RECLAMATION
Managing Water in the West

Environmental Assessment

PURE WATER MONTEREY GROUNDWATER REPLENISHMENT PROJECT – MONTEREY REGIONAL WATER POLLUTION CONTROL AGENCY

U.S. Department of the Interior
Bureau of Reclamation

May 2017

Mission Statements

The Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

List of Acronyms and Abbreviations

AF	Acre-feet
AFY	Acre-feet Per Year
air emission inventory	2013 Estimated Annual Average Emissions
APE	area of potential effects
AWPF	Advanced Water Purification Facility
Basin	North Central Coast Air Basin
CalAm	California American Water Company
CDFW	California Department of Fish & Wildlife
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	Monterey County
CWA	Clean Water Act
CWSRF	Clean Water State Revolving Fund
DPS	Distinct Population Segment
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIR	Environmental Impact Review
ESA	Endangered Species Act
GIS	Geographic Information Systems
GWR Project	Pure Water Monterey Groundwater Replenishment Project
HMP	Habitat Management Plan
ITAs	Indian Trust Assets
MBARD	Monterey Bay Air Resources District
MBTA	Migrating Bird Treaty Act
mgd	Millions of Gallons Per Day
MPWMD	Monterey Peninsula Water Management District
MRWPCA	Monterey Regional Water Pollution Control Agency
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NAHC	Native American Heritage Commission
National Register	National Register of Historic Places
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
Ocean Plan	The Water Quality Control Plan for Ocean Waters of California
OHP	Office of Historic Preservation
Reclamation	Bureau of Reclamation
Regional Plant	MRWPCA's Regional Wastewater Treatment Plant
RM	River Mile

RWQCB	Regional Water Quality Control Board
Seaside Basin	Seaside Groundwater Basin
S-CCC	South-Central California Coast
SHPO	California State Historic Preservation Officer
SIP	State Implementation Plant
State Water Board	State Water Resources Control Board
USACOE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish & Wildlife Service

SECTION 1 INTRODUCTION

1.1 Background

The Bureau of Reclamation (Reclamation) may provide Title XVI funds to the Monterey Regional Water Pollution Control Agency (MRWPCA) for a portion of its Pure Water Monterey Groundwater Replenishment Project (GWR Project).

Reclamation may fund a portion of the GWR Project's costs under the Title XVI program as authorized by the Water Infrastructure Improvements for the Nation Act. As the agency with discretionary approval over the provision of this Federal funding, Reclamation has prepared this Environmental Assessment (EA) to evaluate the environmental effects of the GWR Project. The potential funding by Reclamation is the Proposed Action.

The MRWPCA is undertaking the GWR Project in partnership with the Monterey Peninsula Water Management District (MPWMD) to create a reliable source of water supply to replace existing water supply sources for northern Monterey County. The primary objective of the GWR Project is to replenish the Seaside Basin with 3,500 AFY of purified recycled water to replace a portion of California American Water Company's (CalAm) water supply as required by State Water Resources Control Board (State Water Board) orders. Additional recycled water for agricultural irrigation in northern Salinas Valley would be provided by augmenting inflows to an existing water recycling facility at MRWPCA's Regional Wastewater Treatment Plant (Regional Plant). The GWR Project would provide additional source waters to provide additional recycled water for use in the Castroville Seawater Intrusion Project's agricultural irrigation system. It is anticipated that in normal and wet years approximately 4,500 to 4,750 acre-feet per year (AFY) of additional recycled water supply could be created for agricultural irrigation. In drought conditions, the GWR Project could provide up to an additional 1,000 AF in a dry year for agricultural irrigation due to a drought reserve component of the GWR Project.

The GWR Project facilities located within unincorporated areas of the Salinas Valley and within the cities of Salinas, Marina, and Seaside. The GWR Project will collect new raw waters (agricultural wash water, urban storm water runoff, and surface waters) and combine them with existing raw wastewater inflows to the Regional Plant. Secondary-treated effluent that is not further treated to tertiary levels for agricultural irrigation will be conveyed to a new Advanced Water Purification Facility (AWPF). The purified recycled water produced at the AWPF will meet or exceed federal and state drinking water standards, including Title 22 of the California Code of Regulations and its requirements for groundwater replenishment with recycled water.

The purified recycled water will be used to replenish the Seaside Basin through the injection of the water into a series of shallow and deep injection wells. Once injected, this purified recycled water is mixed with groundwater, stored, and

available for future extraction by Cal-Am for delivery to its customers, to replace water derived from the Carmel River alluvial aquifer. The GWR Project would also provide new recycled water supplies from an existing tertiary treatment plant for agricultural irrigation in the northern portion of the Salinas Valley, enabling a reduction in groundwater pumping in that area. GWR Project overview maps are provided in Figure 2 (aerial base map) and Figure 3 (USGS base map). A more detailed GWR Project description is provided under Section 2.2 below.

The GWR Project results in numerous benefits, including the following and those shown in Figure 1:

- Integrates strategies addressing regional water issues;
- Forges cross-sectoral governance;
- Reduces pollutants to Monterey Bay Sanctuary;
- Improves water quality of Clean Water Act (CWA) Section 303(d) listed impaired waterbodies;
- Achieves storm water capture and reuse;
- Mitigates for and adapts to climate change;
- Moves region toward groundwater sustainability;
- Conserves habitat/implements wildlife recovery plans;
- Diversifies sources of water through development of innovative and reliable technologies; and
- Meets federal and state policy objectives to maximize use of recycled water and minimize energy demand for new and replacement water supplies.

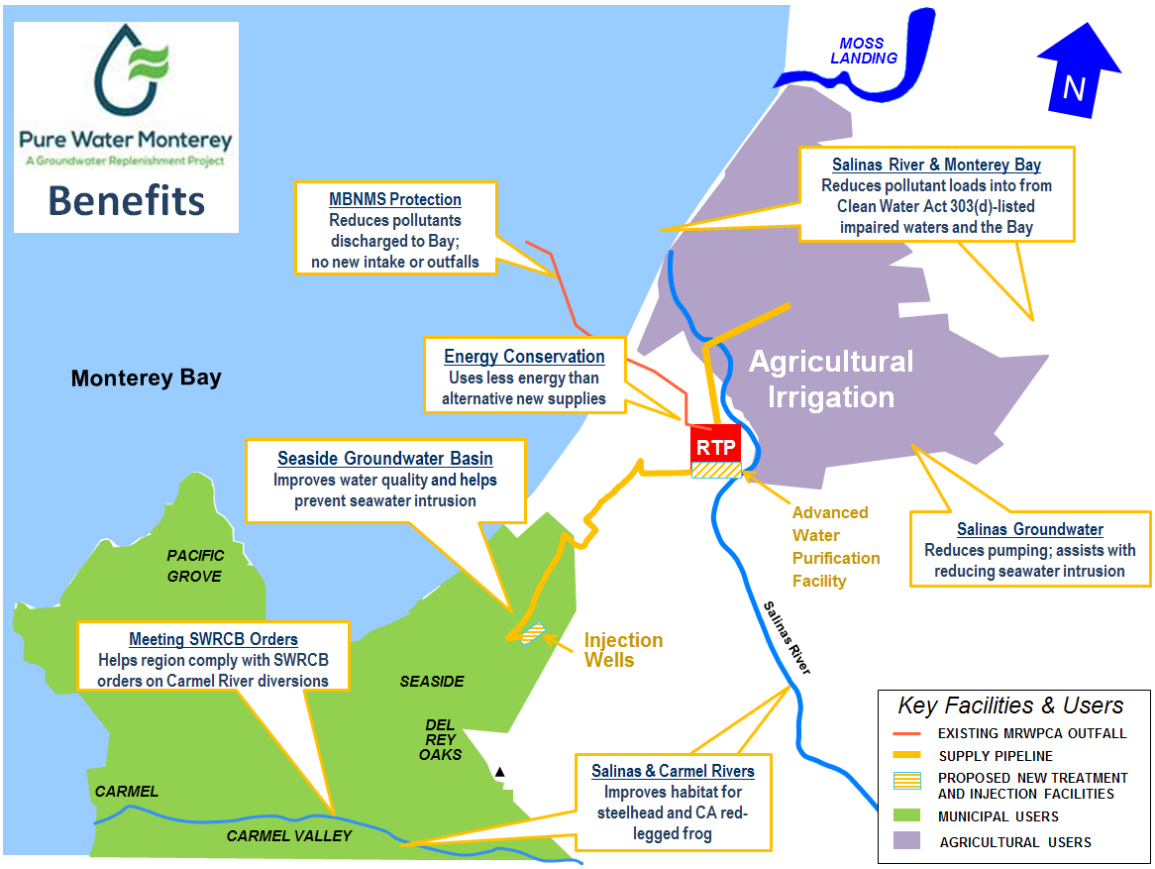

Figure 1. GWR Project Benefits

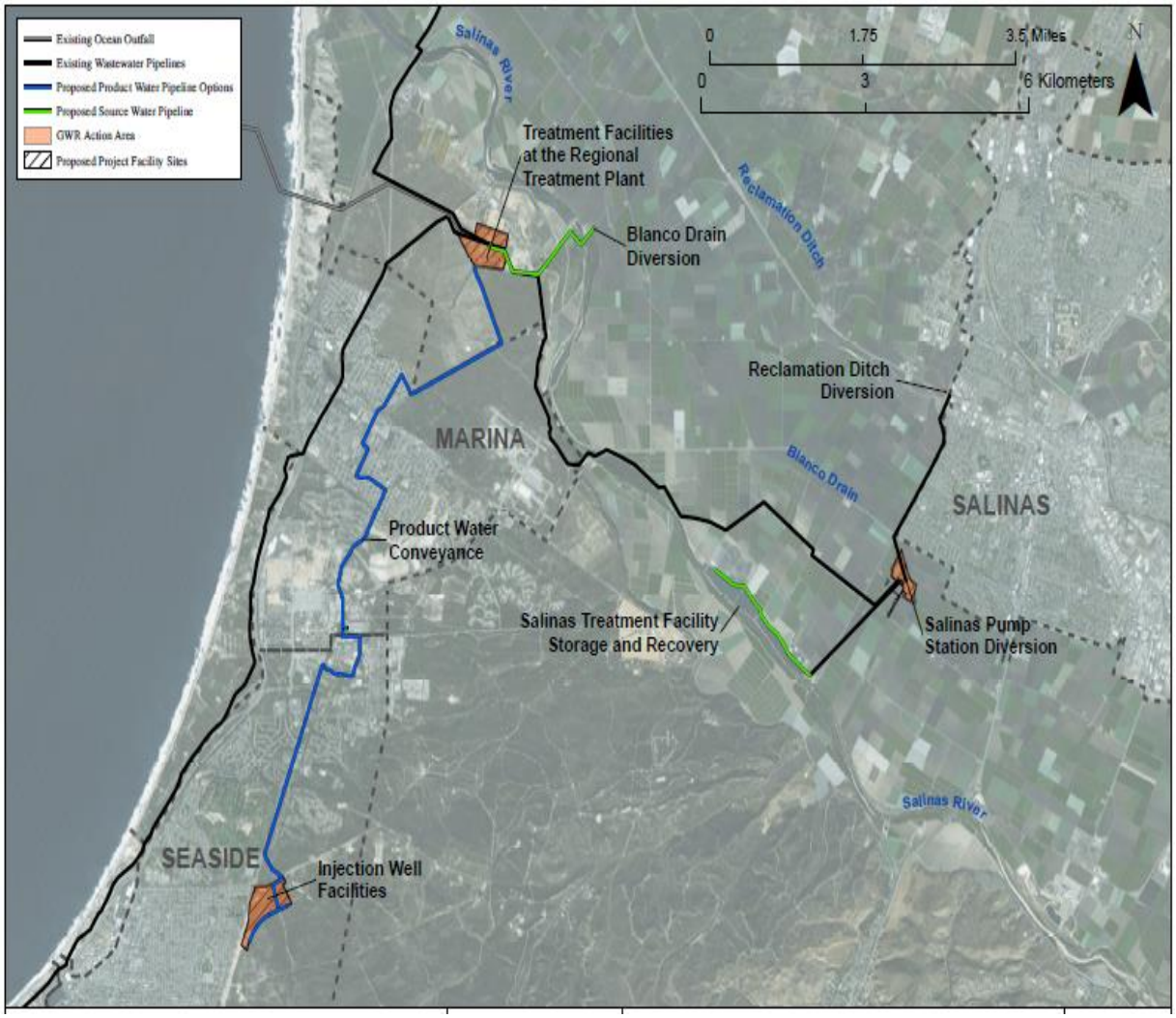

Figure 2: GWR Project on Aerial Base Map (Source: Denise Duffy & Associates, Inc., 2016)

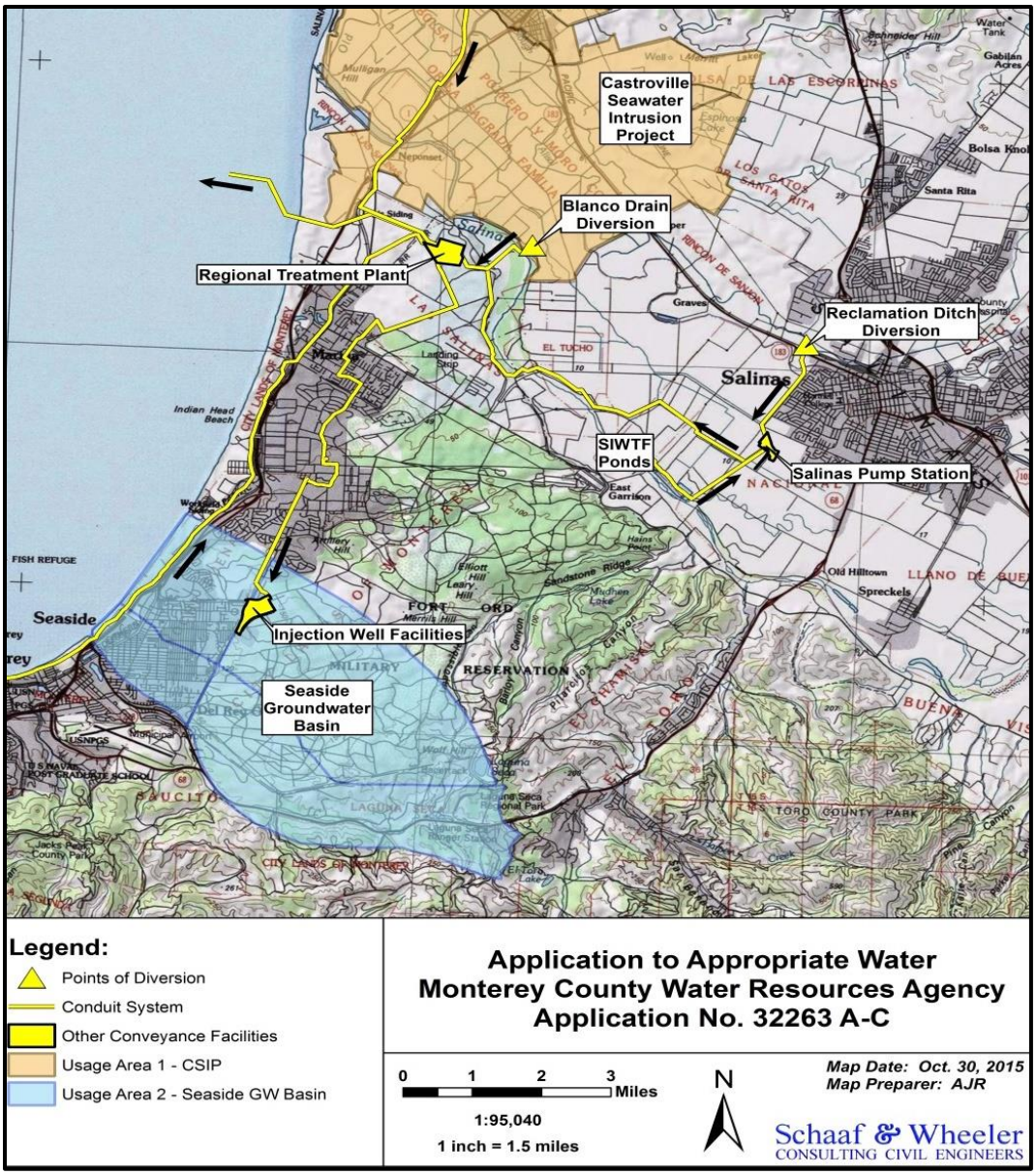

Figure 3. Water Rights Maps on USGS Base Map, including the Locations of Existing Facilities for Source Water Conveyance

1.2 Need for the GWR Project

The primary need for the GWR Project is to replenish the Seaside Basin with 3,500 AFY of purified recycled water to replace a portion of CalAm's water supply as required by state orders, including State Regional Water Resources Control Board (State Water Board) Order WR 2009-0060, as amended by Order WR 2016-0016.

Secondary purposes of the GWR Project include:

- Provide additional water to MRWPCA's Regional Plant that could be used for crop irrigation through the Salinas Valley Reclamation Plant and Castroville Seawater Intrusion Project system;
- Develop a drought reserve to allow the increased use of GWR Project source waters as crop irrigation within the area served by the Castroville Seawater Intrusion Project during dry years;
- Assist in preventing seawater intrusion in the Seaside Basin; and
- Assist in diversifying Monterey County's water supply portfolio.

1.3 Previous Environmental Documents

The GWR Project has undergone substantial environmental review and regulatory compliance.[1] Key environmental review documents and permitting approvals include the following:

- The GWR Project has a certified Environmental Impact Report (EIR) that was prepared to meet the requirements of the Clean Water State Revolving Fund loan program that is partially funded through the U.S. Environmental Protection Agency (available at: www.purewatermonterey.org);
- Clean Water State Revolving Fund (CWSRF) environmental checklist, CEQA findings and a Notice of Determination (Appendix A);
- Letter of concurrence from the State Historic Preservation Office completing the NHPA Section 106 process (Appendix B, dated April 19, 2016);
- U.S. Fish and Wildlife Service Biological Opinion for compliance with Endangered Species Act (ESA) Section 7 Consultation (Appendix C, dated December 20, 2016);
- Biological Assessment Supporting USFWS Biological Opinion for compliance with Endangered Species Act (ESA) Section 7 Consultation (Appendix D, dated March 2, 2016);
- Letter of concurrence from the National Oceanic and Atmospheric Administration National Marine Fisheries Service (Appendix E, dated December 5, 2016);
- Biological Assessment of the Effects of the Pure Water Monterey Groundwater Replenishment project on South-Central California Coast

[1] The federal environmental compliance for the GWR Project's funding through the CWSRF was completed under the CEQA-Plus process. Information concerning the CEQA-Plus process is available at: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/cwsrf_requirements.shtml.

Steelhead Distinct Population Segment (Appendix F, dated October 11, 2016);

- Clean Water Section 404 Authorization to Fill Waters of the U.S. from the U.S. Army Corps of Engineers (Appendix G);
- Clean Water Section 401 Water Quality Certification from the State Water Resources Control Board (Appendix H);
- Ocean Plan Compliance Assessment for the Pure Water Monterey Groundwater Replenishment Project (Appendix I);
- State Water Board Water Rights Permit 21376 for the diversion of surface waters from Blanco Drain (Appendix J);
- State Water Board Water Rights Permit 21377 for the diversion of surface waters from Reclamation Ditch (Appendix K); and
- Regional Water Board, Waste Discharge Requirements and Water Recycling Requirements for the Pure Water Monterey Advanced Water Purification Facility and Groundwater Replenishment Project (Appendix L).

Other authorization / permits from State agencies are detailed in Appendix M.

SECTION 2 PROPOSED ACTION AND ALTERNATIVES

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not award the MRWPCA with Title XVI funds for a portion of the Proposed Action.

MRWPCA will receive funds from project partners, loan proceeds from the State Water Board through the CWSRF, and grant funds from the State Water Board Proposition 1 program. These funding sources are sufficient for the construction of nearly all the physical components of the GWR Project, including the diversions at the Reclamation Ditch and the Blanco Drain, the Salinas industrial and storm water source water projects, the conveyance pipelines, the AWPF at the Regional Treatment Plant, and the first phases of injection wells in the Seaside Basin. The construction and operation of these components would move forward regardless of whether Reclamation would provide funding for the GWR Project. Thus, the environmental effects of the construction and operation of the GWR Project would occur under the No Project Alternative.

There are additional system components of the GWR Project that would be constructed or installed no sooner than 2018 and would be operated as part of full implementation of the GWR Project. The Reclamation funding would be used for these additional system components. If Reclamation does not provide funding, MRWPCA may need to secure additional funds for these system components through additional CWSRF loan funds or grants. The availability of additional funding sources other than the Title XVI program is unknown at this time.

2.2 Proposed Action: Funding for the GWR Project

Under the Proposed Action, Reclamation would provide partial funding for the certain system components for full implementation of the GWR Project, a water supply project that will serve northern Monterey County. As noted above, these components include upgrades to increase the operational efficiency, reliability, and flexibility of treatment, conveyance, and storage facilities at the Regional Treatment Plant (including the AWPF and other treatment facilities) and at the Seaside Basin injection well facilities. The upgrades would include improvements to the treatment systems to enable additional system automation/controls, process upgrades to improve reliability, performance, operational ease, and efficiency of existing facilities. In addition, the funds would be used for new or modified injection and monitoring wells and appurtenant facilities (up to a total of 4 injection well clusters as evaluated in the EIR and federal compliance documents), if needed to better meet water quality and/or quantity requirements and objectives.

The GWR Project will provide purified recycled water for recharge of a groundwater basin that serves as drinking water supply, and recycled water to augment the existing Castroville Seawater Intrusion Project's crop irrigation supply.

The GWR Project includes the collection of a variety of new source waters and conveyance of that water to MRWPCA's Regional Plant for treatment and recycling. The water would then be used for two purposes: replenishment of the Seaside Basin with purified recycled water as replacement source of CalAm's drinking water supplies; and provision of recycled water supply for replacing existing use of groundwater for agricultural irrigation in northern Salinas Valley (both described below).

The Regional Plant is located two miles north of the City of Marina and operated by MRWPCA. The Regional Plant currently collects wastewater and some stormwater from its eleven-member service area, and treats a large portion of this incoming flow to a tertiary treatment standard that enables it to be used for unrestricted agricultural irrigation purposes in the northern Salinas Valley. Flow that is not sent to the tertiary treatment system is discharged through an outfall to Monterey Bay after receiving secondary treatment.

The new source waters would supplement the existing incoming wastewater flows, and would include the following: (1) water from the City of Salinas agricultural wash water system; (2) stormwater flows from the southern part of Salinas, (3) surface water and agricultural return flows that are captured from the Reclamation Ditch using a proposed new diversion and pump station facility at Davis Road (RM 6.5) and (4) surface water and agricultural tile drain water that flows in the Blanco Drain. *See* Figures 1 and 2 (identifying the location of GWR Project features, including the Reclamation Ditch and the Blanco Drain). Most of

these new source waters would be combined within the existing wastewater collection system before arriving at the Regional Plant; water from Blanco Drain would be conveyed on its own directly to the Regional Plant. The combined flow would be treated using the existing Regional Plant processes and then further treated to recycle it for the following two purposes:

- **Replenishment of the Seaside Basin.** The GWR Project would enable CalAm to reduce its diversions from the Carmel River system by up to 3,500 acre-feet per year by injecting into the Seaside Basin the same amount of purified recycled water that complies with California Code of Regulations Title 22 Criteria for groundwater replenishment by subsurface application. This purified recycled water would be produced from a new AWPF that would be constructed at the Regional Plant. This new facility would treat some of the new blend of source waters described above. The "product water" from the AWPF would be conveyed to and injected into the Seaside Basin via a new pipeline and new well facilities. The purified recycled water would then mix with the existing groundwater and be stored for future urban use by CalAm, thus enabling a reduction in Carmel River system diversions by the same amount.

- **Additional recycled water for agricultural irrigation in northern Salinas Valley.** Currently, the only sources of supply for the existing water recycling facility at the Regional Plant (called the Salinas Valley Reclamation Plant) are municipal wastewater and small amounts of urban dry weather runoff. Municipal wastewater flows have declined in recent years due to aggressive water conservation efforts by the MRWPCA member entities. By increasing the amount and type of source waters entering the existing wastewater collection system, additional recycled water can be provided for use in the Castroville Seawater Intrusion Project's agricultural irrigation system. It is anticipated that during normal and wet years approximately 4,500 to 4,750 acre-feet per year of additional recycled water supply could be created for irrigation purposes. During drought years, up to an additional 1,000 AF could be created for crop irrigation. With additional funding, MRWPCA would complete some modifications to the treatment facilities at the Regional Plant to optimize and enhance the quality and quantity of recycled water delivered to growers.
- The GWR Project would also include a drought reserve component to support use of the new supply for crop irrigation during dry years. The GWR Project provides for an additional 200 AFY of purified recycled water that would be injected in the Seaside Basin in wet and normal years for up to five consecutive years. This will result in a "banked" drought reserve totaling up to 1,000 acre-feet (AF). During dry years, the GWR Project could provide less than 3,500 AF of water to the Seaside Basin; however, CalAm would be able to extract the banked water to make up the difference to its supplies, such that its extractions and deliveries would not fall below 3,500 acre-feet per year. The source waters that are not sent to

the AWPF during dry years would be sent to the Salinas Valley Reclamation Plant to increase crop irrigation supplies for the Castroville Seawater Intrusion Project.

- The GWR Project would require modifications to existing facilities and construction of new physical facilities, discussed in further detail below. Construction of the GWR Project is anticipated to require approximately 18 months, plus three months of testing and start-up, and the GWR Project is currently planned for initial operation by the end of 2018.
- **Source water diversions.** Existing wastewater and water infrastructure systems will transport municipal wastewater, Salinas agricultural wash water, and Salinas stormwater to the Regional Plant. New facilities would be required to divert and convey the new source waters into the existing municipal wastewater collection system or through new conveyance systems, and to the Regional Plant, discussed in greater detail below.

***Reclamation Ditch*.** A new diversion structure will be installed in the Reclamation Ditch at Davis Road (RM 6.5) to divert flows, when available, into an existing sanitary sewer gravity main, which conveys wastewater to the MRWPCA Salinas Pump Station. The Reclamation Ditch was selected based on the availability of reliable flows and proximity to existing wastewater collection facilities, which may be used to convey the flows to the MRWPCA Regional Plant. The Reclamation Ditch, created between 1917 and 1920, is a network of excavated earthen channels used to drain surface runoff and facilitate agricultural use of the surrounding lands. The Reclamation Ditch watershed is approximately 157 square miles that includes headlands, agricultural areas, the City of Salinas, and portions of Castroville and Prunedale. It collects water from Alisal Creek at Smith Lake southeast of the City of Salinas, Gabilan and Natividad Creek within Salinas at Carr Lake, and Santa Rita Creek west of Salinas.

Diverting water from the Reclamation Ditch will require the construction of a new intake structure on the channel bottom, connecting to a new wet well (manhole) on the channel bank via a new gravity pipeline. The new intake would be screened to prevent fish and trash from entering the pump station. Two submersible pumps would be installed in the wet well, controlled by variable frequency drives. The electrical controls and drives would be in a locked, weatherproof cabinet near the wet well and above flood level. The new pump station would discharge through two new short force mains (approximately 50-feet each), discharging into an existing manhole on the City of Salinas 54-inch sanitary sewer main. Two new underground vaults would be installed along the force main, one to hold the check and isolation valves, and one for the flow meter. The channel banks and invert new the pump station intake would be lined with concrete to prevent scouring and facilitate the management of bypass flows.

***Blanco Drain*.** Blanco Drain is a man-made reclamation ditch draining approximately 6,400 acres of agricultural lands east of the City of Salinas. The

watershed for the Blanco Drain is between the Salinas River and Alisal Slough, and discharges to the Salinas River at RM 5. The Blanco Drain is separated from the Salinas River by a flap gate, which prevents Salinas River water from entering the Blanco Drain under high water conditions. Summer flows into the Blanco Drain are generally tile drainage and runoff from irritated agriculture. Winter flows include stormwater runoff, although some fields remain in production and are irrigated year-round.

Diversion of water at the Blanco Drain requires the construction of a new pump station and a two-mile pipeline that would cross under the Salinas River. The Blanco Drain pump station will be located just upstream of the existing seasonal pump station operated by Monterey County Water Resources Agency. The new pump station consists of a new intake structure on the channel bottom, connecting to a new wet well on the channel bank via a new gravity inlet pipe. The new pump station would discharge through a new 16-inch force main running from the pump station to the headworks of the Regional Plant.

Water Rights Permits 21376 and 21377. On March 17, 2017, the State Water Board issued Water Rights Permits 21376 and Permit 21377 for the diversion of surface waters from Blanco Drain and Reclamation Ditch, respectively. Appendix J (Water Rights Permit 21376) and Appendix K (Water Rights Permit 21377). Water Rights Permit 21376 limits the diversion from the Blanco Drain to no more than 6 cubic feet per second by direct diversion, totaling up to 3,000 AFY. Water Rights Permit 21377 limits the diversion from the Reclamation Ditch to 6 cubic feet per second by direct diversion, totaling up to 2,000 AFY. These permits include terms and conditions developed with the National Marine Fisheries Service (NMFS) and the California Department of Fish and Wildlife (CDFW) to reduce potential impacts to fisheries, including the South Central California Coast (S-CCC) steelhead. These measures include, but are not limited to, minimum flow thresholds for diversions, bypass flows, dewatering, bypass flow monitoring, implementation of an erosion control/revegetation plan, implementation of a fish screen (for the Reclamation Ditch only). Additional discussion of the water rights permits' conditions is below.

- **Treatment facilities at the Regional Plant.** The existing MRWPCA Regional Plant would be used to provide primary and secondary treatment for all source waters. A new advanced water treatment plant, AWPF, would be constructed at the existing Regional Plant site. The plants are located north of the City of Marina and south of the Salinas River in unincorporated Monterey County.

Residential, commercial, and industrial wastewater is conveyed to the Regional Plant via a regional wastewater collection system that interconnects and serves the Cities of Monterey, Pacific Grove, Seaside, Del Rey Oaks, Sand City, Marina, and Salinas, unincorporated communities in Castroville, Moss Landing, Boronda and the former Fort Ord. The Regional Treatment Plan has an average dry

weather design capacity of 29.6 millions of gallons per day (mgd) and a peak wet weather design capacity of 75.6 mgd. It currently receives and treats approximately 16 to 17 mgd and therefore has capacity to treat additional flows.

Currently, the Regional Plant has two distinct treatment standards: (1) primary and secondary treatment in the Regional Plant for discharge through the MRWPCA ocean outfall or use as influent for the tertiary treatment system, and (2) Title 22 standards (tertiary filtration and disinfection) for unrestricted crop irrigation use.

The AWPF would add a third treatment standard at the Regional Plant with the construction a state-of-the-art treatment system that uses multiple membrane "barriers" to purify the water, product water stabilization to prevent pipe corrosion due to water purity and a pump station. The water treated by the AWPF would meet or exceed federal and state drinking water standards, including those set forth in Title 22.

There may also be modifications to the Salinas Valley Reclamation Plant to optimize and enhance the delivery of recycled water to growers. The Salinas Valley Reclamation Plant has a design capacity that enables it to run only at flows of between 8 mgd and 29.6 mgd. Through operational efficiencies, the plant managers can meet irrigation demands as low as 5 mgd, which is still not small enough for winter and wet-year demands. These small irrigation demands are currently met using Salinas Valley groundwater. Under the full implementation of the GWR Project with additional funding, the Salinas Valley Reclamation Plant could be enhanced to enable the plant to produce more continuous flows in the winter when demand by the CSIP growers decreases to as low as 0.5 mgd. Proposed improvements would include new sluice gates, a new pipeline between the existing inlet and outlet structures within the storage pond, chlorination basin upgrades, and a new storage pond platform. Instead of holding recycled water in the 80 acre-foot pond, one of the chlorine contact basins would be used as a wet-season storage reservoir, while the second basin would continue to function as the disinfection step. All of the modifications would occur within the existing Salinas Valley Reclamation Plant footprint. This component is expected to facilitate the delivery of up to 1,200 AFY of additional recycled water to the CSIP area. Effects from these modifications would be limited to within the existing Regional Plant footprint.

- **Product water conveyance.** Recycled water that would be used by the Castroville Seawater Intrusion Project for irrigation purposes would be conveyed to growers through its existing distribution system. However, new pipelines and appurtenant facilities are needed to move the product water from the Regional Plant to the Seaside Basin for injection for potable water use. These facilities include a 10-mile pipeline that will be constructed primarily within existing roads and infrastructure. Most pipeline segments would be installed using conventional

open-trench technology; however, where it is not feasible or desirable to perform open-cut trenching, trenchless methods will be used.

The pipeline would follow the following route: (1) the pipeline would start at the AWPF and proceed to the southern boundary of the Regional Plant under existing roads; (2) the pipeline would proceed south across undeveloped lands owned by Marina Coast Water District and Armstrong Ranch to the City of Marina, following existing farm roads; (3) the pipeline then follows street rights-of-way through Marina and connects to an existing pipeline segment previously installed in Inter-Garrison Road (3rd Street) and 5th Avenue on the campus of California State University-Monterey Bay; (4) the pipeline resumes at 5th Avenue and A Street, proceeding under unpaved roads within California State University-Monterey Bay to General Jim Moore Boulevard; and (5) the pipeline would ultimately connect with an existing recycled water main in General Jim Moore Boulevard to the injection well field.

- **Injection well facilities.** The injection well facilities site is located in an area previously used as small arms ranges when Fort Ord was an active military base. The well clusters are located along the southeast boundary of the parcel, which borders with the Bureau of Land Management's Fort Ord National Monument. The injection facilities would include new wells (in the shallow and deep aquifers), back-flush facilities, pipelines, electricity/power distribution facilities, and electrical/motor control buildings.

The injection wells would be installed by open excavation, except the wells themselves which would be by conventional rotary drilling. Above-grade facilities would have cast-in-place concrete floors or pads. The pipelines and conduits would be installed under existing unpaved roads or would follow another alignment within the site modified as needed to follow the topography as requested by the City of Seaside. Conduits would also be installed along General Jim Moore Boulevard and/or Eucalyptus Road to reach the existing PG&E service.

A single percolation pond for well backwash water will be constructed, located between the second and third well cluster, adjacent to the access road and pipeline corridor. Groundwater monitoring wells will be installed along existing unpaved roads.

The injection wells and associated electrical and mechanical systems will operate 24 hours per day, 7 days a week throughout the year, although it is unlikely that all eight wells would be actively injecting at the same time for any length of time. Operations and maintenance staff would likely visit the injection well facilities once daily Monday through Friday nearly every week. In addition to operation and maintenance of the wells, the workers would inspect above ground valves and appurtenances to assure they are properly functioning and to conduct and monitor the back-flush operations. Back-flushing of each injection well would occur for

about four hours weekly and would require discharge of the back-flush water into the percolation basin. Approximately once a year, a disking machine would be used to scarify the bottom of the backflush basin to increase/restore the percolation rate.

SECTION 3 Affected Environment and Environmental Consequences

Reclamation considered potential impacts to the following resources and found them to have no environmental consequences. Brief explanations are provided below:

- Indian Trust Assets (ITAs): are legal interests in property or rights held in trust by the United States for federally recognized Indian Tribes or individual Indians. Indian reservations, Rancherias, and Public Domain Allotments are common ITAs in California. The closest ITA to the GWR Project is the 50H CA12519 and is 21.68 miles northeast. The GWR Project does not have a potential to affect ITAs (see Appendix N).

- Executive Order 13007 (May 24, 1996) requires that federal agencies accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners, and avoids adversely affecting the physical integrity of such sacred sites. The GWR Project traverses less than a mile of roadway right-of-way under General Jim Moore Boulevard on U.S. Department of the Army lands. There are no Indian sacred sites in the area, and the GWR Project construction and operation would not affect access to any sacred sites.

- Environmental Justice: Executive Order 12898 requires each Federal agency to identify and address disproportionately high and adverse human health or environmental effects, including social and economic effects of its program, policies, and activities on minority populations and low-income populations. There is no disproportionately high and adverse human health or environmental effects on minority populations and low-income populations that would occur from the proposed activities. The GWR Project provides additional water and recycled water that would be available to a wide range of the population with no disproportionate impacts on one population. Human health potential for adverse impacts has been fully evaluated in the Draft and Final EIR and technical appendices and found to have no adverse health impact.

- Other potential impacts found not to be significant and that do not require mitigation measures to reduce impacts include: geology and soils, mineral resources, population and housing, public services, recreation, and utilities and service systems.

3.1 Environmental Consequences of the No Action Alternative

The proposed Reclamation funding would be for components that consist largely of upgrades increasing the efficiency, reliability, and flexibility of the operations at the Regional Treatment Plant, including the AWPF, Salinas Valley Reclamation Project, and injection well facilities at the Seaside Basin. The vast majority of these upgrades would not have an effect on the environment, as they would be implemented in and near the existing wastewater and recycling system facilities within the footprint of the existing Regional Treatment Plant. Upgrades to the injection facilities would be the installation of additional injection wells and monitoring wells (i.e., Well Cluster 3, and potentially, Well Cluster 4 as described in the GWR Project's EIR). The environmental effects of these injection facilities would be minimal and were part of the GWR Project examined by MRWPCA in the Final EIR, and by the state and federal permitting agencies. The environmental effects of the No Action Alternative are therefore materially the same as the Proposed Action.

3.2 Environmental Consequences of Funding of the GWR Project

Reclamation finds that there are no significant and unavoidable impacts associated with the potential funding of the GWR Project.[2] All potential effects of the GWR Project are less than significant or less than significant with mitigation. Under CEQA, the MRWPCA adopted all recommended mitigation and approved a Mitigation Monitoring and Reporting Program as part of its October 8, 2015 GWR Project approval. Approvals of various GWR Project components by responsible local, State and federal agencies have added to the mitigation measures and have included conditions of approval. No litigation was filed to challenge the environmental review, and the statute of limitations to challenge the EIR has long since passed. MRWPCA is implementing a thorough mitigation monitoring and condition compliance program that will ensure compliance with all relevant mitigation measures and permit conditions.

In addition, Reclamation found the following economic, social, technological, and environmental benefits of the GWR Project:

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[2] The GWR Project's Final EIR found only two significant and unavoidable impacts; both were temporary construction noise impacts related to only: (1) the Tembladero Slough Source Water Diversion component; and (2) the Monterey Pipeline component. Neither of these components is proposed to be implemented as part of the Proposed Action. Indeed, a condition of the Water Rights Permits for the GWR Project's Source Waters prohibits the Tembladero Slough diversion from being implemented by the Proposed Action. In addition, the Monterey Pipeline component is a private facility that will be owned and operated by CalAm for potable water distribution that has independent utility from Pure Water Monterey. CalAm is currently constructing the Monterey Pipeline. Thus, any Reclamation funding would not be used for CalAm's facility.

a. The GWR Project would replace 3,500 AFY of unauthorized Carmel River diversions for municipal use with additional groundwater pumping enabled by recharge of purified recycled water;

b. The GWR Project would provide additional recycled water to Salinas Valley growers for crop irrigation (up to 4,500 to 4,750 AFY and potentially more in drought years);

c. The Salinas Valley Groundwater Basin is in overdraft and the GWR Project would reduce the volume of water pumped from Salinas Valley aquifers;

d. The GWR Project would increase water supply reliability and drought resistance;

e. The GWR Project would maximize the use of recycled water in compliance with the state Recycled Water Policy; and

f. The GWR Project would reduce pollutant loads from urban and agricultural areas to sensitive environmental areas including the Salinas River and Monterey Bay.

3.2.1 Groundwater Resources

The AWPF will produce purified recycled water that will meet or exceed all federal and state drinking water standards, including Title 22 of the California Code of Regulations. After wastewater is treated at the Regional Plant, it will be diverted to the AWPF where it will undergo a four-step state-of-the-art purification process consisting of pre-ozonation, membrane filtration, reverse osmosis, and advanced oxidation using ultraviolet light with hydrogen peroxide. The AWPF product water after the UV disinfection is near-distilled-quality and therefore requires stabilization to prevent corrosion of conveyance pipelines. The water would then be injected into the Seaside Groundwater Basin.

The GWR Project has been reviewed, approved, and permitted by the State Water Board's Division of Drinking Water and the Central Coast Regional Water Quality Control Board (RWQCB) to protect public health and water quality, as well as environmental compliance. The Waste Discharge Requirements and Water Recycling Requirements issued by the RWQCB requires continuous water quality testing and sampling. The engineering report and anti-degradation analyses for the GWR project was reviewed and approved by the State Water Board Division of Drinking Water and the RWQCB. The agencies concluded that the GWR Project would ensure that the project exceeds Title 22 drinking water criteria and that groundwater quality would not be degraded per state and federal anti-degradation policies. The analyses conducted included the assumption that the project would use municipal wastewater, irrigation return flows from agricultural land, industrial wastewater from City of Salinas agricultural processing facilities, and urban

runoff including storm water. If the product water does not meet water quality requirements, the AWPF will be shut down and injections into Seaside Basin would cease until the system can operate to meet the required water quality standards/limits. See Appendix L, Regional Water Board, Waste Discharge Requirements and Water Recycling Requirements for the Pure Water Monterey Advanced Water Purification Facility and Groundwater Replenishment Project.

3.2.2 Surface Water Resources

The GWR Project may result in impacts to sensitive habitats including wetlands during construction of the Reclamation Ditch, and Blanco Drain diversions. Mitigation measures and conditions of the Clean Water Act Section 401 Water Quality Certification issued March 30, 2017 for temporary impacts include avoidance of light and glare, placement of construction fencing around riparian and wetland habitats, and preventing construction materials including water from being transported into waters of the state within the Reclamation Ditch, the Blanco Drain, and the Salinas River. No direct effects to wetlands are will occur. Potential effects have been eliminated by relocating and avoiding areas of riparian and wetland habitat. Mitigation has been adopted and will be implemented if impacts occur that requires the GWR Project to mitigate any unanticipated permanent significant impacts on riparian and wetland habitat at no less than a 2:1 replacement-to-loss ratio through restoration and/or preservation after approval by the relevant permitting agencies (U.S. Army Corps of Engineers (USACOE), State Water Board, CDFW). Any effects would also be reduced by compliance with the conditions set forth in the USACOE Authorization under CWA Section 404 and Section 10 of the Rivers and Harbors Act (Appendix G) and the State Water Board Certification under CWA Section 401 (Appendix H).

The GWR Project's operations could impact surface water sources in the Reclamation Ditch and the Salinas River watersheds due to the water diversions that would be operated as part of the GWR Project. The diversions from the Salinas River watershed include removing very low quality water from the Blanco Drain before it enters the Salinas River at approximately RM 5. Water quality in Blanco Drain is extremely poor and contains contaminants that are known to be harmful to fish and wildlife. The GWR Project will substantially reduce the discharge of this poor quality water to the Salinas River and will improve water quality conditions for S-CCC steelhead habitat. The Salinas River Lagoon, a potentially significant habitat for recovery of S-CCC steelhead in the Salinas River watershed, will be improved by reducing pollutant levels a major portion of which is derived from the Blanco Drain, especially during low flow, summer conditions. The diversion rate from the Salinas River was found to be consistent with maintaining the flows prescribed by NMFS for the Lower Salinas River as well as reducing discharge of the poor quality water to the Salinas River.

As part of the State Water Board process for Water Rights Permits 21376 and 21377, the local agencies, NMFS, and CDFW agreed upon terms and conditions to be included in the permits to further reduce any impacts to S-CCC and surface

water resources. The terms and conditions are outlined in Appendix M of the Biological Assessment submitted to NMFS during the Section 7 consultation process (described in greater detail below). See Appendix F (Biological Assessment for Pure Water Monterey submitted to NMFS). These requirements will ensure that lagoon levels do not decline substantially and that periodic flushing flows will continue in the Old Salinas River, which currently received flow from the lagoon on a regular basis. In most conditions, the diversions of water that currently flow to the Salinas River were determined to likely improve aquatic habitat conditions in the Lower Salinas River by reducing pollutant loads. As a result, the Proposed Action will have no effect and a potential beneficial effect on surface water resources.

3.2.3 Marine and Ocean Water Quality

The Water Quality Control Plan for Ocean Waters of California (Ocean Plan) establishes water quality objectives and beneficial uses for waters of the Pacific Ocean adjacent to the California coast outside of estuaries, coastal lagoons, and enclosed bays.

In producing the highly purified water, the new AWPF would produce, among other things, reverse osmosis concentrate, which would be piped to a proposed new brine and effluent receiving, mixing, and monitoring facility. The reverse osmosis concentrate would be discharged through the existing MRWPCA outfall to Monterey Bay that runs from incorporated portions of Monterey County, ultimately reaching Monterey Bay in the City of Marina. The current MRWPCA wastewater discharge is governed by NPDES permit R3-2014-0013 issued by the RWQCB. MRWPCA will obtain an amended permit or a new permit from the RWQCB to discharge the reverse osmosis concentrate.

Trussell Technologies performed water quality quantitative analysis of the GWR Project's ability to meet the Ocean Plan Water Quality objectives. In doing so, Trussell Technologies estimated a worst-case water quality under five different operational scenarios for the wastewater that would be discharged through the ocean outfall and compared that discharge to the Ocean Plan objectives to determine whether there would be a significant effect on marine and ocean water quality. The results showed that the GWR Project would not result in a significant effect on ocean water quality because the wastewater discharged through MRWPCA's ocean outfall, including the GWR Project's reverse osmosis concentrate, would consistently meet the water quality objectives of the Ocean Plan. See Appendix I for the Ocean Plan Compliance Assessment for the Pure Water Monterey Groundwater Replenishment Project. As a result, the Proposed Action would have no effect on ocean water quality.

3.2.4 Special Status Biological Resources

The GWR Project is located within Monterey County and traverses the Monterey Peninsula, which encompasses a broad range of biological resources. Most GWR

Project components will occur within disturbed urbanized areas and existing agricultural lands. However, some GWR Project components would occur within undeveloped habitats. The GWR Project has the potential to effect both terrestrial biological resources and aquatic biological resources. The potential effects to each are discussed in more detail below.

- **Terrestrial Biological Resources.** The GWR Project region is located near the confluence of the San Francisco Bay, Central Coast, and South Coast Range floristic provinces; the flora of Monterey County is among the most diverse in California. The Monterey Bay region represents the population range limits of many rare plant species endemic to northern and southern portions of California. See GWR Project Final EIR, Table 4.5-2, Habitat Types Identified within the GWR Project Study Area.

A biological Project Study Area was created for the GWR Project to include all areas where permanent and temporary impacts may occur to biological resources as a result of project construction and operation. The Project Study Area for the GWR Project was defined using input from the project technical team, preliminary project plans, and assessor parcel information. Relevant information from these sources was combined using Geographic Information Systems (GIS) software to create the final Project Study Area. The Project Study Area includes the following surface water bodies: Old Salinas River Channel, Reclamation Ditch, Tembladero Slough, Blanco Drain, and Salinas River.[3] This analysis further defines "Affected Reaches" as portions of the Reclamation Ditch, Tembladero Slough, and the Old Salinas River Channel, which have the potential to be affected by the operation of the project as a result of changes in hydrology due to the proposed diversions. These changes have the potential to affect terrestrial biological resources. The vast majority of the habitat that would be impacted by the GWR Project is ruderal/developed/active agriculture habitat.

To determine which federally listed or proposed species are known to have, or have the potential to, occur in the GWR Project area, a list of threatened and endangered species with the potential to be affected by the GWR Project provided by the USFWS, the California Natural Diversity Database (CNDDB) occurrence reports, and other materials were reviewed. See Final EIR, Tables 4.5-3 and 4.5-4 (outlining the potential special status plant and terrestrial wildlife species that may be impacted by the project). Three federally threatened species are known or likely to occur within the GWR Project area: Monterey spineflower, Monterey gilia, and the California red-legged frog. No state-listed species are known or likely to occur within the GWR Project area. There are no areas of designated critical habitat in the GWR Project area for terrestrial biological resources.

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[3] Subsequent to the certification of the Final EIR, MRWPCA eliminated certain project features analyzed in the Final EIR during the pursuit of funding, water rights permits, and federal and state permits, including proposed diversions at Lake El Estero and Tembladero Slough.

Direct mortality of California red-legged frog may occur associated with construction activities, such as vegetation removal or site grading. Indirect impacts to California red-legged frog may include mortality of individuals during construction due to sedimentation and contamination of aquatic habitat as a result of erosion from distributed portions or frac-out associated with directional drilling. Potential effects on the California red-legged frog and other amphibious species will be reduced to less than significant levels through the implementation of mitigation measures that would reduce or avoid impacts to the California red-legged frog by scheduling activities at certain times during the year, keeping the disturbance footprint to a minimum, and monitoring (Mitigation Measure BT-1q). MRWPCA will also implement the terms and conditions of the Biological Opinion that will further reduce effects on the California red-legged frog. While the GWR Project may result in the mortality of a few adult or juvenile California red-legged frogs, the GWR Project would not have a substantial effect to the population stability of the species within the region. Appendix C (USFWS Biological Opinion for the GWR Project).

One species for proposed listing, the tricolored blackbird, may occur within the GWR Project area. Several migratory bird species protected by the Migratory Bird Treaty Act (MBTA) also have the potential to nest and forage with the GWR Project area, including the white-tailed kite, California horned lark, and burrowing owl. Temporary disturbance may occur to foraging tricolored blackbirds or migratory birds during construction activities. Additionally, if construction occurs during the nesting season, activities such as vegetation removal or site grading could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment within and adjacent to the GWR Project area. Impacts to migratory birds will be reduced to less than significant levels through mitigation including pre-construction surveys for protected avian species (Mitigation Measures BT-1k, BT1l), implementation of suitable buffers from nesting birds (Mitigation Measure BT-1k), avoidance and minimization of impacts to riparian habitat and wetland habitats (Mitigation Measure BT-2a).

GWR Project construction may adversely affect, either directly or through habitat modification, special-status plant and wildlife species and their habitat within the GWR Project area. GWR Project construction and operations may also adversely affect sensitive habitats (including riparian, wetlands, and/or other sensitive natural communities) within the GWR Project area. These impacts would be mitigated to less than significant with implementation of mitigation measures, including but not limited to: (1) implementation of construction Best Management Practices (Mitigation Measure BT-1a); (2) the implementation of construction phase monitoring (Mitigation Measure BT-1b); (3) the implementation of non-native, invasive species controls (Mitigation Measure BT-1c); (4) pre-construction surveys for special status and protected species (Mitigation Measures BT-1d, BT-1f, BT-1g, BT-1j, Mitigation Measure BT-1k); and (5) the preparation and implementation of a rare plant restoration plan (Mitigation Measure BT-1e).

GWR Project construction would potentially conflict with local policies or ordinances protecting biological resources. See GWR Project Final EIR, Table 4.5-6. A conflict may occur if there is an impact to the Habitat Management Plan (HMP) plant species within the GWR Project study area on the former Fort Ord (and seed salvage is not conducted), since those impacts do not require a take authorization from USFWS or CDFW. Those HMP plant species include Monterey spineflower, sandmat manzanita, Monterey ceanothus, and Eastwood's goldenbush. See GWR Project Final EIR, Table 4.5-7 (HMP Species and Habitats Identified within the Project Study Area on the former Fort Ord). There are no approved Habitat Conservation Plans applicable to the GWR Project.

Any effects resulting from the conflict described above would be reduced to less than significant with mitigation. Specifically, Mitigation Measure BT-4 requires that for impacts to the HMP plant species within the GWR Project study area that do not require take authorization from USFWS or CDFW, salvage efforts for these species will be evaluated by a qualified biologist per the requirements of the HMP and Biological Opinion. A salvage plan will be prepared and implemented by a qualified biologist, which would include, but is not limited to: a description and evaluation of salvage opportunities and constraints; a description of the appropriate methods and protocols of salvage and relocation efforts; identification of relocation and restoration areas; and identification of qualified biologists approved to perform the salvage efforts, including the identification of any required collection permits from USFWS and/or CDFW. Where proposed, seed collection will occur from plants within the GWR Project Study Area, and topsoil will be salvaged within occupied areas to be disturbed. The collected seeds will be used to revegetate temporarily disturbed construction areas and reseeding and restoration efforts on- or off-site, as determined appropriate in the salvage plan. See GWR Project Final EIR (Mitigation Measure BT-4).

- **Aquatic Biological Species.** The GWR Project may potentially affect flow in the Salinas River downstream of Spreckels (RM 11.2 through RM 0), including the Salinas River Lagoon, Blanco Drain, Reclamation Ditch downstream of Davis Road, including Tembladero Slough, the Old Salinas River channel, Moss Landing Harbor, and Elkhorn Slough. Native fish species that are known to occur in the GWR Project area include South Central California Coast steelhead (Oncorhynchus mykiss) (S-CCC steelhead), Pacific lamprey (Lampetra tridentata), threespine stickleback (Gasterosteus aculeatus), hitch (Lavinia exilicauda), Sacramento pikeminnow (Ptychocheilus grandis), Sacramento sucker (Catostomus occidentalis), and Monterey roach (Lavinia symmetricus subditus). See GWR Project EIR, Table 4.4.

Based on lists of potentially affected species obtained from the USFWS via the Information for Planning and Conservation project planning tool and from NMFS, it was determined that the only federally-listed fish species that may be affected by the GWR Project is the S-CCC steelhead and its critical habitat. See Appendix

F, Revised Biological Assessment of the Effects of the Pure Water Monterey Groundwater Replenishment Project on S-CCC Steelhead Distinct Population Segment. Potential effects include construction of the Reclamation Ditch diversion that could indirectly result in habitat modifications or reductions in stream flows that may interfere with fish migration in the Salinas River and Reclamation Ditch.

The potential effects on the S-CCC steelhead have been thoroughly examined throughout the GWR Project's environmental review. The GWR Project's EIR includes an extensive analysis of the potential effects on fish species, including the S-CCC Steelhead. Final EIR, Chapter 4.4. As noted above in Section 3.2.2, the GWR Project will result in reduced pollutant loads from the Blanco Drain before it reaches the Salinas River, improving potential habitat for the S-CCC steelhead.

Through the State Water Board water right permits process for the Reclamation Ditch and the Blanco Drain diversion components (Water Rights Permits 21376 and 21377), the effects on S-CCC steelhead were examined carefully to resolve protests filed by NMFS and CDFW. NMFS and CDFW, working collaboratively with the local agencies implementing the GWR Project, agreed to proposed terms and conditions to be included in the water right permits to avoid adverse effects of the GWR Project on migration and habitat at and downstream of the points of diversion in the Reclamation Ditch and within the Salinas River downstream of the Blanco Drain. Finally, the effects on the S-CCC steelhead were examined during informal consultation with NMFS under Section 7 of the Endangered Species Act, which culminated in NMFS's concurrence that the GWR Project may affect, but is not likely to adversely affect the S-CCC steelhead.

The potential construction effects on the fish species, including the S-CCC steelhead would be reduced to less than significant with mitigation measures, including implementation of construction Best Management Practices (Mitigation Measure BT-1a); construction during the low flow season (Mitigation Measure BF-1a), relocation of aquatic species during construction (Mitigation Measure BF-1b), and Tidewater Goby and Steelhead impact avoidance and minimization measures (Mitigation Measure BF-1c). See also NMFS Biological Assessment, Table 3-10 (Avoidance and Mitigation Measures related to Fisheries).

In addition, potential effects from the operation of the GWR Project would also be reduced to less than significant levels with the implementation of other protective measures required by the State Water Board water rights permits. Pursuant to these terms and conditions, the GWR Project would include operational requirements for diverting water from Blanco Drain and the Reclamation Ditch. Appendix J, Water Right Permit 21376 (Blanco Drain) and Appendix K, Water Right Permit 21377 (Reclamation Ditch). For the Blanco Drain diversion, the water rights permit includes a requirement to bypass 6 cubic feet per second of flows from the Blanco Drain to the Salinas River Lagoon between April 1 and

October 31, under specific conditions. This continued inflow of water to the river will be provided to ensure that lagoon levels do not decline substantially and that periodic flushing flows will continue in the Old Salinas River which currently receives flow from the lagoon on a regular basis. In most conditions, the diversions of water that currently flow to the Salinas River were determined to likely improve aquatic habitat conditions in the Lower Salinas River by reducing pollutant loads.

Additionally, design features of the Proposed Action from the avoidance and minimization measures included in the approved Mitigation, Monitoring, and Reporting Plan have been incorporated into the Project which will further reduce the effects of the Proposed Action to the S-CCC steelhead. See Appendix C. The design of the Reclamation Ditch diversion has also been reviewed and approved by the fish passage engineer at NMFS and determined to be protective of fish passage conditions.

See also Sections 4.2 and 4.4 below regarding consultation and coordination under the Endangered Species Act and the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

3.2.5 Air Quality

The GWR Project site is located in Monterey County (County), which is within the North Central Coast Air Basin (Basin) and under the jurisdiction of the Monterey Bay Air Resources District (MBARD). The County is federally designated as unclassified for particulate matter with a diameter of less than 10 micrometers (PM_{10}), and is in attainment or unclassified for all other federal criteria pollutants based on 2015 data.

The 2013 Estimated Annual Average Emissions (air emission inventory) for the Basin, in tons per day, are: 325.2 total organic gases (TOG), 48.1 of reactive organic gases (ROG), 194.9 of carbon monoxide (CO), 54.5 of oxides of nitrogen (NO_X), 1.2 of oxides of sulfur (SO_X), 82.7 of particulate matter (PM, all combined particulate matter), 43.3 of PM_{10}, and 11.2 of $PM_{2.5}$.

The estimated GWR Project construction air emissions, in tons per year (ton/year), are: 0 of Ozone (O_3) and CO, 33.01 of NO_X, 3.79 of ROG, 3.79 of Volatile Organic Compounds (VOC), 0 of Lead (Pb), 1.79 of $PM_{2.5}$, and 1.89 of PM_{10}, and 0 of Sulfur Dioxide (SO_2).

The estimated GWR Project operation air emissions (ton/year) are: 0 of O_3, 0.40 for CO, 0.02 of NO_X, 0.02 of ROG, 0.02 of VOC, 0 of Pb, 0.01 of $PM_{2.5}$, and 0 of PM_{10}, and 0 of Sulfur Dioxide (SO_2).

The estimated GWR Project construction air emissions are less than associated assumptions in the air emissions inventory for the Basin and the County, less than the MBARD thresholds of significance, and below federal de minimis levels.

MRWPCA will implement the MBARD Rules to reduce those estimated construction and operation air emissions and ensure no air quality impacts. Thus, the GWR Project is not subject to a State Implementation Plan (SIP) and a conformity determination is not required.

3.2.6 Cultural Resources

Cultural resources is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. Title 54 U.S.C. 300101 et seq., formerly and commonly known as the National Historic Preservation Act (NHPA) is the primary legislation for Federal historic preservation. Section 106 of the NHPA (54 U.S.C. 306108) requires Federal agencies to take into consideration the effects of their undertakings on historic properties and to afford the Advisory Council on Historic Preservation an opportunity to comment. Historic properties are those cultural resources that are listed in or are eligible for inclusion in the National Register of Historic Places (National Register). The Section 106 regulations at 36 CFR 800 outline the process the Federal agency takes to identify historic properties within the area of potential effects (APE), and to assess the effects the proposed undertaking will have on those historic properties. The Section 106 process involves consultations with the State Historic Preservation Officer, Indian tribes, and other identified consulting and interested parties. The APE for the current undertaking consists of constructing the elements included in Figure 2 and Figure 3. The GWR Project will require the construction of two source water diversion facilities, new treatment facilities at an existing Regional Plant, a new pipeline and pump station, and injection wells with associated features. In an effort to identify historic properties in the APE, Doane and Breschini conducted a records search (April 10, 2015), and Pacific Legacy (November 10, 2015) confirmed the work for the appropriateness of the historic properties identification efforts for Reclamation's undertaking. Although, the Doane and Breshchini and Pacific Legacy reports included a broader survey coverage due to portions of the GWR Project being constructed without Federal involvement, the APE is the same as Reclamation's and the identification efforts meet Reclamation's requirements.

Reclamation sent a letter to the Sacred Lands File and Native American Contacts List Request to the Native American Heritage Commission (NAHC) on May 5, 2016, to invite their participation in the Section 106 process and request their assistance in the identification of sites of religious and cultural significance or historic properties that may be affected by the proposed undertaking, pursuant to 36 CFR § 800.4(a)(4). On May 11, 2016, Reclamation sent consultation letters to the Amah Mutsun Tribal Band and the Indian Canyon Mutson Band of Costanoan Indians requesting information on cultural resources eligible for the National Register by the proposed undertaking. On July 1, 2016, Ms. Ann Marie Sayers, Indian Canyon Mutsun Band of Costanoan Indians, left a telephone message regarding concerns with the GWR Project. Reclamation returned the call on July 28, 2016 and discussed the GWR Project scope, identification efforts, and

findings. Ms. Sayers requested she be contacted if there are any discoveries during construction and had no further concerns.

Reclamation applied the criteria of adverse effect (36 CFR § 800.5(a)) for the Proposed Action and determined that it would result in no adverse effect to historic properties. Utilizing these identification efforts, Reclamation entered into consultation with the California State Historic Preservation Officer (SHPO) in August 2016, seeking their concurrence on a finding of "no adverse effect to historic properties pursuant to 36 CFR § 800.5(b)." Reclamation received concurrence from SHPO on September 12, 2016 and added the following mitigation measures:

- Mitigation Measure CR-2b – Discovery of Archaeological Resources or Human Remains: If archaeological resources or human remains are discovered, all work will cease within 160 feet of the find until it can be evaluated by a qualified archaeologist. The Agency and qualified archaeologist are responsible for the compliance monitoring; and
- Mitigation Measure CR-2c – Native American Notification: Because of their continuing interest in potential discoveries during construction, all listed Native American contacts shall be notified of any and all discoveries of archaeological resources in the GWR Project area.

A copy of the response letter detailing SHPO's findings is included in Appendix B.

3.3 Cumulative Analysis

The GWR Project would contribute to the significant cumulative effect of regional emissions of PM_{10}; however, with implementation of Mitigation Measure AQ-1 (Construction Fugitive Dust Control Plan), this cumulative impact would be reduced to less than significant. The GWR Project would therefore not make a considerable contribution to this significant cumulative impact.

The GWR Project would potentially make a considerable contribution to significant cumulative impacts to marine water quality due to the potential exceedance of the California Ocean Plan water quality objectives for several constituents if, in the future, the proposed CalAm desalination plant is constructed and placed into operation. For a list of Ocean Plan constituents and predicated concentrations, see GWR Project Final EIR Table 4.11-20 and Table 4.11-21; see also attached Appendix I (Ocean Plan Compliance Assessment for the Pure Water Monterey Groundwater Replenishment Project). However, with implementation of Mitigation Measure HS-C (Implement Measures to Avoid Exceedances over Water Quality Objectives at the Edge of the Zone of Initial Dilution), the impact would be reduced to less than significant and the GWR Project would not make a considerable contribution to a significant cumulative impact.

Mitigation Measure AQ-1: Construction Fugitive Dust Control Plan. (Applies to all Project Component Sites where ground disturbance would occur.) The following standard Dust Control Measures shall be implemented during construction to help prevent potential nuisances to nearby receptors due to fugitive dust and to reduce contributions to exceedances of the state ambient air quality standards for PM10, in accordance with MBUAPCD's CEQA Guidelines.

- Water all active construction areas as required with non-potable sources to the extent feasible; frequency should be based on the type of operation, soil, and wind exposure and minimized to prevent wasteful use of water;
- Prohibit grading activities during periods of high wind (over 15 mph);
- Cover all trucks hauling soil, sand, and other loose materials and require trucks to maintain at least 2 feet of freeboard;
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites;
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets;
- Enclose, cover, or water daily exposed stockpiles (dirt, sand, etc.);
- Replant vegetation in disturbed areas as quickly as possible;
- Wheel washers shall be installed and used by truck operators at the exits of the construction sites to the AWT Facility site, the Injection Well Facilities, and the Booster Pump Station; and
- Post a publicly visible sign that specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the MBUAPCD shall also be visible to ensure compliance with MBUAPCD rules.

SECTION 4 Consultation and Coordination

4.1 Agencies and Persons Consulted

The United States Environmental Protection Agency (USEPA) took the federal lead to consult with the United States Fish and Wildlife Service (USFWS), and NMFS. By way of delegation, the State Water Board took the federal lead to consult with the Office of Historic Preservation (OHP).

4.2 Endangered Species Act (16 USC § 1531 et seq.)

Section 7 of the Endangered Species Act requires Federal agencies, in consultation with the Secretary of the Interior, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of these species. Reclamation determined that the GWR Project would not adversely affect federally-listed endangered or threatened species beyond the effects of the Proposed Action previously addressed by the completed Section 7 consultation process. Therefore, no further consultation is needed, beyond the consultation described below that has already occurred.

The GWR Project is within Monterey County California and traverses the Monterey Peninsula from the City of Salinas to the City of Seaside. The GWR

Project location spans from approximately 1.3 miles east of the Pacific Ocean to eight miles inland. The MRWPCA reviewed the California Natural Diversity Database (CNDDB 2015), the USFWS Database, and the California Native Plant Society database (CNPS 2015). In addition, the USFWS's Information for Planning and Conservation (IPaC) site was searched for federally listed species as proposed, candidate, threatened and/or endangered species and their designated critical habitat with potential to occur on the GWR Project site (USFWS 2015).

- **Informal Consultation with NMFS.** The GWR Project required informal consultation with NMFS. On November 19, 2015, Joel Casagrande of NMFS confirmed by email that the only NMFS regulated species potentially affected by the GWR Project is the S-CCC steelhead Distinct Population Segment (DPS). Gabilan Creek (Reclamation Ditch/Tembladero Slough) and the Salinas River are designated critical habitat for the S-CCC steelhead DPS.

On November 18, 2016, the USEPA sent a letter to the NMFS requesting concurrence that the GWR Project may affect but is not likely to adversely affect the South-Central California Coast Steelhead Distinct Population Segment (S-CCC*; Oncorhynchus mykiss*) or its designated critical habitat in the Reclamation Ditch and the Salinas River watersheds. NMFS initially expressed concern about the localized impacts to surface waters (flows and levels) from operation of the diversions, and water quality impacts from construction and operation of the diversion facilities within downstream waters as well as permanent impacts to the bed and banks of the Reclamation Ditch.

During the Section 7 consultation with NMFS, and in conjunction with the State Water Resources Control Board's water rights process, additional measures were adopted as conditions to the GWR Project's water right permits for the Reclamation Ditch and Tembladero Slough that reduced the potential impacts on the operations of the GWR Project. In addition, NMFS provided guidance on the design of the intake structures that would reduce impacts to the S-CCC steelhead. Based on these conditions, NMFS concurred with the USEPA on December 5, 2016, that the GWR Project is not likely to affect S-CCC steelhead or its designated critical habitat.

- **Formal Consultation with USFWS.** The GWR Project required formal consultation between the USEPA and USFWS. On May 13, 2016, the USEPA sent a letter to the USFWS requesting formal consultation on USEPA's determination that the GWR Project may affect and is likely to adversely affect the federally threatened Monterey spineflower (*Chorizanthe pungens var. pungens*), federally and state threatened California red legged frog (*Rana draytonii*) and the federally endangered Monterey gilia (*Gilia tenuiflora ssp. arenaria*). On June 23, 2016 and August 16, 2016, USFWS received results of botanical surveys conducted at the Injection Well Facilities site indicating that adverse effects to Monterey gilia are likely.

On December 20, 2016, the USFWS issued a Biological Opinion. The Biological

Opinion acknowledged the substantial series of avoidance and minimization measures to limit the GWR Project's adverse effects on natural resources. These include best management practice that shall be implemented during all identified phases of construction including but not limited to: an Employee Education Program, construction monitoring, protective fencing of trees and vegetation, restoration of disturbed areas, erosion control techniques, on-site spill plan and containment measures, and refueling or maintenance of vehicles within a specified staging area. Other avoidance and minimization measures include the implementation of construction-phase monitoring, the preparation and implementation of a rare plant restoration plan, the preparation of a frac-out plan, limiting construction in potential California red-legged frog habitat between April 1 and November 1 (unless otherwise approved by USFWS), and the implementation of the Declining Amphibian Populations Task Force's Fieldwork Code of Practice.

In addition to these avoidance and minimization measures, the Biological Opinion requires the implementation of terms and conditions to minimize the impacts of the incidental take of the California red-legged frog. These terms and conditions include: (1) only qualified biologists, approved by the USFWS, may conduct the proposed monitoring and minimization measures for the California red-legged frog; and (2) a USFWS-approved biologist must determine an appropriate relocation site(s) for any California red-legged frogs that must be removed from construction areas, which is submitted to the USFWS for approval at least 10 days in advance of the initiation of activities.

The Biological Opinion concludes that the GWR Project, as proposed, is not likely to jeopardize the continued existence of the California red-legged frog, the Monterey spineflower, or the Monterey gilia. However, there is potential for incidental take of the California red-legged frog. The incidental take statement in the Biological Opinion specifies that if three (3) California red-legged frogs are found dead or injured, or if ten (10) are captured and relocated, USEPA must make immediate contact with the USFWS office to reinitiate formal consultation. The incidental take statement does not apply to listed plant species; however, limited protection of listed plants is provided. The Biological Opinion assumes that Monterey spineflower and Monterey gilia occurrences within designated development parcels at the Fort Ord base would be lost, and determined that such loss would not jeopardize either species.

Additionally, the USFWS letter noted that due to modifications of the GWR Project scope there would be no effect on of the endangered tidewater goby (*Eucyclogobius newberryi*) and its critical habitat.

4.3 National Historic Preservation Act determination

On March 3, 2016, the State Water Board sent a letter to OHP with a determination of "No Historic Properties Affected" by the GWR Project. On

April 19, 2016, the OHP responded concurring with a determination of "No Historic Properties Affected" for the GWR Project. See Appendix B.

4.4 Magnuson-Stevens Fishery Conservation and Management Act (MSA) determination

On November 18, 2016, the USEPA sent a letter to the NMFS providing notification of USEPA's determination that the GWR Project will not adversely affect Essential Fish Habitat (EFH) under MSA for starry flounder (*Platichthys stellatus*). On November 19, 2015, the NMFS responded concurring with the USEPA that the GWR Project would not adversely affect EFH, and instead would result in reduced discharge of pollutants to EFH.

SECTION 5 References

Biological Assessment of the Effects of the Pure Water Monterey Groundwater Replenishment project on South-Central California Coast Steelhead Distinct Population Segment. October 11, 2016. Available at: Appendix F.

Biological Assessment for the U.S. Fish and Wildlife Service Pure Water Monterey Groundwater Replenishment Project. February 12, 2016. Available at: Appendix D.

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APPENDIX A
Environmental Summary Checklist
for State Revolving Fund Loan 8028-110

APPENDIX B
Letter of Concurrence from the State Historic Preservation Office Completing the NHPA Section 106 Process

APPENDIX C
U.S. Fish and Wildlife Service Biological Option for Compliance with Endangered Species Act (ESA) Section 7 Consultation

APPENDIX D
Biological Assessment for the U.S. Fish and Wildlife Service Pure Water Monterey Groundwater Replenishment Project

APPENDIX E
Letter of Concurrence from the National Oceanic and Atmospheric Administration National Marine Fisheries Service

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APPENDIX G
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APPENDIX H
Clean Water Section 401 Water Quality Certification from the State Water Resources Board

APPENDIX I
Ocean Plan Compliance Assessment for the Pure Water Monterey Groundwater Replenishment Project

Appendix J
Water Rights Permit 21376 for the diversion of surface waters from Blanco Drain

Appendix K
Water Rights Permit 21377 for the diversion of surface waters from Reclamation Ditch

Appendix L
Waste Discharge Requirements and Water Recycling Requirements for the Pure Water Monterey Advanced Water Purification Facility and Groundwater Replenishment Project

APPENDIX M
Other Authorization/Permits from State Agencies

Appendix N
ITA Concurrence