

## **8.3 Federal Agency Comments and Responses**

- 8.3.1 Department of the Army, Fort Ord Base Realignment and Closure Field Office (FOBRAC)
- 8.3.2 Department of the Army, US Army Installation Management Command (USARMY)
- 8.3.3 Monterey Bay National Marine Sanctuary Advisory Council, Research Activity Panel (MBNMS RAP)
- 8.3.4 United States Army Corps of Engineers (USACE)
- 8.3.5 United States Environmental Protection Agency (USEPA)

This page intentionally left blank

8.3.1 Department of the Army, Fort Ord Base Realignment and Closure Field Office (FOBRAC)



DEPARTMENT OF THE ARMY  
ARMY BASE REALIGNMENT AND CLOSURE, FORMER FORT ORD  
P.O. BOX 5008, BUILDING #4463 GIGLING ROAD  
MONTEREY, CA 93944-5008

REPLY TO  
ATTENTION OF:

MAR 24 2017

Fort Ord BRAC Field Office

CPUC/MBNMS  
c/o Environmental Science Associates  
550 Kearny Street, Suite 800  
San Francisco, CA 94108

To Whom It May Concern,

The Draft Environmental Impact Report/Environmental Impact Statement for the Monterey Peninsula Water Supply Project State Clearinghouse No. 2006101004 identifies the potential for the proposed project to impact the Army's existing groundwater remediation system at Fort Ord Operable Unit Carbon Tetrachloride Plume (OUCTP) (Section 4.4.5.2, page 4.4-77). It identifies mitigation measure 4.4-4 (page 4.4-86) which proposes to conduct groundwater monitoring incorporating the Army's groundwater monitoring data, and if an analysis by CalAm concludes that slant well pumping could affect the OUCTP plumes, then "the project applicant will reimburse the U.S. Army for the necessary additional costs to address changes in the plume flow direction, arrest mitigation of the plumes, and/or to remediate areas of new contamination created by slant well pumping." This mitigation measure is later described as requiring CalAm to prevent expansion of the OUCTP plumes.

FOBRAC-1

The Army's groundwater remediation projects at the former Fort Ord is being conducted under CERCLA. If the proposed project will in any way adversely affect the Army's implementation of CERCLA remedial actions, the project proponent will be considered a potentially responsible party under CERCLA, and its responsibilities would need to be properly identified in consultation with U.S. Environmental Protection Agency. The proposed mitigation measure does not sufficiently address the identified impact.

Portions of the proposed project occurs within the former Fort Ord, over or near the Army's environmental remediation sites under CERCLA. The Army encourages the project proponent to avoid any adverse impacts to the CERCLA actions. We suggest this be noted in Section 4.7.2.1 where CERCLA is described under Regulatory Framework (page 4.7-13).

The draft EIR/EIS also describes that the project would comply with the excavation permit program of the City of Seaside that would address the potential for encountering unexploded ordnance (UXO) while engaging in ground-disturbing activities within the Seaside Munitions Response Area (MRA). The proposed project also involves ground-disturbing activities in other areas of the former Fort Ord, outside of the Seaside MRA. Because of the former Fort Ord's history as a military installation, there is a potential for munitions and

FOBRAC-2

explosives of concern (MEC) (including UXO) to be present. Should any munitions or suspected MEC item be encountered during ground-disturbing or intrusive activity, people engaging in the activity should immediately stop the activity; should not attempt to disturb remove or destroy it; but should immediately notify the local law enforcement agency having jurisdiction on the property so that appropriate explosive ordnance disposal personnel can be dispatched to address the item. This notice of the potential presence of MEC is provided in federal deeds for transferred former Fort Ord properties. In addition, the Army offers munitions recognition and safety training to anyone who requests it. The training is intended to increase the ability to recognize suspicious items and participants will learn the proper procedures when a suspicious item is encountered. The training is available by contacting the U.S. Army Base Realignment and Closure office at 831-393-1284.

↑  
FOBRAC-2  
cont.

If you have any questions please call me at (831) 242-7920 or email at [William.K.Collins.Civ@Mail.Mil](mailto:William.K.Collins.Civ@Mail.Mil).

Sincerely,



William K. Collins  
Base Realignment and Closure  
Environmental Coordinator

## 8.3.2 Department of the Army, US Army Installation Management Command (USARMY)



DEPARTMENT OF THE ARMY  
US ARMY INSTALLATION MANAGEMENT COMMAND  
HEADQUARTERS, US ARMY GARRISON, PRESIDIO OF MONTEREY  
1759 LEWIS ROAD, SUITE 210  
MONTEREY, CA 93944-3223

Office of the Garrison Commander

MAR 24 2017

MBNMS Desalination Project Lead  
99 Pacific Ave., Bldg. 455a  
Monterey, CA 93940

Dear Ms. Grimmer,

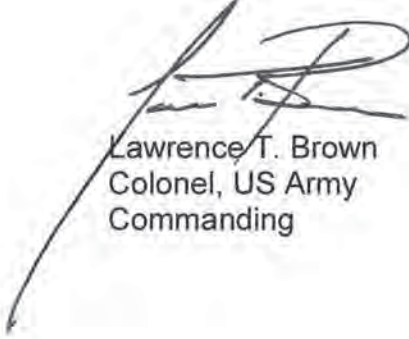
Thank you for the opportunity to comment on the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for California American Water's (CalAm's) Monterey Peninsula Water Supply Project (MPWSP).

While the Monterey Bay National Marine Sanctuary (MBNMS) is the lead Federal agency ensuring National Environmental Policy Act (NEPA) compliance for the proposed action, the U.S. Army's (Army's) NEPA implementing regulations under 32 Code of Federal Regulations (CFR) 651.14.h, require the Army to coordinate with the lead agency to ensure all proposed actions which would affect the Army are thoroughly analyzed. Thus, the Army became a cooperating agency on this Draft document as portions of the MPWSP are proposed to be installed and operated on Army property, including portions of the 36-inch new Transfer Main pipeline, the Aquifer Storage and Recovery (ASR) Wells #5 and #6, and associated ASR pipelines, in the Ord Military Community in Seaside, CA. The Army has discretionary approval authority over proposed projects on Army lands and will use the NEPA analysis during decision-making with regard to the proposed action.

This letter provides the Army's enclosed comments on the Draft EIR/EIS under Federal NEPA implementing regulations 40 CFR 1500 et seq. and 32 CFR 651. These comments provide clarifications to the Draft EIR/EIS that the Army believes are necessary to ensure compliance under NEPA.

The POC for this letter is Joelle Lobo at 831-242-7829 or [joelle.l.lobo.civ@mail.mil](mailto:joelle.l.lobo.civ@mail.mil).

Sincerely,



Lawrence T. Brown  
Colonel, US Army  
Commanding

## Chapter 1. Introduction and Background

### Section 1.3.1 CalAm's Project Objectives, page 1-5.

Appears that a main objective of the MPWSP is to minimize the take of marine biological matter based on the proposed use of subterranean slant wells as included in the proposed project. Consider including this objective along with the list of primary objects of the project as given in Section 1.3.1.

USARMY-1

### Section 1.5.4.3 Other Agencies' Consideration of the EIR/EIS and Proposed Project, page 1-17:

The Draft EIR/EIS does not present an option (other than the No Action Alternative) where the proposed project or alternatives would not involve use Army land. Therefore, the Army should be listed as an organization which, due to their discretionary approval authority over land use for some components of CalAm's proposed project, will use the EIR/EIS to make decisions, not merely as an agency with "potential" permitting authority.

USARMY-2

## Chapter 3. Description of the Proposed Project

### Section 3.2.3.5 Terminal Reservoir, page 3-30

The Draft EIR/EIS states the proposed Terminal Reservoir would be located in an undeveloped portion of the former Fort Ord. Please provide clarification as to who has jurisdiction over this portion of land.

USARMY-3

### Section 3.2.4.1 ASR Injection/Extraction Wells (ASR-5 and ASR-6 Wells), page 3-43.

Please include in the Draft EIR/EIS information regarding siting studies and how the proposed ASR #5 and #6 sites were selected.

The following information was provided by CalAm:

"The open areas south of the SM ASR wells is unfavorable for ASR wells compared to the Fitch Park site, due primarily to the geologic structure of the basin. The bedrock and the Santa Margarita Sandstone ([Tsm] the target aquifer for ASR) are rising in elevation in this area due to the Laguna Seca Anticline, which results in a lack of sufficient saturated Tsm thickness to support the planned well injection rates. Also, the area to the east of the SM ASR wells is now within the area of influence of the Pure Water Monterey recycled water injection wells, which precludes this area for potable supply wells due to aquifer residence times required for the recycled water." Additional conversations indicated that the area on the north side of General Jim Moore, across from the proposed ASR wells, encountered land use conflicts when investigated for potential ASR siting.

USARMY-4

In addition to including the above please include in the Draft EIR/EIS any other information pertaining to siting and examining alternatives for the proposed ASR wells, i.e. what were the criteria used to determine a successful ASR Well site, what tests were done to determine suitability of the proposed site and what were the results (from

the Fitch Park Monitoring Well No. 1 Summary of Operations Report), and what other sites were considered/examined and what were the results?

↑ USARMY-4  
cont.

Figure 3-14 Site Plans: ASR-6 and ASR-6 Well, page 3-45.

Please include figures with clearer resolution. Text in the existing figures is difficult to read.

↑ USARMY-5

Section 3.3.2.2 ASR Injection/Extraction Wells, page 3-48.

Please include a discussion on the requirement for 24 hour per day construction for the proposed ASR wells, including the reason continuous drilling is required (i.e. based on technology for this type of drilling, based on schedule, etc.). If technology for other-than-24 hour drilling is available, please describe. Please also indicate if permanent access road(s) would be installed to the ASR Wells from General Jim Moore Blvd.

↑ USARMY-6

Section 3.3.4.3 Disinfection of Existing and Newly Installed Pipelines, page 3-53.

Use of Army owned stormwater outfall for discharges associated with pipeline construction generated effluent requires explicit permission by the Army. Effluent generated on Army land will generally be discharged to a percolation pond.

↑ USARMY-7

Section 3.3.9 Construction Schedule, page 3-55.

Paragraph 3 of this section states, "Installation of pipelines within the city of Seaside, including all or portions of the three ASR pipelines (ASR Conveyance Pipeline, ASR Recirculation Pipeline, and ASR Pump-to-Waste Pipeline) and the sections of the new Transmission Main would occur only during the day." The terms of the Army issued permit will require daytime only pipeline construction on Army owned property.

↑ USARMY-8

Section 3.4.1 Operation of the Seawater Intake System, MPWSP Desalination Plant, and Brine Discharges, page 3-56.

Section 3.4.1 states that the MPWSP Desalination Plant would operate 24 hours a day, 365 days per week. Please include a discussion on operational adjustments should demand, available water supply, or overall precipitation change, such that water needs are lowered, recognizing that desalinated water is environmentally and economically costly. Please also include any adjustments to operations in response to future regional power shortages.

↑ USARMY-9

Table 3-8 Anticipated Permits and Approvals, page 3-63.

In the second row (labeled, 'U.S. Army'), please change the second column to the following: "Real property outgrants for construction and operation to CalAm or other entities involved in water augmentation projects (Army Regulation (AR) 405-80, 200-1)".

↑ USARMY-10

## Chapter 4.3 Surface Water Hydrology and Water Quality

### Section 4.3.2.2 State Regulations, NPDES Municipal Stormwater Permit, page 4.3-40

The Presidio of Monterey is a Phase II MS4 – Non-traditional permittee with requirements applicable within the Ord Military Community in Seaside, CA. Stormwater outfall for discharges associated with the pipeline or ASR well construction generated effluent requires explicit permission by the Army. Effluent generated on Army land will generally be discharged to a percolation pond.

USARMY-11

### Section 4.3.5.1 Construction Impacts

Impact 4.3-2: Degradation of water quality from construction-related discharges of dewatering effluent from open excavations and water produced during well drilling and development, Dewatering Discharges (All Other Project Facilities), page 4.3-63.

Request MS4 Permittees receive analytics for any discharges.

USARMY-12

## Chapter 4.4 Groundwater

Figure 4.4-7 Groundwater Flow – Seaside Basin Shallow Zone, July/August 2015 and Figure 4.4-8 Groundwater Flow – Seaside Basin Deep Zone, July/August 2015, pages 4.4-17-4.4-18

Please provide a legend to describe the features on these figures.

USARMY-13

Section 4.4.1.4 Groundwater Quality, Disinfection Byproducts, page 4.4-27 and Section 4.4.5.2 Operations Impacts and Mitigation Measures, Impact 4.4-4 Violate any groundwater quality standards or otherwise degrade groundwater quality during operations, Addition of Treated Water to the Santa Margarita Aquifer, page 4.4-82

Section 4.4.1.4 states, “The Disinfection Byproducts (DBP) data collected during the 2015 water year indicated that trihalomethanes (THMs) peaked approximately 30 to 90 days after injection and storage, followed by a gradual decline. After approximately 150 to 210 days of storage, THMs had degraded to below the initial injection levels.” However, per the “*Draft Summary of Operations Report for the Monterey Peninsula ASR Project, Water Year 2015*”, dated June 2016, prepared by Pueblo Water Resources for the Monterey Peninsula Water Management District, Figure 22, it appears that THMs exceed the initial injection level after 210 days for the ASR-3 site. Please include a discussion that considers this data.

USARMY-14

Section 4.4.1.4 states, “More importantly, throughout the 2015 water year, THMs were below the MCL of 80 micrograms per liter and haloacetic acids (HAAs) were below the MCL of 60 micrograms per liter.” However, per the “*Draft Summary of Operations Report for the Monterey Peninsula ASR Project, Water Year 2015*”, dated June 2016, prepared by Pueblo Water Resources for the Monterey Peninsula Water Management District, Figures 21, 22, and 24, it appears that the THMs reached or exceeded the MCL of 80 micrograms per liter. Please include a discussion that considers this data.

USARMY-15



In order to better understand fate of DBPs and the resulting chemistry of the groundwater, recommend including a table or graph in the Draft EIR/EIS that shows the relative levels of DBPs in the cited 2015 study (and other studies with available data) as compared to the regulatory limits, including pH levels, and including the rate of decline in concentration of DBPs over the given timeframes and the resulting concentrations, to show if the decline in concentration returns to below injection levels or if elevated concentration conditions exist. The proposed amount of yearly injected desalinated water may be higher than the injected 2015 Carmel River water. Please also include details of the study such as the reason for decline in DPB concentration over time and if this pattern of initial increase and decline in DBP concentration is expected to be consistent for larger amounts of injected DBPs.

USARMY-16

Three separate sources of water: desalinated, purified, and river water, are proposed to be injected into the Seaside aquifer, likely at higher than historic volumes. To more clearly understand the cumulative impacts of DBPs and/or other constituents associated with proposed project or alternatives, due to volume and/or source of injected water, please include an estimated (maximum) injection volume from the combined Carmel River, desalinated, and purified waters into the aquifer and associated DBP concentrations. Please include a discussion or information on the expected fate of DBPs for the combined Carmel River, desalinated, and purified water volumes.

USARMY-17

Please include a discussion on whether the Seaside aquifer is confined or if aquifer waters have potential to intermix with other waters or emerge into the environment. Please cite any relevant chemical or toxicological studies regarding effect of DBPs on other organisms in the environment.

USARMY-18

Additionally, please include a discussion on adaptive management strategies should DBPs in the aquifer or in extracted waters exceed regulated drinking water concentrations.

USARMY-19

## Chapter 4.6 Terrestrial Biological Resources

Table 4.6-4 Applicable Regional and Local Land use Plans and Policies relevant to Terrestrial Biological Resources, page 4.6-107.

Please include the "Integrated Natural Resource Management Plan (INRMP) Presidio of Monterey and Ord Military Community, November 2008" to table 4.6-4. The 2008 INRMP, or most current version, would apply to the project components proposed on Army property including portions of the new Transmission Main, ASR wells, and ASR wells pipeline.

USARMY-20

Section 4.6.5 Direct and Indirect Effects of the Proposed Project, Impact 4.6-4: Be inconsistent with any local policies or ordinances protecting biological resources, such as a tree preservation policy or local tree ordinances, page 4.6-222.

Landscape in the work areas should be restored after work is completed, including the planting of shrubs and trees as additional screening, using the Presidio of Monterey INRMP approved plants. All trees schedule for removal or preservation on Army property, including mitigation for tree removal and protection for tree preservation, shall be done in accordance with the Presidio of Monterey INRMP.

USARMY-21

### Chapter 4.9 Traffic and Transportation

Section 4.9.5.1 Construction Impacts, Mitigation Measure 4.9-1: Traffic Control and Safety Assurance Plan, page 4.9-24.

Any proposed work on Army owned property will required a real property outgrant as prescribed by Army Regulation (AR) 405-80. Prior to issuance of an outgrant, the Army will required a detailed briefing by CalAm to ensure all of the Army’s interests are addressed in the Traffic Control and Safety Assurance Plan, including POM Fire Station, POM Police Station, housing office, community and youth centers, as well as public works, commercial, safety and other related interests.

USARMY-22

Section 4.9.5.1 Construction Impacts, Mitigation Measure 4.9-1: Traffic Control and Safety Assurance Plan, page 4.9-24.

Terms of the Army issued permit would likely require that access to Army services along General Jim Moore Blvd. are maintained during construction including the POM Fire Station, the Army Air Force Exchange Service (AAFES) Service Station and Mini-Mart, Army Community Services offices and facilities, the Ord Military Community Chapel, and Porter Youth Center.

USARMY-23

Section 4.9.5.1 Construction Impacts, Mitigation Measure 4.9-1: Traffic Control and Safety Assurance Plan, page 4.9-26.

Unreasonable delays in the establish bus schedule as agreed upon with Monterey-Salinas Transit will have a direct impact on the military mission. Prior to commencement of construction, coordination with the Army will be required to ensure bus routes maintain timeliness such that Department of Defense (DoD) personnel traveling from the Ord Military Community family housing arrive on time to their duty stations.

USARMY-24

Section 4.9.5.1 Construction Impacts, Impact 4.9-3 Increased traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways, and area trails, sidewalks and other pathways, during construction, page 4.9-28.

Significant traffic congestion persists at the intersection of General Jim Moore Boulevard and Normandy Road during the peak traffic hours associated with Marshall Elementary School, the Dual Language Academy of the Monterey Peninsula, and the Army’s Porter Youth Center. The cumulative pedestrian and vehicular traffic associated with these schools and youth center, converge on the Army owned intersection of

USARMY-25

General Jim Moore Boulevard and Normandy Road. To ameliorate potential safety related issues regarding young children and families crossing the intersection during construction, recommend mitigation to construct the New Transmission Main in this area during summer months while schools are in recess, or after school and common business hours.

↑  
USARMY-25  
cont.

Section 4.9.5.1 Construction Impacts, Impact 4.9-4 Impaired emergency access during construction, page 4.9-29.

Presidio of Monterey Emergency Services will require the specific traffic control measures for proposed construction along General Jim Moore Blvd. and the resulting impact to emergency services response times. Terms of the Army issued permit will require a briefing by CalAm to the Army Directorate of Emergency Services on these measures to determine impact on response times and the level of risk to the Ord Military Community and federal employees.

USARMY-26

Section 4.9.5.1 Construction Impacts, Impact 4.9-6 Increased wear-and-tear on the designated haul routes, page 4.9-31.

The terms of the Army issued permit will require CalAm coordination with the Army during the development of the Roadway Rehabilitation Program in order to ensure roadway wear and tear, damages, and restoration of Army owned roads are properly addressed. The terms of the Army issued permit will require that roadway wear and tear, damages, and required restoration of Army owned roads associated with the proposed action will be the responsibility of CalAm.

USARMY-27

Section 4.9.5.1 Construction Impacts, Impact 4.9-7 Parking interference during construction, staging areas, page 4.9-33.

The Draft EIR/EIS proposes a staging area on Army property at the AAFES Service Station at the north-west corner of General Jim Moore Blvd. and Gigling Rd. Use of a staging area in this location would require a permit from the Army which is unlikely due tenant request and potential for additional traffic hazards.

USARMY-28

## Chapter 4.12 Noise and Vibration

Section 4.12.5.1 Temporary or Periodic Increases in Ambient Noise Levels, Speech Interference, page 4.12-18.

Please clarify how the threshold “substantial construction noise where the duration of construction noise exceeds two weeks” was derived. It is unclear how the two week timeframe was obtained.

USARMY-29

Section 4.12.6.1 Construction Impacts, Impact 4.12-1: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction, page 4.12-21.

The second paragraph of this Section states, "The proposed pipelines and pump station would be constructed during daytime hours to the extent feasible. This analysis assumes that the ASR Recirculation Pipeline, ASR Conveyance Pipeline, ASR Pump-to-Waste Pipeline, Terminal Reservoir, and some portions of the new Desalinated Water Pipeline and the new Transmission Main within the City of Marina would be constructed only during daytime hours (see Mitigation Measure 12.4-4 (Nighttime Construction Restrictions in Marina)); however, nighttime construction could be required for all other pipelines to meet the project schedule." This is in contradiction to Section 3.3.9 where it is stated that, "Installation of pipelines within the city of Seaside, including all or portions of the three ASR pipelines (ASR Conveyance Pipeline, ASR Recirculation Pipeline, and ASR Pump-to-Waste Pipeline) and the sections of the new Transmission Main would occur only during the day."

USARMY-30

The terms of the Army issued permit will require daytime only pipeline construction on Army owned property.

Section 4.12.6.1 Construction Impacts, Impact 4.12-1: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction, page 4-12.29.

Please include a figure showing decibel level impacts associated with ASR wells construction. Please show expected noise levels at increasing distances from the construction sites for both proposed 24 hour drilling and for daytime only construction.

USARMY-31

Section 4.12.6.1 Construction Impacts, Impact 4.12-1: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction, page 4-12.29.

Construction noise is assumed to be attenuated by closed windows. However, the proposed construction for the ASR Wells is estimated to last for approximately 1 year, during which time ambient temperature may significantly vary. The housing in this area does not have central air conditioning. The terms of the Army issued permit will require that CalAm ensure all possible noise controls are implemented and monitored for effectiveness and provide adaptive management strategies should noise exceed threshold values, with residence opening windows as climate dictates.

USARMY-32

Section 4.12.6.1 Construction Impacts, Mitigation Measures 4.12-1e: Offsite Accommodations for Substantially Affected Nighttime Receptors, page 4.12-34.

The terms of the Army issued permit will require that noise mitigation is based on actual noise levels at the residence (receptor), not based on geographical distance from the construction.

USARMY-33

Section 4.12.6.1 Construction Impacts, Mitigation Measures 4.12-1e: Offsite Accommodations for Substantially Affected Nighttime Receptors, page 4.12-34.

Terms of the Army issued permit would require the impacted residents have a choice of off-site accommodations to fit their needs.

USARMY-34

Section 4.12.6.1 Construction Impacts, Mitigation Measures 4.12-1e: Offsite Accommodations for Substantially Affected Nighttime Receptors, page 4.12-34.

The Army’s military family housing partner under the Residential Communities Initiative (RCI) recommends that in addition to Mitigation 4.12-1e, individuals displaced from their homes during the 24 hour ASR well construction should be afforded a meal per diem to offset the disruption in daily activities such as access to kitchen for cooking meals. Terms of the Army issued permit would require this stipend with a recommended per diem amount at least equivalent to the General Services Administration (GSA) per diem for the current fiscal year for Monterey County (<https://gsa.gov/portal/content/104877>)

USARMY-35

Section 4.12.6.2 Operational Impacts and Mitigation Measures, Impact 4.12-5 Substantial permanent increases in ambient noise levels in the project vicinity above levels existing without the project during operations, page 4.12-51.

The terms of the Army issued permit will require operational noise adjacent to ASR Wells #5 and #6 to remain consistent with the City of Seaside noise standards under Seaside Municipal Code Chapter 17.30.

USARMY-36

**Chapter 4.13 Public Services and Utilities**

Table 4.13-1 Local utility and public service providers, by jurisdiction, page 4.13-2.

Please add Presidio of Monterey Fire Department and Presidio of Monterey Police Department to the list of service providers in this table. Presidio of Monterey Fire and Police Departments are located on the Ord Military Community in Seaside, CA.

Please change row #4 of the table from “Federal Lands” to “U.S. Army”. Pls. change “Note a” to the following: “Project components are proposed for the U.S. Army owned property at the Ord Military Community (OMC) in Seaside, CA.”

USARMY-37

Please add project components “New Transmission Main” and “ASR Pipelines” to row #4 of the table.

In the table, please indicate the Presidio of Monterey Fire Department responds to U.S. Army lands, City of Monterey, City of Seaside, the California State University of Monterey Bay, and City of Marina. Please indicate that Presidio of Monterey Police Department responds to U.S. Army lands only.

Section 4.13.1.1 Fire Protection, Law Enforcement, and Emergency Services, page 4.13-3

Under “Fire Protection”, please add the following paragraph:

“U.S. Army

The Presidio of Monterey Fire Department serves all Army property on the Ord Military Community and Presidio of Monterey, as well as holding mutual aid agreements with Seaside, Marina, the California State University of Monterey Bay, and the Monterey County Regional Fire District.”

USARMY-38

Under “Police”, please add the following paragraph:

“U.S. Army

The Presidio of Monterey Police Department serves all Army property on the Ord Military Community and Presidio of Monterey”

Section 4.13.5.1 Construction Impacts, Impact 4.13-1 Disrupt or relocate regional or local utilities during construction, page 4.13-16.

Water Well Construction Permit #09-11644 obtained for the monitoring well drilling near the proposed ASR #5 site included a condition that the well shall be at least 50 feet from any sewer main, line, or lateral. Please be informed that sewer laterals may exist in the direct vicinity of the proposed ASR wells #5 and #6.

USARMY-39

**Chapter 4.15 Cultural and Paleontological Resources**

Section 4.15.6.1 Construction Impacts, Mitigation Measure 4.15-2b: Inadvertent Discovery of Cultural Resources, page 4.15-49.

Since this mitigation measure applies to all project components, including those proposed on Army land, it must reference compliance actions in accordance with federal law under the National Historic Preservation Act and implementing regulations under 36 Code of Federal Regulations § 800. Please include the following as part of Mitigation Measure 4.15-2b:

“If cultural resources are inadvertently discovered during construction on Army owned property, work shall immediately cease within a 100- foot radius of the find and the Army, Presidio of Monterey, Cultural Resources Manager (CRM) will be contacted to assess the discovery. The CRM will implement procedures set forth in the Presidio’s Integrated Cultural Resources Management Plan (ICRMP) and Army Regulation (AR 200-1), which may include completion of consultation under Section 106 of the National Historic Preservation Act (NHPA)(16 USC. 470f; 36 CFR Part 800) prior to resuming construction in the vicinity of the find. CalAm will be responsible for completing any additional archaeological work required to comply with federal regulations.”

USARMY-40

Section 4.15.6.1 Construction Impacts, Mitigation Measure 4.15-4: Inadvertent Discovery of Human Remains, page 4.15-51.

Since this mitigation measure applies to all project components, including those proposed on Army land, it must reference compliance actions in accordance with federal law under the Native American Graves Protection and Repatriation Act, Section 3. Please include the following as part of Mitigation Measure 4.15-2b:

“If human remains are encountered during construction on Army owned property, work shall cease within a 100-foot radius of the discovery and immediate notification will be made to the CRM. The CRM will initially evaluate the site to determine if the remains are either Native American in origin or associated with a recent crime scene (i.e., 50 years old or less). If the remains appear recent, the CRM will notify the Army’s Criminal Investigation Command who will assume control of the crime scene and custody of the remains. If the remains appear to be Native American in origin, the CRM will notify the Presidio Garrison Commander and the Monterey County Coroner. Upon verification of the CRM’s initial assessment, the Coroner will notify the Native American Heritage Commission within 24 hours. If the find includes human remains, the County Coroner and Army point of contact (POC) must be notified. If the remains are determined to be Native American remains, the Native American Heritage Commission shall be notified. The Native American Heritage Commission will appoint a Most Likely Descendant, who will provide recommendations for the disposition of the remains. All activities with regard to the discovery and handling of human remains and cultural resources will comply with applicable requirements of the Integrated Cultural Resource Management Plan (ICRMP).”

USARMY-41

## **Chapter 5 Alternatives Screening and Analysis**

Section 5.1.2 Project Objectives and Significant Impacts, page 5.1-3 and Section 5.3.6 Evaluation of Intake, Outfall, and Desalination Plant Options, page 5.3-29

Please include a discussion on why no alternatives to the new Transmission Main, particularly the portions on Army land, were deemed reasonable for further analysis. Please also include a discussion on why the proposed ASR Wells 5 and 6 are only proposed for location in Fitch Park neighborhood.

USARMY-42

### 8.3.3 Monterey Bay National Marine Sanctuary Advisory Council, Research Activity Panel (MBNMS RAP)

John Hunt, Chair  
Monterey Bay National Marine Sanctuary  
Research Activity Panel

March 28, 2017

MBNMS Desal Project Lead  
99 Pacific Ave, Building 455a, Monterey, CA 93940  
(Electronic public comment submission via the Federal e-Rulemaking Portal)

Re: Docket #NOAA-NOS-2016-0156  
California-American Water Company Monterey Peninsula Water Supply Project (MPWSP)  
Public Comment

Dear MBNMS Desal Project Lead,

The Research Activity Panel (RAP) is a working group of the Monterey Bay National Marine Sanctuary Advisory Council. Among the RAP's key objectives is to advise Sanctuary staff on conservation science issues that will influence policy. The RAP has received presentations on the CalAm MPWSP Draft Environmental Impact Statement (DEIS), and members of the RAP have submitted comments to the chair for submission on behalf of the RAP. Please consider our comments on the following topics:

1. The effects of ocean currents in the brine mixing zone (BMZ) model analyses.
2. Impacts to freshwater and brackish water habitats from decreased freshwater flows related to Alternative 5a reliance on the Pure Water Monterey GWR Project.
3. RAP offer to review and participate in the design of monitoring programs developed as part of mitigation measures cited in the DEIS.
4. Documents that should be considered when characterizing habitat in the area affected by brine discharge.

#### 1. Ocean Currents

We wish to express concern over the decision not to include the effects of ocean currents in the brine mixing zone (BMZ) model analyses. As stated in the Appendix D1 Executive Summary, "Zero current speed was assumed for all dilution calculations." Water column currents are mentioned as a mechanism by which the physical mixing of the outfall water will be enhanced (see 4.3-10), but currents can also act as an advective process. In fact, it is likely that the predominant effect of a strong alongshore current would be to coherently transport the brine plume away from the vent sites faster than it would through dispersion and mixing alone. There are several sources that provide information on the water column current velocity patterns in this region of the Monterey Bay shelf. Measurements of water column currents were collected in the southern shelf region of Monterey Bay in 2011 and 2012 by researchers involved in the NSF Benthic Exchange project (grant OCE0961810; cf. Cheriton et al., 2014; Sevadjian et al., 2015). At shelf depths of 55-60 m, near-bed currents of 10 cm/s were common and could reach up to 20 cm/s. Near-bed currents of similar magnitude (~ 5-10 cm/s) have been measured closer to shore, at 20-m sites off of the Pajaro River (Nickols et al., 2012) and the north side of the Monterey Peninsula

MBNMS-RAP-1



(Walters et al., 2012). Currents on the order of 10-20 cm/s could transport water 3 m (~ 10 ft) in approximately 15 to 30 seconds. We also note that the outer shelf current measurements mentioned above were collected during the fall season ('Oceanic' climate, see 4.3-10), and thus likely represent the least energetic seasonal currents. The degree to which these advection dynamics would change the BMZ around the vent sites is unclear, but without currents taken into account, the calculations run by these models do not represent the most conservative or "worst-case" estimates, as argued in the draft (see 5.5-48). Therefore, we recommend that these water column current patterns be taken into consideration in the BMZ calculations and analyses.

MBNMS-RAP-1  
cont.

## 2. Freshwater and Brackish Water Habitats

Coastal estuarine habitat of the lower Salinas Valley (including Elkhorn Slough) is reliant on freshwater inputs from local watersheds to maintain fresh and brackish water conditions. The extraction of additional summer surface water by the Pure Water Monterey GWR Project, used to offset reductions in desalination production of Preferred Alternative 5a, will lead to changes in salinity dynamics (including saltwater intrusion within surface waters) of the Salinas River, Old Salinas River, Moro Cojo, Tembladero and Elkhorn Slough estuaries. A full analysis should be done to compare the incremental benefits achieved from reducing the scale of the desalination project with the potential environmental impacts of extracting approximately 3,500 AFY of Salinas Valley surface water before Alternative 5a is recommended as the "preferable alternative."

MBNMS-RAP-2

See below for Tables 2-12 and 2-13 from DEIS Appendix H: Pure Water Monterey GWR Project, Consolidated Final EIR.

## 3. Monitoring Design

The DEIS contains a number of statements such as: "The Lead Agencies will prepare a Mitigation, Monitoring, Reporting, and Compliance Program (MMRCP)/ Environmental and Construction Compliance Monitoring Plan (ECCMP) if they approve the proposed project or an alternative analyzed in Chapter 5." The RAP offers to review and/or participate in the design of programs developed to monitor and assess social, physical, chemical or biological effects of the CalAm MPWSP.

MBNMS-RAP-3

## 4. Additional References for Consideration

Members of the RAP are aware of and have participated in additional studies characterizing the physical, chemical and biological conditions of the marine areas near the brine discharge site. The following documents should be considered when characterizing habitat of the impacted area.

Eittreim, S.L., A.J. Stevenson, L.A. Mayer, J. Oakden, C. Malzone, and R. Kvittek (1997). Multibeam Bathymetry and Acoustic Backscatter Imagery of the Southern Monterey Bay Shelf.

<http://montereybay.noaa.gov/research/techreports/treittreim1997b.html>

Edwards, B.D., J.V. Gardner, and M.D. Medrano (1997). Grain Size, Organic Carbon, and CaCO<sub>3</sub> of Surface Sediments from the Southern Monterey Bay Continental Shelf Seafloor.

<http://montereybay.noaa.gov/research/techreports/tredwards1997.html>

MBNMS-RAP-4

Eittrreim, S.L., editor (1997). Southern Monterey Bay Continental Shelf Investigations: Former Fort Ord Restricted Zone <http://montereybay.noaa.gov/research/techreports/treittreim1997a.html>

Eittrreim, Stephen L., Kaye Kinoshita, George B. Tate and David A. Cacchione (1997). Rippled Scour Depressions of the Southern Monterey Bay Shelf [abstract]. In: MBNMS (editor). 1997. Facets of Biodiversity. Monterey Bay National Marine Sanctuary Currents Symposium; 1997 March 15; Santa Cruz, CA. p. 24. Abstract text:

Similar to many other continental shelves of the world, the southeast Monterey Bay inner shelf contains distinct depressions floored with rippled sand in which the dominantly coarse material of the depressed floor moves as bedload. These 1-m-deep features occur in the offshore former Fort Ord region, the site of impingement of very large storm waves from the northwest, and have been ascribed to rip-current and alongshore flow associated with these large waves. Recently-acquired EM-1000 multibeam bathymetric data now show that two types of these features exist on the southeast Monterey Bay shelf: the dominantly shore-parallel type in 10-30m water-depth and the shore-normal type at greater water depths, to 60m. Both types tend to have thin pinch-outs that point offshore. The shore-normal, deep-water type is concentrated in one area that has been called a nodal zone for alongshore sediment transport separating the consistently southerly flow off northern Fort Ord from the variable and northerly flow off southern Fort Ord. The inter-trough areas of the shore-normal troughs are flat featureless plains with small ripples populated with abundant short seapens. No large crecentic dunes exist in the inter-trough areas as is the case on the shelf off north-central California. Repeated measurements show that, whereas the shallow shore parallel troughs are extremely dynamic, with major changes in shape over periods of months, the deep shore-normal trough system shows no change whatsoever, within the accuracies of differential GPS navigation.

MBNMS-RAP-4  
cont.

#### References related to Ocean Currents

Cheriton, O. M., E. E. McPhee-Shaw, W. J. Shaw, T. P. Stanton, J. G. Bellingham, and C. D. Storlazzi (2014), Suspended particulate layers and internal waves over the southern Monterey Bay continental shelf: An important control on shelf mud belts?, *J. Geophys. Res. Oceans*, 119, 428–444, doi:10.1002/2013JC009360.

Cheriton, O. M., E. E. McPhee-Shaw, C. D. Storlazzi, K. J. Rosenberger, W. J. Shaw, and B. Y. Raanan (2014), Upwelling rebound, ephemeral secondary pycnoclines, and the creation of a near-bottom wave guide over the Monterey Bay continental shelf, *Geophys. Res. Lett.*, 41, 8503–8511, doi:10.1002/2014GL061897.

Nickols KJ, Gaylord B, Largier JL (2012) The coastal boundary layer: predictable current structure decreases alongshore transport and alters scales of dispersal, *Mar. Ecol. Prog. Ser.* 464:17-35, doi:10.3354/meps09875.

Sevadjan, J. C., E. E. McPhee-Shaw, B. Y. Raanan, O. M. Cheriton, and C. D. Storlazzi (2015), Vertical convergence of resuspended sediment and subducted phytoplankton to a persistent detached layer over the southern shelf of Monterey Bay, California, *J. Geophys. Res. Oceans*, 120, doi:10.1002/2015JC010785.

Tables from APPENDIX H: Pure Water Monterey GWR Project, Consolidated Final EIR.

**Table 2-12**  
**Source Waters Flows: Existing and Assumed Available for Proposed Project (in AFY)**

Type of Source Water:	Definitions of "Existing" Flows (in AFY)							Projected future flows in 2017 (AFY) (Note 1)	Proposed Project Maximum Use of Source Water Flows, (AFY) (Note 2)
	2012 (actual)	2013 (actual)	Historical Average Flows (averaging period)						
			2012-13 (2-yr average)	2009-13 (5-yr average)	2007-13 (7-yr average)	2004-13 (10-yr average)	All data (see below)		
Excess/Unused Regional Treatment Plant Municipal Effluent (MRWPCA, Regional Treatment Plant flow monitoring data, January 2014)	9,714	4,621	7,183	8,225	8,704	9,457	10,300 (1999-2013)	6,242 (Note 1)	3,000 to more than 5,000
Agricultural Wash Water Flows (Source: City of Salinas and MRWPCA, 2014)	3,058	3,228	3,143	2,676	2,579	NA (Note 3)	2,579 (2007-13)	3,732 (Note 1)	2,579
City of Salinas Urban Runoff to Salinas River (Source: Schaaf & Wheeler, 2015a)	229	19	124	196	165	176	225 (1932-2013)	225	
Reclamation Ditch at Davis Road (Source: Schaaf & Wheeler, 2015b)	6,759	1,965	4,362	7,034	6,374	7,482	7,159 (2003-13)	7,159	1,522
Tembladero Slough at Castroville (Source: Schaaf & Wheeler, 2015b)	9,190	2,610	5,900	9,536	8,531	10,030	9,593 (2003-13)	9,593	1,135
Blanco Drain Diversions (Source: Schaaf & Wheeler, 2014b)	NA (Note 5)	NA (Note 5)	NA (Note 5)	NA	NA	NA	2,620 (2010-12)	2,620 (Note 5)	2,620
Lake El Estero Storage Management Water (Source: Schaaf & Wheeler, 2014a)	65	0	33	66	55	60	87 (1952-2013)	87	87
<b>TOTALS (Note 6)</b>	<b>22,256</b>	<b>10,478</b>	<b>16,383</b>	<b>21,557</b>	<b>20,034</b>	<b>NA (Note 4)</b>	<b>25,404</b>	<b>NA</b>	<b>9,311 (Note 6)</b>

Notes:  
 1. Projection of flows available in first year of Proposed Project operation 2017 (See **Appendix B rev**).  
 2. Source: Schaaf & Wheeler/Monterey Peninsula Water Management District, 2015 (see **Appendix B rev**).  
 3. Flows not available for years prior to 2007.  
 4. Due to lack of data regarding agricultural wash water prior to 2007 and recent trends, these numbers could not be summed to provide a total of source water flows for this averaging period.  
 5. Blanco Drain flows calculated based on seasonal pumping records (April to November)  
 6. The total use of source water would be less than the sum of all source waters due to seasonal nature of the demands and losses due to Salinas Treatment Facility Storage and Recovery. The analysis assumes that new source water that exceeds the amount used by the Proposed Project for recycling would be disposed via the MRWPCA existing ocean outfall. The amount of effluent to be disposed to the MRWPCA ocean outfall would be less with Proposed Project than current conditions as shown in **Appendix B rev**.  
 NA = Not available.

**Table 2-13**

**Source Water Use Scenarios, including Priority, Seasonality, and Use by Project Phase and Drought Reserve Status**

Priority	Source	Seasonal Availability	Usage Period	Projected Use Scenarios by Type of Operational Year (AFY)		
				While Building Drought Reserve	Drought Reserve is Full at 1,000 AFY	During Years when CSIP Uses Drought Reserve
1	Unused Treated Municipal Wastewater	October through March	When available	1,992	1,787	1,503
2	Agricultural Wash Water (See Note 1)	Year-round	Store at Salinas Treatment Facility for summer	2,579	2,579	2,362
3	Salinas Urban Stormwater Runoff (See Note 1)	October through April				
4	Reclamation Ditch at Davis Road	Year-round, higher in October through April	When available	721	721	1,071
5	Blanco Drain Pump Station	Year-round, higher in April through September	When available	1,268	1,020	2,003
6	Tembladero Slough At Castroville	Year-round, higher in October through April	When available	0	0	478
7	Monterey Stormwater at Lake El Estero (See Note 2)	October through April	When available	0	0	0
<p>Notes:</p> <p>1. The amount of Agricultural Wash Water and Salinas Urban Stormwater Runoff source water use shown in this table are combined because they will be mixed, stored, and diverted to the Regional Treatment Plant together. The ability of the Proposed Project to recycle the full amount available (shown in Table 2-12) would be reduced due to the storage and recovery of these waters at the Salinas Treatment Facility and the associated percolation and evaporation during storage. The storage and recovery component does, however, shift the availability of the supplies to the dry season when there is a greater demand for irrigation water within the CSIP area.</p> <p>2. Wet season supply from Lake El Estero is not required in these typical scenarios shown; however, there may be conditions during which diversions may occur.</p> <p>See <b>Appendix B rev</b> for detailed monthly source water use projections based on water year type, drought reserve status, and project phase.</p>						

We thank the project proponents, lead agencies and consultants for their thorough evaluation of the many facets of this project, and for considering these comments.

Sincerely,



John Hunt  
 Chair  
 MBNMS Research Activity Panel

### 8.3.4 United States Army Corps of Engineers (USACE)



DEPARTMENT OF THE ARMY  
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
1455 MARKET STREET  
SAN FRANCISCO, CALIFORNIA 94103-1398

APR 10 2017

Regulatory Division

SUBJECT: File Number 2013-00111S

Ms. Bridget Hoover  
Water Quality Protection Program Director  
Monterey Bay National Marine Sanctuary  
99 Pacific Street Bldg 455  
Monterey, California, 93940

Dear Ms. Hoover:

This letter is written in response to a request for comments on the Draft Environmental Impact Report/Environmental Impact Statement concerning the Monterey Peninsula Water Supply Project. The project would include construction of a desalinization plant with related facilities for seawater intake, water treatment, and desalinated water conveyance and storage. The proposed project area extends approximately 18 miles along the Monterey Bay coast, from the town of Castroville in the north, to the City of Carmel in the south, Monterey County, California. Since the activities included in the project may impact waters of the U.S. (Monterey Bay and its tributaries and adjacent wetlands), the Corps of Engineers will need to review those portions of the project.

All proposed work and/or structures extending bayward or seaward of the line on shore reached by: mean high water (MHW) in tidal waters, or ordinary high water in non-tidal waters designated as navigable waters of the United States, must be authorized by the Corps of Engineers pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. Section 403). Additionally, all work and structures proposed in unfilled portions of the interior of diked areas below former MHW must be authorized under Section 10 of the same statute.

All proposed discharges of dredged or fill material into waters of the United States must be authorized by the Corps of Engineers pursuant to Section 404 of the Clean Water Act (CWA) (33 U.S.C. Section 1344). Waters of the United States generally include tidal waters, lakes, ponds, rivers, streams (including intermittent streams), and wetlands.

Depending on the nature and extent of project impacts within the Corps of Engineer's jurisdiction, the proposed project may require a standard individual 404 permit from the Corps and would need to comply with the 404(b)(1) Guidelines, which include the following prerequisites:

- 1) there are no practicable alternatives to the proposed discharge that would have a less adverse effect on the aquatic environment;
- 2) the proposed discharge would not cause or contribute to a violation of state water quality standards;

USACE-1

- 3) the proposed discharge would not contribute to significant degradation of waters of the U.S., and
- 4) the project would implement all appropriate and practicable measures to minimize potential adverse impacts of the discharge on the aquatic ecosystem.

During the process of the 404(b)(1) analysis, the Corps would want the basic project purpose stated clearly to help determine whether the project, to achieve its basic purpose, is water dependent. In this context, a project would be water dependent if it requires access or proximity to or siting within a special aquatic site to fulfill its basic purpose. For reference, see 40 CFR Sec 230.10 Restrictions on discharge, and in particular, Sec 230.10(a)(3). The alternative analysis presented in Chapter 5 of the EIS does not present enough information about impacts to waters of the U.S. to determine whether the proposed preferred project alternative is the LEDPA. Table 5.3-4 presents several alternatives and it appears that for the intake options, several may have decreased impacts compared with the preferred alternative. The 404(b)(1) alternatives analysis will determine the LEDPA, and when that is provided to the Corps, the applicant will need to demonstrate why some of the other options that may have less fill discharge to waters of the U.S. are either not practicable, would not achieve the basic project purpose, or would have other environmental impacts.

USACE-1  
cont.

The Corps of Engineers regulatory program supports the national goal of “no overall net loss” of wetlands. For permitted activities that result in unavoidable losses, the Corps requires replacement wetlands to offset those losses. The U.S. Army Corps of Engineers and U.S. Environmental Protection Agency released a new Compensatory Mitigation Rule on April 10, 2008, to clarify how to provide compensatory mitigation for unavoidable impacts to the nation's wetlands and streams. A copy of this rule can be found on our Headquarters website: [http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/mitig\\_info.aspx](http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/mitig_info.aspx) The new rule changes where and how mitigation is to be completed, but maintains existing requirements on when mitigation is required. The rule also preserves the requirement for applicants to avoid or minimize impacts to aquatic resources before proposing compensatory mitigation projects to offset permitted impacts.

USACE-2


A jurisdictional survey (delineation) should be provided by the applicant on a scaled topographic map or site plan. When this document is forwarded with the application, the Corps staff will validate and authenticate the limits of Corps jurisdiction. While it is not necessary to confirm all boundary points, the Corps will verify the jurisdictional boundary along one or more transects and may visit random intermediate points. All delineations of wetlands must be conducted in accordance with the *1987 Corps of Engineers Wetlands Delineation Manual*, or appropriate Regional Supplement, and submitted to the District for review and verification. Two Regional Supplements have been approved for use within the boundaries of the San Francisco District: the *Arid West Supplement*, and the *Western Mountains, Valleys and Coast Supplement*. Copies of these documents are available to download on our website: <http://www.spn.usace.army.mil/Missions/Regulatory/JurisdictionDeterminations.aspx>.

The Corps of Engineers receives thousands of requests each year to perform wetland delineations for potential applicants for permits under Section 404 of the Clean Water Act. Due to limited staff and resources, response time can be several months or longer. To expedite this process, the San Francisco District encourages applicants to use consultants to conduct wetland delineations, especially for large and/or complex areas. The San Francisco District is not authorized to recommend any private consulting services and advises applicants to check references and referrals of prospective consultants before contracting services.

↑  
USACE-2  
cont.

You may refer any questions on this matter to Frances Malamud-Roam of my Regulatory staff by telephone at 415-503-6792 or by e-mail at Frances.P.Malamud-Roam@usace.army.mil. All correspondence should be addressed to the Regulatory Division, South Branch, referencing the file number at the head of this letter.

Sincerely,

  
for  
Rick M. Bottoms, Ph.D.  
Chief, Regulatory Division

Copy Furnished:

CA DFW, Monterey, CA  
CA RWQCB, San Luis Obispo, CA

## 8.3.5 United States Environmental Protection Agency (USEPA)



### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, CA 94105-3901

MAR 29 2017

Mr. Paul Michel, Superintendent  
National Oceanic and Atmospheric Administration  
Monterey Bay National Marine Sanctuary  
99 Pacific Avenue, Building 455A  
Monterey, California 93940

Subject: Draft Environmental Impact Statement/Report for the Monterey Peninsula Water Supply Project, Monterey, California (EIS No. 20170000)

Dear Mr. Michel:

The U.S. Environmental Protection Agency has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

EPA recognizes the water supply challenges that result from the Monterey Bay area's geography and climate. In order to provide a reliable, long-term, and drought-resistant water supply to its customers, California American Water Company has applied to the Monterey National Marine Sanctuary for authorization to operate a seawater intake system, a reverse osmosis desalination plant, and ancillary facilities to serve Monterey county residents and businesses. We commend the Sanctuary for evaluating, in the Draft EIS, several project site locations, sizes, and technologies as alternatives to the Applicant's Proposed Action. The document's evaluation of a reasonable range of alternatives will aid the public and decision-makers in understanding and comparing the environmental impacts of various approaches to meeting the area's water supply needs. We also note that the North Marina Groundwater Model, presented in the Draft EIS, appears conceptually sound and well parametrized.

USEPA-1

The Draft EIS identifies Alternative 5a as the Sanctuary's Preferred Alternative. Alternative 5a would authorize the drilling of seven subsurface slant wells, a brine discharge into Sanctuary waters, and a desalination facility and pipelines that would process a maximum of 6.4 million gallons per day. EPA has reviewed the Draft EIS and rated the Preferred Alternative *Lack of Objections (LO)* (see attached "Summary of EPA Rating Definitions"). The remainder of this letter provides EPA's suggestions to assist the Sanctuary in the development of the Final EIS.

USEPA-2

#### **Fort Ord Superfund Site**

The Department of the Army's groundwater remediation projects at the former Fort Ord are being conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Contamination at the site includes the Operable Unit Carbon Tetrachloride Plume (OUCTP), located two miles from the proposed subsurface seawater intake wells. According to the Draft EIS, if the radius of influence of the proposed slant wells does reach the western portion of the OUCTP A-Aquifer Plume, then the decrease in groundwater elevations could alter the existing groundwater flow direction. This change in flow direction could pull the OUCTP Plume further northwest, spreading the contamination to areas that are not now contaminated above action levels.

USEPA-3



Mitigation Measure 4.4-4 states that "the project applicant will reimburse the U.S. Army for the necessary additional costs to address changes in the plume flow direction, arrest mitigation of the plumes, and/or to remediate areas of new contamination created by slant well pumping." It is unclear exactly what would trigger implementation of Mitigation Measure 4.4-4. EPA suggests that the Sanctuary continue to work with the Army's Fort Ord Base Realignment and Closure office to refine Mitigation Measure 4.4-4 to include appropriate thresholds for action. In addition, it would be helpful to include, with input from the Army, a description of the possible mechanisms through which reimbursement of the Army could be provided, if necessary. EPA also suggests that the Final EIS and Record of Decision include a requirement that the Army be notified, in advance, of any operational changes to the project.

USEPA-3  
cont.

The Draft EIS also includes Mitigation Measure 4.4-3, under which groundwater monitoring that incorporates the Army's groundwater monitoring data would be conducted. Specifically, CalAm proposes to expand the existing regional groundwater monitoring program to include the area where groundwater elevations are anticipated to decrease by one foot, plus one mile (p.4.4-68). We encourage CalAm to continue to coordinate with the Army to ensure that placement of future groundwater monitoring wells would be complementary to any groundwater cleanup activities in the Fort Ord Superfund Site.

### **Energy Conservation**

Proposed Mitigation Measure 4.11-1 states that:

"CalAm shall make good faith efforts to ensure that at least 20 percent of the approved project's operational energy use requirements are achieved with "clean" renewable energy, including but not necessarily limited to: the use of methane gas from the existing Monterey Regional Waste Management District (MRWMD) landfill-gas-to-energy (LFGTE) facility located adjacent to the MPWSP Desalination Plant site; and installation of solar photovoltaic (PV) panels at or adjacent to the desalination plant."

EPA supports the use of renewable energy; however, we note that neither expansion of the LFGTE facility nor the installation of solar PV panels is included as part of the proposed project. The Draft EIS explains how the CalAm project could connect to the LFGTE facility, but provides no further discussion of PV.

USEPA-4

We suggest that the Sanctuary evaluate the feasibility of incorporating solar PV panels into the project design. If PV panels are found to be feasible, include them in the Description of the Proposed Project in the Final EIS, and include an analysis of the operational energy savings that would result from incorporating solar energy into the project. Alternatively, consider evaluating solar panels separately as a mitigated alternative, consistent with 40 CFR 1502.14(f). One design option would be to install solar panels on buildings and on carports over parking lots, the latter which would also reduce evaporative emissions from vehicles and provide shade in addition to generating electricity.

### **Wetlands Impacts**

The Draft EIS does not distinguish between permanent and temporary impacts. The U.S. Army Corps of Engineers generally states that temporary is no longer than one year and one growing season. In the Draft EIS, all construction impacts are categorized as temporary, even if they may be longer than a year. EPA suggests that the Final EIS clarify the definition of "temporary" relied upon for characterizing

USEPA-5

impacts of the proposed project, and discuss temporary and any permanent impacts to waters of the US accordingly.

↑ USEPA-5  
| cont.

In closing, EPA appreciates the opportunity to review this Draft EIS. When the Final EIS is released for public review, please send one copy to the address above (mail code: ENF-4-2). If you have any questions, please contact me at (415) 972-3521, or contact Stephanie Gordon, the lead reviewer for this project, at 415-972-3098 or gordon.stephanies@epa.gov.

Sincerely,



Kathleen Martyn Goforth, Manager  
Environmental Review Section

Enclosure: Summary of EPA Rating Definitions

cc: Bridget Hoover, Water Quality Protection Program Director, Monterey Bay National Marine Sanctuary  
William Collins, Fort Ord Base Realignment and Closure Office, Department of the Army  
Frances Malamud-Roam, U.S. Army Corps of Engineers  
Grant Himebaugh, Central Coast Regional Water Quality Control Board

## **SUMMARY OF EPA RATING DEFINITIONS\***

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

### **ENVIRONMENTAL IMPACT OF THE ACTION**

#### ***"LO" (Lack of Objections)***

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

#### ***"EC" (Environmental Concerns)***

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

#### ***"EO" (Environmental Objections)***

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

#### ***"EU" (Environmentally Unsatisfactory)***

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

### **ADEQUACY OF THE IMPACT STATEMENT**

#### ***"Category 1" (Adequate)***

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

#### ***"Category 2" (Insufficient Information)***

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

#### ***"Category 3" (Inadequate)***

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment

### 8.3.1 Responses to Comments from Department of the Army, Fort Ord Base Realignment and Closure Field Office

FOBRAC-1 Mitigation Measure 4.4-4 applies to the proposed MPWSP at 9.6 million gallons per day (mgd) as described in Chapter 3, Project Description. As discussed in Impact 4.4-4 in Section 4.4, Groundwater Resources, the operation of the proposed MPWSP is not anticipated to adversely affect the Fort Ord Operable Unit Carbon Tetrachloride Plumes (OUCTP) plumes. Nonetheless, in an abundance of caution, Mitigation Measure 4.4-4 is proposed to address the possibility that the capture zone of the seawater intake system could extend to and affect the OUCTP plumes. Changes to Mitigation Measure 4.4-4 in response to this comment are discussed further below.

However, it is important to note that Alternative 5a, described in Section 5.4.7, may be selected by the Lead Agencies as the environmentally superior/agency preferred alternative. Under Alternative 5a, the seawater intake system would be operated at a reduced volume of 6.4 mgd, which in turn would result in a reduced capture zone that would not approach the OUCTP plumes, avoiding the potential (though not anticipated) impact of the proposed project.

Mitigation Measure 4.4-4 specifically includes the requirement that CalAm monitor the development of the radius of influence, defined as 1 foot of drawdown. In the event that the radius of influence approaches the OUCTP plumes, the monitoring would enable (and Mitigation Measure 4.4-4 would require) CalAm to respond prior to adverse effects on the OUCTP plumes. As discussed in Impact 4.4-4 in Section 4.4, the operation of the seawater intake system may result in a drawdown of 1 foot close to the northwestern edge of the OUCTP plumes. As explained in Master Response 8, Project Source Water and Seawater Intrusion, this would not necessarily change the flow direction at those locations. More importantly, the capture zone<sup>1</sup> would have a much smaller extent than the radius of influence, defined above. This means that the proposed project would be unlikely to capture any groundwater being treated at the OUCTP plumes. As previously noted, Mitigation Measure 4.4-4 is proposed as a conservative measure in the event that the capture zone extends further than anticipated.

In response to this comment, the following text has been added to the end of the CERCLA subsection in Section 4.7.2.1, Regulatory Framework:

The cleanup projects being conducted at the former Fort Ord, described above in Section 4.7.1 Setting/Affected Environment, are being conducted under CERCLA. If the MPWSP were to adversely affect the ongoing cleanup

<sup>1</sup> A capture zone is the three-dimensional volume of aquifer that contributes the water extracted by the wells. See Master Response 8, Project Source Water and Seawater Intrusion.

activities, CalAm may be considered a potentially responsible party as defined in CERCLA.

In addition, Mitigation Measure 4.4-4 has been revised as follows:

**Mitigation Measure 4.4-4: (Groundwater Monitoring and Avoidance of Impacts on Groundwater Remediation Plumes).**

Prior to the start of MPWSP construction, CalAm the project applicant shall incorporate the future quarterly groundwater elevation monitoring results for the two OUCTP plumes into the well monitoring program described above in **Applicant Proposed Measure 4.4-3** until the two OUCTP plumes have been appropriately remediated and the RWQCB no longer requires remediation activities. Groundwater elevation data shall be obtained from the periodic monitoring reports developed by the U.S. Army and its contractors. The elements of the additions to the groundwater monitoring program proposed under this mitigation measure are described below.

- Using the most recent monitoring reports available through the U.S. Army and its contractors, the groundwater elevations in the A-Aquifer and the Upper 180-Foot Aquifer for wells at and downgradient of the westernmost edge of the two OUCTP plumes shall be incorporated into the well monitoring program described above for **Applicant Proposed Measure 4.4-3**.
- The groundwater elevation results shall be evaluated by CalAm and its consultants on a quarterly basis to assess whether the ~~cone of depression~~ -1 foot drawdown contour from the proposed seawater intake system is approaching ~~or has reached~~ the edge of the two OUCTP plumes. If the analysis concludes that the slant well pumping could intersect or could influence the flow direction of two OUCTP plumes, then CalAm the project applicant shall contact the U.S. Army, the Regional Water Quality Control Board – Central Coast Region, the California Department of Toxic Substance Control, and the USEPA to initiate communications and develop and implement a plan to either stop or decrease the pumping to prevent any impact on the OUCTP plumes. In the unlikely event that an impact does occur, CalAm shall bear-reimburse the U.S. Army for the necessary additional costs to address changes in the plume flow direction, arrest migration of the plumes, and/or to remediate areas of new contamination created by slant well pumping. CalAm shall consider using existing groundwater remediation and monitoring wells that remain on the site to expand the existing treatment systems.
- When the ongoing remediation of the two OUCTP plumes has been completed and the RWQCB authorizes closure of the two OUCTP plumes remediation activities, this mitigation measure shall no longer apply.

FOBRAC-2 The commenter stated that unexploded ordinance (UXO) from the previous military use of the former Fort Ord may be present outside of the City of Seaside,

which administers an excavation permit program that includes the potential to encounter UXO. In Section 4.7.5.1, Impact 4.7-3 includes analysis for encountering UXO and requires compliance with the City of Seaside's Ordnance Remediation District regulations and the environmental protection provisions of the Findings of Suitability for Early Transfer (FOSET) agreement described in Section 4.7.1.1. The components of the proposed MPWSP that are located within the former Fort Ord are all located within the City of Seaside. As discussed in Impact 4.7-3, the only project component within the Seaside Munitions Response Area (MRA) is about 700 feet of the southernmost portion of the new Transmission Main, and construction within this area would therefore be required to comply with the permit. In addition, as explained on Draft EIR/EIS pages 4.7-7 to 4.7-8, investigations for and cleanup of UXO have been completed along General Jim Moore Boulevard where the project components would be located and the construction of the road would also have exposed UXO, if any. The commenter notes that the U.S. Army offers munitions recognition and safety training to anyone who requests it. As discussed in Impact 4.7-3, UXO recognition training is part of the permit requirements. No revisions were made in response to this comment.

## 8.3.2 Responses to Comments from Department of the Army, U.S. Army Installation Management Command

USARMY-1 The design and operation of the proposed MPWSP subsurface intakes is constrained by policies intended to avoid or minimize adverse environmental impacts outlined in the State Water Resources Control Board's (SWRCB) California Ocean Plan, California Coastal Commission (CCC) policies, and National Oceanic and Atmospheric Administration (NOAA) policy guidelines for desalination facilities. See EIR/EIS Section 5.3.1. The primary objectives of the MPWSP include developing supplies to replace Carmel River and Seaside Basin supplies that are constrained by regulatory and legal decisions. A secondary objective includes locating key project facilities in areas that minimize environmental impacts. See EIR/EIS Section 1.3.1. No change to the EIR/EIS has been made in response to this comment.

USARMY-2 In response to this comment, Section 1.5.4.3, Other Agencies' Consideration of the EIR/EIS and Proposed Project, has been revised as follows:

On the federal level, agencies with ~~potential~~ reviewing or permitting authority include NOAA Fisheries, the U.S. Army, the U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service (USFWS).

USARMY-3 The Terminal Reservoir is no longer a proposed project component. Therefore, the description of Terminal Reservoir in Draft EIR/EIS Section 3.2.3.5, and all references and analysis related to the component, have been removed from the EIR/EIS.

USARMY-4 The comment cites information provided by CalAm that describes the constraints on locating the proposed ASR wells in a location other than as proposed because of land use (i.e., Fort Ord ordinance cleanup areas and residential), biological resources in the area, and limitations on the geologic formation. The Lead Agencies reviewed and concur with these limitations. Therefore, the Lead Agencies did not consider other sites for the proposed ASR-5 and ASR-6 wells in the preparation of the Draft EIR/EIS.

Note that the proposed ASR-5 and ASR-6 wells previously were analyzed by the U.S. Army Garrison, Presidio of Monterey, in a Final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) (U.S. Army, 2010), after CalAm requested a right-of-entry and 50-year land lease with an option for renewals on the two parcels located within the Fitch Park Housing Area that are the current proposed locations of the ASR-5 and ASR-6 wells.<sup>1</sup> As explained in

---

<sup>1</sup> In the 2010 EA/FONSI, these wells are referred to as "ASR-3 and ASR-4;" however, as shown on Exhibit 2B in U.S. Army, 2010, these are the same sites currently proposed for the ASR-5 and ASR-6 wells as a component of the MPWSP.

the FONSI, that action was then determined to have no adverse impacts (after implementation of avoidance, minimization, and mitigation measures). The EA describes the process of evaluating alternatives to that project, and that CalAm considered several other locations for the ASR wells along the General Jim Moore Boulevard corridor (where existing ASR facilities are located), but did not pursue other locations. No additional discussion of evaluation of alternative sites was provided in the EA.

Final EIR/EIS Section 5.2, Alternatives Not Evaluated in Detail, has been revised to include the information provided in this response. See Section 5.2.7, Siting Alternatives for ASR-5 and ASR-6 Wells.

- USARMY-5 Figure 3-14 has been replaced with higher-resolution graphics in the Final EIR/EIS.
- USARMY-6 Draft EIR/EIS Section 3.3.2.2 describes the continuous 24-hour drilling of the ASR wells to be necessary until final depth is reached and the borehole is stabilized. The EIR/EIS text has been revised to include the explanation that this would prevent the borehole from potentially collapsing in on itself, filling the borehole with the surrounding geologic materials, and/or binding up the drill bit and trapping it in the borehole, as could occur if drilling were paused. The access driveways from General Jim Moore Boulevard are shown in Final EIR/EIS Figure 3-14 and described in Section 3.2.4.1.
- USARMY-7 In response to this comment, text in Section 3.3.4.3 has been revised as follows:
- Before connecting existing and new pipelines, CalAm would drain and disinfect the existing pipe segments before putting them into service. Similarly, upon completing construction activities, facility operators would disinfect the newly installed pipelines and pipeline connections before bringing the pipes into service. Effluent produced during the pipeline disinfection process would be discharged to the local stormwater drainage system in accordance with the Central Coast RWQCB *General Waste Discharge Requirements for Discharges with Low Threat to Water Quality* (Order No. R3-2011-0223, NPDES Permit No. CAG993001) (RWQCB, 2011), or discharged in compliance with stormwater control requirements in the respective local jurisdictions (e.g., as directed by U.S. Army approvals on Army-owned property). See Impact 4.3-3 in Section 4.3, Surface Water Hydrology and Water Quality, for additional information.
- The management of discharges of treated water and disinfectant from existing and newly installed pipelines during construction is discussed in Section 4.3.5.1 under Impact 4.3-3. In response to this comment, text in the first paragraph of this impact has been revised as follows:



... The treated water generated from the draining of existing pipelines and the effluent generated from disinfection of newly installed pipelines would be discharged to the local storm drainage system or discharged in compliance with stormwater control requirements in the respective local jurisdictions (e.g., to percolation ponds as may be directed by U.S. Army approvals on Army-owned property). ...

USARMY-8 Section 3.3.9, Construction Schedule, has been revised to clearly state that any pipelines constructed within U.S. Army-owned property would require daytime construction only.

USARMY-9 See Master Response 13, Demand (Project Need) and Growth, for a detailed discussion of reasonably foreseeable demand scenarios. Should demand, available water supply, or overall precipitation change, such that water needs are lowered, the desalination plant could be operated at a lower level. Indeed, although the Monterey Peninsula Water Management District (MPWMD) has not determined the allocation of water that could be provided by the proposed project, MPWMD stated in a comment on the Draft EIR/EIS (see comment MPWMD-21) that it may not allocate all the water produced by the project; one reason it may choose not to allocate the full amount would be to allow the plant to operate at less than full capacity, depending on the level of customer demand.

While the seawater intake system and desalination plant typically would operate year round, as discussed in EIR/EIS Section 3.4.1, there would be periods over the life of the project when CalAm would need to shut down the MPWSP Desalination Plant for a host of reasons (e.g., mechanical or electrical problems, water quality issues, loss of power, etc.). CalAm would be able to serve customer demand using other sources, including water stored in the ASR system, during such outages. Typical annual variation in rainfall is unlikely to affect the proposed operation of the desalination plant because, as shown in EIR/EIS Table 3-6, during the wet season when surface water is available to serve the Monterey District, desalinated product water would be injected into ASR and stored for later use. The quantity of desalinated product water that could be injected would be determined by the amount of desalinated water not being delivered to customers, and is estimated to be about 2,100 afy, but could vary in any given year. Further, as explained in Section 3.4.4, CalAm is obligated to replenish the Seaside Groundwater Basin on an approximately 25-year schedule, with the actual volume of water replenished during any given year varying but being equal to or greater than 700 afy based on a running 5-year average. Therefore, in the event that increased rainfall and/or decreased demand occur prior to completion of the Seaside Groundwater Basin payback period, CalAm could continue to operate the desalination plant as proposed in order to fulfill this obligation. In the event of a short-term power outage, CalAm would rely on other supply sources and then resume desalination plant operations; see EIR/EIS Section 3.4.1 and Table 3-7.

USARMY-10 The second column (U.S. Army) of the second row (Permit or Approval) of Table 3-8, Anticipated Permits and Approvals, has been revised to read:

Real property outgrants for construction and operation for non-Army users (Army Regulation (AR) 405-80, 200-1) ~~Land Use (Army Regulation (AR) 405-80, 200-1)~~

USARMY-11 See response to comment USARMY-7.

USARMY-12 As discussed in Draft EIR/EIS Section 4.3.5.1 under Impact 4.3-2, all dewatering discharges related to excavations, well drilling, and well development would occur in compliance with regulatory requirements that are protective of the receiving waters; impacts associated with such discharges were found to be less than significant. To obtain NPDES coverage for construction related discharges, CalAm would be required to test dewatering effluent for possible pollutants and provide results of the water quality analysis to the Central Coast Regional Water Quality Control Board. The Construction General Permit requires all dischargers to electronically file all Permit Registration Documents (PRDs), Notices of Termination (NOT), changes of information, annual reporting, and other compliance documents required by permit through the State Water Board's Stormwater Multi-Application and Report Tracking System (SMARTS) website where this information is publicly accessible (<https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.xhtml>); no change has been made to the Draft EIR/EIS in response to this comment.

USARMY-13 The legend has been expanded to describe the features on Figures 4.7-7 and 4.4-8.

USARMY-14 The discussion of Disinfection Byproducts in Section 4.4.1.4 has been revised to reflect the cited information about past operation of existing ASR-3:

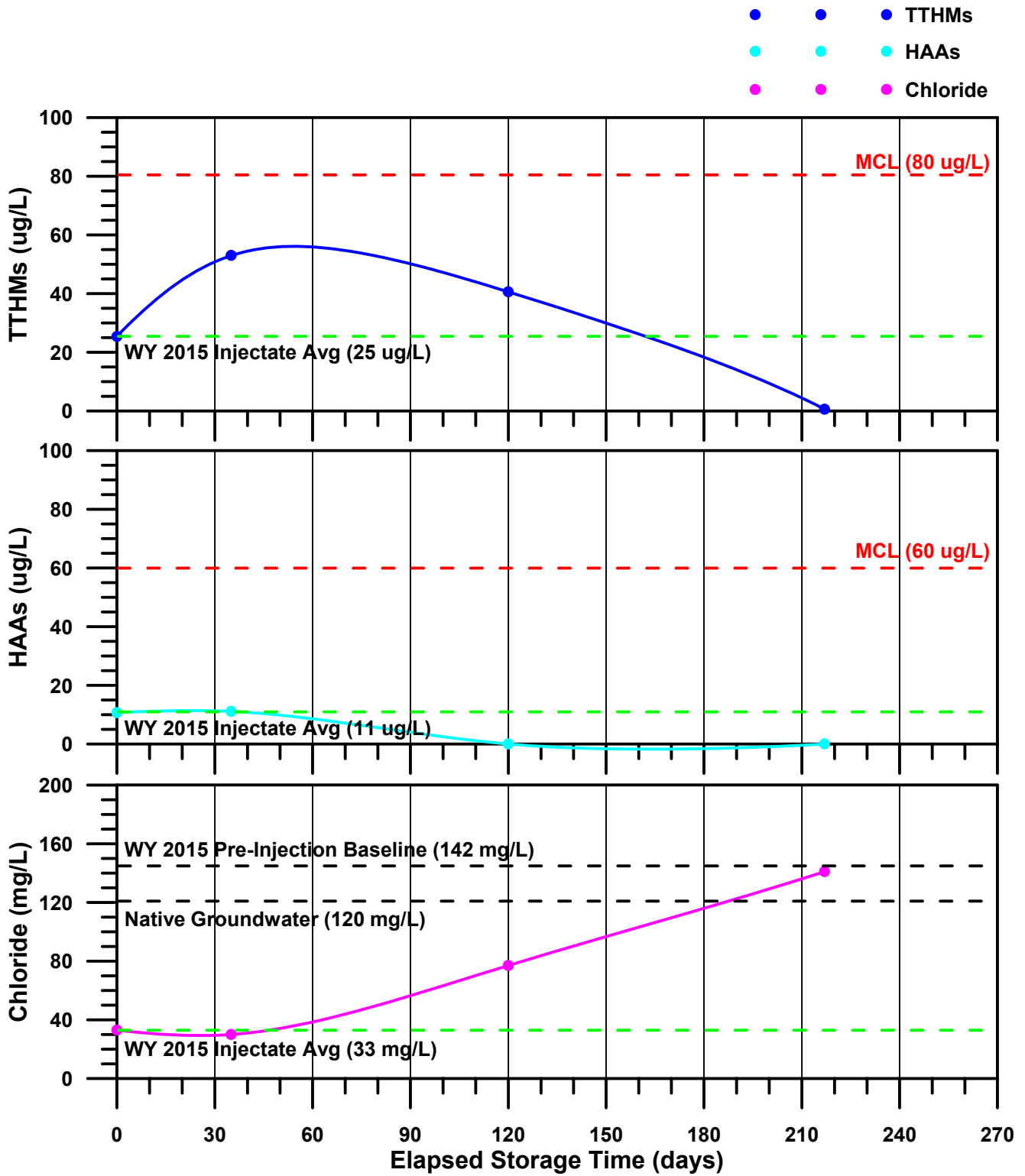
After approximately 150 to 210 days of storage, THMs in four out of the five wells monitored had degraded to below the initial injection levels. Although the concentration of THMs in the ASR-3 well had not yet reached the initial injection level as of 210 days, the concentration was exhibiting a continuing downward trend suggesting the initial injection concentration would be reached within about 240 days. HAAs degraded to below reporting limits by 90 to 100 days. More importantly, throughout the 2015 water year, after the initial increase following injection, THMs were below the MCL of 80 micrograms per liter and HAAs were below the MCL of 60 micrograms per liter in all five wells monitored.

Pueblo Water Resources describes the rates and trends as “approximate” and “typical” because the actual rates and trends for an individual well during any one of the monitoring events vary and may be slightly outside of the typical trends observed since the evaluations began in 2001. Considering that the

concentrations are below MCLs and the trends are always downward back to the initial injection levels, this one outlier is not considered to be significant.

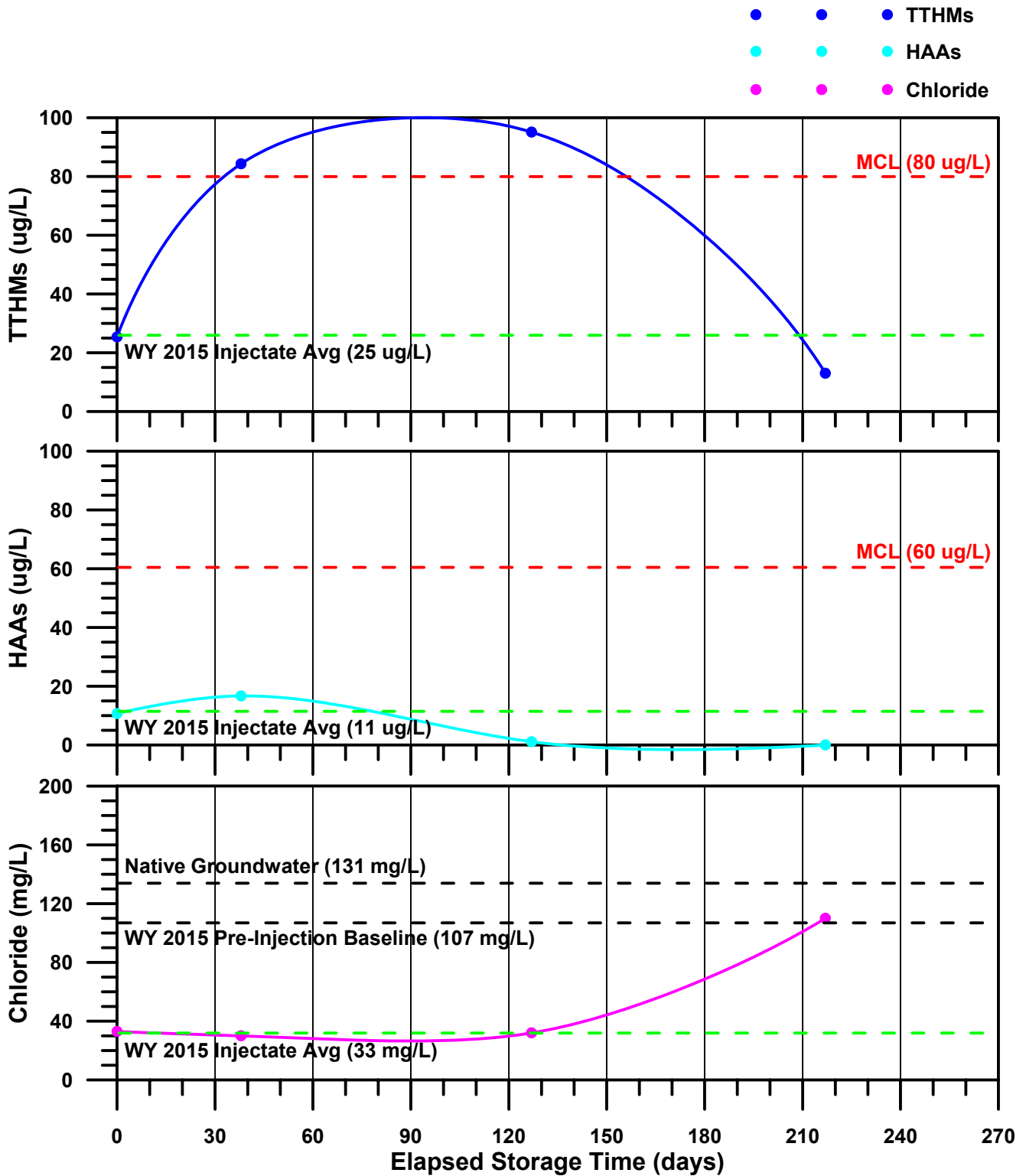
- USARMY-15 As explained in the subsection titled Disinfection Byproducts in Section 4.4.1.4 Groundwater Quality, the concentrations of THMs in ASR-3 did initially increase and then decrease over time to below the Maximum Contaminant Level (MCL) or 80 micrograms per liter (mg/L). See the revision in response to comment USARMY-14 for clarification that THMs were below the MCL after the initial increase following injection.
- USARMY-16 As discussed in the subsection titled Disinfection Byproducts in Section 4.4.1.4 Groundwater Quality, the concentrations of disinfection byproducts (DBPs) declined over time to below the regulatory action level of their respective MCLs in all wells monitored. Graphs of the concentrations of disinfection byproducts showing the rate of decline compared to the regulatory action level of their respective MCLs are shown on Figures 20 through 24 in Pueblo Water Resources, 2016, cited in Section 4.4. As requested, Figures 20 through 24 from Pueblo Water Resources, 2016, are provided in this Section 8.2.3. The graphs also show that with time, the concentrations of disinfection byproducts continued to decrease to below the initial injectate levels, indicating that elevated concentration conditions do not persist. The Pueblo 2016 report did not present pH values on the listed figures. However, Table 11 of the Pueblo 2016 report states that the 2014 and 2015 injectates had pH measurements of 7.2 and 7.6, both within the MCL for pH of 6.5 to 8.5. As listed in Table 4.4-2 in the Draft EIR/EIS, the injected volumes have varied from 2 to 1,117 acre-feet per year, but the concentrations of disinfection byproducts have always returned to below injectate levels. This pattern of initial increase followed by a decline in DBP concentration is expected independent of the injected volume.

As stated in Pueblo Water Resources, 2016 and Padre Associates, Inc., 2004, cited in Section 4.4, the formation and degradation of DBPs are consistent with other ASR sites with reduced (anaerobic) subsurface conditions. The DBPs are formed when naturally occurring organic and inorganic materials in the water and subsurface materials react with the disinfectants. The DBPs are then degraded through biometabolism by microorganisms indigenous to the groundwater aquifers or adsorbed to the materials of the aquifer matrix. Under the proposed project, the maximum volume of water that could be supplied to the ASR system from the MPWSP desalination plant would be 2,100 acre-feet per year. Given the limitations of Water Rights Permits 20808A and C, the maximum volume of water that could be diverted from the Carmel River system could be 5,326 acre-feet per year (Water Rights Permits 20808A and 20808C) that are subject to instream flow requirements; as noted above, the actual volume has been between 2 and 1,117 acre-feet per year due to the seasonal rainfall limitations and instream flow requirements. Thus, the volume of water that CalAm could inject into the ASR system in a given year could be a maximum of



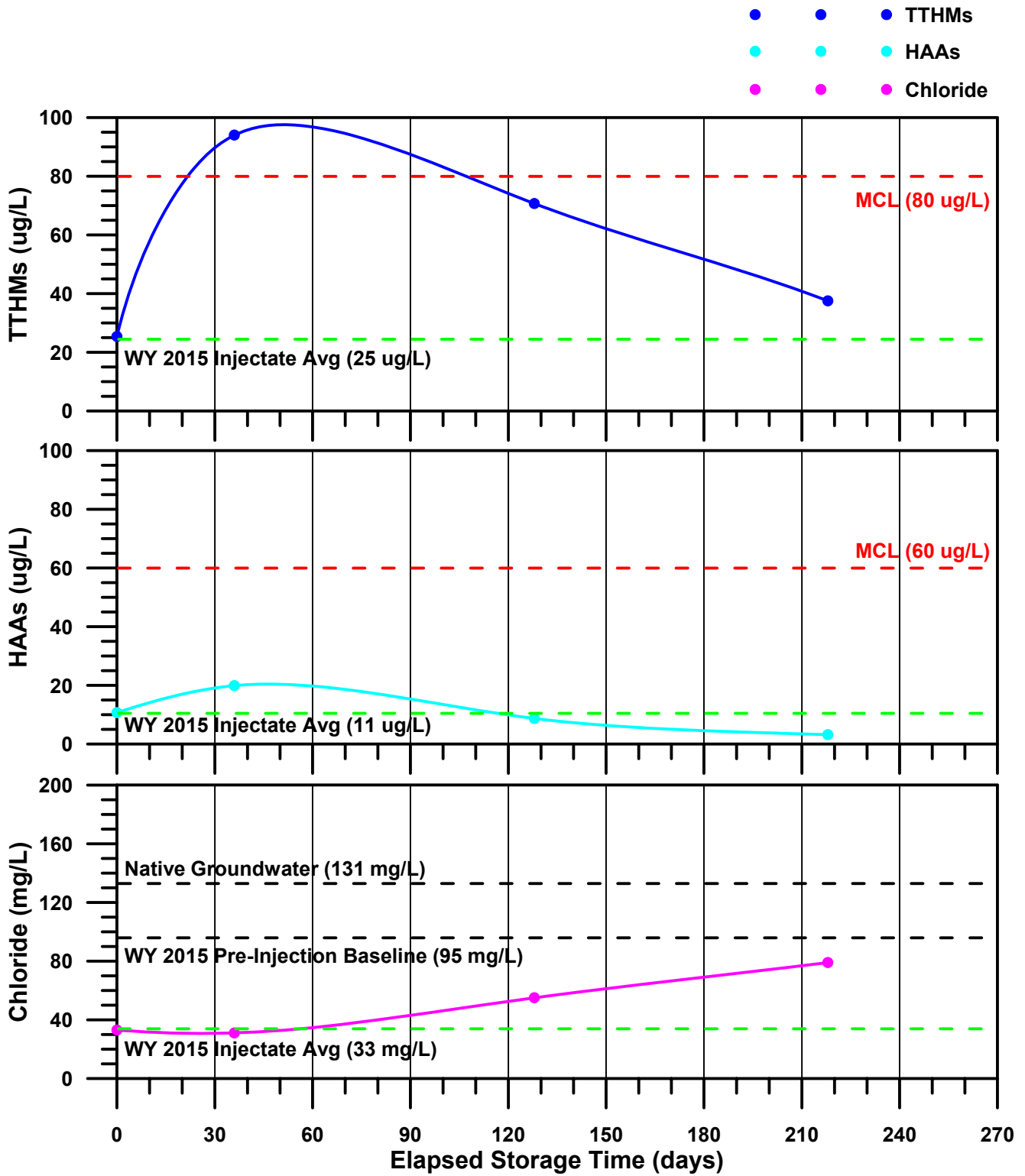
SOURCE: Pueblo Water Resources, 2016

Monterey Peninsula Water Supply Project . 205335.01  
**Figure 8.3.2-1**  
 ASR-1 Disinfection Byproducts Parameters



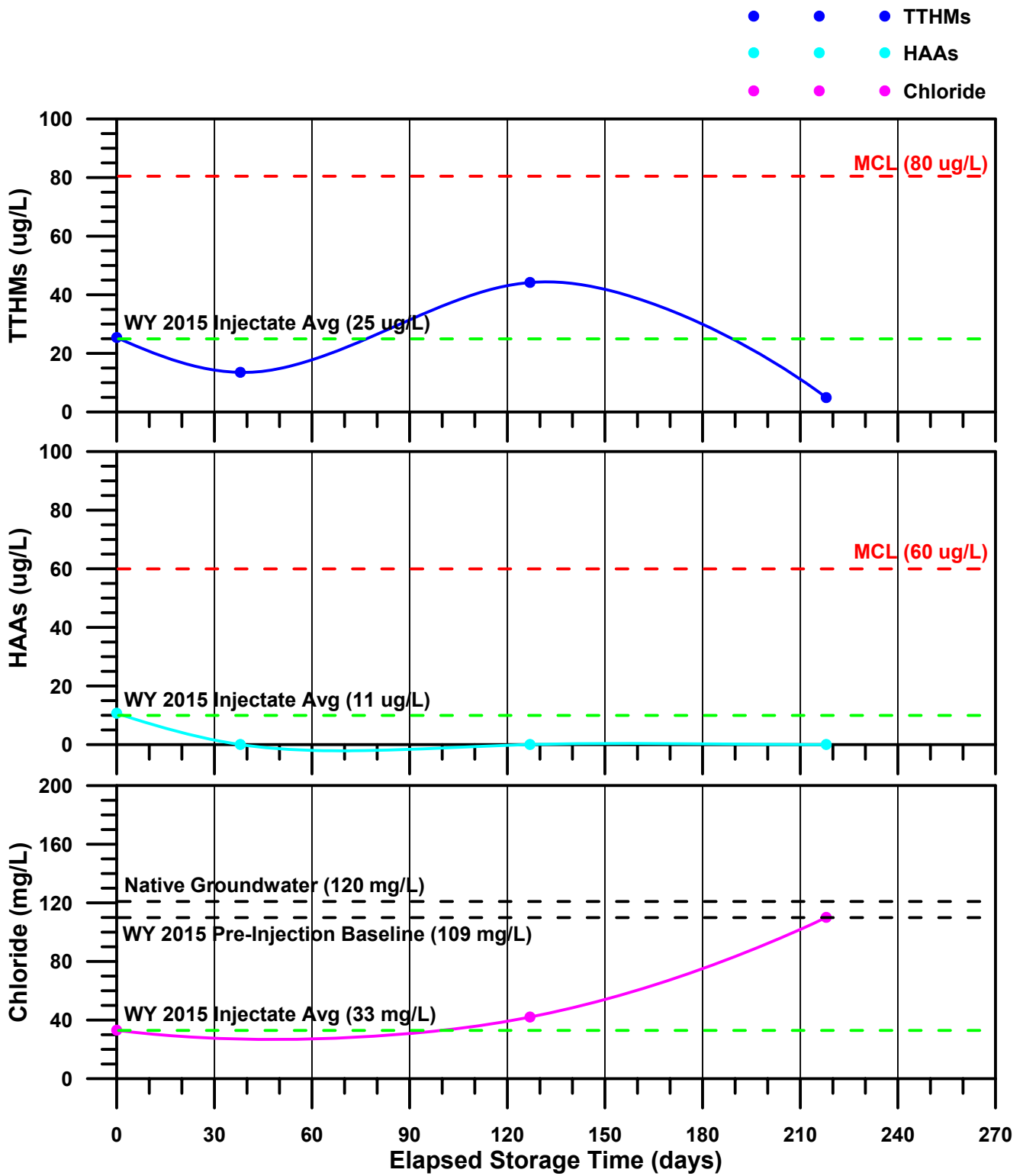
SOURCE: Pueblo Water Resources, 2016 Monterey Peninsula Water Supply Project . 205335.01

**Figure 8.3.2-2**  
ASR-2 Disinfection Byproducts Parameters



SOURCE: Pueblo Water Resources, 2016

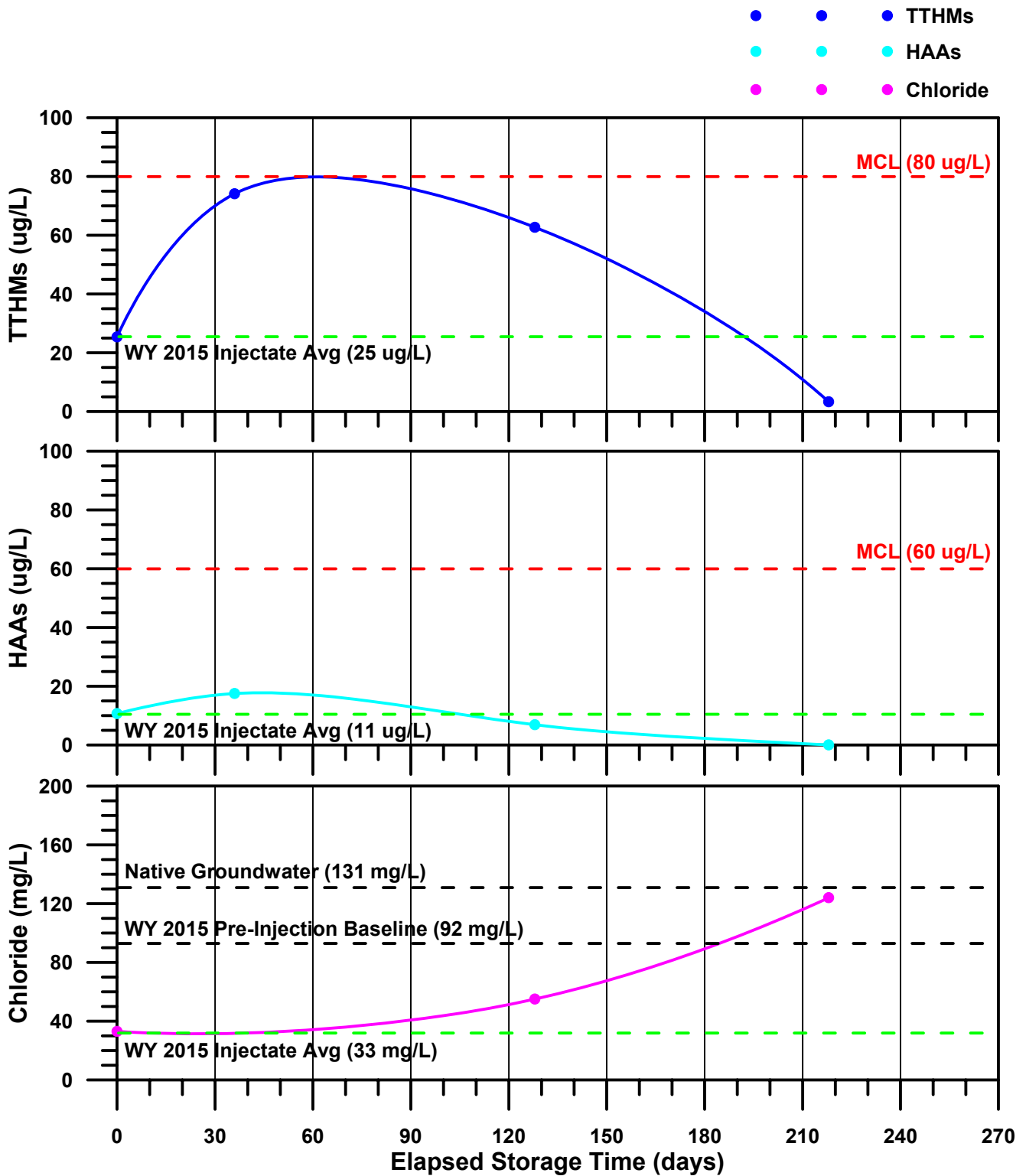
Monterey Peninsula Water Supply Project . 205335.01  
**Figure 8.3.2-3**  
 ASR-3 Disinfection Byproducts Parameters



SOURCE: Pueblo Water Resources, 2016

Monterey Peninsula Water Supply Project . 205335.01

**Figure 8.3.2-4**  
SM MW-1 Disinfection Byproducts Parameters



SOURCE: Pueblo Water Resources, 2016

Monterey Peninsula Water Supply Project . 205335.01

**Figure 8.3.2-5**  
SMS Deep Disinfection Byproducts Parameters



about 7,426 acre-feet. However, the water from the desalination plant would be advanced treated and would contain less organic material than the water injected from the Carmel River, which in turn would generate a lower concentration of DBPs. As stated above, an initial increase followed by a decline in DBP concentration is expected, independent of the injected volume.

- USARMY-17 As explained in response to comment USARMY-16, the volume of water that CalAm could inject into the ASR system in a given year could be a combined maximum of about 7,426 acre-feet from all sources. As explained in Impact 4.4-3 on Draft EIR/EIS page 4.4-68, the volume of treated desalinated water that would be routed to the ASR system for storage would depend on precipitation and the water demands in any given year, but is expected to be about 2,100 acre-feet per year. The MPWMD's 2006 ASR EIR analyzed the impacts on groundwater storage and water levels in the Seaside Groundwater Basin (MPWMD, 2006). The analysis presented a pilot study and a groundwater model to evaluate the impacts on groundwater storage in the SGB through operation of the ASR program. The analysis assumed up to 2,426 acre-feet per year could be injected through the implementation of the ASR program, of which up to 2,003 acre-feet per year would be extracted, consistent with the terms of the water rights permits. The findings of the analysis concluded that injecting excess treated water into the ASR injection/extraction wells was beneficial to groundwater storage within the Seaside Groundwater Basin, so long as extraction did not exceed injection on an annual basis. In addition, as discussed above in response to comment USARMY-16, the fate of the disinfection byproducts would be the same as described in the subsection titled Disinfection Byproducts in Section 4.4.1.4, Groundwater Quality, and the decline in DBP concentrations would be independent of the injected volumes of supply.
- USARMY-18 As discussed in Section 4.4.1.2, Local and Regional Hydrogeology, the Santa Margarita Sandstone, the aquifer into which treated water would be injected, is a confined aquifer. At this depth and under these conditions, water would not be able to intermix with groundwater in other aquifers. There would be no organisms within the Santa Margarita Sandstone that could be affected by the disinfection byproducts.
- USARMY-19 As discussed in the subsection titled Disinfection Byproducts in Section 4.4.1.4, Groundwater Quality, water injected into the ASR system is monitored to track the degradation rate of the disinfection byproducts. This monitoring program is required by the State Water Resources Control Board under the Division of Water Rights Permit 20808C – Amended Permit for Diversion and Use of Water, which includes rules for the recovery of the stored water (see Section 4.4.2, Regulatory Framework). The Permit requires quantifying the amount of time needed to ensure that, prior to extraction, the concentration of the disinfection byproducts has decreased to below MCLs. As an adaptive management strategy,

the residency time of the treated water in the aquifer is dictated by the degradation rate of the disinfection byproducts and can vary accordingly.

USARMY-20 The Integrated Natural Resource Management Plan (INRMP), Presidio of Monterey and Ord Military Community, has been reviewed and a brief summary added in Final EIR/EIS Section 4.6.2.1, Federal Regulations, in Section 4.6, Terrestrial Biological Resources. Additionally, provisions have been added to mitigation measures where appropriate to acknowledge the applicability of the INRMP to project components within U.S. Army-owned land within the Ord Military Community area. In Mitigation Measure 4.6-1p (Control Measures for Spread of Invasive Plants), item number 7 has been added as follows:

Within U.S. Army-owned land, control measures for invasive species also shall conform to guidelines in the Integrated Natural Resource Management Plan (INRMP) Presidio of Monterey and Ord Military Community (e.g., Section 9.2.4, Undesirable Plant Pests).

See also response to comment USARMY-21, below. The Lead Agencies also anticipate that the U.S. Army will require compliance with applicable INRMP policies and guidelines in permits and/or other agreements obtained by CalAm for facilities within U.S. Army-owned land.

Table 4.6-4 in Section 4.6.2.3, Regional and Local Regulations, summarizes the regional and local (i.e., not federal or state) land use plans, policies, and regulations pertaining to inland biological resources that are relevant to the MPWSP and that were adopted for the purpose of avoiding or minimizing an adverse environmental effect, and has not been revised to include the INRMP (a federal land management plan).

USARMY-21 The Draft EIR/EIS includes measures for site restoration and tree replacement in accordance with local policies and ordinances. Mitigation Measure 4.6-1c, which applies to all project components, specifies that all temporarily disturbed areas shall be returned to pre-project conditions or better. Through implementation of Mitigation Measure 4.6-1c, any landscaped areas would be restored after work is complete. Through implementation of Mitigation Measure 4.6-4, CalAm would be required to comply with any local tree policies or ordinances, which may require the replacement of a protected tree depending on the applicable policy or ordinance.

In response to this comment, item 4 has been added to Mitigation Measure 4.6-4 (Compliance with Local Tree Ordinances) as follows:

Tree removal, preservation, or mitigation on Army property shall be in accordance with the Integrated Natural Resource Management Plan Presidio of Monterey and Ord Military Community (November, 2008).

- USARMY-22 See response to comment USARMY-10 regarding how Army Regulation 405-80 is now presented in Table 3-8, Anticipated Permits and Approvals. The comment is acknowledged, and it will be the responsibility of CalAm and/or its contractors to secure the necessary permits and comply with the conditions imposed at that time by permitting agencies.
- USARMY-23 As described on Draft EIR/EIS page 4.9-27, where feasible and appropriate, project pipelines would be installed so as to avoid construction within vehicle travel lanes and to minimize impacts on roadway capacity and function. For the proposed pipeline along General Jim Moore Boulevard, the impact analysis conservatively assumed that construction could require temporary lane closures, and that the impact related to pipeline installation is considered to be potentially significant. However, the Traffic Control and Safety Assurance Plan (Mitigation Measure 4.9-1) would include measures to minimize the adverse effects of temporary lanes closures. Regarding access for emergency service providers (such as the POM Fire Station on General Jim Moore Boulevard), as stated on page 4.9-25, the Traffic Control and Safety Assurance Plan would stipulate that access for emergency vehicles would be maintained at all times. Access for the other uses cited in the comment would be maintained, but could be temporarily impeded by project construction. See response to comment USARMY-22 regarding CalAm's responsibility for obtaining permits.
- USARMY-24 Temporary disruption to public transit during construction is discussed under Impact 4.9-5. As stated there, pipeline installation activities could temporarily affect public transportation along affected roadways in the project area. However, implementation of Mitigation Measure 4.9-1 (Traffic Control and Safety Assurance Plan), which includes measures that would minimize impacts on public transportation during construction, would reduce the impact to a less-than-significant level. Relevant to the comment's concern about DoD personnel commuting by Monterey-Salinas Transit buses, the Traffic Control and Safety Assurance Plan would stipulate that construction truck trips and lane closures would be scheduled to occur outside of peak morning and evening commute hours to minimize adverse impacts on traffic flow (which includes traffic flow by buses).
- USARMY-25 See response to comment USARMY-24 regarding the Traffic Control and Safety Assurance Plan (Mitigation Measure 4.9-1) and its stipulation that construction truck trips and lane closures would be scheduled to occur outside of peak traffic hours to minimize adverse impacts on traffic flow (if agencies with jurisdiction over the affected roads identify highly congested roadway segments during their review of the encroachment permit applications). As stated on Draft EIR/EIS page 4.9-24, the traffic control and safety assurance plan shall be developed on the basis of detailed design plans for the approved project, and shall include, but not necessarily be limited to the elements listed on Draft EIR/EIS pages 4.9-24 to 4.9-26. The following additional element has been added to the list of measures

that could be included in the traffic control and safety assurance plan required by Mitigation Measure 4.9-1:

- Develop a school traffic and pedestrian safety plan to minimize adverse impacts associated with truck trips and lane closures (e.g., in the vicinity of the Marshall Elementary School east of the General Jim Moore Boulevard / Normandy Road intersection).

USARMY-26 See response to comment USARMY-23 regarding emergency access during project construction. Mitigation Measure 4.9-1, Traffic Control and Safety Assurance Plan, requires CalAm and/or its contractors to obtain any necessary road encroachment permits prior to constructing each project component and to comply with the conditions of approval attached to all project permits. This measure has been revised to clarify that a permit from the U.S. Army is among those potentially necessary permits with which CalAm and its contractors must comply. The statement about the process the U.S. Army would undertake during its review of a request by CalAm to work on Army-owned property is acknowledged. See response to comment USARMY-22 regarding CalAm's responsibility for obtaining permits.

USARMY-27 Potential increased wear-and-tear on the designated haul routes used by project construction vehicles is discussed under Impact 4.9-6. As stated there, the degree to which this impact would occur depends on the roadway design (pavement type and thickness) and the existing condition of the roadway. It is acknowledged that some roadways may not have been constructed to support use by heavy construction trucks and vehicles, and project-related increases in construction truck trips could cause excessive wear-and-tear on these roadways, a potentially significant impact. However, implementation of Mitigation Measure 4.9-6 (Roadway Rehabilitation Program), which requires rehabilitation of any roadways damaged following construction, would reduce this impact to a less-than-significant level. See response to comment USARMY-22 regarding CalAm's responsibility for obtaining permits.

USARMY-28 The concern about the proposed use of a portion of the AAFES Service Station parking lot as a construction staging area is noted. The Draft EIR/EIS concluded that project-generated traffic would result in less-than-significant impacts, and it is unclear from the comment what the potential for additional traffic hazards would be. Regardless, the Lead Agencies acknowledge that CalAm's proposed use of staging areas is subject to agreements with property owners and that the U.S. Army may decline to permit the use of this location as a temporary construction staging area. As shown on EIR/EIS Figure 3-8, there are several other proposed staging areas in the vicinity that may be used if the location at the northwest corner of General Jim Moore Boulevard and Gigling Road cannot be permitted.

USARMY-29 The two-week (10 working days) duration is used as a threshold by some local noise ordinances, based upon the premise that construction noise exposure for less than two weeks is more tolerable (e.g., City of Oakland, Noise Ordinance No. 11895; Ventura County, Construction Noise Threshold Criteria and Control Plan). Text has been added to Section 4.12.2.1 to clarify the basis of this threshold. The purpose of this threshold in the EIR/EIS is to assess the significance of temporary or periodic increases over ambient noise levels that may not be found significant if judged solely in comparison to applicable local noise regulations (i.e., those described in Table 4.12-3 in Section 4.12.3.3). CEQA requires that impacts be assessed using both of these criteria (i.e., temporary and permanent noise increases).

USARMY-30 Both discussions cited by the commenter in Chapter 3 and Section 4.12 confirm that construction of the ASR Recirculation Pipeline, ASR Conveyance Pipeline, and ASR Pump-to-Waste Pipeline would occur during daytime hours. However, the discussion on Draft EIR/EIS pages 4.12-21 and 4.12-28 with regard to construction of the New Transmission Main incorrectly identified only those portions of the New Transmission Main within the City of Marina as assumed to occur during daytime hours. The second paragraph on Draft EIR/EIS page 4.12-21 and the last paragraph on page 4.12-28 of the Draft EIR/EIS have been revised to indicate that construction of the New Transmission Main within areas under U.S. Army jurisdiction (i.e., locations within the City of Seaside) also would occur during daytime hours only.

USARMY-31 New figures 4.12-2 through 4.12-5 have been added to Section 4.12 of the Final EIR/EIS. These figures depict the estimated noise contours associated with proposed 24-hour drilling associated with ASR well construction, consistent with those presented for the nearest receptor on page 4.12-29 of the Draft EIR/EIS.

EIR/EIS Table 4.12-8 presents the construction-related noise associated with construction of the New Transmission Main at the closest sensitive receptors. The data provided in that table are sufficient to draw significance conclusions for New Transmission Main construction for the purposes of CEQA and NEPA, and to require mitigation as described in Impact 4.12-1. In addition, as requested in the comment, the table below presents the construction-related noise associated with daytime-only open trench construction of the New Transmission Main at multiple distances, consistent with those presented for the nearest receptor in Table 4.12-8. As shown below, noise levels at residences greater than 180 feet would not exceed the 70 dBA Leq daytime threshold.

Pipeline (Construction Method)	Closest Sensitive Receptor(s)	Distance to Receptor (feet) <sup>a</sup>	Attenuated Construction Equipment Noise Level at Receptor(s) (dBA L <sub>eq</sub> ) <sup>a</sup>
New Transmission Main (Open Trench Construction)	Residences (various)	100	74.0
		150	70.5
		180	68.9
		250	66.0
		400	62.0
		500	60.0
		750	56.5

USARMY-32 The predominant noisy activity associated with the construction of the ASR-5 and ASR-6 wells would be the 24-hour drilling for approximately four weeks. Sound-attenuating curtains can be installed surrounding this activity. Given the nighttime drilling activity and the understandable need to occasionally have windows open, Mitigation Measure 4.12-1e: Offsite Accommodations for Substantially Affected Nighttime Receptors is identified on page 4.12-34 of the Draft EIR/EIS to address this impact to the extent feasible. However, acknowledging the inconvenience associated with temporary re-location, this impact is identified as significant and unavoidable.

Once drilling is complete, other construction activities would occur only during the daytime and would include concrete work, piping, mechanical and electrical work and installation of a control building. These later activities would involve occasional operation of off-road equipment (e.g., forklift or crane) and intensity would be similar to that of construction of a single family home. See response to comment USARMY-22 regarding CalAm's responsibility for obtaining permits.

USARMY-33 Mitigation Measure 4.12-1e, Offsite Accommodations for Substantially Affected Nighttime Receptors, is revised as indicated below to establish an application mechanism based on sound level as opposed to distance:

**Mitigation Measure 4.12-1e: Offsite Accommodations for Substantially Affected Nighttime Receptors.**

CalAm shall provide temporary hotel accommodations for all residences and any other nighttime sensitive receptors ~~located within 100 feet of a designated construction work area that would:~~

1. ~~That would be~~ exposed to 24-hour project construction activities and
2. Where nighttime construction noise would exceed 60 dBA with windows closed or 35 dBA with windows open, even with implementation of acoustic barriers and/or shielding measures.

The accommodations shall be provided for the duration of 24-hour construction activities. CalAm shall provide accommodations reasonably similar to those of the impacted residents in terms of number of beds and amenities. If identified accommodations do not include typical residential kitchen facilities (e.g., cooktop, oven, full size refrigerator), then CalAm shall provide displaced individuals with a per diem allowance to offset costs of meals for the period of relocation.

See response to comment USARMY-22 regarding CalAm's responsibility for obtaining permits.

- USARMY-34 See text revision identified in response to comment USARMY-33 for additional discussion of appropriate accommodations.
- USARMY-35 See text revision identified in response to comment USARMY-33 for additional discussion of proportionate accommodations.
- USARMY-36 Mitigation Measure 4.12-5, Stationary-Source Noise Controls, provides a performance standard of 60 CNEL at the property lines of nearby residences and other noise-sensitive receptors. This standard is 5 dBA lower than that codified in Section 17.30.060 of the City of Seaside municipal code so as to address impacts related to permanent increases above those existing without the project (Impact 4.12-5). See response to comment USARMY-22 regarding CalAm's responsibility for obtaining permits.
- USARMY-37 Table 4.13-1 in Section 4.13, Public Services and Utilities, has been revised to incorporate the requests of this comment. Specifically, columns have been added to address the Presidio of Monterey Fire Department and Presidio of Monterey Police Department. Check marks indicate that the Presidio of Monterey Fire Department serves U.S. Army Lands (including the locations of the proposed New Transmission Main and ASR Pipelines), City of Monterey, City of Seaside, and City of Marina. A check mark also has been added to indicate that the Presidio of Monterey Police Department serves U.S. Army Lands. The requested change to table note "a" has been made.
- USARMY-38 The following text has been added to Section 4.13.1.1, Fire Protection, Law Enforcement, and Emergency:

### ***Fire Protection***

#### **U.S. Army**

The Presidio of Monterey Fire Department serves all Army property on the Ord Military Community and Presidio of Monterey, as well as holding mutual aid agreements with Seaside, Marina, the California State University of Monterey Bay, and the Monterey County Regional Fire District.

## **Police**

### **U.S. Army**

The Presidio of Monterey Police Department serves all Army property on the Ord Military Community and Presidio of Monterey.

USARMY-39 The comment's indication that sewer laterals may exist in the vicinity of the proposed ASR-5 Well is noted. Mitigation Measure 4.13-1a in Section 4.13, Public Services and Utilities, requires CalAm or its contractors to locate all underground utility lines, including sewage, prior to excavation and to highlight these lines on construction drawings. Mitigation Measure 4.13-1b requires that CalAm or its contractors coordinate final construction plans, schedule, and specifications with affected utilities. Exhibit 3 in the U.S. Army's Final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) (2010) for these ASR well sites depicts an existing sewer line that is located more than 50 feet from the proposed locations of the ASR wells. Nonetheless, if additional utilities are present in this vicinity, the proposed mitigation measures will require that CalAm coordinate with the Army and/or any utility provider in this area prior to construction.

USARMY-40 In response to this comment the following text has been added to the end of Mitigation Measure 4.15-2b, Inadvertent Discovery of Cultural Resources:

If cultural resources are inadvertently discovered during construction on Army-owned property, work shall immediately cease within a 100-foot radius of the find and the Army, Presidio of Monterey, Cultural Resources Manager (CRM) shall be contacted to assess the discovery. For discoveries on Army lands, the CRM will implement procedures set forth in the Presidio's Integrated Cultural Resources Management Plan (ICRMP) and Army Regulation (AR 200-1), which may include completion of consultation under Section 106 of the National Historic Preservation Act (NHPA) prior to resuming construction in the vicinity of the find. CalAm shall be responsible for completing any additional archaeological work required to comply with federal regulations.

USARMY-41 In response to this comment the following text has been added to the end of Mitigation Measure 4.15-4, Inadvertent Discovery of Human Remains:

If human remains are encountered during construction on Army-owned property, work shall cease within a 100-foot radius of the discovery and the CRM shall be notified immediately. The CRM shall initially evaluate the site to determine if the remains are either Native American in origin or associated with a recent crime scene (i.e., 50 years old or less). If the remains appear recent, the CRM shall notify the Army's Criminal Investigation Command who shall assume control of the crime scene and custody of the remains. If the remains appear to be Native American in origin, the CRM shall notify the Presidio Garrison Commander and



implement procedures set forth in Section 3 of the Native American Graves Protection and Repatriation Act.

USARMY-42 The alignment for the “new” Transmission Main (see EIR/EIS Section 3.2.3.4) was chosen based on the connection point with existing and proposed ASR wells located in the Santa Margarita sandstone aquifer of the Seaside Groundwater Basin and other factors. The location of the Transmission Main was designed based on the most direct route, avoiding sensitive land uses while also meeting engineering standards for flow requirements based on pressure differences due to elevation changes between the ASR wells and the City of Monterey. This alignment was an alternative to the proposed Transmission Main alignment that was evaluated in the April 2015 Draft MPWSP EIR; the current alignment was determined in the April 2015 Draft EIR to be the environmentally preferred alternative; see also EIR/EIS Section 1.4.4, specifically, Item 2(a) and 2(b). Regarding ASR well location alternatives, see response to comment USARMY-4.

---

## References

U.S. Army, 2010. Final Environmental Assessment and Finding of No Significant Impact, Monterey Bay Regional Water Project – Aquifer Storage and Recovery. September.

### 8.3.3 Responses to Comments from Monterey Bay National Marine Sanctuary Advisory Council, Research Activity Panel

MBNMS-RAP-1 Consistent with the requirements of the California Ocean Plan, the dilution analyses completed in support of the EIR/EIS impact assessment assumed zero current speed, representing the worst-case condition in terms of dilution. As described in EIR/EIS Section 4.3, the main environmental parameter relevant for dilution and mixing is the receiving water density structure. The comment presents data demonstrating currents in the vicinity of the diffuser to commonly be 5 to 10 centimeters per second (cm/s) and up to 20 cm/s (by citing: grant OCE0961810; cf. Cheriton et al., 2014; Sevadjian et.al., 2015; Nickols et al., 2012; Walters et al, 2012), and claims such currents could act to transport the brine plume away from the discharge structure more rapidly than occurs through dispersion and mixing alone. The comment urges further analysis in order to determine the effects of fast currents, i.e., whether such transport could result in salinities exceeding the Ocean Plan salinity requirement by causing incremental salinities to exceed 2 parts per thousand (ppt) above ambient conditions within or beyond the Brine Mixing Zone (BMZ) boundary.

Additional dilution analyses have been completed since the publication of the Draft EIR/EIS at the request of the Monterey Regional Water Pollution Control Agency (MRWPCA), in part to support NPDES permitting efforts of the Pure Water Monterey Groundwater Replenishment (GWR) Project. The additional dilution modeling was not required for the EIR/EIS analysis, is consistent with the analysis conducted for the Draft EIR/EIS, and does not change the conclusions of the EIR/EIS with respect to dilution-related impacts. A supplemental dilution analysis report was completed by Dr. Phil Roberts and is presented in Appendix D1 of the Final EIR/EIS. As part of the supplemental analyses and as a result of this comment, Roberts assessed the effect of currents on the dilution dynamics of dense, negatively buoyant discharges.

In the supplemental dilution analysis, Roberts simulated the pure brine discharge scenario (worst case condition due to highest density) at current speeds of 0, 5, 10, and 20 cm/s. Because of the orientation of the MRWPCA diffuser, the predominant current direction is expected to be perpendicular to the diffuser axis. The nozzles are perpendicular to the diffuser, so the current direction relative to the individual jets is either counter-flow (jets directly opposing the current), or co-flow (jets in the same direction as the currents). Simulations were run for both conditions and results were presented for the distance from the diffuser that plumes contact the ocean floor (representing the edge of the Zone of Initial Dilution (ZID)), as well as minimum dilution achieved at the edge of the BMZ. All results were compared to the analyses where current speed was assumed to be zero.

Overall, the effect of the currents is to increase dilution compared to the zero current results. The maximum impact distance (edge of the ZID) from the diffuser would occur with co-flowing currents and increase as the current speed increases. In this case, the maximum impact distance, or edge of the ZID, for currents of 20 cm/s is 27 feet (8.2 meters) with a minimum dilution of 78:1 as compared to 10 feet if zero current is assumed with a minimum dilution of 16:1. Clearly, even with the maximum current assumed, the edge of the ZID (27 feet or 8.2 meters) is much less than the distance to the edge of the BMZ (328 feet or 100 meters). Additionally, although the edge of the ZID is farther from the diffuser compared to the zero current case, the resulting salinities are substantially lower as greater dilution is achieved. It is therefore concluded that assuming zero current is indeed conservative and represents a “worst-case” scenario, and the Ocean Plan regulations would, therefore, be met for all anticipated currents. For a more detailed description of assessment methodology, model assumptions, and detailed results, see the Roberts report presented in Final EIR/EIS Appendix D1.

MBNMS-RAP-2 An EIR for the Pure Water Monterey GWR Project has been prepared and certified, and the project has been approved (see EIR/EIS Section 1.1, and Project No. 59 in Table 4.1-2) by the Monterey Regional Water Pollution Control Agency. That project is independent from the MPWSP, not the subject of this EIR/EIS, and not subject to modification or other decisions based on this EIR/EIS.

The cumulative impact analysis of Alternative 5a presented in each resource section of EIR/EIS Chapter 5.5 includes consideration of the GWR Project (see summary below and Section 5.5 for discussion of cumulative impacts associated with Alternative 5a). Also, the analysis has been structured to facilitate a comparison of impacts – direct, indirect, and cumulative – across the proposed alternatives. As noted in Section 5.6, Environmentally Superior Alternative/NOAA-Preferred Alternative, because the GWR Project already has been approved and is not subject to any decisions based on this EIR/EIS, “the methodology of choosing the environmentally superior, or agency-preferred alternative, includes ... Identifying two environmentally superior/agency-preferred alternatives; one without, and one with the GWR Project” (Draft EIR/EIS pages 5.6-2 and 5.6-3).

The GWR Final EIR concludes that the GWR Project would not result in a significant impact relating to altered salinity dynamics in local lagoon/estuary systems. The GWR Project diversions, including all proposed surface water, urban runoff, and wastewater diversions, were found to not have a significant adverse impact on brackish tidal and wetland habitat in the downstream portions of the watershed. This includes the Salinas River estuary, Old Salinas River channel, Tembladero Slough, Elkhorn Slough, and Moro Cojo Slough

during project operations (as documented on pages 4.5-97 through 4.5-105 and 4.11-71 through 4.11-73 of the Draft GWR EIR, as modified in the Final GWR EIR). Further, the combined GWR diversions from both Salinas River and Tembladero Slough/Reclamation Ditch were determined to result in a less-than significant impact on fisheries and aquatic habitat from the reduction in flows to the downstream coastal sloughs in the area (e.g., Elkhorn Slough), and Moro Cojo Slough.

Changes in salinity dynamics of the Salinas River, Tembladero Slough, Old Salinas River, and Elkhorn Slough estuaries were quantified as part of the environmental assessment presented in the GWR Final EIR. The GWR Project would not divert any flows from the Moro Cojo Slough and would not change the amount of flow into or out of the Moro Cojo Slough (MRWPCA and MPWMD, 2016, page 4.5-107); therefore, Moro Cojo Slough was not assessed and no cumulative impacts on Moro Cojo slough related to salinity dynamics could result from implementation of Alternative 5a.

As stated in the GWR Final EIR with respect to impacts on the Salinas River estuary, “Due to the very small percentage change in total [Salinas River] Lagoon inflows due to the Proposed Project (less than 1%), no measurable salinity changes to the [Salinas River] Lagoon would occur.” (MRWPCA and MPWMD, 2016, page 4.5-104)

With respect to GWR project-specific impacts on Tembladero Slough and the Old Salinas River, the GWR Final EIR states:

There is a potential for increases in salinity near the water surface, and/or longer periods of salinity accumulation in the Tembladero Slough and the OSR [Old Salinas River] Channel before seasonal flushing by winter runoff. . . .the Proposed [GWR] Project would have a less-than-significant impact on the water quality because the salinity changes would be within the range of salinities that are currently found in these water bodies every year. Species and habitats relying upon the OSR and Tembladero Slough waters have demonstrated their tolerance for high salinity waters. In particular much higher salinity levels (above 15 ppt) are seen during prolonged dry periods, such as late summer and fall of 2013 through 2015. (MRWPCA and MPWMD, 2016, page 4.5-105)

Finally, with respect to GWR project-specific impacts on Elkhorn Slough, the GWR Final EIR states:

The analysis . . . shows that the Proposed Project would cause less than 0.8% salinity increase at Elkhorn Slough and 0.8% would occur only in a peak event using conservative assumptions such as drought conditions with low tidal influence. On a daily, weekly and monthly average, the Proposed [GWR] Project would cause changes of even less than that amount (i.e., an undetectable change given the wide variations of salinity

in the slough caused by the tidal cycle each day). Salinity levels (including measurements of electroconductivity and total dissolved solids concentrations), are used as the primary indicator of the relative amounts of freshwater versus saline ocean water in a water body. Thus, the Proposed Project would not result in an adverse impact on the biological resources or other beneficial uses within the Elkhorn Slough. (MRWPCA and MPWMD, 2016, page 4.5-107)

With respect to potential cumulative impacts on salinity dynamics from reduced surface water flow volumes resulting from operation of Alternative 5a in combination with the GWR Project, the MPWSP EIR/EIS acknowledges that Alternative 5a slant well pumping could remove brackish groundwater from the Salinas River recharge system. As discussed in detail in Section 4.4.5 (see Draft EIR/EIS page 4.4-70), when a river gains groundwater from an aquifer, it is called a gaining stream; when it loses groundwater to the aquifer, it is called a losing stream. In the case of the MPWSP, the portion of the Salinas River within the area of influence from the slant well pumping is a gaining stream. Consequently, the slant well pumping could draw in groundwater that would otherwise discharge to the river. In this manner, Alternative 5a would remove groundwater from the Salinas River recharge system and reduce annual river flow volume by 0.11 percent (as compared to 0.16 percent for the MPWSP). However, Alternative 5a (or the proposed project) would not directly pull surface water from the Salinas River; it would intercept groundwater from the seawater-intruded Dune Sands Aquifer that would otherwise have flowed to the River. This magnitude of groundwater diversion from the Salinas River would be a minor, if not unmeasurable, reduction in surface water flows. As described in EIR/EIS Section 5.5.6.8, under the heading “Combined Impacts with GWR Project,” the combined reduction in Salinas River flows resulting from Alternative 5a (0.11 percent) and the GWR Project (1 percent) would be a combined cumulative reduction of 1.11 percent of average annual flow.<sup>1</sup> Consistent with the findings of the GWR Final EIR, presented above, this reduction in annual flow would not result in any measurable salinity changes. The same conclusion is applied to Tembladero Slough, where the removal of 47 afy (as compared to 65 afy for the proposed project) of brackish groundwater discharge would not constitute a recognizable loss in surface flow, nor any measurable salinity change, for that system (see Draft EIR/EIS pages 4.6-236 and 5.5-161). Overall, the reduction of surface water attributable to slant well pumping under Alternative 5a would not result in a substantial reduction of surface flows in the Salinas River or Tembladero Slough and, due to the brackish quality, would not measurably

<sup>1</sup> The Draft EIR/EIS stated that the GWR Project would result in a 2 percent reduction in Salinas River Flows (page 5.5-162). The GWR Final EIR states that a 1 percent reduction would occur (MRWPCA and MPWMD, 2016, page 4.5-98). Section 5.5.6.8 in the Final EIR/EIS has been revised to reflect a combined cumulative reduction of 1.11 percent, rather than 2.11 percent.

alter the salinity dynamics of these estuary systems, even when considered in combination with diversions under the GWR Project. Alternative 5a would not affect surface flows in Elkhorn Slough and thus would not contribute to, or combine with, potential effects of GWR on the hydrology or water quality (relevant to salinity dynamics) of Elkhorn Slough.

A full analysis comparing the environmental advantages and benefits of implementing Alternative 5a is presented in detail in EIR/EIS Section 5.6.2 (summarized here). Alternative 5a (in combination with the already approved GWR project) would result in numerous environmental advantages as compared to other alternatives. The EIR/EIS acknowledges in Section 5.6.2 that, as a standalone project, Alternative 5a would not meet the project objectives or purpose and need in terms of providing adequate water supply to the CalAm Service District, but that the combination of Alternative 5a and with the approved GWR would meet project objectives. The cumulative effects of Alternative 5a and GWR may be greater for some of the construction-related impacts (such as air quality, traffic, and noise), and some of the footprint-related impacts (all of the GWR facility footprints plus the footprint of Alternative 5a). However, some of the operational impacts would be reduced compared to the proposed project because the 3,500 acf provided by the GWR Project would require less energy than producing it by desalination, resulting in reduced impacts on GHG and air quality. The reduced capacity desalination plant would require less source water from the slant wells, resulting in a reduction in the severity of the less than significant impacts on groundwater levels, and the GWR project would provide additional irrigation supplies to CSIP that would benefit the groundwater basin. Further, the GWR project would result in benefits relating to water quality, including reducing overall pollutants discharged to Monterey Bay (such as nitrogen), reducing pollutant loads in Clean Water Act 303(d)-listed impaired waters (Salinas River and Monterey Bay), and improving dry season flows and lagoon/estuary system water quality (Monterey One Water, 2017). For these reasons, Alternative 5a was determined to be the environmentally superior/NOAA-preferred alternative.

**MBNMS-RAP-3** The Lead Agencies acknowledge and appreciate the Research Activity Panel's offer to review the Mitigation Monitoring, Reporting, and Compliance Plan (MMRCP) and/or Environmental and Construction Compliance Monitoring Plan (ECCMP) (see EIR/EIS Section 4.1.6). These plans will be prepared prior to Lead Agency decisions on the project or an alternative.

**MBNMS-RAP-4** The recommendation to consider the scientific information contained in a series of additional scientific studies in the project area that were conducted in 1997 as part of the Fort Ord decommissioning effort is acknowledged. The Lead Agencies have considered these documents, and although the information on marine habitats, their composition, chemistry, and associated marine biota

contained in these studies does not alter the Lead Agencies' understanding or characterization of the Marine Biological Resources baseline in the EIR/EIS, the text describing Benthic (seafloor) Habitats on Draft EIR/EIS page 4.5-8 has been clarified as follows:

The soft substrate habitat in the study area has been characterized as a flat featureless plain with a gently sloping sandy seafloor (Eittreim et al., 1997). This soft substrate habitat consists primarily of deltaic deposits from the Salinas River and other unclassified soft substrate. Physical processes, such as waves and currents, sort the sediment particles roughly by grain size so that there are onshore-offshore gradients in the fineness of sediments, with coarser sand deposits closer to shore grading to muddy areas farther offshore (Edwards et al., 1997). The sea floor habitat located within the high-energy surf zone is characterized by coarse, mobile sands and contains a limited range and abundance of species commonly including flatfish, rays, shrimp, crabs, sand dollars, amphipods, clams, and large polychaete worms (Edwards et al., 1997).  
[...]

---

## References

Monterey Regional Water Pollution Control Agency and Monterey Peninsula Water Management District (MRWPCA and MPWMD), 2016. Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project, Volume IV, Exhibit B. <http://purewatermonterey.org/wp/wp-content/uploads/Volume-IV-EIR-Certification-and-Project-Approval-Jan-2016.pdf>.

Monterey One Water, 2017. Overview of Pure Water Monterey, Ocean Plan Compliance, and Proposed NPDES Permitting Approach, Presentation to MBNMS and RWQCB, August 23.

## 8.3.4 Responses to Comments from United States Army Corps of Engineers

USACE-1 In Section 4.6.2, Regulatory Framework, the Draft EIR/EIS described that wetlands and other waters receive protection under Section 404 of the Clean Water Act and that Section 10 of the Rivers and Harbors Act governs certain activities in navigable waters. The Draft EIR/EIS also specified that the U.S. Army Corps of Engineers (USACE) has primary federal responsibility for administering regulations that concern waters of the U.S. Certain activities that could interfere with navigation may require a Section 10 permit and the discharge of dredge or fill into waters of the U.S. may require a Section 404 permit. Potential project construction and operational impacts on wetlands or waters regulated by the USACE are described in Impact 4.6-3 and Impact 4.6-8, respectively. Several project components have potential to impact waters of the U.S., including potential direct impacts from the new Desalinated Water Pipeline, Castroville Pipeline, and Ryan Ranch-Bishop Interconnection Improvements. Some other project components, including the subsurface slant wells and Source Water Pipeline, would have potential for indirect impacts resulting from construction, such as soil erosion or the inadvertent discharge of toxic construction chemicals resulting in polluted runoff to waters of the U.S. Mitigation measures are proposed under Impacts 4.6-3 and 4.6-8 to address these potential impacts. The type of USACE permit (Nationwide, Individual, or other) would be determined during the permitting process, which is separate from the CEQA/NEPA analysis, and is dependent upon the extent of impacts within USACE jurisdiction. A wetland delineation report has been prepared since publication of the Draft EIR/EIS. It is referenced in Section 4.6 of the Final EIR/EIS as AECOM, 2017, and it was transmitted by CalAm to the USACE on November 7, 2017, with a request for a Preliminary Jurisdictional Determination, but it has not yet been verified by the USACE or other permitting agencies. Since the wetland delineation report concludes that the proposed project could impact less than 0.5 acre of jurisdictional waters of the U.S., it is anticipated the proposed project would qualify for a Nationwide Permit 12 (Utility Line Activity), and an individual permit would not be necessary. If that is the case, a 404(b)(1) alternatives analysis to identify the Least Environmentally Damaging Practicable Alternative (LEDPA) would not be required.

The EIR/EIS analyzes impacts on waters of the U.S. consistent with the requirements of CEQA and NEPA, as described in Section 5.1.1, Alternatives Analysis – CEQA/NEPA Requirements. The alternatives analysis in the Draft EIR/EIS provides adequate information for compliance with CEQA and NEPA guidelines. Table 5.3-4, which is referenced in the comment, presents a preliminary evaluation of intake options for purposes of screening alternatives; this table is not intended to provide detailed impact analysis but provides documentation of the full range of alternatives initially considered. Alternatives carried forward for full analysis are described in Section 5.4 and evaluated, in detail, in Section 5.5. Sections 5.5.6.3 through 5.5.6.8 provide detailed discussions of the impacts of alternatives carried forward for



analysis on biological resources, including waters of the U.S. Please note that the level of detail required for permitting under Clean Water Act Section 404(b)(1) will be developed as part of the permitting process. If an Individual Permit is required, then CalAm would submit an application that complies with the 404(b)(1) Guidelines.

USACE-2 Mitigation Measure 4.6-3 requires that the project be designed to avoid and/or minimize impacts on jurisdictional waters. Where disturbance to jurisdictional waters cannot be avoided, then compensation shall be provided. See response to comment Marina-79, in Section 8.5.1, which describes revisions to this mitigation measure. The revised measure requires that any temporarily impacted jurisdictional waters be returned to pre-construction conditions or better and that compensation for permanent impacts shall be provided at a 2:1 or greater ratio. Providing compensatory mitigation for loss of jurisdictional waters at a ratio of at least 2:1 would ensure consistency with the USACE's program, which supports the national goal of "no overall net loss" of wetlands, and with the USACE's requirement to replace wetlands to offset unavoidable losses.

As described on page 4.6-35 of the Draft EIR/EIS, wetlands or waters potentially regulated by the USACE, RWQCB, and/or CCC were mapped in the project's study area during field surveys conducted in support of the project. As described in response to comment USACE-1, a wetland delineation report, based on some of these field surveys and conducted in accordance with USACE guidance, has been prepared since publication of the Draft EIR/EIS. It was transmitted by CalAm to the USACE on November 7, 2017, with a request for a Preliminary Jurisdictional Determination, but it has not yet been verified by the USACE or other permitting agencies.

## 8.3.5 Responses to Comments from United States Environmental Protection Agency

- USEPA-1 The Lead Agencies acknowledge the USEPA’s opinion regarding the adequacy of the evaluation of alternatives and of the North Marina Groundwater Model presented in the Draft EIR/EIS.
- USEPA-2 The Lead Agencies acknowledge the USEPA’s rating of the preferred alternative as “Lack of Objections.”
- USEPA-3 Mitigation Measure 4.4-4 has been revised to clarify that CalAm would contact the U.S. Army, USEPA, and other agencies in the event that the extent of 1 foot of drawdown approaches the Fort Ord plumes. The corrective actions would be discussed with these agencies and may include changing the operations of the MPWSP and/or reactivating and/or expanding the existing wells and treatment systems in the former Fort Ord area. A drawdown of 1 foot or less would be unlikely to significantly affect groundwater flow directions again because of the much larger seasonal fluctuations in the Salinas Valley.

Please see clarifications made to Mitigation Measure 4.4-4 regarding CalAm’s actions if slant well pumping could intersect or could influence the flow direction of two OUCTP plumes, in response to comment FOBRAC-1 in Section 8.3.1.

- USEPA-4 In response to this and other comments on the Draft EIR/EIS, the quoted text in the comment has been deleted from Mitigation Measure 4.11-1 and the measure has been revised as shown below. The proposed Monterey Regional Waste Management District landfill-gas-to-energy (LFGTE) facility Phased Capacity Improvements Project is not part of the proposed project, but is analyzed as a project in the cumulative scenario (see project No. 58 in EIR/EIS Table 4.1-2, Cumulative Projects).

The revised Mitigation Measure 4.11-1 continues to provide that on-site solar photovoltaic (PV) panels may be used to satisfy the net zero operational GHG emissions requirement. In response to this comment, a subsection entitled “Secondary Impacts of Mitigation Measure 4.11-1” has been added to Final EIR/EIS Section 4.11 to address the potential impacts of on-site PV panels. Because it is not yet known which option or options would be implemented (e.g., because the feasibility of the LFGTE project, being evaluated independent of the proposed project, has not yet been determined but may make the use of on-site PV unnecessary or not cost-effective), this option is evaluated at a programmatic level based on a conceptual description of a potential on-site PV installation.

### **Mitigation Measure 4.11-1: GHG Emissions Reductions Plan.**

- (a) ***Energy Conservation Technologies.*** CalAm shall have a qualified professional (a licensed mechanical engineer or other appropriately

certified professional approved by the CPUC) prepare and submit a GHG Emissions Reduction Plan (Plan) to the CPUC and the Sanctuary for approval prior to the start of project construction activities. Once approved by the CPUC and the Sanctuary, the Plan shall be implemented. The Plan shall include a detailed description of the carbon footprint for all operational components of the approved project (e.g., slant well pumping, the MPWSP Desalination Plant, transmission of source and product water, ASR system) based on manufacturer energy usage specification data for each piece of equipment and the most current PG&E power system emissions factor for GHG emissions based on the energy portfolio of PG&E, the applicable Electric Service Provider under Direct Access service, or Monterey Bay Community Power and its successors and assigns, as applicable.

The Plan shall include a summary of state-of-the-art energy recovery and conservation technologies available for utility scale desalination facilities and shall include a commitment by CalAm to incorporate all available feasible energy recovery and conservation technologies; or, if CalAm finds that any of the technologies will not be feasible for the project, the Plan shall clearly explain why such technology is considered to be infeasible. The carbon footprint estimate for the project shall include consideration of all proposed energy recovery and conservation technologies that will be employed by the project, and shall describe the approximate GHG emissions reductions that will be associated with each technology.

- (b) ***Renewable Energy.*** ~~CalAm shall make good faith efforts to ensure that at least 20 percent of the approved project's operational energy use requirements are achieved with "clean" renewable energy, including but not necessarily limited to: the use of methane gas from the existing Monterey Regional Waste Management District (MRWMD) landfill gas-to-energy (LFGTE) facility located adjacent to the MPWSP Desalination Plant site; and installation of solar photovoltaic (PV) panels at or adjacent to the desalination plant. The carbon footprint estimate for the project shall include consideration of all renewable energy that would directly be available and used by the project in the form of kilowatt hours per year, and shall describe the approximate GHG emissions reductions that will be associated with the use of the renewable energy.~~ ensure that the approved project's operational electricity use results in net zero GHG emissions. In meeting this net zero GHG emissions requirement, subject to the procedures below, CalAm shall adhere to the following loading order:

- (1) Obtain renewable energy from on-site solar photovoltaic (PV) panels and/or the adjacent Monterey Regional Waste Management District (MRWMD) landfill-gas-to-energy (LFGTE) facility. If renewable energy from the LFGTE facility is secured, CalAm must demonstrate that the associated criteria pollutant emissions, when combined with the other operational criteria pollutant emissions disclosed in EIR/EIS Table 4.10-7, would not exceed the Monterey Bay Air Resources District significance thresholds.

- (2) Procure renewable energy from off-site sources within California via purchases from one or more of the following: (a) PG&E, (b) an Electric Service Provider under Direct Access service, or (c) Monterey Bay Community Power and its successors and assigns.
- (3) Procure and retire Renewable Energy Certificates (also known as RECs, green tags, Renewable Energy Credits, Renewable Electricity Certificates, or Tradable Renewable Certificates) for projects or activities in California.
- (4) Procure and retire Carbon Offsets, in a quantity equal to the GHG emissions attributable to the project's operational electricity use. "Carbon Offset" means an instrument issued by an Approved Registry and shall represent the past reduction or sequestration of one metric ton of CO<sub>2</sub>e achieved by any GHG emission reduction project or activity within California. "Approved Registry" means: (i) the Climate Action Reserve, the American Carbon Registry, the Verified Carbon Standard, or the Clean Development Mechanism; or (ii) any other entity approved by the California Air Resources Board to act as an "offset project registry" under the state's Cap-and-Trade Program.

CalAm may meet this net zero GHG emissions requirement via any of the options, or their future equivalents, or any combination of options, or their future equivalents, included in the aforementioned loading order.

Further, CalAm shall progress through the loading order on the basis of the options' physical and economic feasibility, as reasonably determined by CalAm, with low-cost options preferred over high-cost options. In the event that options have equivalent costs, options enumerated earlier in the loading order shall be selected by CalAm over options enumerated later in the loading order. On or before June 1 of each year the approved project is in operation, CalAm shall submit documentation to the CPUC demonstrating that the project's operational electricity use in the immediately preceding calendar year resulted in net zero GHG emissions. Calculation of the GHG emissions attributable to the project's operational electricity use (if any) shall be calculated by CalAm on an annual basis using the most up-to-date emissions coefficient for purchased electricity (if any), as compiled or published by PG&E, the applicable Electric Service Provider under Direct Access service, or Monterey Bay Community Power and its successors and assigns, as applicable. If the CPUC determines that CalAm failed to achieve net zero GHG emissions for the approved project's operational electricity use for a particular year, then the CPUC shall notify CalAm in writing of the exceedance within 45 days of receipt of the documentation submitted by CalAm under this mitigation measure. The notice shall specify the metric tons of GHG emissions that exceeded the net zero obligation. Within 45 days of receipt of this notice, CalAm shall procure and retire Carbon Offsets in an amount at least equivalent to the exceedance, and will submit documentation to the CPUC demonstrating this procurement and retirement.

USEPA-5 For the purposes of the Draft EIR/EIS analysis, temporarily impacted areas include those areas that would be returned to pre-project conditions following construction and permanently impacted areas include those areas that would be permanently lost following construction. The discussion in Impact 4.6-3 describes any temporary or permanent impacts on wetlands or waters. For example, in the discussion for the New Desalinated Water Pipeline on Draft EIR/EIS page 4.6-212 states, “Riparian woodland and scrub at Locke-Paddon Park and near the intersection of Marina Green Drive and Del Monte Boulevard are potential waters of the U.S./waters of the state. Pipeline installation activities could temporarily impact 0.42 acre of riparian woodland and scrub.” As part of the permitting process, CalAm would apply for a Clean Water Act Section 404 permit and/or a Rivers and Harbors Act Section 10 permit from the U.S. Army Corps of Engineers (USACE). The evaluation of impacts as defined by the USACE would be determined during that permitting process, which is separate from this CEQA/NEPA analysis.

In response to this comment, the following change has been made to Impact 4.6-3 on Draft EIR/EIS page 4.6-209:

Direct impacts on those wetlands could include removal of vegetation, soil, or structures and/or the placement of fill in the wetland/other water, or hydrological modifications (i.e., altering the flow of water in or out of the wetland or water). Temporarily impacted areas include those areas that would be returned to pre-project conditions following construction. Permanently impacted areas include those areas that would be permanently lost following construction.

This page intentionally left blank