the regional wastewater treatment plant (29.6 million gallons per day capacity), and the Salinas Valley Reclamation Project . The capital costs for the above facilities total about $238 Million. MRWPCA also performs operations and maintenance under contracts for the Castroville Seawater Intrusion Project (CSIP), the Salinas River Diversion Facility (SRDF), and 15 raw wastewater pumping stations.

Q14. Has the Groundwater Replenishment Project had the necessary environmental reviews conducted?

A14. The Groundwater Replenishment Project has been reviewed on a program level pursuant to the California Environmental Quality Act (CEQA) during CPUC's EIR process in Application 04-09-019. MRWPCA plans to proceed with a project level environmental review process in compliance with what the State Water Resources Control Board refers to as "CEQA Plus"[1]. MRWPCA will be the lead agency for this process.

Q15. Where will the facilities for the Groundwater Replenishment Project be located?

A15. Our preferred site is on the Regional Treatment Plant site which is a 100 acre parcel located two miles north of the City of Marina. The Advanced Water Treatment Facility could be located on MRWPCA property just west of the SVRP. Several maps of these potential locations are provided as Attachments B, C and D.

Q16. How will the advanced treated water be delivered to the recharge site?

A16. The presently preferred approach is to deliver it through a pipeline as shown on Attachment D. MRWPCA may install a dedicated pipeline to the recharge area, which could be owned and operated by the MRWPCA. Alternatively, MRWPCA would also consider sharing a pipeline owned by another local public agency, which is about 50%

[1] This method of achieving CEQA compliance is required to be eligible for the Clean Water State Resolving Loan Program, due to the involvement of the USEPA. See, e.g., http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/?index.shtml

installed. Other alternatives may be identified in the environmental review process, such as shared right-of-way with California American Water.

Q17. Where is the recharge site?

A17. The primary recharge site is likely to be along General Jim Moore Boulevard in Seaside, CA. See the map on Attachment D for an overview of this particular recharge site.

Q18. What happens to the brine that is generated from the reverse osmosis (RO) treatment process?

A18. It can be discharged through MRWPCA's existing ocean outfall pipe using a new permit. The Advance Water Treatment process using secondary treated wastewater generates less than half the reject water (brine) as compared to ocean desalination.

Q19. Does the MRWPCA have a permit secured for the RO reject water?

A19. No, a new permit will be obtained from the Central Coast California Regional Water Quality Control Board.

Q20. Do you have a timeline of how the various components of the Groundwater Replenishment Project will be implemented?

A20. Yes, a proposed timeline for the Groundwater Replenishment Project development is attached as Attachment E. Obviously this timeline is a guide and is subject to change, but it is MRWPCA's goal is to have the Groundwater Replenishment Project online and providing water to the Seaside Basin by December 2016.

Q21. Do you have an estimated cost of implementing the Groundwater Replenishment Project ?

A21. Yes. We reasonably estimate the cost of water per acre/foot (AF) to be in the $2,500 to $3,000 range. The final cost would depend upon several factors, including the cost of financing the project. We have done considerable research regarding other groundwater replenishment projects, as part of preparing the estimate.

Q22. How will this Groundwater Replenishment Project benefit the ratepayer's in California American Water's Monterey District service area?

A22. It could provide a sustainable, reliable, and safe water supply to help meet the water demands of the Monterey Peninsula. Groundwater replenishment water is drought-resistant. In times of drought, water will still be available because we will be recycling and purifying wastewater generated from within our member agencies. The water used for groundwater replenishment is generated locally, which gives our region more control over our water future. The Seaside groundwater basin is naturally connected to the ocean. Filtering water into the groundwater aquifer near the coast helps create an underground barrier to protect the fresh water from saltwater contamination. Groundwater replenishment will reduce wastewater discharge into Monterey Bay, a National Marine Sanctuary. Securing local water supplies now will help to ensure a less volatile resource for our future. Groundwater replenishment has a lower carbon footprint than many other water projects. Additionally, because the wastewater is lower in salts than brackish water or ocean desalination, energy costs are less.

Q23. Will Public Outreach be important for this project?

A23. Yes. It is important for the public to understand the facts regarding the Groundwater Replenishment Project. A public outreach program is being fashioned after the successful Orange County Groundwater Replenishment System. Existing outreach consists of public water forums, tours of the regional wastewater treatment and water recycling plants, fact sheets, civic club presentations, exhibits, a media conference, and tours to the Orange

County facility. Future outreach will include a project website and additional community meetings with Seaside stakeholders. To date, very few questions of concern have been received from the public. Most comments have been quite favorable. The environmental review process will also afford the public information and further opportunity for comment.

Q24. What independent permits and oversight will the Groundwater Replenishment Project have to ensure water quality and safety?

A24. The California Department of Public Health, Monterey County Environmental Health Department, and the California Regional Water Quality Control Board strictly monitor and regulate agricultural irrigation, landscape irrigation and groundwater replenishment. The regulations and monitoring requirements protect the public's health and safety as well as the environment. In addition, a special advisory panel of experts has been organized and is independently reviewing the Groundwater Replenishment Project.

Q25. How will Groundwater Replenishment Project costs be minimized to control impacts to rate payers?

A25. The Project will have a lower carbon footprint than ocean desalination; may utilize green energy presently produced at the wastewater treatment plant and at the adjacent sanitary landfill site; and, may benefit from low-rate public loans and is eligible for state and federal grant funding.

Q26. How will water customers be represented?

A26. MRWPCA is a separate public entity, a JPA with representation from each of the 11 communities and cities it serves. In addition, customers outside of MRWPCA's jurisdiction will be encouraged to participate in Public Scoping Meetings, check the website often, participate via social media, and attend monthly Board of Director

meetings. Project E-Blasts will also be sent to interested parties who complete the online subscriber registration form.

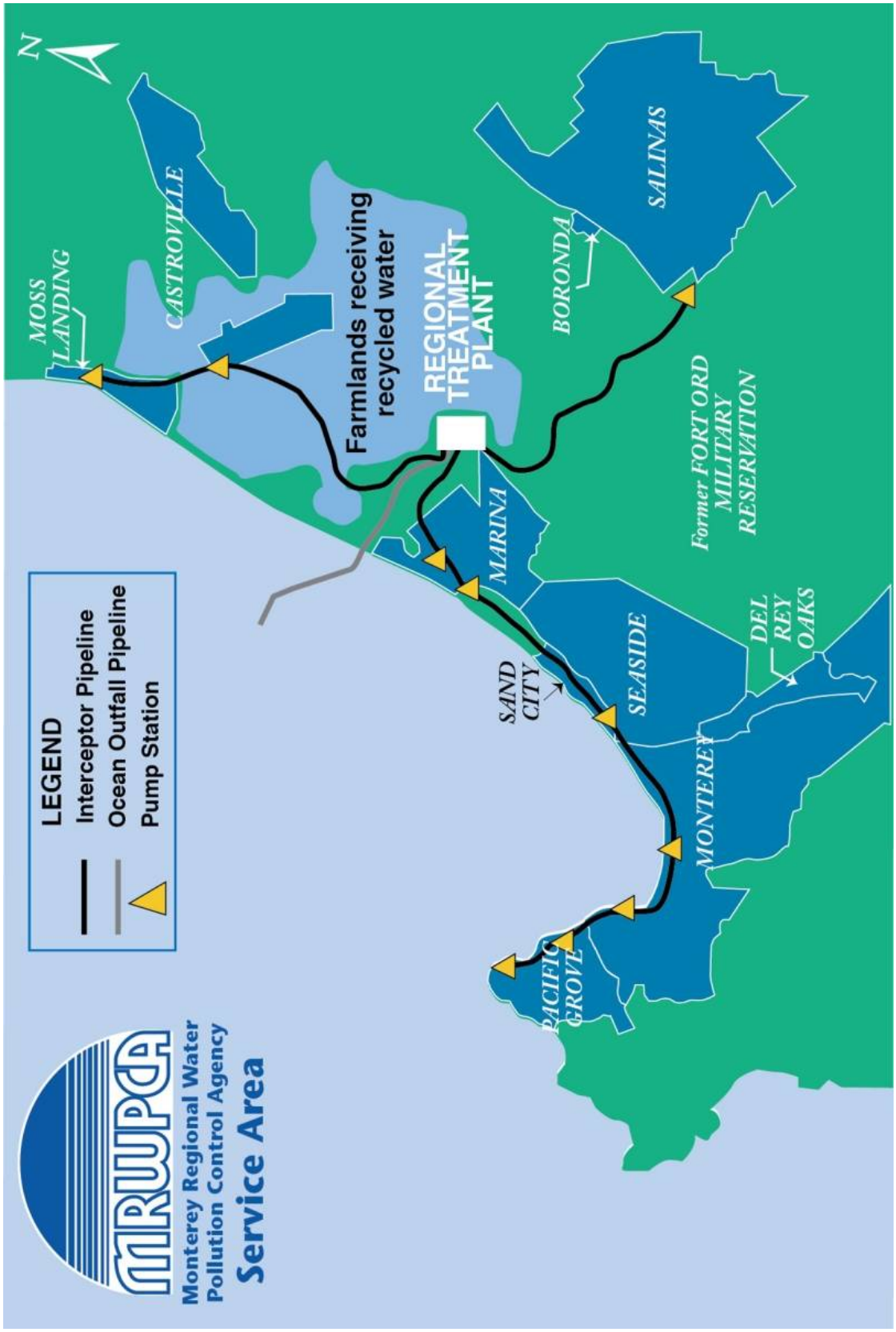
Q27. Has the MRWPCA secured water rights for the Groundwater Replenishment Project?

A27. In 1992, MRWPCA entered into an agreement with the MCWRA. That agreement was amended in 2002 to designate 3,900 AFY water to MRWPCA plus, starting in January 2013, unused water. A portion of the 3,900 AFY has been dedicated to other purposes such as the Regional Urban Water Augmentation Project (which is presently planned to use approximately 1,000 AFY). MRWPCA also is entitled to use unused treated wastewater, which is described in A.11 above. Over the last 13 years, the total amount of unused water has averaged over 10,500 AFY. About 4,400 AFY of unused secondary water would be needed to yield 3,500 AFY of advanced treated water for injection into the Seaside Basin.

Q28. Does this conclude your testimony?

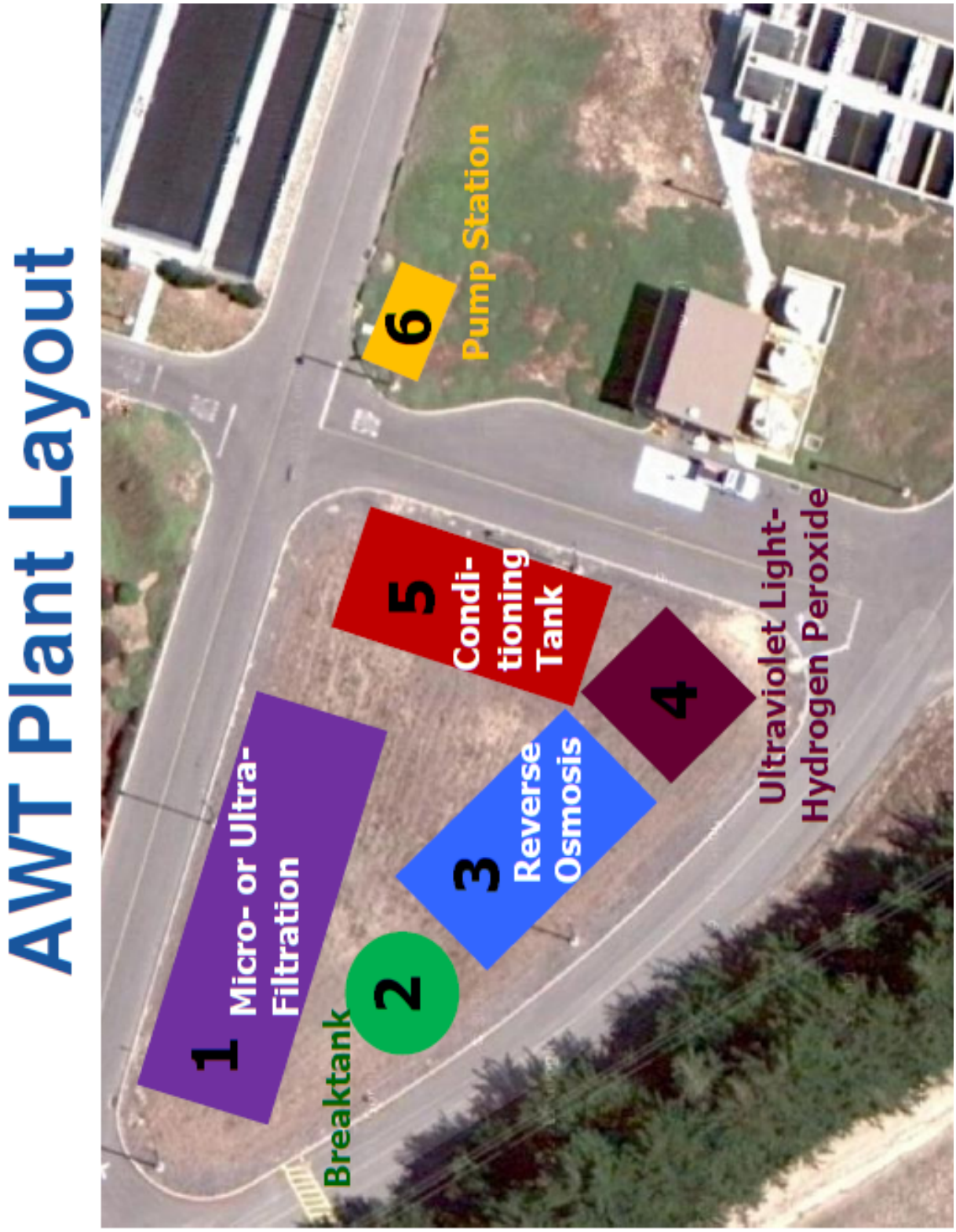
A28. Yes.

Attachment A

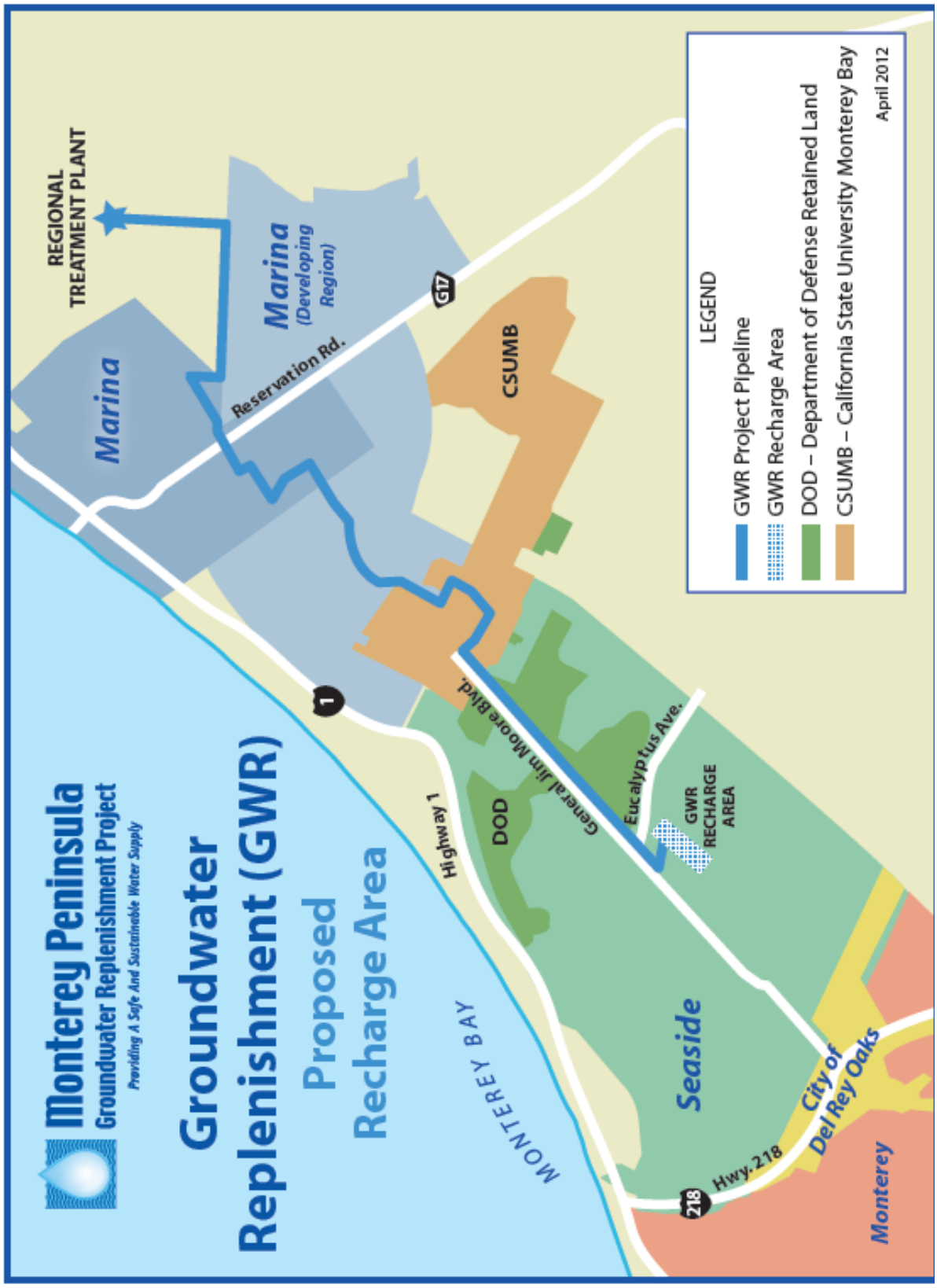


Attachment B

Attachment C



Attachment D



Attachment E