

# US Bureau of Reclamation

WaterSMART: Title XVI WIIN Act Water Reclamation and Reuse Projects  
Funding Opportunity Number: R22AS00115

## Pure Water Monterey A Groundwater Replenishment Project



Grant Proposal • PURE WATER MONTEREY • March 15, 2022

Partners for Pure Water Solutions





March 15, 2022

## Expanded Pure Water Monterey Groundwater Replenishment Project

MONTEREY COUNTY | STATE OF CALIFORNIA  
WaterSMART: Title XVI WIIN Water Reclamation and Reuse Projects for  
Fiscal Year 2022  
NOFO: R22AS00115

### Project Partners and Communities:

Monterey One Water  
Monterey Peninsula Water Management District

### Applicant/Project Manager:

**Monterey One Water**  
Paul A. Sciuto  
General Manager  
5 Harris Court, Building D  
Monterey, CA 93940  
[paul@my1water.org](mailto:paul@my1water.org)  
Phone: 831-645-4600

### Submitted to

**Bureau of Reclamation**  
**Financial Assistance Support Section**  
Attention: NOFO Team  
P.O. Box 25007  
Mail Code: 84-27133  
Denver, CO 80225  
Phone: 303-445-2766



## Contents

<b>TECHNICAL PROPOSAL: EXECUTIVE SUMMARY</b>	<b>1</b>
<b>SECTION 1: TECHNICAL PROPOSAL: TECHNICAL PROJECT DESCRIPTION</b>	<b>2</b>
Project Overview	2
Project Background and Need	3
Project Description	3
Project Benefits	4
Regional Collaboration and Officials/Agencies Providing Support	6
Project Components and Construction	7
Project Readiness	9
Total Project Costs/Funding Request	9
<b>SECTION 2: TECHNICAL PROPOSAL: EVALUATION CRITERIA</b>	<b>10</b>
Evaluation Criteria 1 – Water Supply	11
Sub-Criterion 1a – Stretching Water Supplies	11
Sub-Criterion 1b – Contributions to Water Supply Reliability	17
Evaluation Criteria 2 – Environment and Water Quality	24
Evaluation Criteria 3 – Economic Benefits	29
Sub-Criterion 3a – Cost Effectiveness	29
Sub-Criterion 3b – Economic Analysis and Project Benefits	37
Evaluation Criteria 4 – Reclamation’s Obligations and Benefits to Rural or Economically Disadvantaged Communities	43
Sub-Criterion 4a – Legal and Contractual Water Supply Obligations	43
Sub-Criterion 4b – Benefits to Rural or Economically Disadvantaged Communities	46
Evaluation Criteria 5 – Watershed Perspective	49
<b>SECTION 3: ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE</b>	<b>60</b>
<b>SECTION 4: REQUIRED PERMITS OR APPROVALS</b>	<b>65</b>
<b>SECTION 5: PROJECT BUDGET</b>	<b>67</b>
Other Federal Funding	67
Funding Plan and Letters of Commitment	67
Budget Proposal	69
Budget Narrative	70



## Appendices

Appendix A Letters of Support

Appendix B Official Monterey 1 Water Authorizing Resolution

Appendix C Grant Forms

## Tables

Table 1	Project Highlights	10
Table 2	Estimated Construction Costs by Year	30
Table 3	Estimated Planning and Design Costs by Year	30
Table 4	Replacement Cost by Year	31
Table 5	Alternative Non-Reclaimed Supplies	36
Table 6	Expanded Pure Water Monterey Project Costs including O&M	37
Table 7	Expanded Pure Water Monterey Project Benefits	39
Table 8	Expanded Pure Water Monterey Benefits as Compared to Costs	41
Table 9	California Water Plan Goals and the Expanded PWM Project	50
Table 10	Monterey Peninsula, Carmel Bay, and South Monterey Bay IRWMP	53
Table 11	Greater Monterey County IRWMP	53
Table 12	Greater Monterey County SWRP Goals	55
Table 13	Reclamation Basin Study Objectives	56
Table 14	Permits/Approvals for the Expansion Phase of the Expanded PWM Project	65
Table 15	Expanded PWM Project Expenditures Prior to Award Date	68
Table 16	Participating Financing Partner Contributions for the Completion of the Expanded PWM Project	69
Table 17	Summary of Non-Federal – Expanded PWM Project	69
Table 18	Expanded PWM Project - Eligible Budget Proposal	70
Table 19	Project Costs for Expansion Phase of the Expanded PWM Project	73



## TECHNICAL PROPOSAL: EXECUTIVE SUMMARY

**DATE:** March 15, 2022  
**APPLICANT NAME:** Monterey One Water (M1W)  
**CITY/ COUNTY:** City of Monterey (City), Monterey County  
**STATE:** California

The Expanded Pure Water Monterey Groundwater Replenishment Project (Expanded PWM Project) creates up to 10,150 acre-feet per year (AFY) of safe, reliable, and drought resilient water supplies for Monterey County communities. This helps the region respond to droughts, sensitive species and habitat needs, and groundwater adjudication and overdraft. The innovative Expanded PWM Project is the first water recycling project to use four different raw water sources: wastewater, agricultural wash water, irrigation drainage water, and stormwater. Collection of these new source waters helps create diverse, regional benefits for the local communities. To achieve these goals, three project strategies are being implemented:



- Replenish the Seaside Groundwater Basin with 5,750 AFY of purified recycled water to enhance natural recharge and help the region meet potable water demands;
- Reduce pumping from the over-drafted Salinas Valley Groundwater Basin up to 3,600 AFY by increasing the recycled water supply for agricultural crop irrigation; and
- Strengthen regional water supplies by banking 200 AFY of groundwater for potable use during drought periods and providing 600 AFY of recycled water to Marina Coast Water District (MCWD) to irrigate former Fort Ord.

The Project consists of four components: (1) source water diversion systems; (2) an Advanced Water Purification Facility; (3) a conveyance system to transport the purified water; and (4) new injection well facilities. M1W was awarded Title XVI WIIN funds for the initial phase in the amount of \$19,683,178 over three funding cycles (2018, 2019, and 2020) which has been in operation since February 2020. Due to regional needs for additional water supply, M1W is expanding production capacity to provide an additional 2,250 AFY of new water supply. **The total project cost for the Expanded PWM Project is \$183,130,332. This includes the initial phase project cost of \$133,958,801 as well as the expansion cost of \$49,171,531. M1W is seeking the balance of the federal funding share in the amount of \$10,316,822 for completion of the Expanded PWM Project.**



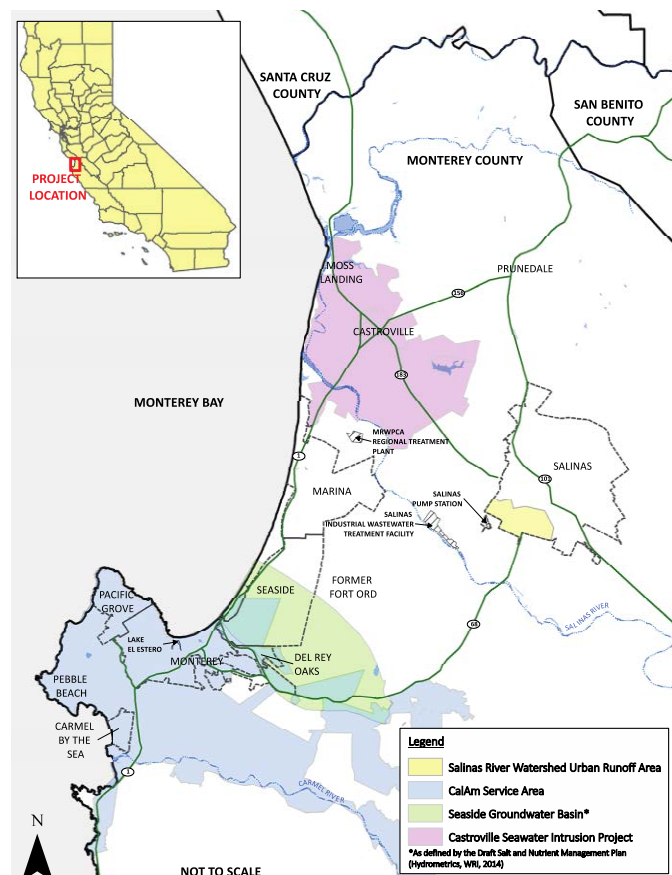
## Section 1

### TECHNICAL PROPOSAL: TECHNICAL PROJECT DESCRIPTION

#### PROJECT OVERVIEW

The Expanded Pure Water Monterey Groundwater Replenishment Project (Expanded Pure Water Monterey or Expanded PWM Project) is an innovative, regional project that moves the Monterey region toward more sustainable water resources management. By utilizing existing infrastructure to minimize capital costs and construction impacts, the Project applies the most cost-effective and energy-efficient methods to diversify and sustain water supplies. In addition, the Expanded PWM Project improves water quality in surface waters and groundwater basins, while protecting and enhancing habitats for endangered and other sensitive aquatic species in the Carmel River and Salinas Rivers.

The main goal of the Expanded PWM Project is to create a reliable water supply to replenish the adjudicated Seaside Groundwater Basin (Seaside Basin). The initial phase of the Expanded PWM Project began operation in February 2020 and was designed to provide 3,500 AFY of purified recycled water to the Seaside Basin. With the expansion, 5,750 AFY will be provided to the Seaside Basin, resulting in it contributing more than half of the projected average annual water demand for the Monterey Peninsula Water Resource System that serves customers of California American Water Company (CalAm), a local water purveyor. The injection of the purified recycled water into the Seaside Basin will better balance the aquifer's safe yield and mitigate the threat of seawater intrusion.



The Project will also create additional benefits, including the collection of additional source water for increased delivery to an existing recycled water project, the Castroville Seawater Intrusion Project (CSIP), which supports agricultural irrigation. It is anticipated up to 3,600 AFY of additional recycled water supply could be created for agricultural irrigation, further preventing seawater intrusion in the northern Salinas Valley by offsetting groundwater extraction.



The Project also provides for an additional 200 AFY of purified recycled water to be injected in the Seaside Basin during wet seasons for up to five consecutive years to create a Drought Reserve bank of 1,000 acre-feet (AF). In drought conditions, source water would be diverted for agricultural irrigation and the drought reserve extracted for delivery to urban customers.

Further benefits include providing 600 AFY of recycled water to Marina Coast Water District (MCWD) for urban irrigation within the former Fort Ord supporting redevelopment.

To create greater water security and sustainability for the community, the Expanded PWM Project will:

- Enhance reliability and diversify water supplies for both urban and agricultural users;
- Improve surface and ground water quality by treating polluted water sources and using state of the art recycled water technology; and
- Reduce adverse effects of seawater intrusion and climate change.

## PROJECT BACKGROUND AND NEED

Monterey One Water (M1W) is undertaking the Expanded PWM Project in partnership with the Monterey Peninsula Water Management District (MPWMD), MCWD, Monterey County Water Resources Agency (MCWRA), and the cities of Salinas and Seaside. This unprecedented regional collaboration is a testament to the need for the Project and the new, reliable water supplies it will create for the Monterey Peninsula and northern Monterey County.

Economic Reliance: The Monterey Peninsula generates more than 4.6 million visitors annually, employs over 25,000 jobs, and adds \$3 billion to the region's economy. In the Salinas Valley, the \$3.9 billion agricultural industry is the backbone of Monterey's economy, producing a majority of the strawberries, lettuce, and broccoli for the United States and the world, which requires significant water supplies.

Limited Supply Portfolio: Isolated from state or federal water projects, Monterey County relies solely on its local water resources (e.g., groundwater and surface water). The Monterey Peninsula's primary sources have been the Carmel River and the Seaside Basin, and for the Salinas Valley, groundwater. A long-term water supply to demand imbalance in the region is demonstrated by decades of riparian habitat degradation and over 80-years of documented increasing seawater intrusion and groundwater level declines in the Salinas Valley. This limited supply portfolio continues to be threatened by surface water impairments due to pollutants, seawater intrusion, and a decrease in Carmel River diversions to protect sensitive habitats and species. Extended droughts have further intensified this condition causing instability and detrimental effects to the region.

## PROJECT DESCRIPTION

The Expanded PWM Project leverages existing infrastructure and unused wastewater to minimize capital costs and construction impacts. In addition to utilizing existing wastewater, this innovative project captures and recycles agricultural irrigation drainage, food industry



wastewater, and urban storm water. All source waters are routed to the existing M1W Regional Treatment Plant (RTP) for traditional primary and secondary treatment. Figure 1 highlights the facilities used to deliver all the Expanded PWM Project benefits.

Following treatment at the RTP, effluent is used for both potable and non-potable reuse or is discharged to the ocean if demands are low. The addition of new source waters also creates up to 3,600 AFY of additional tertiary treated recycled water available for agricultural crop irrigation in northern Salinas Valley. For potable reuse, effluent water is treated at a new Advanced Water Purification facility (AWPF) including ozone pre-treatment, membrane filtration, reverse osmosis, and advanced oxidation. The resulting waters are safe, reliable and provide:

- 5,750 AFY of purified recycled water to Seaside Basin for groundwater recharge of a critical drinking water supply,
- Up to 3,600 AFY of additional recycled water for agricultural crop irrigation,
- A drought reserve of 200 AFY in the Seaside Basin, and
- Up to 600 AFY of urban irrigation for the former Fort Ord.

### PROJECT BENEFITS

The Expanded PWM Project results in numerous direct benefits including diversifying the regional supply portfolio, increasing recycled water for irrigation, preventing seawater intrusion, reducing pollutant loads, decreasing the size and impact of future non-recycled water supplies, and protecting sensitive species and habitats.

#### Diversifies Regional Water Supply Portfolio

The Expanded PWM Project provides 5,750 AFY of purified recycled water for injection into the Seaside Basin. The purified recycled water will mix with the existing groundwater and be stored for urban use by the local water

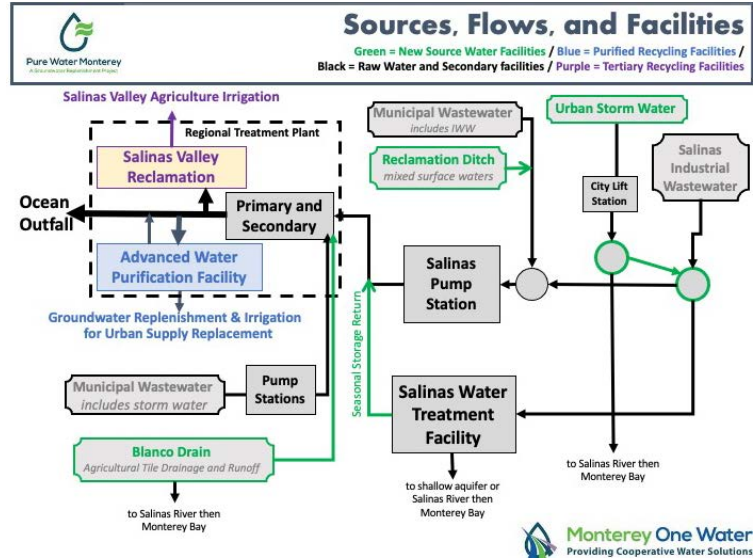


Figure 1 Sources, Existing and New Facilities

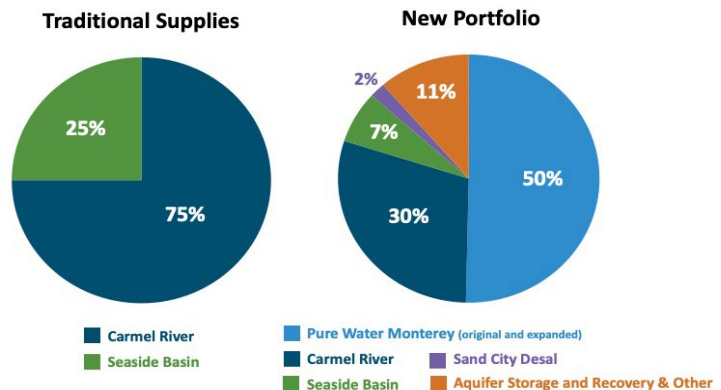


Figure 2 Future Diversified Water Supply with PWM





purveyor. By creating a new sustainable water supply, the project will ensure consistent access to safe, potable water for residents and businesses - a critical benefit in an area whose economy also depends heavily on water. Figure 2 (previous page) shows the future diversified water supply portfolio for the region, including the significant contribution from the project

#### [Increases Production for Agricultural Irrigation/Mitigates Seawater Intrusion](#)

M1W currently produces approximately 13,000 AFY of tertiary recycled water for agricultural irrigation in the CSIP area – 12,000 acres of fertile northern Salinas Valley agricultural lands facing severe seawater intrusion challenges in its groundwater. In 2020, the extent of seawater intrusion in this region was up to eight miles inland impacting both urban and agricultural wells. Under the initial phase PWM Project, M1W planned and approved adding new source waters into the existing M1W wastewater collection system by up to an **additional** 3,600 AFY of recycled water for CSIP agricultural irrigation, decreasing groundwater pumping, and helping prevent seawater from intruding farther into the Salinas Valley Basin.

#### [Replenishes the Seaside Groundwater Basin and Protects it from Seawater Intrusion](#)

The Seaside Basin historically provided about 25 percent of the urban water supply for the Monterey Peninsula. Groundwater extractions increased markedly beginning in 1995, resulting in declining water levels and depletion of groundwater storage. Until the adjudication of the Seaside Basin in 2006, basin-wide groundwater withdrawals were up to 4,700 AFY. The Court set three-year goals aimed at reducing annual extractions to 3,000 AFY, the natural safe yield identified in the final ruling. The Expanded PWM Project helps the Seaside Basin achieve sustainable safe yields by injecting an annual 5,750 AFY of purified recycled water to replenish the Seaside Basin.

#### [Establishes a Drought Reserve for Crop Irrigation](#)

The Expanded PWM Project includes a drought reserve bank program to support water supply needs during drought conditions when the region experiences greater demand for water. During normal to wet years, M1W will inject an additional 200 AFY of purified recycled water in the Seaside Basin for up to five consecutive years. This will create a potable drought reserve bank totaling up to 1,000 AF. During dry years, this “savings account” will be used for urban uses, freeing up the Project’s source waters to be used for agricultural irrigation.

#### [Provides Urban Irrigation for Former Fort Ord](#)

The Expanded PWM Project provides up to 600 AFY of new recycled water supplies to MCWD customers at the Former Fort Ord military base to be used for urban irrigation.

#### [Establishes an Operation Reserve for Project Resilience.](#)

During the startup and commissioning of the initial phase of the Expanded PWM Project, 1,200 AF of purified recycled water was injected in the Seaside Basin to restore groundwater levels and as an Operation Reserve (or “bank”). The Operation Reserve will be built to a total of 2,875 AF after three years of full operation of the Expanded PWM Project. As long as this



reserve remains “banked,” it increases groundwater levels in the Seaside Basin, reducing the risk of seawater intrusion and increasing drought resilience. Since this is a “one-time” use of purified water, this reserve was not included in calculation of annual project benefits.

### Reduces Pollutant Loads on Surface Waters

The Expanded PWM Project collects new source waters including storm water runoff and agricultural irrigation drainage flows. These sources typically carry pollutants that feed into neighboring water bodies. By diverting polluted water to M1W’s RTP for treatment and removal, these pollutants will no longer contribute the pollutant loads to neighboring water bodies which are home to endangered or threatened species and sensitive habitats. The Expanded PWM diverts contaminated source waters away from the Salinas River Lagoon, home to the endangered South Central California Coast (S-CCC) steelhead trout and prevents those waters from contaminating the Monterey Bay National Marine Sanctuary.

### Conserves Environmental Habitats

The Carmel River previously supplied about 75 percent of the municipal supply for the Monterey Peninsula. Implementation of the Expanded PWM Project, which is designed to produce 5,750 AFY of new potable water, would decrease diversions from the Carmel River system, helping to restore flows and maintain minimum flow targets below the Los Padres dam. The Carmel River is home to the federally-listed endangered California red-legged frog and the federally listed threatened S-CCC steelhead trout. Unfortunately, the steelhead and red-legged frog population have decreased due to the local water purveyor over-pumping beyond its authorized rights resulting in habitat degradation and the introduction of non-native species. Reducing diversions from the Carmel River, as ordered by the State Water Resources Control Board (SWRCB), especially in the drier times of the year, will enhance the habitats and help attain flow rates required for survival of these species.

## REGIONAL COLLABORATION AND OFFICIALS/AGENCIES PROVIDING SUPPORT

The Expanded PWM Project is a collaborative effort between M1W, MPWMD, MCWD, MCWRA, and the cities of Salinas and Seaside. This regional approach and the Project’s multiple benefits have generated support from over numerous public agencies, water suppliers, and non-governmental organizations, including the two local Integrated Regional Water

Management (IRWM) groups (the Greater Monterey County and the Monterey Peninsula, Carmel Bay, and South Monterey Bay) who jointly approved this project as a solution to both the beneficial reuse of urban storm water and agricultural runoff. The North Monterey County Drought Contingency Plan (Final, March 2019) ranked the Expanded PWM Project as one of the top regional projects to implement to add new water supplies and builds water resiliency in the region.





The United States Bureau of Reclamation (Reclamation) Salinas and Carmel Rivers Basins Study (on going) includes the Expanded PWM Project as a critical element for helping balance supplies and demands in the face of climate change.

M1W, MPWMD, and CalAm provided initial funding for planning and design activities related to the Expanded PWM Project. MCWD was also a key partner in providing funding for and implementing the purified recycled water conveyance facilities. The tremendous amount of local, state and federal support for the Expanded PWM Project demonstrates the importance of the project to the region and the State of California, as reflected by the extensive list of project supporters. **Appendix A includes 20 Letters demonstrating broad regional support.**

### Letters of Support from:

Agency	Person	Role
United States Senate	Alex Padilla	United States Senator
United States Senate	Dianne Feinstein	United States Senator
Congress of the United States	Jimmy Panetta	Member of Congress
California State Senate	John Laird	Senator, 17th District
Assembly California Legislature	Robert Rivas	Assembly Member, 30th District
Assembly California Legislature	Mark Stone	Assembly Member, 29th District
California American Water	Chris Cook	Director of Operations
Monterey County Board of Supervisors	Mary L. Adams	Chair, Supervisor Fifth District
Monterey County Board of Supervisors	Wendy R. Askew	Supervisor, Fifth District
California Water Boards – Central Coast RWQCB	Matthew T. Keeling	Executive Officer
Western Recycled Water Coalition	Tyson Zimmerman	Executive Director
Monterey County Water Resources Agency	Brent Buche	General Manager
Seaside Basin Watermaster	Paul Bruno	Chair
Monterey One Water	Mary Ann Carbone	Chair
Monterey Peninsula Chamber of Commerce	N. Monica Lal	Interim CEO
California Association of Sanitation Agencies	Adam D. Link	Executive Director
Fort Ord Reuse Authority	Michael A. Houlemard, Jr.	Executive Officer
Monterey Bay National Marine Sanctuary	Bridget Hoover	Water Quality Protection Program Director
Monterey Peninsula Water Management District	David Stoldt	General Manager
Greater Monterey County Integrated Regional Water Management Program	Susan Robinson	Program Director

### PROJECT COMPONENTS AND CONSTRUCTION

Construction of the initial phase commenced in late 2017 and is ongoing, although the new facilities began operating in February 2020. The expansion is currently under design with construction scheduled to start in the fall of 2022. The Expanded PWM Project requires new and modified facilities and operations, as described below.

#### Source Water Diversion Facilities

New diversion facilities (including pipeline conveyance and pump stations) have been constructed to transport the new raw water supplies to the existing wastewater collection system for treatment at M1W’s RTP, including

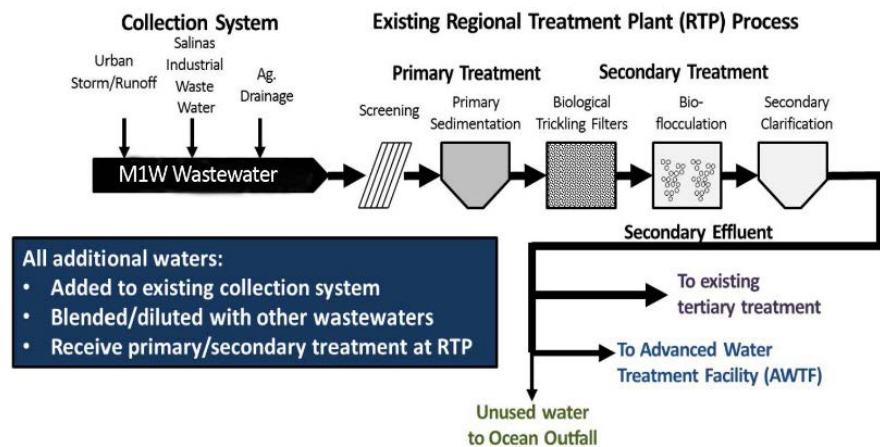


Figure 3 Existing and Additional Source Waters for Expanded PWM



(1) Agricultural Wash Water (before and after pre-treatment); (2) Storm Water from the City of Salinas; and (3) Agricultural Irrigation Water from the Reclamation Ditch (diversion structure) and the Blanco Drain (2-mile pipeline and pump station) as shown in Figure 3 (previous page). The same source waters identified above will be used to meet overall project yields under the Expanded PWM Project, with no additional construction required.

### Treatment Facilities at the Regional Treatment Plant (RTP)

The existing M1W RTP will provide primary and secondary treatment for all new and existing source waters. The new AWPf is located at the RTP site (Figure 4). The RTP is located north of the City of Marina and south of the Salinas River in unincorporated Monterey County.

Residential, commercial, and industrial wastewater is currently conveyed to the RTP 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. Wastewater flows from unincorporated communities in Castroville, Moss Landing, Boronda, and the former Fort Ord are also conveyed to and treated by M1W. The RTP has an average dry weather capacity of 29.6 million gallons per day (mgd). On average, it receives and treats approximately 17 mgd.

The RTP has three treatment standards: 1) primary and secondary treatment for discharge through the M1W ocean outfall or use as influent for the water recycling systems; 2) Title 22 standards (tertiary filtration and disinfection) for unrestricted crop irrigation use; and 3) advanced purification at the AWPf which meets or exceeds federal and state drinking water standards, including California Title 22 requirements for reuse.

To meet potable reuse standards, facilities include advanced water treatment, product water stabilization, product water pump station, and concentrate disposal facilities. The advanced purification treatment train consists of ozonation and full-advanced treatment. Ozonation provides an additional pathogen and organic contaminant barrier and reduces the fouling on the downstream membrane filtration (MF) units. Following ozonation, the MF system removes suspended and colloidal solids as well as protozoa and bacteria, preparing the water for reverse osmosis (RO), which provides a barrier to pathogens, salinity, chemical contaminants, dissolved metals, and nutrients. Finally, an advanced oxidation process (AOP) will serve as a final disinfection step, destroying any chemical contaminants that passed through the RO system. The resulting product water is so pure, mineral stabilization is required to prevent corrosion of the conveyance pipeline.

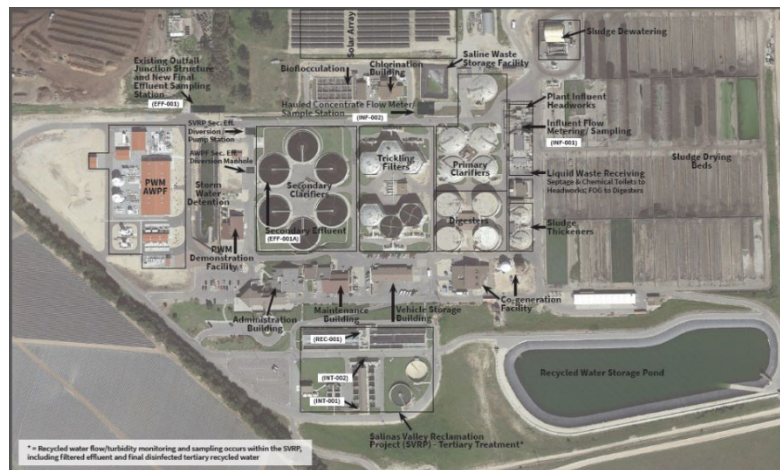


Figure 4 Regional Treatment Plant and AWPf



The AWPf, constructed as part of the initial phase, has a peak production capacity of 5 mgd. The expansion will increase the AWPf to a peak capacity of 7.6 mgd within the same footprint by adding equipment, electrical/ instrumentation, chemical storage, pipelines, and treatment units.

### Product Conveyance Facilities

A 10-mile pipeline, storage reservoir, and appurtenant facilities were built as part of the initial phase of the Expanded PWM Project to move the purified recycled water from the AWPf at M1W’s RTP to the Seaside Basin for injection. The expansion will add a new, 2.3-mile product water pipeline from the reservoir site to the expanded injection area.

### Injection Facilities

The purified recycled water is used to replenish the Seaside Basin through a series of injection wells. Once injected, the purified recycled water mixes with groundwater for future extraction by the local water purveyor, CalAm, for delivery to its customers. The initial phase of the Expanded PWM Project provided injection capacity for 3,500 AFY. Completion of the initial and expansion phases

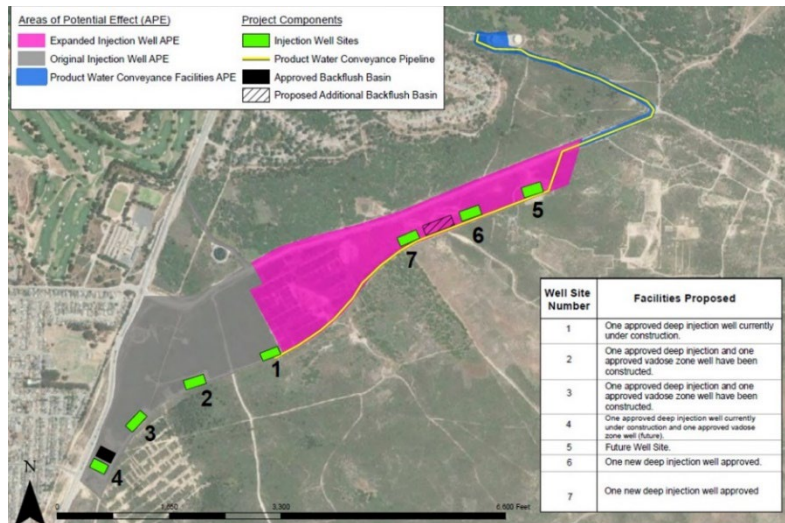


Figure 5 Expanded Injection Facilities

(Figure 5) increases the injection field and facilities to a capacity of 5,750 AFY.

### PROJECT READINESS

Since construction began in October 2017, M1W has made steady progress on the implementation of the initial phase of the Expanded PWM Project, beginning operations in February 2020. Since then, M1W has completed its Supplemental Environmental Impact Report (SEIR) for the expansion and certified it in April 2021. The construction of the injection wells will continue into 2022. M1W is currently working on the design and permitting for the expansion phase of the Expanded PWM Project with a plan to start construction in Fall 2022.

### TOTAL PROJECT COSTS/FUNDING REQUEST

The total project cost for the Expanded PWM Project is \$183,130,332. This includes the initial phase project cost of \$133,958,801 as well as the expansion cost of \$49,171,531. Under Reclamation’s 2018 FOA and 2019/2020 FOA, M1W was awarded a total of \$19,683,178 for the project. M1W is seeking the balance of the federal funding share in the amount of \$10,316,822 for completion of the Expanded PWM Project.



## Section 2

### TECHNICAL PROPOSAL: EVALUATION CRITERIA

Table 1 Project Highlights

	Category	Highlights
1.	Water Supply	<ul style="list-style-type: none"> <li>Supplies up to 10,150 acre-feet per year (AFY) new recycled water.</li> <li>Provides the region with a reliable, drought tolerant, sustainable water supply that helps prevent seawater intrusion.</li> <li>Reduces Carmel River diversions to authorized levels.</li> <li>Reduces use of native Seaside Groundwater Basin (Seaside Basin) groundwater use in compliance with the basin’s court-ordered adjudication.</li> </ul>
2.	Environment and Water Quality	<ul style="list-style-type: none"> <li>Carmel and Salinas Rivers provide habitat for federally listed species including the South-Central California Coast (S-CCC) steelhead and California red-legged frog.</li> <li>Benefits Salinas River through water quality improvement including reduced nutrient loading.</li> <li>Benefits the Carmel River by reducing its use and increasing environmental flows for endangered species habitat enhancement.</li> <li>Reduces over-pumping of the Salinas Valley Groundwater Basin.</li> <li>Reduces risk of seawater intrusion into the Seaside and Salinas Basin.</li> </ul>
3.	Economic Benefits	<ul style="list-style-type: none"> <li>Provides cost-effective, reliable new local water supply at \$2,793/acre-feet (AF).</li> <li>Decreases reliance on more expensive projects such as desalination.</li> <li>Provides water supplies and water quality improvements that support the agricultural and tourism industries of Monterey County.</li> <li>Provides high paying jobs (temporary and permanent).</li> <li>No reliance on Central Valley Project/State Water Project imports.</li> </ul>
4.	Reclamation Obligations and Benefits to Rural or Economically Disadvantaged Communities	<ul style="list-style-type: none"> <li>Supports and expands beneficial water supply yield of Salinas Valley Reclamation Project and Castroville Seawater Intrusion Project (CSIP).</li> <li>Meets federal policy objectives to maximize use of recycled water and minimize energy demand for new/replacement water supplies.</li> <li>Serves disadvantaged and rural communities with new supplies.</li> <li>Reduces economic burden of a more costly desalination project, while providing a reliable water supply to communities of concern.</li> </ul>
5.	Watershed Perspective	<ul style="list-style-type: none"> <li>Consistent with California Water Plan, SWRCB Recycled Water Policy, Central Coast Water Quality Control Plan, and two integrated regional water management (IRWM) plans.</li> <li>Catalyst for unprecedented regional collaboration for groundwater sustainability and solving regional water challenges.</li> <li>Addresses long standing water-related conflicts by reducing Carmel River diversions and improving instream water quantity and quality.</li> </ul>



## EVALUATION CRITERIA 1 – WATER SUPPLY

### SUB-CRITERION 1A – STRETCHING WATER SUPPLIES

- 1. How many acre-feet of water are expected to be made available each year upon completion of the project? What percentage of the present and/or future annual demand in the project sponsor's service area will the Project's reclaimed water provide upon Project completion?*

The Expanded Pure Water Monterey Groundwater Replenishment Project (Expanded Pure Water Monterey Project or Expanded PWM Project) will supply up to 10,150 AFY of new recycled water. This includes:

- 5,750 AFY of purified recycled water – 53 percent of the Monterey Peninsula's current average annual water demand and 49 percent of future annual water demand – for injection into the Seaside Basin to enhance natural recharge and help the region meet potable water demands.
- Up to 3,600 AFY of recycled water for agricultural irrigation in the Salinas Valley – providing 18 percent of the irrigation supplies needed by growers in the Castroville Seawater Intrusion Project (CSIP) area when the Salinas River Diversion facility is not operating – offsetting groundwater extraction in a seawater intruded area.
- 200 AFY of purified recycled water for injection into the Seaside Basin to create a potable drought reserve that could benefit CSIP and the Salinas Valley Groundwater Basin, providing up to five percent of CSIP area demands during periods of drought.
- 600 AFY of urban irrigation at the former Fort Ord, providing for redevelopment of the former federal facility.

#### Replenishment of the Seaside Basin

The Expanded PWM Project will replenish the Seaside Basin with 5,750 AFY of purified recycled water. As a region isolated from state or federal water projects, the Monterey Peninsula must rely solely on its local water resources. In recent years, the supply has been threatened by drought and a decrease in previous sources for the protection of sensitive habitats and species. The Project also provides an additional 200 AFY of purified recycled water to be injected in the Seaside Basin during wet seasons to create a Drought Reserve Bank of up to 1,000 AF. Prior to any withdrawals, an Operation Reserve will be built up to a total of 2,875 AF in the basin. By creating this new source, the project can diversify the area's water supply, raise groundwater levels in the Seaside Basin, and ensure consistent access to safe, potable water for urban uses.

One AF injected into the basin equals one AF available for extraction or for "pay back" of prior overdraft of the Seaside Basin (not including injections into the drought or operation reserve).

**The Expanded PWM Project will supply 53 percent of the Monterey Peninsula's current potable demands and 49 percent of future annual demands.** The inclusion of the purified



recycled water into the Seaside Basin will better balance the groundwater basin and mitigate the threat of seawater intrusion by operating closer to the safe yield of the basin.

### Agricultural Irrigation in Northern Monterey County

The Monterey One Water (M1W) Regional Treatment Plant (RTP) currently produces an average of 13,000 AFY of recycled water for the irrigation of crops located in the CSIP area in northern Monterey County. Historically, the only wastewaters available to generate this supply included municipal wastewater and small amounts of urban dry weather runoff. The Expanded PWM Project has introduced the ability for M1W to bring new source waters into the existing wastewater collection system, thus increasing the amount of raw water available for recycled water production at the RTP. These additional source waters include treated runoff and industrial wastewater effluent from the City of Salinas, agricultural irrigation return flows enabled by the construction of the Reclamation Ditch and Blanco Drain diversions, and agricultural washwater. In addition to supporting the Expanded PWM Project, these sources are estimated to increase recycled water flows to the CSIP by up to 3,600 AFY.

Growers in the CSIP area (approximately 12,000 acres), which overlies the Pressure Subarea of the Salinas River Groundwater Basin, use recycled water, river water, and groundwater pumping for an average use of 20,000 AFY. Figure 6 shows the CSIP area and location of groundwater extraction wells within the Pressure Subarea. **The Expanded PWM Project can supply the CSIP area with up to an additional 3,600 AFY, representing approximately 18 percent of the supply needs. This additional supply will help reduce groundwater use in the CSIP service area, the area with the most effects from, and influence on, seawater intrusion.**

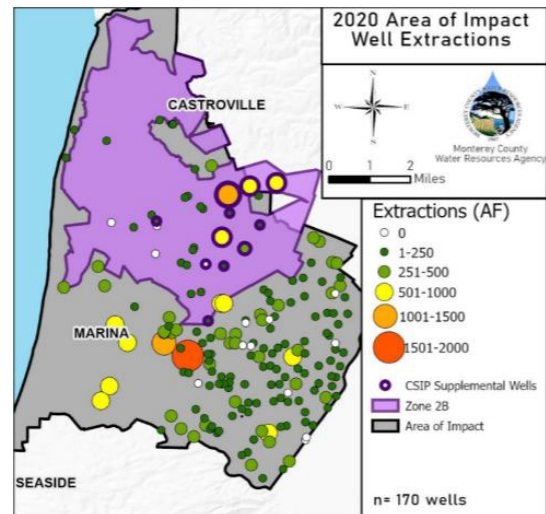


Figure 6 CSIP Groundwater Extraction Wells

Reducing groundwater pumping will improve the reliability and quality of the current groundwater supply and help prevent seawater intrusion. Overdraft in the Salinas Valley Groundwater Basin has occurred for many decades and has resulted in seawater intrusion. The extent of seawater intrusion is approximately eight miles inland for the 180-foot aquifer and 3.5 miles inland for the 400-foot aquifer, impacting both urban and agricultural wells. The Expanded PWM Project will increase the amount of recycled water available to the CSIP service area and reduce pumping in the basin. The Project will also help groundwater levels to recover and reduce the threat of further seawater intrusion, protecting and preserving this critical supply.





## Drought Reserve

During normal to wet years, the Expanded PWM Project will inject 200 AFY of purified recycled water in the Seaside Groundwater Basin for up to five consecutive years. This will create a potable drought reserve bank totaling up to 1,000 AF. During dry years, this “savings account” will be used for urban uses, freeing up the Project’s source waters to be used for agricultural irrigation. The more growers in the CSIP area can reduce their reliability on groundwater pumping, even during drought years, the more seawater intrusion can be prevented, helping protect groundwater quality and crops inland. This new supply, compared to the overall CSIP area demand of 20,000 AF, equals up to five percent of current demands.

## Urban Irrigation of Former Fort Ord

The Expanded PWM Project provides up to 600 AFY of new recycled water supplies to MCWD customers at the Former Fort Ord military base to be used for urban irrigation. This new supply equals approximately 10 percent of the current demands of the former Fort Ord.

### 2. Will the Project reduce, postpone, or eliminate the development of new or expanded non-recycled water supplies? Explain.

The region’s stakeholders are collaboratively working together to diversify the local water supply portfolio to reduce diversions from the Carmel River and build resilience to drought. The Monterey Peninsula Water Supply Project (MPWSP) was originally proposed as a 9.6 million gallons per day (mgd) ocean desalination plant. The capacity of the proposed ocean desalination project was reduced to 6.4 mgd with the implementation of the initial phase of the Expanded PWM Project. MPWSP was expected to deliver 6,252 AFY. With construction of the expansion phase of the Expanded PWM Project, the region may be able to meet regional water demands solely through the Expanded PWM Project for over 25 years, as shown in Figure 7.

The initial phase of the Expanded PWM Project, which began producing high quality purified water in February 2020, currently supplies 3,500 AFY to CalAm. The expansion phase of the Project is expected to yield an additional 2,250 AFY. Based on decreasing projected annual water demands, the additional water

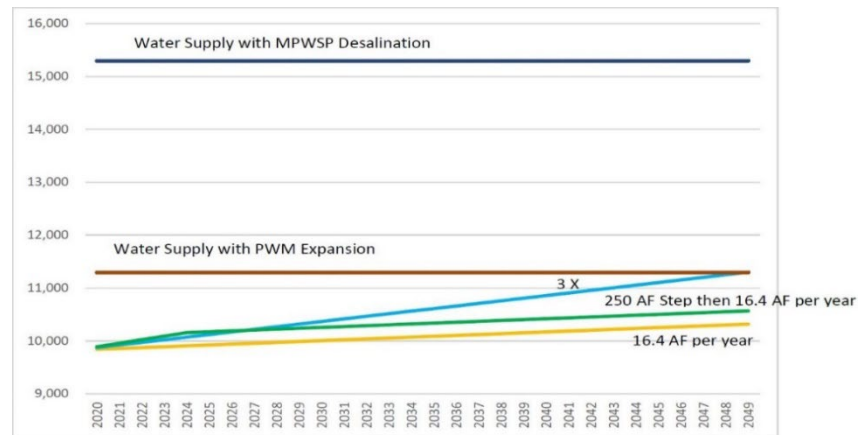


Figure 7 Water Supply and Demand Scenarios for the Monterey Peninsula (MPWMD, May 2020)

supply needed could be met by the Expanded PWM Project, thereby further reducing and/or eliminating the need for the proposed desalination facility. The implementation of the



Expanded PWM Project helps satisfy local stakeholders request for regional sustainable supplies to be maximized prior to implementing desalination. The Expanded PWM Project provides for greater regional water security and better operational flexibility especially with the increased occurrence of drought.

### 3. Will the Project alleviate pressure on existing water supplies and/or facilities?

The initial phase of the Expanded PWM Project offsets diversions from the Carmel River by 3,500 AFY (48 percent). With the expansion, CalAm would have the ability to potentially offset Carmel River diversions by an additional 1,450 AFY for a total of 4,950 AFY. The remaining expansion capacity of 800 AFY will alleviate pressure on the Seaside Basin. The Expanded PWM Project allows CalAm to meet their permitted diversions from the Carmel River and reduce pumping of native Seaside Groundwater. In addition, implementation of the project enables the region to offset extractions for agricultural use from the Salinas River Basin by up to 3,600 AFY – 18 percent of the use in the CSIP area, which is most affected by seawater intrusion.

#### Reduced Carmel River Diversions

The primary use of the purified recycled water injected into the Seaside Basin from the Expanded PWM Project is to reduce diversion from the Carmel River system, which was achieved through the initial phase of the Project (Figure 8). The Carmel River has historically supplied 75 percent of the Monterey Peninsula’s water. With the Expanded PWM Project, the region will diversify its water supply portfolio and improve flows in the Carmel River, home to threatened species like the S-CCC steelhead and California red-legged frog. Increased river flows increase the stability and health of the riparian corridor, thereby reducing threats to other native aquatic species.



Figure 8 Carmel River Diversion Reductions

#### Augmenting Seaside Basin

Historically, the Seaside Basin provided about 25 percent of the urban water supply for the Monterey Peninsula. Groundwater extraction increased markedly beginning in 1995, resulting in declining water levels, depletion of groundwater storage, and deterioration in basin water quality. Until the adjudication of the Seaside Basin in 2006, basin-wide groundwater withdrawals were up to 5,600 AFY. The final adjudicated decision set three-year goals aimed at reducing annual extractions to 3,376 AFY. With the addition of the Expanded PWM Project’s 5,750 AFY of purified water, the water purveyor will meet obligations set under the



2006 adjudication. Groundwater levels will also be improved through implementation of an operational reserve, restoring 2,875 AF of water in the basin.

### Reduced Salinas River Groundwater Basin Withdrawals

The Expanded PWM Project will provide up to 3,600 AFY of additional recycled water for agricultural irrigation in the northern Salinas Valley. The CSIP system overlies the Pressure Subarea of the Salinas River Groundwater Basin which is designated as critically overdrafted by the California Department of Water Resources due to the extensive overuse of this groundwater basin by agriculture in the Salinas River Valley. The Expanded PWM Project will offset agricultural groundwater withdrawals in the CSIP area by up to 3,600 AFY or an estimated 18 percent of CSIP demands (estimated at 20,000 AFY)

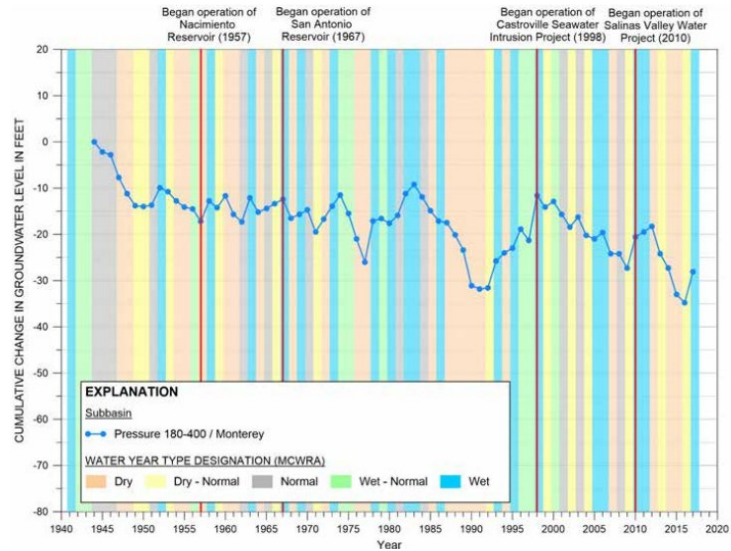


Figure 9 Cumulative Groundwater Elevation Changes in the 180/400 Foot Aquifer SubBasin (2020 SVGB GSP)

in an area where reduced pumping is needed to prevent further seawater intrusion. Several wells in the CSIP area have already had to be abandoned due to high salinity from sea water intrusion. The 2022 Update to Chapter 6 of the 180/400-foot Aquifer Subbasin Groundwater Sustainability Plan (GSP) estimated an annual loss of 12,600 AFY of groundwater storage to seawater intrusion and another 600 AFY loss due to declining groundwater levels for a total of 13,200 AFY loss (declining groundwater levels shown in Figure 9).

#### 4. What performance measures will be used to quantify actual benefits upon completion of the Project?

The primary benefit of the Expanded PWM Project is the development of new water supplies, measured as AFY. The performance of the project will be quantified through the following monitoring programs: Source Water Diversion Monitoring (AFY), Product Water Metering (AFY), Groundwater Injection and Recovery Metering (AFY), Carmel River Water Diversion Monitoring (AFY), and recycled water quality and groundwater quality monitoring.

#### Source Water Diversion Monitoring

Surface water diversion permits include a maximum rate, and in some cases, limits on amounts of diversion allowed under operational permits to ensure adequate environmental flows downstream. System operators will monitor cumulative annual diversion amounts daily. Each new source water diversion is metered, using a device that has 10 percent accuracy or better,



and monitored no less frequently than hourly. The flow rate and cumulative flow is transmitted via the supervisory control and data acquisition (SCADA) system to the system operator at the M1W RTP for real-time monitoring and reporting capability. M1W and the Monterey County Water Resource Agency (MCWRA) will submit annual diversion reports to the State Water Resources Control Board (SWRCB) documenting the monthly volumes of water diverted, using the appropriate forms or the eWRIMS reporting system. A supplemental report will include the monthly diversion volume (AF) and an estimation of how the water was put to beneficial use (AFY).

Pollutant load reduction benefits due to diverting the Blanco Drain and Reclamation Ditch surface water and the City of Salinas storm water have been reported to the SWRCB to comply with other state grant program requirements and permits. The pollutant load reductions can be calculated using the diversion flow rates/volumes (gallons per day and per year) combined with water quality monitoring (mass per volume, or milligrams per liter [mg/L] for example) of the source waters to estimate specific pollutant loads removed from the environment in pounds per year.

#### Product Water Metering

The Expanded PWM Project will create 5,750 AFY of new supplies available for injection into Seaside Basin and up to 3,600 AFY for agricultural irrigation. M1W will monitor the volume of product water (AFY) from the Advanced Water Purification Facility (AWPF) to track injection goals for the Seaside Basin. The flow monitoring will occur at the product water pump stations. For recycled water supporting agriculture, a meter with continuous readings of pressure and flow will measure the influent to the recycled water storage pond that supplies CSIP.

#### Groundwater Injection and Recovery Metering

Injection of purified recycled water into the Seaside Basin will be metered at the injection wellhead. The deep injection wells will be periodically back-flushed to maintain injection capacity. Water pumped from the wells during the backflush cycle will be metered, and this water will be percolated into the Seaside Basin using percolation ponds.

#### Carmel River Water Diversion Monitoring

All Carmel River diversions downstream of River Mile (RM) 18.5 are required to be reported annually to the SWRCB on their electronic reporting system (eWRIMS). In addition, SWRCB requires CalAm to report diversions at each of its alluvial wells monthly on its website. Monterey Peninsula Water Management District (MPWMD) receives daily reports of CalAm diversions. MPWMD also requires riparian pumpers to report their usage annually. Most diversions from the alluvial aquifer of the Carmel River are metered.

#### Recycled Water – Water Quality Monitoring

The Expanded PWM Project has been reviewed, approved, and permitted by the SWRCB'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 (WDR's) and Water Recycling Requirements issued by the RWQCB require continuous water quality testing and sampling.

### Groundwater Quality Monitoring

Groundwater monitoring wells will be used to monitor project performance and compliance with SWRCB Division of Drinking Water regulations. Two monitoring wells will be installed in two separate aquifers (Paso Robles and Santa Margarita aquifers), because the Expanded PWM Project recharges the two separate aquifers. The monitoring wells are also used to satisfy regulatory requirements for monitoring of subsurface travel time, tracer testing, and other requirements for a groundwater replenishment project.

## SUB-CRITERION 1B – CONTRIBUTIONS TO WATER SUPPLY RELIABILITY

### *1. Will the Project make water available to address a specific concern?*

Together, M1W and the MPWMD have created a unified water project that will benefit 16 communities comprised of more than 265,000 residents, as well as 12,000 acres of Salinas Valley farmland. The goal of the Expanded PWM Project is to create new, reliable water sources for the local communities – diversifying and strengthening the region's water supply - by producing up to 10,150 AFY of recycled water.

The Expanded PWM Project addresses the following specific regional water concerns:

### Water Supply Shortage

Local agencies serve a population of more than 265,000 people and provide water for municipal (including tourism), industrial, landscape, and agricultural uses in the region, which currently require over 35,000 AFY of water (potable and nonpotable). Based on the 2019 Supplemental Environmental Impact Report, County water demand is expected to increase by 73 percent between 2015 and 2035 (about 30,000 to 53,000 AFY), while the County population is projected to increase by 11 percent over the same period from about 430,310 to 476,028 people according to the Association of Monterey Bay Area Governments (AMBAG) Final 2022 Regional Growth Forecast (November 2020).

Historically, the primary sources of water for the Monterey Peninsula have been the Carmel River, the Seaside Basin and groundwater pumping in the north county agricultural areas. However, these primary sources are threatened by seawater intrusion, a legally mandated decrease in Carmel River diversions, and adjudicated groundwater supplies. These conditions are exacerbated by extended droughts, including the drought between 2014 and 2016 and the most recent drought beginning in summer of 2021. These extended droughts are expected to occur more frequently with climate change.

The Expanded PWM Project will supply up to 10,150 AFY of new recycled water supplies, providing up to 53 percent of the average annual water demand for the MPWMD and creating a reserve specifically designed to address temporary drought-related water supply shortages



affecting agricultural irrigation. CalAm is an investor-owned utility and is the water purveyor to most of the Monterey Peninsula. Pursuant to a SWRCB 1995 Cease and Desist Order (95-10), CalAm is required to reduce its diversions from the Carmel River to 3,376 AFY (Figure 10) by creating new supplies. The Expanded PWM Project will inject

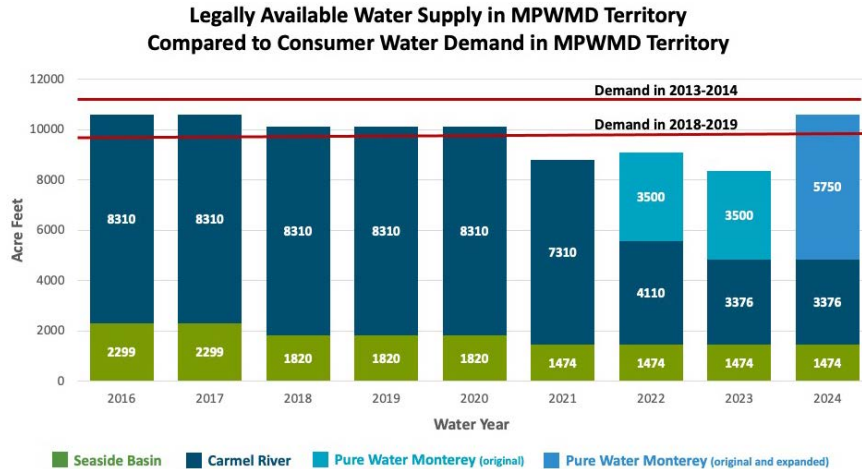


Figure 10 MPWMD Supplies vs Demands, Showing Required Reduction in Carmel River Diversions

5,750 AFY of purified recycled water in the Seaside Basin for urban water use. This will alleviate the supply shortfall due to the legally mandated diversion reductions and will provide a reliable alternative water supply.

In addition to supporting potable supplies, the Expanded PWM Project has been designed to provide agricultural users with up to 3,600 AFY of additional recycled water for agricultural crop irrigation in northern Salinas Valley, directly off-setting an equivalent amount of pumping from the over-drafted Salinas Valley Groundwater Basin. By delivering more recycled water, the project helps the region move toward groundwater sustainability (by reducing extractions) and minimize the inland migration of seawater intrusion, protecting a critical regional water supply.

### Water Supply Reliability

As a region isolated from, and thus excluded from the benefit of, state and federal water projects, the Monterey Peninsula must rely solely on its local water resources, which have traditionally come from only two sources: the Carmel River and the Seaside Basin. To bring water supply reliability to this area, the Expanded PWM Project utilizes diverse source waters to ensure ample influent regardless of weather or other external factors. In the first of its kind, the project relies on not just M1W's existing wastewater, but storm water, food industry processing water, and agricultural drainage water, creating varied and reliable source water to support the water supply:

- **Agricultural Wash Water and Storm Water.** Existing and newly constructed wastewater and water infrastructure systems will transport municipal wastewater, agricultural wash water (before and after pre-treatment), and storm water from the City of Salinas to the RTP.
- **Agricultural Drainage Water - Reclamation Ditch.** The Reclamation Ditch drains agricultural land and a series of natural lakes which are linked by a system of lateral ditches and pumping facilities. The Reclamation Ditch also collects urban runoff from



the City of Salinas. A new diversion structure will divert flows into the existing sanitary sewer gravity main, which conveys wastewater to the M1W's Salinas Pump Station. The Reclamation Ditch was selected based on relatively consistent, year-round flows and proximity to existing wastewater collection facilities.

- **Agricultural Drainage Water - Blanco Drain Diversion.** The Blanco Drain Diversion, a man-made reclamation ditch, drains approximately 6,400 acres of land including about 3000 acres of agricultural lands south and west of the City of Salinas. It is a significant source of water for the Expanded PWM Project. The newly constructed diversion facility diverts and conveys the flow from the Drain directly to the RTP.

The Expanded PWM Project will provide up to 10,150 AFY of new recycled water supplies. By creating a new sustainable water supply, the project will strengthen and diversify the area's water supply portfolio and help ensure consistent access to safe, potable water for residents and businesses – a critical benefit in an area whose economy also depends heavily on water.

### Groundwater Basin Sustainability

Decades of over-pumping in the Salinas Valley have resulted in groundwater level depletion. In the critically over-drafted Salinas Valley Basin, several Groundwater Sustainability Agencies (GSAs) were formed in response to California legislature that requires all groundwater basins to achieve sustainability by 2040. In the Seaside Basin, a GSA/sustainability plan is not required due to its 2006 adjudication. The basin is managed by a court appointed Watermaster who is responsible for carrying out the requirements of the Adjudication Decision, including monitoring groundwater extractions and water quality to ensure a healthy, net neutral basin. The Salinas Valley GSA, represented by diverse stakeholders, including M1W, is developing comprehensive groundwater sustainability plans, including a subbasin plan covering the CSIP area currently served tertiary recycled water by M1W for agricultural irrigation. The Project will supply 5,750 AFY of recycled water to the Seaside Basin to replenish the adjudicated Seaside and will also supply up to 3,600 AFY to the CSIP to reduce groundwater pumping and over-drafting that has led to dropping groundwater levels and seawater intrusion.

### Water Quality Issues

#### *Groundwater Quality Caused by Groundwater Depletion*

Groundwater is the primary source of drinking water for north county local cities, rural communities, as well as a primary source of agricultural irrigation water. Agriculture is the backbone of Monterey County's economy, earning \$3.9 billion and employing 27,293 people. With nearly 220,000 acres of land under cultivation in the Salinas Valley, agricultural groundwater pumping averages 450,000 AFY. Over-pumping has resulted in seawater intrusion into the groundwater aquifer, threatening its use for drinking water and agricultural irrigation.

The unincorporated community of Castroville, in northern Monterey County, has been addressing the worsening of its groundwater quality since 1993. Having lost the ability to pump fresh water using its 180-foot aquifer well in 1993 due to high salinity, Castroville Community



Services District (CCSD) has had to build deeper wells. CCSD currently gets its water supply, about 820 AFY, from the 400-foot aquifer through using three wells, and from the 900-foot aquifer using one well. Water levels dropping to more than 100 feet below mean sea level, combined with the close proximity to the Pacific Ocean (less than 4 miles away) and close proximity to existing seawater intrusion (less than one-quarter mile), have raised significant alarms that the existing water supply system to Castroville is imminently threatened with unacceptable high salinity water, which other communities face as well. In the spring of 2018, CCSD temporarily lost the ability to pump from Well #3 - which provides 22 percent of the community's water supply - due to the impacts of seawater intrusion. Further seawater intrusion caused by groundwater basin overdraft and severely exacerbated by the drought could mean the loss of CCSD's water source, which could catastrophically affect the drinking water supply for Castroville. The Expanded PWM Project provides up to an additional 3,600 AFY of recycled water to CSIP, which will allow local agriculture to reduce pumping helping minimize further inland movement of seawater intrusion and reducing the amount of Salinas Groundwater Basin overdraft.

### *Surface Water Quality (Loads)*

The Expanded PWM Project diverts between 2,000 and 3,000 AFY of new source waters (storm water runoff, agricultural drainage flows, and food industry processing water) into the wastewater collection system for treatment and reuse at the RTP. By capturing these source waters, which are contaminated by pollutants (some of which are 303d listed), the Project is able to remove the contaminants that would otherwise flow into the local waterways, Salinas River lagoon, and Monterey Bay National Marine Sanctuary which are home to endangered or threatened species and sensitive habitats including S-CCC steelhead trout, tidewater goby, and California red-legged frog.

### *2. Will the project address climate change (E.O. 14008)?*

The Expanded PWM Project will address climate change by increasing the region's resiliency to climate change and supporting climate resilient development, through: 1) conserving local land, water, and biodiversity; and 2) increasing resilience to the impacts of climate change. These actions will be implemented by increasing biological diversity and flow in the Carmel River, improving groundwater quality in the Salinas Valley and Seaside Basins, increasing groundwater levels in the Salinas Valley Basin, and providing an additional drought-resilient water supply in a region likely to suffer from increased droughts due to climate change.

The Expanded PWM Project diverts new source waters (storm water runoff, agricultural drainage flows, and food industry processing water) into the wastewater collection system for treatment and reuse at the Regional Plant that would otherwise have contributed pollutant loads into the local waterways, Salinas River lagoon, and Monterey Bay National Marine Sanctuary.





Additionally, by providing a reliable new water supply, the Expanded PWM Project increases flow in the Carmel River by reducing diversions. These reduced diversions from the Carmel River will increase biodiversity and help repair the natural biological environment by improving habitat quality of the riparian corridor. Figure 11 depicts the Carmel River streamflow (cubic feet per second [cfs]) over the last two years. In 2021, the annual mean discharge was 22.7 cfs per day with a cumulative annual discharge of 8,298 cfs. This is a critically dry condition. As of February 14, 2022, streamflow levels for the Carmel River were 88.25 percent below the seasonal average. The Expanded PWM Project, which supports CalAm in reducing water diversions from the Carmel River, optimizes the use of drought tolerant supplies, maximizes wet year supplies, and helps protect the region from future droughts.

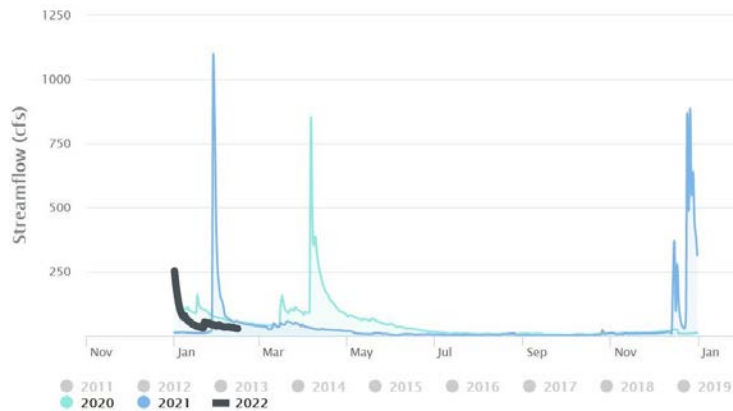


Figure 11 Carmel River Flows (SnoFlo, Seasonal Comparison, Carmel River)

Purified recycled water from the Expanded PWM Project is injected into the Seaside Basin and is tested for hundreds of constituents. The results indicate that concentrations of total dissolved solids (TDS), specific conductance, and chloride in the purified recycled water are lower than base concentration levels in the groundwater, thus helping to improve groundwater quality. This benefit will be expanded over time with continuous replenishment from the Project. Purified recycled water injection will have beneficial impacts related to salt loading, enhancing the groundwater quality.

Decades of over-pumping in the Salinas Valley have resulted in groundwater level depletion. The Project will supply up to 3,600 AFY to the CSIP to reduce groundwater pumping and over-drafting that has led to dropping groundwater levels and seawater intrusion. The Seaside Basin will also benefit from aquifer replenishment from concurrent operations of the Monterey Peninsula Aquifer Storage and Recovery (ASR) Project and the Expanded PWM Project. The Expanded PWM Project will supply 5,750 AFY to the Seaside Basin, up to 53 percent of the average annual water demand for the Monterey Peninsula Water Resources System of the CalAm Service Area.

The Project also provides for an additional 200 AFY of purified recycled water that would be injected in the Seaside Basin during wet seasons for up to five consecutive years to create a Drought Reserve bank of 1,000 AF. This reserve will support urban needs during drought conditions when greater demand for recycled water production in the summer months is needed for CSIP agricultural irrigation. Additionally, an operation reserve of up to 2,875 AF is being built-up in the basin to restore groundwater levels. Both the drought and operational



reserves provide additional drought resilience and increased reliability of supplies of potable water during drought years.

***3. Will the project help create additional flexibility to address drought? Will water made available by this Project continue to be available during periods of drought? To what extent is the water made available by this Project more drought resistant than alternative water supply options?***

The Monterey region has suffered from drought in 8 of the last 10 years. The Expanded PWM Project was conceptualized during this period and was specifically designed to help address drought and to create operational flexibility for withstanding drought conditions. Drought resistant components include:

- **Drought Reserve:** During normal to wet years, the Expanded PWM Project will inject 200 AFY of purified recycled water in the Seaside Groundwater Basin for up to five consecutive years. This will create a potable drought reserve bank totaling up to 1,000 AF. During dry years, this “savings account” will be used for urban uses, freeing up the Project’s source waters for increased tertiary recycled water production for agricultural irrigation.
- **Operation Reserve:** The Expanded PWM Project also provides an operation reserve of up to 2,875 AF to be available to increase the reliability of supplies of potable water even during drought years.
- **Four Types of Wastewater:** The Expanded PWM Project is the first of its kind to diversify source waters and utilize four types of wastewater. In addition to municipal wastewater, three new sources are being conveyed to M1W for treatment and reuse: agricultural wash water, irrigation drainage water, and urban and stormwater runoff. This combination of wastewaters will help ensure reliable influent for M1W’s potable and non-potable water recycling efforts.
- **Increased Supply for Agriculture Irrigation:** With the collection of new source waters, the Expanded PWM Project can help increase the recycled water supply distributed to the CSIP area. Up to 3,600 AFY of additional wastewaters are estimated to be available during drought years to supplement municipal wastewater volumes.

The Expanded PWM Project currently provides 3,500 AFY of purified recycled water or 21 percent of the projected average annual demand for the CalAm Monterey District. The expansion phase of the project will increase the supply to 5,750 AFY or 47-53 percent of the projected average annual demand. This will provide the region a drought-proof supply that improves the water quality and water levels in the groundwater basin.

The Expanded PWM Project’s innovative use of groundwater banking or “reserve” program, and flexibility to use municipal wastewater supplemented with new source waters ensures that project yields are consistent regardless of water year type. In addition, the Expanded PWM Project is a more drought resistant supply for the region than other water supplies such as





assistance and funding under the California Disaster Assistance Act to address emergency response and delivery of water for public health and safety. At the same time, United States Department of Agriculture (USDA) Farm Service Agency declared Monterey County a Secretarial Disaster Designation from crop year 2013 through 2017, **and again in 2021** (Figure 13, previous page).

## EVALUATION CRITERIA 2 – ENVIRONMENT AND WATER QUALITY

The Monterey Peninsula and Salinas area have numerous water resource challenges including adverse surface and groundwater quality conditions, legal limitations on surface waters to meet environmental and fisheries needs, and groundwater pumping limitations due to overdraft and seawater intrusion. Implementation of the Expanded PWM Project provides alternative water supplies for the Monterey Peninsula, thereby reducing environmental impacts, and water quality impacts on the Carmel River and the Salinas and Seaside Basin.

The M1W Project team worked with both state and federal entities during their environmental and regulatory review process. Many of the source waters, including agricultural drainage water and urban storm water runoff, are contaminated by pollutants. By creatively taking a "one water" approach and bringing these contaminated waters into the treatment facilities, this project meets multiple regulatory objectives with one project and sets the example of how to better utilize water resources in the future.

The environmental documentation for this project found no significant impacts. In May 2017, in accordance with section 102(2) (c) of the National Environmental Policy Act (NEPA), the Reclamation completed a comprehensive Environmental Assessment (EA) for the initial phase of the "PWM Groundwater Replenishment Project - Monterey Regional Water Pollution Control Agency." Based on the EA, Reclamation prepared a Finding of No Significant Impact (FONSI) (May 2017) stating that *"the Proposed Action is not a major Federal action that will significantly affect the quality of the human environment."* Similarly, the expansion components would have less than significant environmental impacts as documented in the project's Supplemental Environmental Impact Report certified by the M1W on April 27, 2021.

### **1. Will the Project improve the quality of surface water or groundwater? If so, how?**

The Expanded PWM Project will result in significant, sustained, long-term water quality improvements to both groundwater and surface and will produce purified recycled water at a quality necessary to meet State and Federal drinking water requirements/levels, Recycled Water Policy, and Central Coast Basin Plan objectives.

#### **Groundwater**

Since the 1970s, M1W, together with local partner agencies, has sought to assist in hydrologically balancing the Salinas Valley Basin for long-term management and protection of groundwater resources. Groundwater is the sole supply for urban demands and the primary supply for agricultural water demands in the Salinas Valley. The ongoing imbalance between



groundwater pumping and recharge has resulted in overdraft conditions, which allowed seawater from the nearby Monterey Bay to intrude inland. The 2022 Update to Chapter 6 of the 180/400-foot Aquifer Subbasin GSP estimated an annual loss of 12,600 AFY of groundwater storage to seawater intrusion and another 600 AFY loss due to declining groundwater levels for a total of 13,200 AFY loss. This critical vulnerability has been

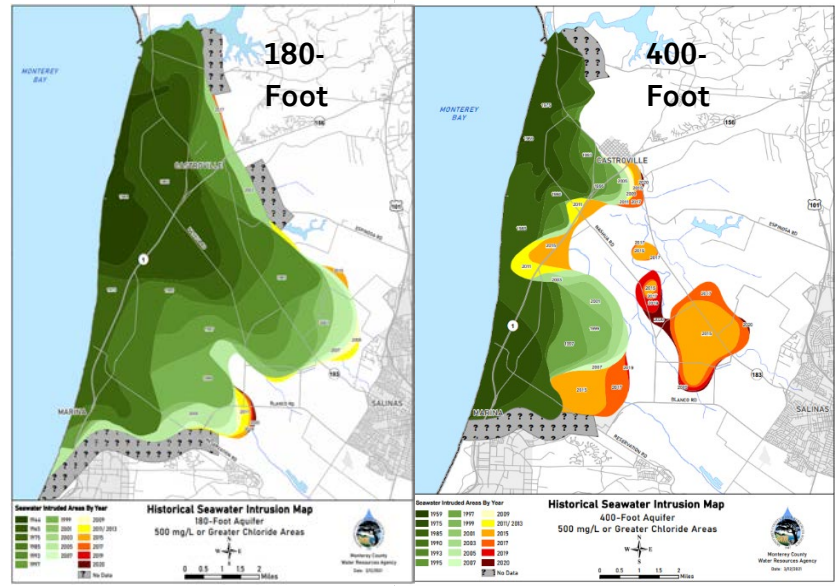


Figure 14 Seawater Intrusion Maps (180 and 400 foot) Aquifers (chlorides >500 mg/L)

documented for decades; however, dramatic changes have recently been reported by Monterey County Water Resources Association (MCWRA) indicating that additional areas east of the seawater intrusion front are showing signs of vertical migration of high salinity (>500 mg/L) groundwater from the 180-foot aquifer to the 400-foot aquifer west of Salinas. As shown in the seawater intrusion maps for the 180-foot and 400-foot aquifers (Figure 14), the extent of seawater intrusion inland has increased significantly. In 2021 the extent of seawater intrusion was about eight miles inland in the shallower 180-foot aquifer, and 6.5 miles inland in the deeper 400-foot aquifer impacting both urban and agricultural wells. These maps also demonstrate the presence of inland pockets in the 400-foot aquifer showing high salinity (above 500 mg/L chloride) due to vertical flow of brackish water from the higher, more intruded 180-foot aquifer to the deeper 400-foot aquifer. Wells serving potable customers, including severely disadvantaged communities, are less than 2 miles from these high salinity islands.

Seawater intrusion has resulted in the degradation of groundwater supplies to the point of making the water unusable and requiring curtailment in the use or destruction of urban and agricultural supply wells within the affected area. Figure 15 (next page) demonstrates the area impacted by seawater intrusion including the location of the region’s groundwater wells. The region is proceeding with enhancing and potentially expanding the CSIP Service Area to minimize undesirable impacts to drinking water from seawater. Upon expansion of the CSIP service area, use of all wells within the Area of Impact, will be terminated (with exemption for domestic or municipal water supply wells, CSIP supplemental wells, and monitoring wells). In addition, a grant-funded well demolition program is in progress by MCWRA, and restrictions have been placed on the construction of new wells. The degradation of groundwater quality,



due to seawater intrusion exacerbated by the overdraft of the groundwater basin, has resulted in groundwater limitations that curtail the most significant water supply source for a region with few feasible alternative water supply options.

The Expanded PWM Project is expected to delivery up to 3,600 AFY of additional recycled water for agricultural irrigation in northern Salinas Valley, directly offsetting groundwater extractions by an equivalent amount. The reduced groundwater pumping will offset up to 27 percent of the imbalance between groundwater pumping and recharge (3,600 AFY out of the 13,200 AFY of annual storage loss) and provides substantial protection against seawater intrusion and the degradation of the groundwater supplies.

In addition, the Expanded PWM Project provides 5,750 AFY of purified recycled water for injection into the Seaside Basin. This purified water (with TDS levels below 100 mg/L) will improve the quality in the groundwater basin and will help prevent seawater intrusion from impacting this basin. Additional protection against seawater intrusion is provided by the operational and drought reserves that increase the groundwater elevation in the Seaside Basin.

### Surface Water

The Expanded PWM Project collects new source waters (municipal wastewater, industrial processing water/agricultural wash water, urban storm water runoff, and crop drainage water) and will treat the waters at M1W's RTP. Many of these source waters, including urban storm water and agricultural tile drain runoff, are impaired by pollutants (including nutrients, pesticides, pathogen/bacteria, toxicity, and other constituents, such as turbidity, TDS, low dissolved oxygen [DO], pH) and listed on the Clean Water Act 2016 303(d) list. The Expanded PWM Project diverts these raw source waters prior to their flowing into adjacent water bodies. These waters will be sent to the RTP for treatment and reuse. When these waters are diverted and treated, they will provide a net benefit as these polluted waters would otherwise discharge to the Monterey Bay or percolate into the ground. In addition, the use of highly treated recycled water for irrigation will further improve surface water quality, reduce the nutrient loadings in agricultural runoff, and further mitigate seawater intrusion.

This will improve water quality conditions in the Salinas River, Tembladero Slough and Moss Landing harbor, and provide better habitat for the native aquatic species that live there, particularly the federally-listed steelhead trout. **The capture of project diversions from these**

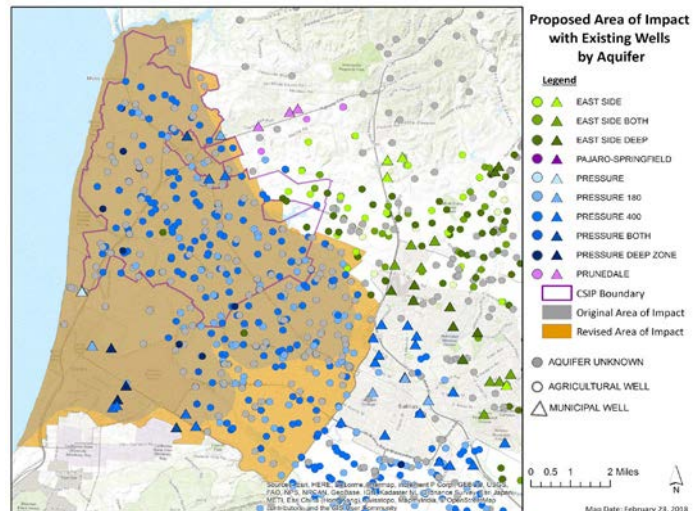


Figure 15 Proposed Area of Impact with Existing Wells by Aquifer

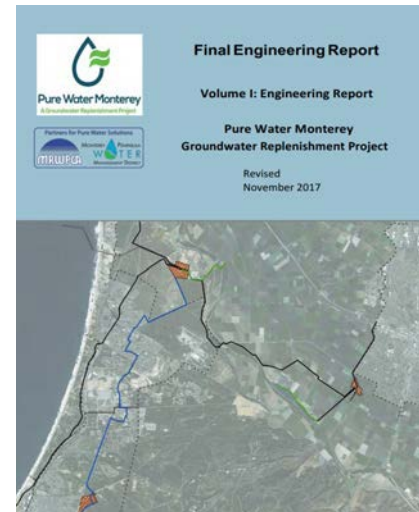


sources would result in significant pollutant load reductions including nitrates (332,000 pounds/year), chlorides (2,195,000 pounds/year), dissolved solids (16,388,000 pounds/year), and orthophosphates (16,500 pounds/year).

## *2. Will the project improve effluent quality beyond levels necessary to meet State or Federal discharge requirements?*

The RTP has three distinct treatment standards: (1) primary and secondary treatment for discharge through the M1W ocean outfall or use as influent for the water recycling systems, (2) Title 22 standards (tertiary filtration and disinfection) for unrestricted crop irrigation use, and (3) advanced water purification for the Expanded PWM Project.

The Expanded PWM Project meets or exceeds all state and federal requirements for drinking water. After wastewater receives primary and secondary treatment at the RTP, it is diverted to the Advanced Water Purification Facility (AWPF) where it undergoes a four-step state-of-the-art purification process consisting of ozonation (a step that exceeds the California standards for indirect potable reuse), membrane filtration, reverse osmosis, and advanced oxidation (disinfection) using ultraviolet light with hydrogen peroxide. The AWPF product water is near-distilled-quality and therefore requires stabilization to prevent corrosion of conveyance pipelines. The stabilized water is then be injected into the Seaside Basin. The Expanded PWM Project has been reviewed, approved, and permitted by the SWRCB Division of Drinking Water and the Central Coast RWQCB to protect public health and safety, water quality, as well as environmental compliance.



## *3. Will the Project improve flow conditions in a natural stream channel?*

The Expanded PWM Project will improve flow conditions in natural stream channels by reducing diversions from the Carmel River and by reducing pollutant loads on the lower Salinas River watershed. Historically, CalAm, a private water supplier, has diverted at least 7,164 AFY from the Carmel River, a volume far greater than the sustainable rate. By over pumping the riparian corridor, wildlife dependent on instream flows and riparian habitat, and steelhead that spawn in the river have suffered from adverse effects. With the Expanded PWM Project, diversions will be reduced by 3,500 AFY and could potentially be reduced by up to 4,950 AFY, increasing instream flow and benefitting the riparian habitat.

Beneficial uses of the Carmel River include, but are not limited to, municipal and domestic water supply, groundwater recharge, contact (e.g., swimming) and non-contact (e.g., boating, fishing) water recreation, wildlife habitat, and commercial fishing. The Expanded PWM Project provides an alternative water supply source, thereby reducing diversions from the Carmel River system by a minimum of 3,500 AFY, enabling equivalent amount of flows to remain in the



Carmel River. This increase in flow will have a beneficial impact on all species, including non-listed, and sensitive habitats in the Carmel River.

#### ***4. Will the Project restore or enhance habitat for non-listed species? If so, how?***

Implementation of the Expanded PWM Project, which serves to increase downstream river flows, in conjunction with other regional watershed efforts such as the Carmel River Floodplain Restoration and Environmental Enhancement Project, targets improving the habitat for all native species present. This project will increase the stability/health of the riparian corridor and habitat, thereby reducing threats to native fish or wildlife.

The Expanded PWM Project reduces Carmel River diversions, benefiting habitat in the river system by improving flow conditions for aquatic and terrestrial species. Increased river flows will enhance the stability/health of the riparian corridor and habitat and reduce threats to native fish or wildlife. It is expected that restoration of healthy habitat will improve the overall health of the river system, benefiting the native species and making them and the overall system more resilient to the presence of invasive *Arundo* grass, non-native striped bass, and reduce competition for food caused by New Zealand mudsnails.

Furthermore, maintaining and increasing instream river flows will maintain lower river temperatures, higher dissolved oxygen, dilute pollutant concentrations, and improve the water quality in the Carmel River Lagoon, which can decline during late summer/fall as freshwater inflows cease and ocean waves overtop the sandbar at the mouth of the river.

#### ***5. Will the Project provide water or habitat for federally listed threatened or endangered species? If so, how?***

The Expanded PWM Project will provide water and habitat for federally listed threatened or endangered fish species, including the S-CCC steelhead (*Oncorhynchus mykiss*) by decreasing diversions from the Carmel River. The Carmel River supports populations of at least ten resident freshwater and anadromous fish species. Of these fishes, the S-CCC steelhead has been identified as federally threatened and extensive studies have been performed to define its ecology in the river. Between 1987 and 1991, the SWRCB received four complaints alleging excess diversions were destroying riparian, wetland, and aquatic resources in the lower Carmel River, including the federally threatened S-CCC steelhead. Steelhead spawning usually occurs in stream reaches free of rooted or aquatic vegetation. Due to the reduction in river flows, Steelhead populations have declined due to degradation of spawning habitat, introduction of barriers to upstream migration, and reduction in winter flows.

Implementation of the Expanded PWM Project will reduce pumping from the Carmel River by at least 3,500 AFY and potentially up to 5,050 AFY, thus returning an equivalent amount of flows to the Carmel River, helping to restore lower river flows, especially during key summer months, and protecting the beneficial uses of the river, include Steelhead reproduction.

In addition to the Carmel River, the Salinas River is also home to the S-CCC steelhead. While the Expanded PWM Project diverts water (Blanco Drain and Reclamation Ditch) from the Salinas





River, these diversions were found by SWRCB, California Department of Fish and Wildlife, and National Marine Fisheries Service to be appropriately protective of habitat for Steelhead and the California red legged frog. Water quality in the Blanco Drain and Reclamation Ditch is extremely poor, and both bodies contain contaminants that are known to be harmful to fish and wildlife. By substantially reducing the discharge of these poor-quality waters into the lower Salinas River watershed, habitat conditions should improve. This includes the Salinas River Lagoon, a potentially significant habitat for recovery of S-CCC steelhead. In addition, the Expanded PWM Project requirements will ensure 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.

### **EVALUATION CRITERIA 3 – ECONOMIC BENEFITS**

The primary objective of the Expanded PWM Project is to create up to 10,150 AFY of safe, reliable, and drought resilient water supplies for Monterey County communities. The Expanded PWM Project provides alternative water supply sources to help balance the Seaside Basin, protect against seawater intrusion, and replace existing water sources limited by State Orders and groundwater adjudication. This is done by: 1) Replenishing the Seaside Basin with 5,750 AFY of purified recycled water to replace a portion of CalAm's Carmel River water supply; 2) Providing additional recycled water for agricultural crop irrigation in northern Salinas Valley by augmenting inflows to an existing water recycling facility at M1W's RTP; 3) Collecting and conveying additional source waters to the wastewater system to reduce pollutant loads entering aquatic habitats and to augment recycled water for recycling; and 4) Developing drought reserves to allow the increased use of the Expanded PWM Project new source waters for crop irrigation in the CSIP area during dry years while still enabling use of stored groundwater for potable demands.

#### **SUB-CRITERION 3A – COST EFFECTIVENESS**

The Expanded PWM Project design optimizes the use of existing facilities/structures, to reduce overall project costs and environmental impacts. Funding for the planning, environmental, design, and construction of the Expanded PWM Project is provided by M1W and its project partners (including MPWMD, MCWRA, CalAm, City of Salinas, City of Monterey, Fort Ord Reuse Authority, and Marina Coast Water District for various project components). M1W has been successful at securing a variety of low interest loans and grants to help pay for the Expanded PWM Project, thereby increasing the overall cost effectiveness of the project. Additional details regarding the Project funding are included in the Funding Plan (Section 5).

Operation of the initial phase of the Expanded PWM Project started up in early 2020. Construction for the expansion is anticipated to be completed by 2024.



**1. Reclamation will calculate the cost per acre-foot of water produced by the Project using information provided by Project sponsors.**

**a. The total estimated construction costs, by year, for the project.**

Table 2 shows the total estimated cost of construction of the Expanded PWM Project as over \$152 million.

**b. The total estimated or actual costs to plan and design the project.**

The total cost to plan and design the Expanded PWM Project is \$30.9 million as shown on Table 3. This does not include the development of the feasibility study (completed in July 2016 and updated in 2021 to meet the requirements of WTR 11-01).

**c. The average annual operation and maintenance costs for the life of the Project.**

The annual estimated operation and maintenance (O&M) costs for the Expanded PWM Project (producing 10,150 AFY) are \$19,676,360. This amount includes costs for power, chemicals, labor, and regular maintenance replacement items, miscellaneous fees (e.g., legal, permitting, insurance, etc.), and general administration. Major replacement items and timing are presented in the response to question F.

**d. The year the Project will begin to deliver reclaimed water.**

Upon completion in 2020, the initial phase of the Expanded PWM Project started delivering 3,500 AFY of purified recycled water for recharge of a groundwater basin that serves as a drinking water supply for the residents and visitors of the Monterey Peninsula. The initial phase of the Expanded PWM Project also has the capability to produce up to 3,600 AFY of recycled water to augment agricultural irrigation supply, and 600 AFY for urban irrigation. The expansion is expected to be completed in early 2024 and will deliver an additional 2,250 AFY of recycled water for recharge of the Seaside Basin, **totaling up to 10,150 AFY of new recycled water supplies.**

**e. The Projected life (in years) that the Project is expected to last.**

The Expanded PWM Project’s useful life for mechanical and electrical equipment is assumed at 20 years, structures are assumed at 30 years, pipelines at 75 years, and above-grade steel reservoir facilities at 50 years. The assumed life of the Advanced Water Purification Facility

Table 2 Estimated Construction Costs by Year

Calendar Year	Construction Cost
2017	\$8,961,062
2018	\$44,118,706
2019	\$32,548,077
2020	\$16,633,388
2021	\$7,288,700
2022	\$9,958,583
2023	\$32,673,302
<b>Total</b>	<b>\$152,181,818</b>

Table 3 Estimated Planning and Design Costs by Year

Calendar Year	Planning and Design Cost
2014	\$5,308,886
2015	\$4,745,111
2016	\$6,192,397
2017	\$2,300,793
2018	\$3,094,465
2019	\$4,830,099
2020	\$442,713
2021	\$2,051,276
2022	\$1,523,774
2023	\$459,000
<b>Total</b>	<b>\$30,948,514</b>



(APWF) and other project facilities (conveyance, distribution, and groundwater injection wells) are 50 years. Many wastewater and water treatment plants are operated for 50 years or longer. The facilities will require infrastructure investments on a regular basis to ensure performance and capacity are maintained, which help to extend the life of the project.

**f. All estimated replacement costs by year as shown on Table 4.**

Replacement costs have been estimated for major replacement items as shown in Table 4. These costs include replacement of instrumentation, mechanical and electrical equipment at intervals based on typical life expectancy. The replacement costs for membranes, ultraviolet lamps, cartridge filters, reverse osmosis (RO) elements are considered part regular operation and maintenance activities and the costs are included in the response to question “c.”

Table 4 Replacement Cost by Year

Description of Replacement Requirements (over 30 years)	Year	Cost
Instrumentation	2034	\$408,276
Mechanical equipment (pumps and motors) and Injection wells	2039	\$7,573,511
Electrical equipment	2049	\$6,777,604
<b>TOTAL</b>		<b>\$14,759,391</b>

**g. The maximum volume of water (in acre-feet) that will be produced annually upon completion of the Project.**

Upon completion the Expanded PWM Project will produce up to 10,150 AFY. This includes 5,750 AFY of purified recycled water for recharge of a groundwater basin that serves as a drinking water supply, 200 AFY of purified water for drought reserve, 600 AFY of recycled water for urban irrigation, and up to 3,600 AFY of recycled water to augment agricultural irrigation supply.

**2. Reclamation will calculate the cost per acre-foot of the Title XVI Project using the information requested in question No. 1 and compare it to the non-reclaimed water alternative and any other water supply options that the applicant identifies to evaluate cost effectiveness of the Project.**

**a. A description of the conditions that exist in the area and projections of the future with, and without, the Project.**

Isolated from reliable state or federal water projects, Monterey County relies solely on its local water resources (e.g., groundwater and surface water). The Monterey Peninsula’s primary sources have been the Carmel River and the Seaside Basin, and for the Salinas Valley, groundwater. A long-term water supply to demand imbalance in the region is demonstrated by over 80-years of documented increasing seawater intrusion and groundwater level declines in the Salinas Valley. This limited portfolio continues to be threatened by surface water impairments due to pollutants, seawater intrusion, and a legally mandated decrease in Carmel River diversions to protect sensitive habitats and species. Extended droughts have further



intensified this condition causing instability and detrimental effects to the region. The instability caused by these threats poses detrimental effects to the region and to agriculture and tourism - the economic pillars of Monterey County - all of which are critically dependent on water. The Expanded PWM Project allows the region to move towards more sustainable water resources management by providing approximately half of the future demands on the Monterey Peninsula with a drought resistant water supply.

Local project partners serve more than 265,000 people and provide water for municipal, industrial, landscape, and agricultural uses in the region with current demands of over 35,000 AFY of water. The backbone of the county's economy is the \$3.9 billion agricultural industry and the \$3 billion tourism industry with over 4.6 million visitors a year.

According to the Association of Monterey Bay Area Governments Regional Plan (November 2020), the regional population is projected to increase by 11 percent by 2035, from a population of 441,143 to 491,443, which will increase water demand.

Per Food & Water Watch, a nonprofit public interest group, announced its 2017 list of the "Top 10 Most Expensive Water Providers in the Country"

The Monterey Peninsula now ranks No. 1, with Cal Am providing the most expensive water in the United States, according to the study.

The annual cost to Monterey Peninsula consumers for 60,000 gallons is \$1,202.

The residents on the Monterey Peninsula have some of the highest rates for water throughout California and the United States. According to the MPWMD, the quantity of water utilized in the region today, is the same as that was used back in 1958, even with a 34 percent increase in population. This is attributed to aggressive water conservation efforts - the region boasts one of the best gallons per capita per day (gpcd) in the state at 57 gallons.

The Seaside Basin historically has provided about 25 percent of urban supplies for the Monterey Peninsula. Groundwater conditions in the Seaside Basin have deteriorated for several decades. Groundwater extraction near the coast increased markedly beginning in 1995, resulting in declining water levels and depletion of groundwater storage. Until the Seaside Basin was adjudicated in 2006, basin-wide groundwater withdrawals were up to 5,600 AFY. The Final Decision set three-year goals aimed at reducing annual extractions to 3,000 AFY, which is termed the "natural safe yield," by 2021.

Meanwhile in the next groundwater basin over, the Salinas Valley has also suffered from overdraft and seawater intrusion; the extent of seawater intrusion is about eight miles inland in the shallower 180-foot aquifer and 6.5 miles inland in the deeper 400-foot aquifer and has impacted both urban and agricultural wells. Monterey County Water Resources Agency's (MCWRA's) seawater intrusion maps demonstrate that there are inland pockets or islands in the 400-foot aquifer showing high salinity (above 500 mg/L chloride) due to the downward flow of brackish water from the higher, 180-foot aquifer to the deeper 400-foot aquifer. Wells serving urban customers including severely disadvantaged communities, are less than 2 miles from these islands.



The ground and surface water limitations in the region could result in water supply curtailments that are difficult to resolve as the Monterey area does not have access to imported water, which is also subject to curtailment.

Without implementation of the Expanded PWM Project, which will supply up to 10,150 AFY of new recycled water, there would be severe water cutbacks in the region. This could result in significant impacts to the local economy including moratoriums on construction and development. Agriculture and tourism, two of the region's largest employers, rely heavily on water for their business and would be greatly impacted as well. Without implementation of the Expanded PWM Project, or an alternate new water supply project, the region would need to look to ration available water supplies between existing uses which may result in higher water rates. The hospitality industry estimates that the local economy could lose up to a \$1 billion dollars, if widespread rationing were to be implemented due to a water supply shortage.

For the agriculture community, the acceptance of drip irrigation practices in the Castroville Seawater Intrusion Project (CSIP) area has lowered the per acre use of water by one third of an acre foot per acre per year. In June 2018, Monterey County implemented an Urgency Ordinance which prohibits new well development in the 180- and 400-foot aquifers due to the pronounced growth of seawater intrusion in these two aquifers. This impact area is near the coast and is expanding towards a major metropolitan area, the City of Salinas. This area also includes the entire CSIP project area. The ordinance which only allows for agriculture replacement wells in the deep aquifer (not yet fully defined) is at best a temporary solution. Following land due to water quality concerns would cause a rippling effect throughout the Salinas Valley and Monterey County economy. The largest economic driver in Monterey County is the direct and indirect economic activities related to agriculture - a reduction in agricultural water supplies will result in a detrimental impact not just to the agricultural community but to the overall economic health of Monterey County.

The Expanded PWM Project will supply up to 10,150 AFY of new recycled water supplies and was specifically designed to address various water supply challenges. With the injection of 5,750 AFY of purified recycled into the Seaside Groundwater Basin and the build-up of an operational reserve of 2,875 AF, the Seaside Basin groundwater levels will recover, and the threat of seawater intrusion will be reduced, thereby protecting and preserving the critical groundwater resource. In addition, the Expanded PWM Project makes available of up to 3,600 AFY of recycled water for agricultural irrigation and 600 AFY of urban irrigation which reduces the amount of groundwater being extracted in these impacted aquifers.

Implementation of the Expanded PWM Project moves the region towards building water supply security and balancing the region's water supply portfolio.

**Monterey County communities, particularly in northern Monterey County, face coastal aquifer degradation by seawater intrusion, tremendous agribusiness and tourism industries demands, isolation from State and Federal water projects, and imminent cutbacks in availability of existing surface water and groundwater supplies. Therefore, for the region,**



**implementation of the Expanded PWM Project is imperative to ensuring long-term sustainability and environmental protection. Without the project, the region would have to cut back water use until an alternative water supply could be developed, causing significant economic impacts to the tourist and agricultural industries of the Monterey region.**

**b. Provide the cost per acre-foot of other water supply alternatives that could be implemented by the non-Federal Project sponsor in lieu of the Project.**

Due to its location, the Monterey area has limited options for new water supplies. With no connections for importing State or Federal Waters, new supply options only include ocean desalination, and recycled water. The Expanded PWM Project supports multiple benefits that would need to be offset by a non-reclaimed water project including: 1) 5,750 AFY potable water benefit from injection in the Seaside Basin, 2) up to 3,600 AFY agricultural irrigation benefit from irrigating with tertiary recycled water, 3) 200 AFY of drought reserve, and 4) 600 AFY for urban irrigation. The potential alternative projects differ for each of these types of supply benefit. The region has investigated and pursued dozens of alternative water supply projects over the past 25 years.

**Potable Benefit of 5,750 AFY**

After the State Water Board determined the Carmel River water supply diversions were exceeding legal rights, a three-pronged approach was proposed to address potable water demand: (1) desalination via a CalAm proposed desalination project (MPWSP), (2) groundwater replenishment via Pure Water Monterey, and (3) aquifer storage and recovery. Prior to implementation of the Expanded PWM Project, CalAm proposed a 9.6 mgd desalination project to supplement water supplies for the region. This project was later reduced to a 6.4 mgd desalination facility. **The implementation of both the 6.4 mgd desalination facility and the Expanded PWM Project are estimated to satisfy more than the Monterey Peninsula area long-term urban demands.** The 6.4 mgd MPWSP estimated project costs in 2021 dollars are \$349 million, and over \$13 million in annual operations costs. It is estimated that the MPWSP facility would have an annualized cost of \$4,631/AF. The MPWSP has been plagued with regulatory and stakeholder challenges. Starting in 2012 the project's approval process has dragged out and the construction start date has slipped from 2018 to an unknown date due to difficulties associated with obtaining local permits. Local stakeholders have favored implementing the Expanded PWM Project for cost, sustainability, and environmental reasons.

**Agricultural Benefit of up to 3,600 AFY**

There is no simple way of supplying additional non-reclaimed water to agriculture, as current groundwater supplies are over-drafted and suffering from seawater intrusion. Drilling deeper wells would further exacerbate the problem and may not even be allowed under new Sustainable Groundwater Management Act (SGMA) requirements. Average water use by recycled water users in CSIP is about 1.5 AF/acre which means the 3,600 AFY supply would support 2,400 acres a year. The cost to rent, grow and harvest a crop is estimated at



\$5,913/acre based on farmers in the CSIP area. A break even cost for fallowing 2,400 acres would be \$1.4 million a year or \$3,942/AF. Recently, the Groundwater Sustainability Plan for the 180/400-ft Aquifer Subbasin of the Salinas Valley has presented numerous alternative projects to supply additional water to the CSIP system; however, the implementation of any of these projects is many years away.

#### Urban Irrigation Benefit of 600 AFY

In addition to water needed for agricultural irrigation, water for urban irrigation is hard to secure in this region. Marina Coast Water District is the lead agency for the Monterey Subbasin GSP, dated January 2022. As part of the GSP development a variety of new water supply projects were evaluated with projects ranging from conservation, stormwater recharge, recycled water reuse and brackish water desalination. Developing their own recycled water project rather than using M1W's recycled water was estimated to cost over \$28 million for a benefit of 232 AFY (\$11,750/AF). Since this would not offset the 600 AFY of planned urban irrigation, two stormwater capture projects could also be constructed at a cost of \$5.14 million for 150 AFY (\$2830/AF) and another \$5.95 million for 160 AFY (\$3,050/AF). Combined these three projects would provide nearly an equivalent flow of 542 AFY.

#### Drought Buffer of 200 AFY

Providing additional drought buffer is another difficult task in this region. Monterey County is considering a project to improve storage in their existing reservoirs upstream by building an Interlake Tunnel between the Nacimiento and San Antonio Reservoirs. This project would provide an additional 34,000 AF of storage potential at a cost of \$150 million, for \$4,412/AF. Offsetting the 200 AFY of drought buffer would cost approximately \$0.88 million a year. By providing additional storage the project would help during drought times for the entire Salinas Valley. This project, which includes construction of a 12,000-foot long, 10-foot diameter tunnel, has been under consideration since 1991 but is progressing slowly due to its significant cost and technical/environmental issues.

#### **A summary of the multiple projects that would be required to offset the Expanded PWM Project are shown in Table 5 (next page).**

As opposed to the six projects that would need to be combined to provide approximately the same benefit as the Expanded PWM Project, there has been a new regional brackish water desalination project proposed in the Monterey Subbasins GSP that would produce 15,000 AFY at a cost of \$385 million or \$2,900/AF, with an additional \$1,200/AF required for an extraction barrier for a total unit cost of \$4,100/AFY. Arguably this project is similar sized to the Expanded PWM Project and would provide a new supply that could supplement local groundwater supplies for potable uses, urban and agricultural irrigation, as well as provide a drought buffer. Planning, design, funding mechanisms, and environmental review have not commenced; therefore, the timing for this new potential water supply is likely ten years away.



Table 5 Alternative Non-Reclaimed Supplies

Project/ Amount	Source	Cost \$/AF	Total Annual Cost
Potable Water Supply - 5,750 AFY	6.4 mgd Desalination Costs	\$4,631	\$26.6M
Agricultural Irrigation - 3,600 AFY	Fallowing 2,400 acres at a cost of \$5,913/acre	\$3,942	\$1.4M
Urban Irrigation - 600 AFY	MCWD Recycled Water, Check Dams for Storm capture, Recharge from Surface Diversions	\$11,750 \$2,830 \$3,050	\$9.5M
Drought Buffer - 200 AFY	Nacimiento-San Antonio Interlake Tunnel	\$4,412	\$0.88M
<b>Total Annual</b>			<b>\$38.4M</b>

**c. If available, provide the cost per acre-foot of one water supply project with similar characteristics to the Project.**

The Expanded PWM Project truly implements the “one water” approach utilizing advanced technology to purify wastewater, agricultural wash water, stormwater, and agricultural irrigation water in order to produce a drought resistant new water supply. No other projects truly implement a “one water” approach. In addition, while other projects target one specific goal, the Expanded PWM Project is unique in that it is multi-dimensional because it provides water for: 1) urban demands via injection into the Seaside Basin, 2) agriculture irrigation and 3) urban irrigation.

Other pure water projects are being designed and constructed that provide multiple benefits. These projects utilize advanced water treatment technologies, similar to the Expanded PWM Project, to protect groundwater quality or produce drinking water. Phase 1 of the Pure Water San Diego Program will provide 30 mgd of high-quality drinking water for San Diego’s water supply by 2035 by using water purification technology to clean recycled water and use it for reservoir augmentation. The cost per AF for this project is in the \$2,630 range, which is similar to the Expanded PWM project, albeit a bit less due to the much larger size of the program. That the Expanded PWM is within the same range of the Pure Water San Diego project is testament to the cost effectiveness of the Expanded PWM Project.

**d. Discussion of the degree to which the Project is cost-effective. Where applicable, include a discussion of why the Project may be cost effective even if the overall Project cost appears to be high.**

As discussed in previous sections, there are limited local water supply opportunities available in the Monterey region with desalination being the only option to develop a large new supply for the area. Compared to desalination, which is unpopular with stakeholders and regulatory agencies, the Expanded PWM Project has already been implemented and is the preferred





solution for new water supplies in the region. Therefore, the Expanded PWM project is considered cost effective by the regional participants and water supply agencies.

Furthermore, as shown under Subcriterion 3b.1.c below, the Expanded PWM Project is the best value considering not only the differences in financial costs between the options, but also differences in environmental and social outcomes or externalities (e.g., air quality emissions, energy consumption, greenhouse gases, benefits to agricultural produces, avoided costs of seawater intrusion, and regional infrastructure savings).

Without the Expanded PWM Project, the region would be forced to implement a less economical and less environmentally friendly option or remain in a state of water instability, jeopardizing the residents and the economy.

### SUB-CRITERION 3B – ECONOMIC ANALYSIS AND PROJECT BENEFITS

1. *Summarize the economic analysis performed for the Project including information on the Project’s estimated benefits and costs. The information provided should include:*
  - a. **Quantified and monetized Project costs, including capital costs and operations and maintenance costs.**

Table 6 Expanded Pure Water Monterey Project Costs including O&M

Component	Total
Planning, Design and Construction	\$183,130,332
Annualized Capital Cost <sup>(1)</sup>	\$8,176,755
Annual O&M	\$19,676,360
Annual Replacement (total replacement divided by 30 years)	\$491,980
<b>Total Annualized Cost</b>	<b>\$28,345,095</b>
Annual Project benefit, AF	10,150
<b>Annualized Unit Cost</b>	<b>\$2,793/AF</b>

Notes:

(1) Based on assumed 2 percent interest and a payback period of 30 years.

The Expanded PWM Project costs (including capital and construction costs, annual operation, maintenance and replacement costs, and non-construction costs) are summarized in Table 6. The annualized cost estimates are presented in terms of dollar per AF production capacity of the Project and are estimated to be \$2,793/AFY.

- b. **Quantified and monetized Project benefits. This includes benefits that can be quantified and expressed as a monetized benefit per acre-foot.**

The primary benefit of the Expanded PWM Project is the reliable delivery of water supplies to support the region. Agriculture and tourism are two of the region's largest employers, and both rely on water for their economic vitality.

#### Monetized Agricultural Benefits

The total annual amount of groundwater extracted from the Salinas Valley as reported in the 2020 Groundwater Extraction Summary Report produced by Monterey County Water Resource Agency is 466,103 AF. Agriculture pumping accounts for 425,605 AF. The Expanded PWM



project can provide up to 3,600 AF of additional agricultural irrigation water to CSIP (a portion of the Salinas Valley served by M1W recycled water), directly offsetting an equivalent amount of groundwater pumping. Without the project, agricultural pumping could be forced to cut back pumping by up to 3,600 AF or 0.8 percent. With a \$3.9 billion agricultural industry as the backbone of the County’s economy, a 0.8 percent reduction in the available water to supply the industry, translates to a \$33 million annual impact from lost agricultural production. This is without considering related secondary financial impacts and lost jobs.

### Monetized Tourism Benefits

With the longest coastline of any California county, tourism in the Monterey area attracts more than 4.6 million visitors annually. The tourism industry (hotels, restaurants, shops, etc.) supports 27,120 jobs, contributes \$296 million in total taxes, and generates \$153 million in local tax money – directly benefiting the community’s residents with large investment in infrastructure improvements, programs and projects. As noted earlier, the total annual demand for potable water consumption for the Monterey Peninsula is approximately 9,825 AF. The Expanded PWM Project replenishes the Seaside with 5,750 AFY of purified recycled water for municipal use. Without the project, residents and businesses could be forced to cut back usage by 5,750 AF or 43 percent of the Peninsula use. A 43 percent reduction in the available water to supply the tourism industry on Monterey Peninsula would have a significant impact. If the Peninsula accounts for approximately 25 percent of the tourism in the region with iconic attractions like the Monterey Bay Aquarium, Pebble Beach Golf Courses, Carmel-by-the-Sea, Big Sur, and 17-Mile Drive, the impact of a 43 percent decrease in water use could cause a \$322 million annual impact (25 percent of \$3 billion times 43 percent water reduction).

### Other Monetized Benefits

In early 2016, HDR Engineering performed a “Sustainable Return on Investment” analysis on two different water supply projects to determine the best value. The two project options included: 1) Construction of a 9.6 mgd desalination plant, as compared to 2) Construction of a 6.4 mgd desalination



Figure 16 Benefits of Expanded PWM Project

plant combined with the initial phase of the Expanded PWM Project. The best value was determined using the differences in financial costs between the options and differences in environmental and social outcomes or externalities (e.g., air quality emissions, energy



consumption, greenhouse gases, benefits to agricultural produces, avoided costs of seawater intrusion, and regional infrastructure savings). The two largest quantified benefits were the savings to agricultural producers from the nutrients in the recycled water valued at \$25 million and avoided capital and O&M costs at the Salinas Industrial Wastewater Treatment Plant (IWWTP) valued at \$13 million. The study concluded that total monetized benefits were \$50.5 million with a discount rate of 3.5 percent. The findings indicated the PWM Project is the more cost-effective option when looking at financial, environmental, and social impacts.

Some of the other Expanded PWM Project benefits that can be quantified and monetized are summarized on Table 7 and discussed below.

Table 7 Expanded Pure Water Monterey Project Benefits

Benefit Category	Benefit	Quantified	Estimated Annual Benefit	Monetized \$/AF
Agriculture	Avoided loss of supply	3,600 AFY	\$33,000,000	\$9,166/AF
Tourism	Economic stability	5,750 AFY	\$322,000,000	\$56,086/AF
Groundwater Supply	Avoided Groundwater Pumping Costs	3,600 AFY	\$378,000	\$105/AF
Environmental	Avoided Costs of Pumping Carmel River Water for Drinking Water Supply	3,500 AFY	\$1,305,850	\$373/AF
	Avoided costs of fines for pumping Carmel River	3,500 AFY	\$8,400,000	\$2,400/AF
	Green House Gas	Dollars per ton	\$1,800,000	--
	Criteria Air Contaminants	Dollars per ton	\$2,700,000	--
Agricultural Impacts	Production Benefits to Growers from Nutrients	3,600 AFY	\$22,950,000	\$6,375/AF
Industrial Wastewater	Avoided Capital Costs of Salinas IWWTP	2,990 AF	\$556,906	\$186/AF
	Avoided O&M Costs of Salinas IWWTP	2,990 AF	\$550,000	\$184/AF
<b>Total</b>		<b>10,150 AF</b>	<b>\$398,140,756</b>	<b>\$38,339/AF</b>

### Groundwater Supply

The Expanded PWM Project will provide an increase in the amount of recycled water available for agricultural irrigation. This increase in irrigation supply will offset the need for groundwater supplies and in turn help mitigate the effects of seawater intrusion into groundwater aquifers.

The cost of pumping groundwater ranges between \$58 and \$154 per AF with a median value of \$105. By offsetting 3,600 AFY of groundwater pumping, \$378,000 of costs are avoided.



## Environmental

**Avoided Pumping:** By diversifying the region's water supply portfolio, the Expanded PWM Project assists in reducing the diversions from the Carmel River to a healthier amount for the habitats and threatened species. Annual pumping costs for 3,500 AFY are estimated at \$1,305,850 (an estimated 10-20 percent increase in avoided pumping and treatment from the Carmel River will be enabled by the increase in yield by expanding the PWM Project).

**Avoided Fines:** A cease and desist order was issued for a portion of Carmel River diversions. Violations of the order would result in fines or penalties assessed by the State to the water authority. Three fines would apply Water Code Sec 1052 (d) for trespass (up to \$500 per day), Water Code Sec 1055 and 1052 (b) (up to \$500 per day), and Water Code Sec 1845 (b) 1 B for violation of a Cease and Desist Order (\$1,000 a day). The annual value of fines and penalties to the community was estimated to be \$8.4 million.

**Air Quality Impacts:** This analysis considers the following air quality impacts: 1) the Expanded PWM Project requires less energy than the proposed desalination plant and therefore results in less emissions; 2) agricultural wash water diversions will result in reduced pumping at the Salinas Industrial Wastewater Treatment Plant (IWWTP) reducing energy demand and creating less emissions; and 3) the Expanded PWM Project will reduce the net losses from transmissions lines also resulting in lower emissions. Impacts were estimated for criteria air contaminants such as sulfur oxides (SO<sub>x</sub>), particulate matter (PM), volatile organic compounds (VOC), and nitrogen oxide (NO<sub>x</sub>), and greenhouse gases such as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). The basis for monetizing the impacts of criteria air contaminants is to primarily use the results from three reputable studies by the United States Department of Transportation, the European Commission, and Yale University. The results median values were used in the analysis. The main criteria air contaminants analyzed were NO<sub>x</sub>, VOCs, PM, and sulfur dioxide (SO<sub>2</sub>).

**Agricultural Impacts:** The recycled water available for irrigation from the Expanded PWM Project contains primary nutrients found in fertilizers - Nitrogen (N) and Phosphorus (P) - as well as Potassium, Zinc, and others. When growers in the region irrigate with this water supply, they are able to substitute the nutrients in the water for some of the fertilizer's that they would have otherwise applied to their crops. The substitution results in a financial savings to growers in the cost of fertilizer, specifically the application of Nitrogen and Phosphorous. This benefit was estimated using an equivalent average value of nutrients in fertilizer (\$/pound), the concentration of nutrients in existing supplies, and the quantity of irrigation water supplied from the Expanded PWM Project. The HDR study assumed 4,000 AFY would result in a \$25.5 million benefit in offset of fertilizer. Updating this analysis for 3,600 AFY, the proportional costs result in an estimated \$22.95 million benefit for agricultural irrigation.

**Industrial Wastewater:** The City of Salinas operates the IWWTP. With the primary source of the industrial wastewater is from agricultural wash water, a by-product for processing fresh produce. As part of the Expanded PWM Project, wastewater before or after treatment at the



IWWTP will be diverted to the M1W RTP. The City of Salinas would then use the storage ponds to collect storm water in compliance with the City’s municipal storm water permit and the Clean Water Act and agricultural wash water generated in the winter months.

With the Project acquiring grants for infrastructure and by treating the industrial wastewater at the RTP instead of at the IWWTP, between \$15 and \$20 million in capital improvements are expected avoided at the IWWTP. This savings could reduce the wastewater treatment rates paid by producers of industrial wastewater. A median value of \$17.5 million is used as the benefit, which equates to an annualized cost of \$186/AFY using a 50 year life.

Similar to the capital cost savings, transferring treatment of wastewater to the Expanded PWM Project will reduce future O&M costs at the facility. This diversion would result in a 1,342 Mw-hours/year decrease in power needs and the City of Salinas would avoid the additional costs of improvements and long-term operations and maintenance at the IWWTP due to the seasonality usage of the ponds. O&M savings include reduced energy to pump water at the IWWTP ponds and chemicals used in the treatment of industrial wastewater. Savings would range between \$500,000 and \$600,000 per year. A median value of \$550,000 was used in the analysis.

**c. A comparison of the Project’s quantified and monetized benefits and costs.**

As discussed, in the previous section, the project benefits of the Expanded PWM Project are significant. Table 8 summarizes the benefits of the project them to the costs of the project.

Table 8 Expanded Pure Water Monterey Benefits as Compared to Costs

Category	Monetized Annual
TOTAL ANNUAL BENEFIT (from Table 7)	\$398,140,756
Total Annualized Cost (Capital + O&M) (from Table 6)	\$28,345,095
TOTAL Benefit/Cost Ratio	14:1

**2. Some Project benefits may be difficult to quantify and/or monetize. Describe any economic benefits of the Project that are difficult to quantify and/or monetize. Provide a qualitative discussion of the economic impact of these benefits.**

Additional benefits of the Expanded PWM Project that are difficult to monetize are environmental benefits (including carbon intensity of new water supplies, minimization of greenhouse gas, and ecosystem services), pollutant reduction benefits, the reduction of seawater intrusion, and prevention of lost jobs and associated secondary economic impacts, to name a few.

- The environmental benefits to leaving streamflow in the Carmel River or reducing pollutants in the surface waters that reach the Monterey Bay are clear. This project will improve the environment and habitat for fishery resources, birds, and wildlife including special status species. The indirect economic benefits related to environmental



improvements, including improved fisheries and habitat for recreation and tourism, are difficult to quantify/monetize, but effects will be substantial and measurable.

- One of the reasons the Expanded PWM Project is so important is the rippling effect of the local economies if water rationing occurs on the Monterey Peninsula and seawater intrusion limits groundwater pumping in the Salinas Valley. Many of the residents in the region rely on jobs or income from agriculture and related agricultural businesses, a significant portion of the residents have jobs that are based on the Monterey Peninsula hospitality sector. If the hospitality sector begins to lay off workers due to water restrictions, then local residents will be limited in their ability to earn an income. The lack of discretionary spending by the out-of-work residents then starts to affect city and county tax bases, therefore lowering the amount of goods, services, and public health and safety resources available to businesses and residents. In addition, water rationing could result in a lack of revenue from visitors due to lower hotel occupancy tax and sales tax from discretionary purchases which reduces the amount of revenues available to municipalities and small businesses. Municipalities then have to reduce services to residents and the vicious cycle continues to degrade the overall economic well-being of the community.
- A Cease and Desist Order (SWRCB Order Number WR 2009-0060) (CDO) issued in 2009 required CalAm, a private water supplier, to secure replacement water supplies for its Monterey District service area and reduce its Carmel River diversions to 3,376 AFY. As a result, a moratorium on new service connections was established, which is a detriment to business and economic expansion in the region. The Expanded PWM Project is crucial to comply with the CDO and is a major step toward removing the moratorium and the burdens it imposes.
- Monterey County has already imposed an urgency ordinance on groundwater pumping in the productive aquifers in and around CSIP to reduce seawater intrusion. With the implementation of the Sustainable Groundwater Management Act (SGMA) all aquifers may ultimately be subjected to a limit that promotes a safe yield. Since the Salinas Valley aquifers are in overdraft, this will result in a reduction in the amount of groundwater that is currently pumped on an annual basis. The Expanded PWM Project can provide additional water for use in the CSIP area (up to 3,600 AFY), therefore, reducing the annual amount of groundwater pumped in the 180/400-ft Aquifer Sub-basin. Reducing pumping will then decrease the seawater intrusion front which will protect other wells from being affected thereby maintaining the productivity in the fields and positive effects on the economy.
- Similarly, the injection of the Expanded PWM's water into the adjudicated Seaside Basin creates a positive pressure gradient out towards the ocean. This gradient helps create a natural barrier against seawater intrusion to prevent degradation of its groundwater basin water quality due to the high saline seawater. Monetizing the value of a safe,



reliable water supply and the stability of a groundwater basin is difficult when it occurs over multiple decades.

- Provides new water supply to Former Ford Ord for irrigation supporting redevelopment.
- The project has the potential to reduce loss of local agricultural jobs, many of which are located in disadvantaged communities, which are heavily reliant on adequate water supplies for agriculture.
- The project provides a water supply that requires less energy to produce than alternative supplies, such as desalination, thereby reducing emissions and improving air quality for residents and visitors.
- The project beneficially uses underutilized and undervalued water resources as its source water. Promotes and encourages water conservation and resource preservation.
- The Expanded PWM Project's "carbon footprint" is much smaller than a new desalination plant, intake and distribution system because it leverages existing conveyance, treatment and distribution infrastructure for the production of recycled water to potable standards.
- The Project's Advanced Water Purification Facility will be powered by green energy through use of neighboring landfill gas.
- The project reduces the economic impacts on ratepayers by implementing a more cost-effective water supply alternative than alternative water supply systems.

## **EVALUATION CRITERIA 4 – RECLAMATION'S OBLIGATIONS AND BENEFITS TO RURAL OR ECONOMICALLY DISADVANTAGED COMMUNITIES**

### **SUB-CRITERION 4A – LEGAL AND CONTRACTUAL WATER SUPPLY OBLIGATIONS**

- 1. Does the Project help fulfill any of Reclamation's legal or contractual obligations? If so, explain.*

The Expanded PWM Project relates to the mission of Reclamation and serves several Federal interests, including:

- Meets the objectives identified in the United States Bureau of Reclamation (Reclamation) Plan of Study for the Salinas and Carmel Rivers Basin Study.
- Meets the objectives identified in the Reclamation North Monterey County Drought Contingency Plan.
- Meets federal policy objectives to maximize use of recycled water and minimize energy demand for new and replacement water supplies.
- Supports and expands the beneficial water supply yield of the Salinas Valley Reclamation Project and CSIP which were funded by Reclamation



### Fulfilling Objectives of the Reclamation Basin Study

In January 2017, Reclamation prepared the Plan of Study for the Salinas and Carmel Rivers Basin Study (Basin Study) with funding, in part, from the WaterSMART grant program. The purpose of the Basin Study is to inform and guide future courses of action in response to existing and potential future imbalances between water supplies and demands in the Salinas and Carmel River Basins. The Basin Study is a collaborative effort between the United States Geological Survey and four local partner agencies: M1W, MPWMD, MCWRA and San Luis Obispo County Flood Control and Water Conservation District. The Basin Study will identify existing water supplies and demands and model future water supplies and demands, accounting for uncertainties in future climate conditions, population growth, and other socioeconomic trends. In response to identified imbalances between supplies and demands, the Basin Study examines a variety of strategies that may be employed to reduce or mitigate these imbalances. While still under development, ultimately, this Basin Study will identify a portfolio of strategies to achieve long-term balance between supplies and demands in the Salinas and Carmel River Basins.

The initial and expansion phases of the Expanded PWM Project are identified in the Basin Study to aid in the offset of replacement supplies required due to over pumping of the Seaside Basin and the Carmel River Basin and to achieve long-term water supply balance.

### Fulfilling Objectives of the Reclamation Drought Contingency Plan

In 2015, Reclamation awarded Project partner MPWMD a grant (R15AC00079) to undertake the North Monterey County Drought Contingency Plan (DCP). Both phases of the Expanded PWM Project are a significant component of long-term drought resiliency for the region and are identified in the final DCP (March 2019) as highly ranked drought resiliency mitigation measures.

### Fulfilling Federal Recycled Water Policy Objectives

The stated mission 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. Reclamation places great emphasis on water conservation, water recycling and reuse, developing partnerships with customers, states, and Native American Tribes, and finding ways to bring together a variety of interests to address the competing needs for limited water resources. The WaterSMART Implementation Plan states that collaborative partnerships that go beyond political and institutional jurisdictions must be developed to ensure that the nation's limited water resources are used efficiently, sufficient amounts are retained to protect and restore the environment, and supplies are managed to reliably meet new demands. The Expanded PWM Project is consistent with Reclamation's mission and supports water conservation, water recycling and reuse, and regional collaboration to address the competing need for limited Monterey regional water resources.





The Expanded PWM Project is an innovative and integrated regional project that increases the amount of recycled water in the Monterey region and moves the region toward more sustainable water resources management. The Expanded PWM Project collects a variety of new source waters, including water from the City of Salinas agricultural wash water system, storm water flows from the southern part of Salinas, and surface water and agricultural return flows captured from both the Reclamation Ditch and the Blanco Drain Diversion. These new source waters are conveyed to the Regional Plant for treatment at the existing tertiary treatment facilities or the new Advanced Water Purification Facility (AWPF) to produce approximately 10,150 AF (normal year supply, combined benefit of initial and expansion phases) of new Title 22 recycled water for the Monterey region. This recycled water would be used in the CSIP agricultural irrigation system or to replenish the Seaside Basin.

### Fulfilling Federal Energy Policy Objectives

The Bureau's energy policies and programs are established to provide a framework to provide Federal leadership and assistance on the efficient use of water, integrating water and energy policies to support the sustainable use of all natural resources. The Expanded PWM Project integrates several energy efficiency features in the design and operations, consistent with Bureau policies.

As a partner to the Expanded PWM Project, the neighboring Monterey Regional Waste Management District (MRWMD) has owned and operated a Class III municipal solid waste landfill since 1966. The landfill has a remaining Site Life of more than 100 years. MRWMD currently collects biogas from the landfill at a rate of almost 2,000 standard cubic feet per minute which supports its operations of a 5 mega-watt (MW) landfill gas to energy (LFGTE) plant. MRWMD anticipates that the extraction of this quantity of biogas from the landfill will continue for at least the next 50 years. This local, sustainable energy source will power the Expanded PWM Project facilities. **The AWPF is anticipated to use as much as 19,00 MW-hours per year of electricity with approximately 100 percent of that electricity demand to be provided by biogas (non-fossil fuels).** Electric power at the existing M1W RTP facilities comes from solar panels and from generators running on a mix of methane (from the Regional Plant Cogeneration facility) and natural gas (from PG&E). The use of solar array electricity within existing plant operations has reduced the electrical demand by up to 1,400 MW-hours/year. At the Salinas Pump Station and the Salinas Industrial Wastewater Treatment Facility, pumps for collection and treatment of source waters also use solar energy, with very little use of diesel generators or conventional power. The Expanded PWM project also uses variable frequency drives (VFDs) that have regenerative capabilities, and the pumps are designed to be readily upgraded as regenerative turbines. M1W also invested in advanced monitoring equipment for the new facilities, which allow for optimization of equipment operation and run time which will save energy use.



## Supports the Federally Funded Agricultural Irrigation Water Recycling Projects

The Salinas Valley Reclamation Plant (SVRP) was originally developed to provide recycled water for agricultural irrigation and was partially funded by Reclamation, the SWRCB, and the MCWRA. The SVRP delivers recycled water to the CSIP for irrigation of farmland in northern Monterey County. The Expanded PWM Project leverages Reclamation's investment and provides additional source water to the SVRP to increase recycled water deliveries to the CSIP.

Previously, the only sources of supply for the SVRP were municipal wastewater and small amounts of urban dry weather runoff which are treated by primary and secondary processes at the Regional Plant prior to being diverted to the SVRP. Municipal wastewater flows have declined in recent years due to aggressive water conservation efforts. By increasing the amount and type of source waters entering the existing wastewater collection system, the Expanded PWM Project provides additional recycled water for the CSIP agricultural irrigation system. It is anticipated approximately up to 3,600 AFY of additional recycled water supply could be created for agricultural irrigation purposes, significantly leveraging the investments already made by Reclamation.

## Restores River Flows and Riparian Habitat

As discussed throughout, the project is designed as a replacement supply to reduce CalAm's withdrawals from the Carmel River. This has the direct effect of restoring wetland and riparian habitat for sensitive species and achieving increased flows for recreation in more months of the year.

## SUB-CRITERION 4B – BENEFITS TO RURAL OR ECONOMICALLY DISADVANTAGED COMMUNITIES

- 1. Does the project serve a rural community, or are there any rural communities within the Project sponsor's service area? If so, provide supporting information.*

**The Expanded PWM Project serves and directly benefits rural communities within Monterey County.**

The Expanded PWM Project will benefit the lower Salinas Valley. Much of the land use in this area is agriculture. Groundwater is the only source of drinking water for Salinas and the surrounding rural communities. Over pumping has resulted in seawater intrusion to the groundwater aquifer, threatening its use for drinking and irrigation. There are also issues with nitrates in the groundwater for many of the communities in Northern Monterey County.

The primary land use in Monterey County is agriculture, representing about 54 percent of the total land area. Agriculture includes irrigated row crops (e.g., vegetables, strawberries, and lettuce), and vineyards (e.g., grapes or berries). The Salinas Valley is rural, except for the City of Salinas. According to the Monterey County Farm Bureau, agriculture employs approximately 27.2 percent of the County's population and generates \$11.7 billion per year, providing 19.7 percent of Monterey County's total economic output. Agricultural irrigation in Monterey



County uses primarily groundwater. Groundwater quality is being impacted by seawater intrusion due to over pumping which may harm the region's largest industry, and by nitrate contamination from fertilizer use that threatens human health. Improvements to land use and source water quality, both of which directly impact the agriculture-dominated economies of the County, can also benefit the health of the surrounding rural communities.

The Association of Monterey Bay Area Governments Regional Plan (November 2020) estimates that 24 percent of the population in the County live in unincorporated areas, which are rural (<50,000 people). These rural communities will benefit from additional water supplies in the basin for job security and continue reliable potable supply.

One agricultural community in particular, Castroville (population 7,515 as of the 2020 census and a disadvantaged and economically distressed community), has encountered water quality issues with its water supply wells. Having lost the ability to pump fresh water from the 180-foot aquifer in 1993, the Castroville has had to replace shallower wells with deeper wells. Water levels have dropped to more than 100 feet below mean sea level, combined with the proximity to the Pacific Ocean (less than 4 miles away) and to existing seawater intrusion (less than one-quarter mile), raised significant alarm that the Castroville's water supply system is threatened by an unacceptable standard of high salinity water. In early 2018, the Castroville community lost the ability to pump from Well #3 - which provided 22 percent of the community's water supply - due to the impacts of seawater intrusion, only to be put on standby status and only used in a water emergency or shortage. As a result of losing this well, the Castroville Community Services District (CCSD) applied for emergency funding to construct a new, deeper well to continue supplying clean water to their community. Further seawater intrusion caused by groundwater basin overdraft and severely exacerbated by drought could mean further loss of existing groundwater wells, which could catastrophically affect the drinking water supply for Castroville.

One purpose of the Expanded PWM Project is to replace use of native groundwater, thus helping to raise water levels and remediate seawater intrusion in aquifers in and near the Salinas Valley. Reducing the impacts of seawater intrusion on the groundwater aquifers and adding a replacement water supply will increase the water supply reliability for the region. Consequently, the Expanded PWM Project will have water supply benefits for rural communities that rely on groundwater.

***2. Does the Project serve an economically disadvantaged community, or are there any economically disadvantaged communities within the Project sponsor's area?***

The Expanded PWM project is sponsored by M1W, in partnership with the MPWMD, and has the support of other agencies in the area. The combined service area of these agencies includes communities in the northern area of Monterey County and communities in the Carmel Valley. Figure 17 (next page) shows the service area boundaries of M1W and the MPWMD along with the disadvantaged communities (DACs) and economically distressed areas (EDAs) within those areas. The prevalent agricultural workforce in the area tends to be seasonal, transient, and hold



lower paying jobs, which contributes to the presence of EDAs, DACs and severely disadvantaged communities (SDACs).

Many of the Expanded PWM Project components or related elements are located in areas that overlap with both DACs, SDACs, and/or EDAs. As defined by the California Department of Water Resources (DWR), DACs and SDACs have a median household income <80 percent or <60 percent, respectively, of the statewide Median Household Income (MHI), while EDAs are areas that meet the criteria of <85 percent of the statewide MHI, population of less than 20,000 within the block group, and an unemployment rate that is >2 percent higher than the statewide average on a county or census designated place basis. The Expanded PWM Project elements are anticipated to benefit the local communities, including the DACs and EDAs which make up 24 percent and 30 percent of the M1W/Salinas planning area, respectively.

As shown in Figure 17, the M1W service areas in the City of Salinas, Castroville, Moss Landing, and Marina have a significant portion of DACs and SDACs. The M1W and MPWMD service areas also both include EDAs, namely in the communities of Monterey, Del Rey Oaks, Seaside, Castroville, Moss Landing, and western Salinas. These areas all have an unemployment rate of 2 percent or higher than the statewide average unemployment, which is 5.8 percent.

In addition to the presence of DACs in and around Salinas and in the lower Salinas Valley, the City of Salinas' MHI is about \$61,572 or over 13 percent lower than the countywide MHI of \$71,015. About 16.8 percent of the population in Salinas is considered persons in poverty compared to 11.6 percent of the county-wide population considered in poverty.

Castroville, per the United States Census Bureau 2020 estimate, has a MHI of \$57,656 and 10 percent of its population is considered persons in poverty. Also, as mentioned above, Castroville is at risk of losing its water source due to seawater intrusion. With low groundwater levels, basins are more susceptible to seawater entering and contaminating the water supply, possibly leading to irreversible damage. The Expanded PWM Project indirectly benefits this community by its ability to augment

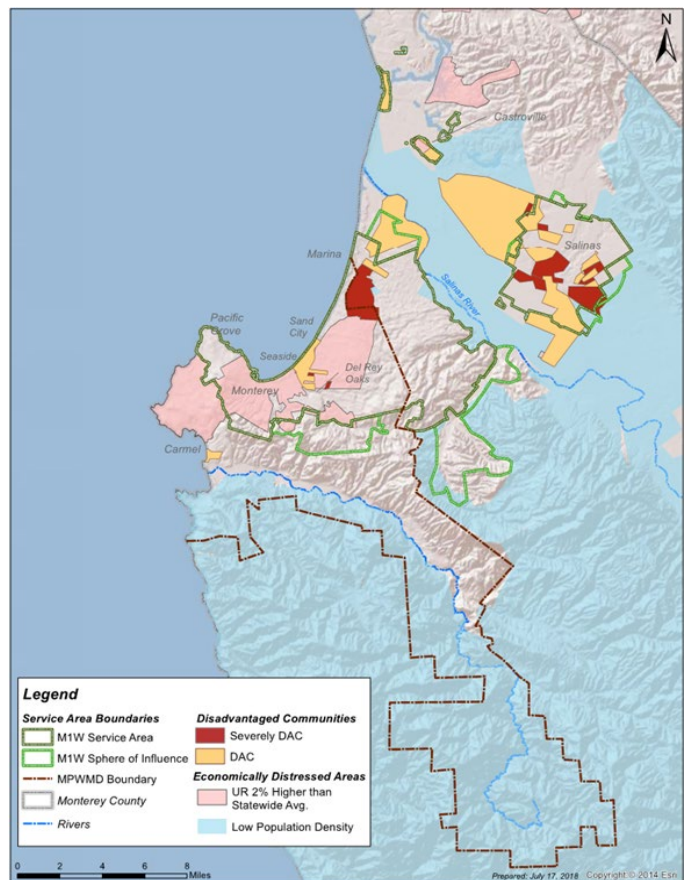


Figure 17 DACs and EDAs in Project Area (based on DWR online mapping tool)



recycled water to the CSIP, thereby minimizing additional seawater intrusion. This is a critical project that improves the ability for the people of Castroville, permanent residents as well as transient workers, to have access to potable water. While only considered a DAC according to the 2020 United States Census, the CCSD conducted an income survey and confirmed its SDAC status, consistent with its designation in prior years.

Implementation of cost-effective, publicly-owned water supplies like the Expanded PWM Project will minimize future rate increases to DACs, SDACs, and EDAs in the region. The groundwater injection provided by the Expanded PWM project helps mitigate seawater intrusion in the underlying groundwater basin, which benefits all users, but especially rural and DAC users that rely on groundwater supplies. This additional injection also ensures a reliable urban water supply, keeping the tourism industry robust and preserving local jobs. Improvements to socioeconomics, land use (providing for additional affordable housing and services), and source and recreational water quality will benefit these DACs and EDAs.

## EVALUATION CRITERIA 5 – WATERSHED PERSPECTIVE

### *1. Does the Title XVI Project implement a regional or state water plan or an integrated resource management plan? Explain.*

The Expanded PWM Project is one of the most significant water supply projects that the region has ever implemented. The Project will move the Monterey region towards a more reliable water supply and improved water quality using sustainable water resources management techniques. The Expanded PWM Project, collectively or with individual elements, plays a key role in meeting goals and objectives of multiple local water plans and is consistent with the water supply, water quality, and regional collaboration goals and objectives of numerous State water plans and regional integrated water resource management plans (IRWMPs). The most relevant plans include:

- State Plans:
  - California Water Plan (Update 2018).
  - SWRCB Recycled Water Policy.
  - Water Quality Control Plan for the Central Coast Basin.
- Regional Plans:
  - Monterey Peninsula, Carmel Bay, and South Monterey Bay IRWMP.
  - Greater Monterey County (GMC) IRWMP (2018).
  - Salinas Valley Sustainable Groundwater Management Plans (2020-2022).
  - Storm Water Resource Plan (SWRP) for the GMC.
  - Monterey Peninsula SWRP.
  - Reclamation North Monterey County DCP.
  - Reclamation Basin Study (in progress).



### Consistency with State Plans

The California Water Plan (Water Plan), Update 2018, is the State's strategic plan for managing and developing water resources statewide for current and future generations. The Water Plan underscores the need to respond to changing conditions and establishes six goals: (1) improved integrated watershed management; (2) strengthen resiliency and operational flexibility of existing and future infrastructure; (3) restore critical ecosystems functions; (4) empower California’s under-represented or vulnerable communities; (5) Improve inter-agency alignment and address persistent regulatory challenges; and (6) support real-time decision-making, adaptive management, and long-term planning. Ultimately, the Water Plan hopes to achieve more reliable water supplies, restore important species and habitat, and ensure a more resilient, sustainably managed water resources system (reduced groundwater depletion and flood protection) that can better withstand inevitable and unforeseen pressures in the coming decades. **The Expanded PWM Project meets the State's sustainability goals and is consistent with identified recommended actions as shown in Table 9.**

Table 9 California Water Plan Goals and the Expanded PWM Project

State Sustainability Goal and Recommended Action	Expanded PWM Approach/Benefit
<p><b>Improve Integrated Watershed Management</b>  <i>Recommended Action 1.3 - Promote flood managed aquifer recharge and sustainable groundwater management practices.</i></p>	<ul style="list-style-type: none"> <li>• Treats municipal wastewater, industrial processing water, crop drainage water, and industrial and urban stormwater runoff for beneficial reuse, providing 5,750 AFY of purified recycled water for recharge into the Seaside Basin. The recharge of the groundwater basin with purified recycled water enables the region to better manage its groundwater while mitigating seawater intrusion.</li> <li>• Improves the water quality of the groundwater basin by: (1) reducing groundwater withdrawals thereby reducing the impacts of seawater intrusion, and (2) recharging purified recycled water of higher quality than the existing native groundwater quality. Reduces the nitrate and phosphate loading to surface waters and groundwater by capturing polluted agricultural and urban runoff.</li> <li>• Mitigates flood risks by collecting agricultural and urban runoff for treatment, storage, percolation, and distribution of recycled water (both purified recycled water for recharge and tertiary-treated recycled water for crop irrigation).</li> </ul>



State Sustainability Goal and Recommended Action	Expanded PWM Approach/Benefit
<p><b>Strengthen Resiliency and Operational Flexibility of Existing and Future Infrastructure</b> <i>Recommended Action 2.1 – Improve infrastructure and promote long-term management.</i></p>	<ul style="list-style-type: none"><li>• Expands the amount of water available, resulting in a greater amount of water available for groundwater recharge and irrigation. The Project creates a drought-resilient water supply to help the region address drought impacts as well as impacts of climate change.</li></ul>
<p><b>Restore Critical Ecosystem Function</b> <i>Recommended Action 3.2 – Facilitate multi-benefit water management projects.</i></p>	<ul style="list-style-type: none"><li>• Provides the region with up to 10,150 AFY of reliable, drought resilient water supply, optimizing existing and new infrastructure while reducing the energy demand for new water supplies.</li><li>• Improves habitat for sensitive species in the Salinas and Carmel Rivers and Monterey Bay by reducing pollutant loads to the lower Salinas Valley watersheds and offsetting the water diversion from the Carmel River, improving habitat quality for aquatic species.</li><li>• Adds purified recycled water to the groundwater basin, enhances groundwater quality, and reduces the risk of seawater intrusion.</li><li>• Reduces pollutant loads to the Salinas River and Monterey Bay, thereby protecting sensitive marine fauna.</li></ul>
<p><b>Empower California's Under-Represented or Vulnerable Communities</b> <i>Recommended Action 4.2 – Engage proactively with disadvantaged community liaisons.</i></p>	<ul style="list-style-type: none"><li>• Directly benefits over 16 communities, including several that are considered disadvantaged, by supplying purified recycled water to recharge the basin, thereby reducing the threat of seawater intrusion and associated impacts to the communities' groundwater supplies that serve as potable water supplies.</li><li>• Provides up to 3,600 AFY of purified recycled water for agricultural irrigation thereby reducing the pumping of the local groundwater basins which serve as water supply for several disadvantaged communities, including the Cities of Castroville and Salinas.</li><li>• Proactive outreach activities conducted by the project sponsors to ensure early and on-going engagement with disadvantaged communities.</li></ul>



State Sustainability Goal and Recommended Action	Expanded PWM Approach/Benefit
<p><b>Support Real-Time Decision-Making, Adaptive Management, and Long-Term Planning</b>  <i>Recommended Action 6.6 – Expand Water Resource Education</i></p>	<ul style="list-style-type: none"> <li>• Commitment to expanding the community’s and regions understanding of regional water resource issues as well as the Expanded PWM Project and its contribution to mitigating water resource issues in the region.</li> <li>• SCADA system, including computer hardware and software, upgrades ensures that data is available real-time enabling M1W to optimize operational and maintenance decisions and to communicate this information more broadly.</li> <li>• AWPf Demonstration Facility supports interactive engagement and education of the public.</li> </ul>

The SWRCB Recycled Water Policy, adopted December 11, 2018, strongly encourages local and regional water agencies to move toward clean, abundant, local water for California by emphasizing appropriate “water recycling.” The Recycled Water Policy’s goals include increasing the use of recycled water from 714,000 AFY in 2015 to 1.5 million AFY by 2020 and 2.5 million AFY by 2030, reusing all dry weather direct discharges of treated wastewater that can be used beneficially, and maximizing recycled water in areas where groundwater is in a state of overdraft. **The Expanded PWM Project specifically satisfies this statewide goal by providing up to 10,150 AFY of recycled water supplies within the region.**

The objective of the Water Quality Control Plan for the Central Coastal Basin (Basin Plan) is to show how the quality of the surface and ground waters in the Central Coast Region should be managed to provide the highest water quality reasonably possible. The federal Clean Water Act (Section 303 (c)) and the Porter-Cologne Water Quality Control Act requires the Basin Plan to be publicly reviewed and updated periodically (at a minimum every three years). This process includes identification of issues for water quality protection and presentation of a priority list at a public hearing. The Expanded PWM Project diverts polluted runoff to the regional treatment plant where it treats water for multiple beneficial uses while meeting the water quality objectives for those uses.

### Consistency with Regional Plans

The Expanded PWM Project has been identified as key projects in the Monterey Peninsula, Carmel Bay, and South Monterey Bay IRWMP Update (2019) which describes collaboration between the Monterey Peninsula IRWM Planning Region and the Greater Monterey County IRWM Planning Region. The IRWMP is a comprehensive document that primarily addresses Region-wide water management and related issues. The Plan complies with the State Guidelines and IRWM Plan Standards and provides for integration of project and program implementation strategies which best address the needs and objectives of the Region.





Table 10 Monterey Peninsula, Carmel Bay, and South Monterey Bay IRWMP

IWRM Plan Objectives	Expanded PWM Project
<b>Preserve the environmental health and well-being of the Region's streams, watersheds, and the ocean by taking advantage of opportunities to assess, restore, and enhance these natural resources.</b>	<ul style="list-style-type: none"> <li>Provides increased flow (through reduced diversions) to the Carmel River and augments groundwater basin storage to be protective of beneficial uses, including aquatic habitat and ecosystems reliant on the Carmel River.</li> </ul>
<b>Protect the community from drought and climate change effects with a focus on interagency cooperation and conjunctive use of regional water resources.</b>	<ul style="list-style-type: none"> <li>Provides up to 10,150 AFY of local, reliable, drought resistant supply and was developed through a collaborative effort between multiple agencies in the region as well as CalAm, the primary water purveyor in the region. The CSIP Project and Marina Coast Water District are also directly benefitting from this project.</li> </ul>

The Expanded PWM Project uses storm water as one of the water resources to address water supply and associated seawater intrusion issues in a critically over-drafted aquifer, the Seaside Area sub-basin of the Salinas Groundwater Basin, which support goals listed in the SWRP for the GMC and the Monterey Peninsula IRWM. Elements of the Expanded PWM Project include Salinas's storm water capture, storage, and conveyance projects which are included in the adopted 2018 GMC IRWMP, and is consistent with the IRWMP goals as follows:

Table 11 Greater Monterey County IRWMP

IWRM Plan Goal	Expanded PWM Project
<b>Reduce dependence on imported water and protect, conserve and augment water supplies</b>	<ul style="list-style-type: none"> <li>Provides up to 10,150 AFY of local, reliable, drought resistant supply.</li> </ul>
<b>Protect and improve water quality</b>	<ul style="list-style-type: none"> <li>Produces purified recycled water that is safe and compliant with drinking water quality standards and Basin Plan objectives.</li> <li>Reduces pollutant loads to the surface water bodies and groundwater, including reducing pollutant loads to and from Clean Water Act 303 (d) listed water bodies.</li> </ul>
<b>Protect people, property and the environment from adverse flooding impacts</b>	<ul style="list-style-type: none"> <li>Locates facilities outside of flood zones or that are designed for temporary inundation. Storm water and dry weather runoff diversions are expected to reduce downstream flood impacts.</li> </ul>
<b>Protect and restore habitat and ecosystems in watersheds</b>	<ul style="list-style-type: none"> <li>Provides increased flow to the Carmel River and augments groundwater basin storage to be protective of beneficial uses, including aquatic habitat and ecosystems reliant on those waters.</li> </ul>



IRWM Plan Goal	Expanded PWM Project
<b>Promote regional communication, cooperation, and education regarding water resource management</b>	<ul style="list-style-type: none"><li>• Developed through a collaborative effort between multiple agencies in the region as well as CalAm. The project has been a catalyst for regional collaboration with diverse group of stakeholders working towards solving water resources challenges.</li></ul>
<b>Ensure high-quality, potable, affordable water is available for DACs</b>	<ul style="list-style-type: none"><li>• Provides high-quality recycled water that will be available to a wide range of communities, including DACs, with no disproportionate impacts (environmental, safety, water supply, or economic) on any one population.</li></ul>
<b>Prepare for and adapt to climate change</b>	<ul style="list-style-type: none"><li>• Creates resilient, flood-safe, and drought resistant water supply that will implement conjunctive use, climate adaptation, water strategy that will improve storage and quality in the groundwater basins with energy efficient processes/systems.</li></ul>

Several Expanded PWM Project components are located on land overlying the Salinas Valley Groundwater Basin, which has suffered from seawater intrusion since the 1930's. The crop irrigation component of the Expanded PWM Project will increase water supplies for use in the CSIP area, resulting in reductions in pumping by the supplemental wells in that area. The Project will implement several policies in the Salinas Valley Groundwater Management Plan, including Short-Term and Long-Term Water Quality Management and Continued Integration of Recycled Water.

In September 2014, California enacted legislation to create local agencies to sustainably manage the state's groundwater resources. Specifically, the Sustainable Groundwater Management Act (SGMA), shifts planning and management of groundwater resources to newly formed Groundwater Sustainability Agency (GSA), made up of local agencies (cities, counties, water districts) and requires development of Groundwater Sustainability Plans (GSPs). The Expanded PWM Project is one of the key implementation actions that will move the region (Figure 18) toward sustainable groundwater management under SGMA. Implementation of additional recycled water projects, such as the Expanded PWM Project, are included in the GSP. In 2019, the GMC SWRP plan was completed in coordination with members of the GMC Regional Water Management Group (RWMG), which consists of 19 organizations including government agencies, nonprofit organizations,

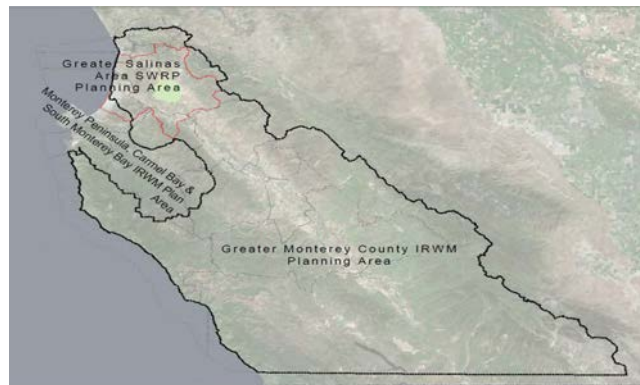


Figure 18 [Greater Monterey Planning Area Map](#)



educational organizations, water service districts, private water companies, and organizations representing agricultural, environmental, and community interests. The GMC RWMG has a history of collaboration and is the group responsible for development of the IRWMP.

The initial phase of the Expanded PWM Project was identified in the GMC SWRP to address water quality goals by diverting wastewaters, and impaired surface water to the regional treatment plant and by providing high-quality recycled water for domestic use and irrigation. Additionally, the Expanded PWM Project addresses other goals in the GMC SWRP described below.

Table 12 Greater Monterey County SWRP Goals

Greater Monterey County SWRP Goal	Expanded PWM Project
<b>Improve Water Quality</b>	<ul style="list-style-type: none"> <li>• Purified water will be of a much higher quality thereby providing improved drinking water quality. The project also reduces pollutant loads to the surface waters and ground waters, including to and from Clean Water Act 303 (d) listed water bodies and Monterey Bay.</li> </ul>
<b>Manage storm water to increase water supply for urban, agricultural, and environmental uses</b>	<ul style="list-style-type: none"> <li>• Project uses storm water as one of the water resources for reuse, which is used for groundwater recharge and irrigation use.</li> </ul>
<b>Manage storm water systems to reduce flooding</b>	<ul style="list-style-type: none"> <li>• Storm water and dry weather runoff diversions are expected to reduce downstream flood impacts.</li> </ul>
<b>Protect, preserve, restore, and/or enhance watershed features and processes through storm water management</b>	<ul style="list-style-type: none"> <li>• Provides increased flow (through reduced diversions) to the Carmel River and augments groundwater basin storage to be protective of beneficial uses, including aquatic dependent habitats and ecosystems.</li> </ul>

The North Monterey County DCP (2019) was developed by various stakeholders, including the Reclamation, to understand how climate change and drought will impact the area and how to manage the area's scarce water resources. The DCP determined that local agencies would have enough water supply to meet future conditions up to 2035. The Expanded PWM Project was identified in the DCP as a mitigation measure and is ranked as one of the top two measures to be implemented to combat drought.

In addition to the DCP, the Basin Study, a longer-term study that covers a wider area compared to the DCP, is currently in progress. This study assists water managers in making decisions regarding water management and planning to ensure a sufficient water supply is available in the future. The goal of the study is to evaluate water supply and demand and help ensure reliable water supplies in the region. Objectives of the Basin study were identified through the IRWMP process, groundwater management plans, and GSPs. Table 13 (next page) outlines applicable objectives and how the Expanded PWM Project supports them.



Table 13 Reclamation Basin Study Objectives

Basin Study Objective	Expanded PWM Project
<b>Attain or maintain target groundwater levels and storage</b>	<ul style="list-style-type: none"> <li>Recharges the Seaside Basin with recycled water as well as lessens dependence on groundwater for irrigation.</li> </ul>
<b>Prevent or reduce seawater intrusion</b>	<ul style="list-style-type: none"> <li>Increases recycled water available to CSIP for agricultural irrigation, which serves to reduce groundwater extractions from the basin reducing seawater intrusion.</li> </ul>
<b>Maintain groundwater quality</b>	<ul style="list-style-type: none"> <li>Reduces pollutant loads to ground waters through the injection of higher quality recycled water to and from Clean Water Act 303 (d) listed water bodies.</li> <li>Reduces seawater intrusion and associated water quality degradation of groundwater quality (TDS).</li> </ul>
<b>Understand and plan for climate change impacts</b>	<ul style="list-style-type: none"> <li>Identified as a critical project in the Basin Study to address water supply shortages currently and in the future to address climate change impacts.</li> </ul>
<b>Meet drinking water standards</b>	<ul style="list-style-type: none"> <li>Purified water will be of a much higher quality thereby providing a drinking water quality supply.</li> </ul>
<b>Meet waste discharge criteria</b>	<ul style="list-style-type: none"> <li>Reduces pollutant loads to the surface waters, including reducing pollutant loads to and from Clean Water Act 303 (d) listed water bodies.</li> <li>Recycled water meets applicable waste discharge criteria and drinking water standards.</li> </ul>
<b>Meet reuse criteria</b>	<ul style="list-style-type: none"> <li>Recycled water meets all pertinent requirements of the California Code of Regulation (CCR) for a drinking water supply including primary and secondary MCLs.</li> </ul>
<b>Maintain species and habitat</b>	<ul style="list-style-type: none"> <li>Increases flow (through reduced diversions) to the Carmel River and augments groundwater basin storage to be protective of beneficial uses, including aquatic habitat and ecosystems reliant on those waters.</li> </ul>
<b>Meet instream flow requirements</b>	<ul style="list-style-type: none"> <li>Increased flows in the Carmel River by enabling CalAM to decrease diversions to meet State water rights permit terms and conditions for all surface water diversions.</li> </ul>
<b>Improve collaboration between urban, rural, and agricultural, as well as regional, state, and federal entities</b>	<ul style="list-style-type: none"> <li>Collaborative effort between multiple agencies in the region as well as CalAm, the primary water purveyor in the region. The project has been a catalyst for regional collaboration, and a diverse group of stakeholders now work together toward solving other regional challenges.</li> </ul>
<b>Improve reliability and sustainability of water supplies</b>	<ul style="list-style-type: none"> <li>Provides 10,150 AFY of local, reliable, drought resistant supply.</li> </ul>
<b>Diversify water supplies</b>	<ul style="list-style-type: none"> <li>Diversifies Monterey County's water portfolio by increasing available recycled water for supply.</li> </ul>



## ***2. Does the Project help meet the water supply needs of a large geographic area, region, or watershed? Explain.***

The Expanded PWM Project provides a clean, safe, and sustainable source of water for most of Northern Monterey County, which supports:

- 16 communities and over 265,000 residents.
- 4.6 million visitors.
- \$3 billion hospitality economy including over 25,000 hospitality jobs.
- \$3.9 billion agricultural economy, resulting in an \$11.7 billion impact locally.
- 12,000 acres of rural, agriculture land.

The Expanded PWM Project provides benefits to communities in the Northern Monterey County area (including Monterey, Castroville, Salinas, Boronda, Seaside, Pacific Grove, Sand City, Del Rey Oaks, Pebble Beach, Carmel, Marina, and the CSIP agricultural land). The region does not receive imported water supplies and local water agencies rely heavily on surface water, recycled water, and groundwater as the local water supply. This heavy reliance upon local water supplies has contributed to an over-drafted groundwater basin and degradation of groundwater quality by seawater intrusion. The Expanded PWM Project, by diversifying water supply options, increases the reliability and security of the region's water supply while building a drought reserve and alleviating stresses on an over-drafted groundwater basin. The initial phase of the Expanded PWM Project was completed in 2020 and can now deliver 3,500 AFY of purified recycled water for groundwater recharge, 200 AFY for drought reserve, 600 AFY of urban irrigation and up to 3,600 AFY of recycled water to augment agricultural irrigation supply. Implementation of the expansion (construction to be completed by early 2024) will provide an additional 2,250 AFY of purified recycled water for groundwater recharge, thereby delivering a total of 5,750 AFY of water for potable reuse. In total, the Expanded PWM Project will provide up to 10,150 AFY of new water supply to the region.

## ***3. Does the Project promote collaborative partnerships to address water-related issues?***

The Expanded PWM Project has been developed with regional collaboration of M1W, MPWMD, as well as the City of Salinas, MCWRA, Marina Coast Water District (MCWD) and the support and/or approval of over 13 other public agencies, water suppliers, and non-governmental organizations. This project improves regional water self-reliance by increasing the available water supply in aquifer storage as a regional drought-resistant supply; reduces the use of groundwater by agriculture through an alternative supply in the form of recycled water; protects groundwater basins against seawater intrusion; and provides new storm water and dry weather water supply sources. Together, MPWMD, MCWD, and M1W, have created a unified regional water project that will benefit 16 communities comprised of more than 265,000 residents, as well as 12,000 acres of Salinas Valley farmland. The Expanded PWM Project builds on a history of collaboration between agencies throughout the region. In 1992, M1W partnered with the MCWRA to construct the two Monterey County Reclamation Projects:



the SVRP recycled water plant and the CSIP distribution system. The Expanded PWM Project leverages the original partnership's work and helps move the region towards a more sustainable and efficient management of the region's limited local water resources.

Groundwater Recharge: The Expanded PWM Project also represents a collaborative effort between public and private entities. In April 2012, M1W, MPWMD and CalAm entities entered into a Water Purchase Agreement to, among other things, enable the planning and environmental evaluation of a regional groundwater replenishment project in a collaborative approach and to secure initial funding.

Source Water Rights: M1W's Board approved in 2015 and amended in 2021, the Amended and Restated Water Recycled Agreement (ARWRA), describes rights and responsibilities for recycling wastewater between MCWRA and M1W. M1W also entered into an agreement with the City of Salinas (October 2015) for the use of agricultural wash water (Salinas industrial wastewater) for recycling through the SRVP for use in the CSIP area and for use as influent to the AWPf to replenish the Seaside Basin. In addition, M1W entered into another agreement in 2020, to utilize storm water and urban runoff from the Salinas Industrial Wastewater Treatment Facility as a source water for the Expanded PWM Project.

This joint solution prioritizes achieving both environmental and socioeconomic goals, including enhancing efficiency and cost-effectiveness, while utilizing existing regional facilities, contributing to the strong working relationship between project partners and the greater region (includes both public, private, and the GMC IRWM Plan). The project has been a catalyst for regional collaboration. Stakeholders across disciplines with divergent interests now work collaboratively side-by-side toward groundwater sustainability and toward solving other regional challenges.

#### ***4. Does the project include public outreach and opportunities for the public to learn about the project?***

M1W and its partners have taken a proactive approach to reaching out and educating the public about the region's water supply issues and in the planning, design, and implementation of the Expanded PWM Project. Through community engagement, M1W's goal has been to find a common ground on controversial issues and to develop a long-term solution that provides for a reliable, regional water supply, benefiting the residents, the local economy, and the environment. Community outreach activities have included development and update of a project specific website to provide the community with information on project activities; development and execution of public information workshops and presentations at schools and public meetings including Monterey Peninsula Chambers and Salinas Valley Farm Bureau; and tours of the small advanced water purification demonstration facility (described below).

M1W has engaged with the Farm Bureau, local Growers Shippers Association, County supervisors, city council members, state and federal fisheries departments, as well as the



Monterey Bay National Marine Sanctuary throughout the planning, design, and permitting process.

M1W and MPWMD have implemented a comprehensive public outreach and participation process from inception of the initial phase of the Expanded PWM Project and through development of the expansion, including the following the California Environmental Quality Act (CEQA) process. Outreach activities associated with the Expanded PWM Project have included:

- Emailed notices regarding the April 2015 Draft EIR to 700 agencies, organizations, and individuals;
- Newspaper advertisements;
- Distribution of draft EIR to State agencies through the State of California's State Clearinghouse;
- Posting of Expanded Project information and project documentation on M1W's and MPWMD's websites;
- Public meetings on the Project and CEQA process to solicit comments;
- Notice of Availability( NOA) of the Final EIR;
- Certification of Final EIR and Project Approval at a public hearing (October 8, 2015);
- Emailed notices regarding availability of the Final Supplemental Environmental Impact Report (SEIR) and SEIR Addendum;
- Public Notice of Final SEIR Determination; and
- NOA of the Final SEIR, Final SEIR certification, and Project Approval at a public hearing (April 27, 2021).



M1W constructed a small advanced water purification demonstration facility that was used to pilot the purification treatment processes as well as for education and outreach. The demonstration facility has been visited by Congressional delegations, State Assembly and Senate members, and others. M1W continues to conduct tours of the pilot facility for the public and provides a tasting station as proof of the purity of the water.

M1W continues to implement a dynamic, interactive outreach strategy to keep customers, community leaders, and elected officials informed of the project. On-going outreach efforts include: an updated website plus an active presence on social media; utilization of social media platforms to visualize project updates; hosting public meetings; and showcasing the project at conferences and seminars. Improved video content is also a new platform being implemented for education and outreach activities.



Pure Water Monterey

Construction Updates



## Section 3

### ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

**Monterey One Water (M1W) has completed their California Environmental Quality Act (CEQA) and several Federal NEPA environmental compliance documents for the Expanded Pure Water Monterey Groundwater Project (Expanded Pure Water Monterey or Expanded PWM Project).** In October of 2015, M1W certified the final Environmental Impact Report (EIR) for the initial phase of the Project. The State Board Division of Financial Assistance (SWRCB DFA) staff issued its CEQA-plus determination after federal consultation was completed in April 2017; while the United States Environmental Protection Agency (USEPA) took the federal lead to consult with the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). By way of delegation of authority (a Memorandum of Agreement), the SWRCB DFA took the federal lead to consult with the State Historic Preservation Office (SHPO). The U.S. Bureau of Reclamation (Reclamation) prepared a comprehensive Environmental Assessment (EA) for the “Pure Water Monterey Groundwater Replenishment Project – Monterey Regional Water Pollution Control Agency” and issued a Finding of No Significant Impact (FONSI) in June 2017 in compliance with the (NEPA) stating that “the Proposed Action is not a major Federal action that will significantly affect the quality of the human environment.” Reclamation relied upon the consultation by the USEPA and the State Board, with additional Indian Trust Assets consultation as required by federal statutes, to adopt their FONSI. The EA can be found at:

[https://www.usbr.gov/mp/nepa/documentShow.cfm?Doc\\_ID=29001](https://www.usbr.gov/mp/nepa/documentShow.cfm?Doc_ID=29001).

M1W prepared a Supplemental Environmental Impact Report (SEIR) for the *Proposed Modifications to the Pure Water Monterey Project, the Expanded PWM Project*, which covers all facilities to be constructed by M1W and California American Water Company (CalAm). A draft of the SEIR was circulated for public review between November 2019 and January 2020; and the final SEIR was certified on April 13, 2021. An Addendum to the SEIR was subsequently prepared and approved to reflect minor project modifications. The Final SEIR and Addendum can be found at: <https://purewatermonterey.org/reports-docs/cfeir/>.

#### ***Will the proposed Project impact the surrounding environment?***

The Expanded PWM Project was identified to have a less than significant impact on the surrounding environment given implemented mitigation efforts, and in some areas, created beneficial environmental impacts. The full extent of earth-disturbing work and all work that affects air, water, or animal habitat in the Project area can be found in the Final EIR (see Volume I, Chapter 2, Consolidated EIR found at <http://purewatermonterey.org/reports-docs/cfeir/>). In the Final EA, Reclamation found that **there are no significant impacts** associated with the potential funding of the initial phase of the Expanded PWM Project.





Similarly, the SEIR for the expansion phase of the Expanded PWM Project found that the expansion will have a less than significant impact on the surrounding environment with implemented mitigation measures with the exception of a new potable supply well to be built by CalAm which had significant and unavoidable, temporary noise impacts during construction due to 24 hours per day well drilling and proximity to residential land uses. The full extent of earth-disturbing work and all work that affects air, water, or animal habitat in the Project area can be found in the Final SEIR ([www.montereyonewater.org/pwm-seir](http://www.montereyonewater.org/pwm-seir)).

The mitigation measures implemented for the Expanded PWM Project can be found in Volume 1, Consolidated EIR in Table S-1 Summary of Project-Level Impacts and Mitigation Measures (initial phase) and in the in Chapter 5 of Final SEIR ([www.montereyonewater.org/draft-pwm-seir](http://www.montereyonewater.org/draft-pwm-seir)).

***Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the Project area?***

M1W submitted a *Biological Assessment for Re-Initiation* (DD&A, October 2021, revised March 7, 2022), hereafter referred to as *Biological Assessment*, to the United States Environmental Protection Agency (USEPA) as part of the Water Infrastructure Finance and Innovation Act (WIFIA) loan process, which considered additional project impact areas immediately adjacent to one of the Expanded PWM Project areas. Three plant species are known or have the potential to occur within the project area: the federally threatened Monterey spineflower (*Chorizanthe pungens var. pungens*), the federally endangered Monterey gilia (*Gilia tenuiflora ssp. Arenaria*), and Yadon's piperia (*Piperia yadonii*). Avoidance and minimization measures have been committed for implementation by M1W in their approved Mitigation Monitoring and Reporting Program and in the *Biological Assessment*. Absent avoidance, construction activities are likely to adversely affect Monterey spine flower and Yadon's piperia if they are documented during protocol-level plant surveys conducted within portions of the Action Area. M1W has proposed avoidance, and if feasible, a series of minimization measures including a Rare Plant Restoration Plan to ensure the project complies with the federal Endangered Species Act.

No federally-listed wildlife species are known or have the potential to occur within the Action Area and/or be affected by the project. Unlike the original project, no components being added or requiring modification for the Expanded PWM Project will be located in or near habitat or occurrence areas of California red-legged frog. All portions of the initial phase of the Expanded PWM Project that were located within the habitat and occurrence area for the California red-legged frog have been constructed and are now operating, all while avoiding any disturbance to red-legged frog.

Avian species protected under the Migratory Bird Treaty Act are known or have the potential to occur within the Action Area. Avoidance and minimization measures included in the Biological Assessment will reduce effects to migratory birds. As such, the project may affect, but is not likely to adversely affect migratory birds. There are no areas of designated critical habitat



within the Action Area. Therefore, the Biological Assessment found that the Expanded PWM Project will not affect critical habitat. For full details, refer to the Biological Assessment.

***Are there wetlands or other surface waters inside the Project boundaries that potentially fall under Clean Water Act (CWA) jurisdiction as “Waters of the United States”?***

For the Expanded PWM Project, no wetlands are located within the project area subject to new construction activities, and thus, construction will not result in any impacts to wetlands.

The project area for the initial phase of the Expanded PWM Project, had the presence of wetlands and riparian areas that were under CWA jurisdiction. These wetlands could have been impacted by the project, specifically during construction of the Reclamation Ditch and Blanco Drain diversions. However, the project followed the agency-adopted mitigation measures and conditions of the CWA Sections 401 Water Quality Certification and 404 Waters of the United States Nationwide Permit by avoiding light and glare, placing of construction fencing around riparian and wetland habitats, and preventing construction materials from being transported into waters of the state within the Reclamation Ditch, the Blanco Drain, and the Salinas River. Impacts to wetlands were mitigated to a less-than-significant level and the project was fully in compliance with CWA sections 401 and 404 during the initial project implementation.

***When was the water delivery system constructed?***

M1W operates and maintains 32 wastewater pump stations, 45 air release valves throughout its force mains, and approximately 35 miles of pipeline from its pump stations to the Regional Treatment Plant (RTP). The RTP includes primary screening and solids settling, secondary (involving trickling biological filters), and recycling facilities. A 60-inch diameter ocean outfall extends from the plant two miles out into Monterey Bay. These existing facilities are critical components of the Expanded PWM Project as they form the basis for source water collection, preliminary treatment prior to the AWPF, and disposal of treatment byproducts. M1W’s core wastewater conveyance, treatment, and effluent discharge components were constructed in the 1980's.

Monterey County Water Recycling Projects, a combination of the Salinas Valley Reclamation Plant (SVRP) and the Castroville Seawater Intrusion Project (CSIP), began construction in 1995 and started delivering recycled water to fields near Castroville in 1998. The success of CSIP led to the development of the Salinas Valley Water Project in 2009-2010, involving installation of a seasonal dam on the Salinas River near the RTP (Salinas River Diversion Facility or SRFD), from which seasonally stored water can be pumped into the CSIP’s pipelines for delivery as irrigation water, thus reducing the need to pump groundwater. CSIP includes 45 miles of pipeline and 22 supplemental wells (the majority of which are out of service).

Since the completion of the 2015 Feasibility Study, construction of the initial phase of the Expanded PWM Project has been completed with the facility commencing operations in 2020. The construction of the injection wells will continue into 2022. The expansion phase of the Expanded PWM Project is expected to be complete by 2024.



***Will the proposed Project result in any modification of or effects to, individual features of an irrigation system? Describe when those features were constructed and the nature and timing of any extensive alterations or modifications to those features completed previously.***

There are no anticipated modifications of individual features of an irrigation system for the Expanded PWM Project. The planning process considered effects on irrigation, and the impact to agricultural uses was not significantly adverse. Furthermore, the Project provides additional recycled water for use in CSIP and for urban irrigation within the Marina Coast Water District service area. These beneficial effects of the project will serve to stabilize irrigation water supplies during drought years and help mitigate the effects of over pumping.

***Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places?***

The Expanded PWM Project is not anticipated to adversely affect any districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places. No historical resources listed in the California Inventory, California Historical Landmarks, or the National Register of Historic Places were identified in the Area of Potential Effects. For the initial phase of the Expanded PWM Project, Reclamation notified the State Historic Preservation Office (SHPO) of a finding of no historic properties affected for the undertaking in 2016, and the SHPO issued a letter of concurrence and responded with no objection to Reclamation's finding. For the Expanded PWM Project, the United States Environmental Protection Agency (USEPA) notified SHPO of their finding of no historic properties affected for the additional project components and on February 17, 2022, SHPO again concurred with USEPA's finding. The Expanded PWM Project is now fully in compliance with Section 106 of the National Historic Preservation Act.

***Are there any known archeological sites in the proposed Project area?***

There were areas of high archaeological sensitivity identified near the Area of Potential Effects (APE) for the initial phase of the Project. However, activities in the initial phase did not affect any of these sites as the sites were either avoided or many were previously disturbed or located outside of the Project's APE. As the expansion phase elements are located within or immediately adjacent to the footprint of the initial phase of the Project, the same conclusions are applicable to the expansion phase of the Expanded PWM Project. While no known or recorded archaeological resources are within the Project's APE, unexpected discoveries could occur, leading to potential significant impacts. To reduce impacts to a less-than significant level, mitigations measures will be followed including halting work if archaeological resources are found so a professional archaeologist can evaluate and notify pertinent tribal and Native American contacts and the SHPO of said discovery.



***Will the proposed Project have a disproportionately high and adverse effect on low income or minority populations?***

Similar to the initial phase of the Expanded PWM Project, disproportionately high and adverse human health or environmental effects on minority populations and low-income populations will not occur from the expansion activities. The Expanded PWM Project increases the total recycled water that would be available to a wide range of the population with no disproportionate impacts on one population. The potential for human health adverse impacts have been fully evaluated in the PWM Project EIR, Expanded PWM Project Supplemental EIR, and the Title 22 Engineering Report, and the project was found to have no significant adverse health impacts.

***Will the proposed Project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?***

The Expanded PWM Project would not have tribal implications. As the components of the expansion phase of the Expanded PWM Project are located within or immediately adjacent to the project area for the initial phase of the Expanded PWM Project, the same conclusions for the original phase are considered applicable to the expansion phase of the Project. It was found that the initial phase of the Project would not affect any Indian Trust Assets (ITAs). A records search found that the closest ITA to the proposed action is approximately 22 miles away. Furthermore, the proposed action will not limit access to, and ceremonial use of, Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites. Native American individuals/groups identified by the Native American Heritage Commission were consulted for the initial and expansion phases of the Expanded PWM Project and did not report any additional information about specific resources or sacred sites within the project area.

***Will the proposed Project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?***

Approximately 322 acres of rural/developed/active agriculture habitat occur within the initial phase of the Expanded PWM Project Study Area, which can be dominated by non-native herbaceous species adapted to disturbance, to areas with buildings, roads, and pavement. It is not anticipated that the expansion phase of the Expanded PWM Project would result in any new significant impacts or worsen the severity of previously identified impacts of the initial phase of the Expanded PWM Project with the implementation of identified mitigation measures, including best management practices, implementation of non-native, invasive species controls, and removal of non-native invasive species from disturbed areas prior to replanting. Specifically, trucks and equipment being brought to the riparian areas of the site must demonstrate that they have not brought noxious weeds or non-native invasive species to the site through inspection and, if needed, steam cleaning.



## Section 4

### REQUIRED PERMITS OR APPROVALS

Monterey One Water (M1W) has a clear understanding of permits and approvals that are required from local, state, and federal agencies to implement the Expanded Pure Water Monterey Groundwater Replenishment Project (Expanded Pure Water Monterey or Expanded PWM Project). All federal and state permits, and approvals were secured for the design and construction of the initial phase of the Expanded PWM Project (as summarized in M1W’s Fiscal Year 2019/2020 WIIN Grant Package), with construction initiated in May 2017 and completed in 2021. **Table 14 summarizes all required permits and approvals required for the design and construction of the expansion phase of Expanded the PWM Project, which will be secured as required prior to the start of construction or operation, as indicated below.**

Table 14 Permits/Approvals for the Expansion Phase of the Expanded PWM Project

Agency	Permit or Approval	Permit/Approval Status
<b>FEDERAL AGENCIES</b>		
National Historic Preservation Act (NHPA)	Section 106 Compliance	Completed. The United States Environmental Protection Agency (USEPA) Water Infrastructure Finance and Innovation Act (WIFIA) office consulted with the State Historic Preservation Office (SHPO) who concurred with USEPA’s determination of no historic properties affected.
National Oceanic and Atmospheric Administration Office of National Marine Sanctuaries	Authorization of the National Pollutant Discharge Elimination System (NPDES) Amendment (operation permit only)	Application to be submitted Fall 2022 Expected Approval: Fall 2023
United States Fish and Wildlife	Endangered Species Act (ESA) Coordination regarding Existing Biological Opinion	In Progress (USEPA WIFIA office has initiated consultation with the USFWS)
<b>STATE AGENCIES</b>		
California Public Utilities Commission	Construction and Rate Recovery for amended Water Purchase Agreement	California American Water Company (CalAm) to pursue; application submitted December 2021



Agency	Permit or Approval	Permit/Approval Status
Regional Water Quality Control Board (RWQCB)	Amendment to NPDES/Waste Discharge Requirements (WDR) for Regional Treatment Plant Ocean Outfall	Application to be submitted Fall 2022 Approval Anticipated Fall 2023
Central Coast RWQCB and State Water Resources Control Board – Division of Drinking Water	Amendment to WDR/Water Recycling Requirements for compliance with California Code of Regulations (CCR) Title 14 and 22 and the Central Coast Basin Plan	Application to be submitted in Summer 2022 Approval Anticipated Summer 2023
<b>LOCAL</b>		
Marina Coast Water District	Ongoing Coordination	
Monterey Bay Air Resources District/CARB	Permit to Operate or Statewide Portable Equipment Registration	Ministerial/Admin Permit anticipated summer of 2022
Monterey County	Use Permit Amendment	Adequacy of existing permit to be confirmed (2nd Quarter 2022)
Monterey County Health Department	Well Drilling Permit	Ministerial/Admin Permit anticipated late 2022
City of Seaside and County of Monterey	Grading and Excavation Permit	Ministerial/Admin Permit anticipated summer of 2022
City of Seaside	Encroachment Permit	Ministerial/Admin Permit anticipated summer of 2022
	Right of Entry, Easements, and Land Lease	Ongoing land negotiations
Seaside Groundwater Basin Watermaster	Water Storage Permit	Monterey Peninsula Water Management District (MPWMD) to pursue amended agreement prior to operation (2023)
* = Amendments have occurred during construction to account for no substantive changes in circumstances.		



## Section 5

### PROJECT BUDGET

The Project budget includes:

- Other Federal Funding.
- Funding plan and letters of commitment.
- Budget proposal.
- Budget narrative.

#### OTHER FEDERAL FUNDING

At this time no other federal funding sources have been secured for the Expanded Pure Water Monterey Project (Expanded PWM Project).

#### FUNDING PLAN AND LETTERS OF COMMITMENT

Monterey One Water (M1W) implemented the initial phase of the Expanded PWM Project and is in the process of designing the expansion phase of the Expanded PWM Project. The expansion phase will further diversify water supply and help the region attain water reliability and security.

The initial phase of the Expanded PWM Project was authorized by the United States Bureau of Reclamation (Reclamation) as identified in a Title XVI Feasibility Study approved by Reclamation in July 2016. An amendment to the Feasibility Study, which includes the facilities associated with the expansion phase, has been approved by Reclamation. The Expanded PWM Project provides for a total water supply benefit of up to 10,150 AFY.

**The total project cost for the Expanded PWM Project is \$183,130,332. This includes the initial phase project cost of \$133,958,801 as well as the expansion cost of \$49,171,531.** Under the Reclamation 2018 Funding Opportunity Announcement (FOA) and 2019/2020 FOA, M1W was awarded a total of \$19,683,178 for the original phase of the Expanded PWM Project (total project cost of \$133,958,801). M1W anticipates completing construction of the injection wells and the expansion during the stated funding period of the current FOA and expending \$49,171,531 before September 2025. **M1W is seeking the balance of the federal funding share, twenty-five percent of remaining eligible costs, in the amount of \$10,316,822 for the completion of the Expanded PWM Project; therefore, closing out the total funding authorization for the project under the Title XVI WIIN program.** M1W continues to explore federal, state, local, and private funding sources to support this project.

The Funding Plan for the initial phase of the project was presented in M1W's prior grant application packages and has been reviewed by Reclamation as part of the grant agreement process for the Fiscal Year 2018, 2019 and 2020 awards. The narrative below focusses on the costs associated with the remaining elements of the Expanded PWM Project, for which M1W is



requesting the balance of the federal funding share to close out the Title XVI WIIN appropriation.

***How the applicants will make their contribution to the cost-share requirement.***

Funding for the Expanded PWM Project comes from a combination of funds from M1W, Monterey Peninsula Water Management District (MPWMD), and California American Water Company (CalAm). CalAm is covering the costs associated with the design phase of the expansion project, MPWMD and M1W are covering costs associated with legal, environmental and permitting. MPWMD, M1W and CalAm are in the process of receiving CPUC approval for an amended and restated Water Purchase Agreement to confirm contractual rights associated with the Expanded PWM Project water. Funding for the operation, maintenance, and replacement costs of the project will come from revenues from the sale of water under this Amended Water Purchase Agreement with CalAm and MPWMD.

***Describe any Project expenditures that have been incurred or may be incurred before the anticipated award date that you seek to include as Project costs.***

Table 15 provides a summary of the Project’s expenditures that have been incurred since January 2020 or may be incurred before the anticipated award date associated with the completion of the Project. It is assumed that the anticipated award date is November 2022, and that 27 percent of the contracted budgets, for which M1W is seeking to include as eligible project costs, will be incurred prior to the award date.

Table 15 Expanded PWM Project Expenditures Prior to Award Date

Project Expenditure	Total Cost	In Kind/ Contract Approval	Project Benefit	Date
Kennedy Jenks	\$1,121,404	Contract	Design AWPf	2021-2022
Kennedy Jenks	837,818	Contract	Design Injection Wells	2021-2022
Kennedy Jenks	\$787,500	Contract	Design Additional Wells	2020-2022
Perkins Coie	\$429,130	Contract	Legal	2021-2022
Dennise Duffy & Associates	\$451,181	Contract	Federal Environmental Support	2020-2022
Larry Walker Associates	\$333,801	Contract	Permitting	2020-2022
Specialty Construction	\$323,386	Contract	Exploratory Borings	2021-2022
Specialty Construction	\$7,811,536	Contract	Construction	2020-2022
Todd Groundwater	\$230,132	Contract	Modeling	2020-2021
Psomas	\$371,580	Contract	Construction Management	2020-2022
Kennedy Jenks	\$120,938	Contract	ESDC - AWPf	2022
Kennedy Jenks	\$120,938	Contract	ESDC – Injection Wells	2022
TBD – Contractor	\$4,676,250	Contract	Construction	2022
GHD	\$42,500	Contract	Program Manager	2022
TBD - Construction Manager	\$322,500	Contract	Construction Management	2022





*Provide the identity and amount of funding to be provided by funding partners, as well as the required letters of commitment.*

Table 16 presents a breakdown of participating financing partner's contributions for the construction of the completion of the Expanded PWM Project. No federal funds are anticipated as part of the funding partner contributions.

Table 16 Participating Financing Partner Contributions for the Completion of the Expanded PWM Project

	Expanded PWM Project
<b>Total Project Budget</b>	<b>\$59,657,285.00</b>
MPWMD	\$4,070,000.00
CalAm	\$2,000,000.00
M1W PWM Budget	\$53,587,285.00

*Describe any funding requested or received from other non-Federal partners.*

Table 17 provides a summary of the Non-Federal Sources for the Expanded PWM Project.

Table 17 Summary of Non-Federal – Expanded PWM Project

Funding Sources to Date	Expanded PWM Project
<b>Non-Federal Entities</b>	
1. State Revolving Fund (SRF) <sup>(1)</sup>	\$53,587,285.00
2. CalAm	\$2,000,000.00
3. MPWMD	\$4,070,000.00
Non-Federal Subtotal	\$59,657,285.00

Notes:

(1) If the Project is selected for additional Reclamation funding, SRF Loan may potentially be adjusted by the Total Reclamation Grant Award to a minimum of \$30,729,709.

*Describe any pending funding requests that have not yet been approved, and explain how the Project will be affected if such funding is denied.*

M1W submitted a Clean Water SRF Loan application to the State Water Resources Control Board (SWRCB) for the expansion phase of the Expanded PWM Project in December 2021. M1W anticipates SWRCB notification of the project's inclusion in the SWRCB Intended Use Plan and intent to fund the project by March 2022. If fundable, M1W anticipates securing an SRF loan by mid-2023. In addition, M1W was invited by the United States Environmental Protection Agency (USEPA) and has applied for up to \$50 million in low interest loan financing through the USEPA's Water Infrastructure Finance and Innovation Act (WIFIA) Program. If SRF construction financing is not feasible, M1W would look to finance the completion Expanded PWM Project with WIFIA financing or other public or private sources.

**BUDGET PROPOSAL**

The total remaining project cost to complete all phases of the Expanded PWM Project is \$59,657,285, of which \$46,937,036 are eligible project costs under the FY 2022 NOFO. Table 18 summarizes the eligible budget proposal for the Expanded PWM Project for the funding period of July 2016 through September 2025. Note that these are all eligible project costs per the



guidelines and do not sum to the total project cost for the Expanded PWM Project. M1W and its project partners plan to pay for agency incurred expenses, agency daily operational costs and project costs for ineligible expenses through the Clean Water SRF loan.

Table 18 Expanded PWM Project - Eligible Budget Proposal

Budget Item Description	Computation		Quantity Type	Total Cost
	\$/Unit	Quantity		
<b>Salaries and Wages</b> – Not Applicable				
<b>Travel</b> – Not Applicable				
<b>Equipment</b> – Not Applicable				
<b>Supplies and Materials</b> – Not Applicable				
<b>Contractual</b>				
<b>Design Services</b> - None				
<b>Construction</b>				
TBD – Construction Contractor AWPf	\$15,040,000	1	Contract	\$15,040,000
TBD – Construction Contractor IW P4	\$17,210,000	1	Contract	\$17,210,000
Construction Contingency	\$3,745,500	1	Contract	\$3,745,500
Specialty Construction P3	\$7,811,536	1	Contract	\$7,811,536
Construction Management				
TBD – Construction Manager	\$3,130,000	1	Contract	\$3,130,000
Other - None				
<b>Total Direct Costs</b>				<b>\$46,937,036</b>
Indirect Costs				
	None	\$0	0	N/A
Type of Rate	percentage	\$ base		
				\$0
<b>Total Estimated Project Costs</b>				<b>\$46,937,036</b>

**BUDGET NARRATIVE**

The following budget narrative provides a discussion of items included in the eligible budget proposal above and provides a budget breakdown and detailed support for the various work tasks and elements associated with the completion of the Expanded PWM Project. Elements include new and modified equipment and appurtenances in the existing APWF (including construction of additional equipment, pipelines, and storage capacity), expansion/upgrade of product water conveyance facilities, installation of new deep injection wells, and relocation of monitoring well facilities.

Budget categories that list no costs or have work tasks associated within a certain category and project element combination, are listed as such. The project budget was derived using estimates based on previous but similar work, incurred costs, and consultant cost estimates. Because the elements of this project are public works construction, costs assume payment of prevailing wage and include budget for labor compliance activities. M1W is aware of the responsibilities of data management and performance monitoring, according to the overall



project performance monitoring plans; and have accordingly budgeted anticipated monitoring costs in its agency operations budget.

### Salaries and Wages

There are no salaries and wages being claimed as grant requested funds.

### Fringe Benefits

There are no fringe benefits being claimed as grant requested funds.

### Travel

There are no travel expenses being claimed as grant requested funds.

### Equipment

Equipment for the project will be purchased by the selected contractor as part of their contract.

### Supplies and Materials

There are no supplies and materials being claimed as grant requested funds.

### Contractual/Construction

Detailed descriptions of construction costs for the different components remaining for the Expanded PWM Project claimed in this grant application are provided below.

#### Construction

The costs associated with this element are related to the construction and implementation of the different components remaining for the Expanded PWM Project. All awarded contracts will follow a competitive bidding process. The contracts will be awarded to the lowest responsible, qualified, and responsive bidders.

**AWPF Expansion** – This element consists of the construction, installation, testing and startup of new equipment to increase the operational peak capacity of the AWPF to 7.6-mgd.

- Total Estimated Cost: \$15,040,000.
- Contingency: \$1,805,000.

**Injection Wells: Operational Redundancy** – This phase of the Injection Wells component provides additional injection capacity to create operational redundancy and reliability. It consists of two (2) additional deep injection wells. The contract was awarded to the lowest responsible bidder – Specialty Construction Engineering, Inc.

- Total Cost: \$7,811,536.
- SRF: \$4,607,255.
- MPWMD: \$3,204,281.



**Injection Wells: Expansion Phase** – This includes construction, testing and startup of two (2) additional deep injection wells, conveyance pipelines, one or two monitoring wells, and a backflush basin, collectively referred to as the Injection Wells Facilities.

- Total Estimated Cost: \$17,210,000.
- Contingency: \$1,940,500.

### Construction Management

Discussed below are the Construction Management (CM) Service costs associated with each of the Expanded PWM Project expansion components. CM activities include responding to submittals and Requests for Information (RFIs), document control, correspondence with the contractor, coordination meetings, cost and schedule management, change orders, inspections, records, testing, environmental compliance, and final close out. A Request for Proposal will be issued for each component. In accordance with M1W's RFP guidelines, evaluation/selection of proposals for professional services is based on qualifications. Cost proposals are submitted separately and are not reviewed until a preliminary selection is made. Evaluation and ranking of professional services proposals is done by a committee of agency staff.

**Estimated construction management costs for the expansion phase of the Expanded PWM Project are \$3,130,000.**

### Total Costs

Table 19 presents the Project Costs for the completion of the Expanded PWM project. The project cost does not include any non-Federal cost share expenditures.

*If the Project is selected for Reclamation funding, Reclamation Administration costs will be incorporated in the budget.*



Table 19 Project Costs for Expansion Phase of the Expanded PWM Project

Cost Classification	Total Cost	Cost Not Allowable for Participation	Total Allowable Cost (columns a b)
1. Administrative and legal expenses	\$775,000	\$775,000	\$0
2. Land, structures, rights-of-way, appraisals, etc.	\$250,000	\$250,000	\$0
3. Relocation expenses and payments	\$0	\$0	\$0
4. Architectural and engineering fees	\$3,541,658	\$3,541,658	\$0
5. Other architectural and engineering fees	\$1,935,000	\$1,935,000	\$0
6. Project inspection fees	\$3,130,000	\$3,130,000	\$0
7. Site work	\$0	\$0	\$0
8. Demolition and removal	\$0	\$0	\$0
9. Construction	\$41,195,567	\$0	\$41,195,567
10. Equipment	\$0	\$0	\$0
11. Miscellaneous	\$3,847,086	\$717,086	\$3,130,000
12. SUBTOTAL (sum of lines 1-11)	\$54,674,311	\$10,348,744	\$44,325,567
13. Contingencies	\$4,982,974	\$2,371,505	\$2,611,469
14. SUBTOTAL	\$59,657,285	\$12,720,249	\$46,937,036
15. Project (program) income	\$0	\$0	\$0
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$59,657,285	\$12,720,249	\$46,937,036
<b>FEDERAL FUNDING (25 percent of eligible costs)<sup>(1)</sup></b>			
17. Federal assistance requested, calculate as follows: <b>\$10,316,822</b>			

Notes:

- (1) Federal Assistance requested equals the lesser of 25 percent of total eligible project costs (\$11,734,259) or the total allowable federal assistance (\$30,000,000) minus WIIN FY 2018 and 2019/2020 Awards (\$19,683,178) or \$10,316,822.
- (2) If the Project is selected for Reclamation funding, Reclamation Administration costs of \$200,000 will be incorporated in the budget.



## Appendix A

# LETTERS OF SUPPORT

Agency	Person	Role
United States Senate	Alex Padilla	United States Senator
Assembly California Legislature	Mark Stone	Assembly Member, 29th District
Assembly California Legislature	Robert Rivas	Assembly Member, 30th District
California American Water	Chris Cook	Director of Operations
California Association of Sanitation Agencies	Adam D. Link	Executive Director
California State Senate	John Laird	Senator, 17th District
California Water Boards – Central Coast RWQCB	Matthew T. Keeling	Executive Officer
Congress of the United States	Jimmy Panetta	Member of Congress
Greater Monterey County Integrated Regional Water Management Program	Susan Robinson	Program Director
Monterey County Board of Supervisors	Mary L. Adams	Chair, Supervisor Fifth District
Monterey County Board of Supervisors	Wendy R. Askew	Supervisor, Fifth District
Monterey One Water	Mary Ann Carbone	Chair
Monterey Peninsula Chamber of Commerce	N. Monica Lal	Interim CEO
Monterey Peninsula Water Management District	David Stoldt	General Manager
Seaside Basin Watermaster	Paul Bruno	Chair
Western Recycled Water Coalition	Tyson Zimmerman	Executive Director
United States Senate	Dianne Feinstein	United States Senator
Monterey Peninsula Regional Water Authority	James M. Cullem	Executive Director
Fort Ord Reuse Authority	Michael A. Houlemard, Jr.	Executive Officer
Monterey Bay National Marine Sanctuary	Bridget Hoover	Water Quality Protection Program Director

ALEX PADILLA  
CALIFORNIA

**United States Senate**  
WASHINGTON, DC 20510

March 10, 2022

The Honorable Deb Haaland  
Department of the Interior  
1849 C Street, NW  
Washington, DC 20240

**RE: Title XVI Water Reclamation and Reuse Grant Program (Monterey One Water)**

Dear Secretary Haaland:

I write in support of the WaterSMART Initiative, XVI Water Reclamation and Reuse Grant Program (XVI) submitted by Monterey One Water to fund the Pure Water Monterey project. Monterey One is requesting \$10.3 million dollars to provide a clean, safe and sustainable source of water for Monterey County.

The Pure Water project expansion would include adding additional equipment at the existing advanced water purification facility, as well as adding the piping and appurtenances for two additional deep injection wells. Once implemented, Monterey One's Pure Water project will allow for Monterey One Water to provide an additional 2,250 acre-feet of water to the Seaside Groundwater Basin annually. The Pure Water Monterey project will provide both purified potable water for domestic use, as well as a supply for irrigating one of the state's most fertile agricultural areas in the Salinas Valley.

The project is the first of its kind to utilize not just wastewater, but stormwater, food industry processing water, and impaired surface waters of the State. Utilizing this new technology for the creation of a clean sustainable water source is crucial in a state that has suffered from continuous drought and in an area that in recent years has seen considerable population growth.

The Pure Water Project emphasizes advanced water recycling technology, replenishment of the groundwater supply and protection of the environment. For all the aforementioned reasons, I urge your full and fair consideration of the Title XVI Water Reclamation and Reuse Grant application submitted by Monterey One Water with all applicable laws, rules, and regulations.

Please keep my office informed of the status of this application, and if I can be of further assistance, do not hesitate to contact my Senior Field Representative, Margaret Arechiga, at (559) 509-0222. Thank you for your attention and consideration.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Alex Padilla". The signature is fluid and cursive, with the first name "Alex" and the last name "Padilla" clearly distinguishable.

ALEX PADILLA  
United States Senator



**COMMITTEES**  
BANKING AND FINANCE  
BUDGET  
BUDGET SUBCOMMITTEE NO. 5 ON  
PUBLIC SAFETY  
HUMAN SERVICES  
NATURAL RESOURCES  
**SELECT COMMITTEES**  
CHAIR, COASTAL PROTECTION AND  
ACCESS TO NATURAL RESOURCES  
VICE CHAIR, JOINT COMMITTEE ON  
FISHERIES AND AQUACULTURE



**STATE CAPITOL**  
P.O. BOX 942849  
SACRAMENTO, CA 94249-0029  
(916) 319-2029  
FAX (916) 319-2129  
**DISTRICT OFFICES**  
701 OCEAN STREET, ROOM 318B  
SANTA CRUZ, CA 95060  
(831) 425-1503  
FAX (813) 425-2570  
99 PACIFIC STREET, SUITE 575G  
MONTEREY, CA 93940  
(831) 649-2832  
FAX (831) 649-2935

March 2, 2022

United States, Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007

**Re: Support for Pure Water Monterey Expansion Project Funding**

Dear Ms. Erath:

I would like to express my support for the grant application by Monterey One Water (M1W) for the Pure Water Monterey Expansion Project under the recent Notice of Funding Opportunity entitled WaterSMART: Title XVI WIIN Act Water Reclamation and Reuse Projects.

Throughout January 2022, the Central Coast saw no measurable precipitation. Now in the beginning of March 2022, the region has yet to experience any rain events, and current forecasts show a low probability for considerable amounts of rainfall. Existing surface and ground water supplies are insufficient to meet the needs of the Monterey Peninsula. The winter rainy season is only five months long; we have gone through two of the most historically important months without rainfall. From a local perspective, water is and will continue to be an extremely limited resource in Monterey County this next year. Expanding Pure Water Monterey is the quickest and most cost-efficient solution to augment the highly constrained water supply for the Monterey Peninsula.

M1W is doing an excellent job of recycling the wastewater they receive into their collection system. In 2021, M1W recycled over 70% of the water entering their treatment plant. The use of recycled water for agriculture and indirect potable reuse demonstrates the area's commitment to sustainable water resource management. Implementing the expansion of the Pure Water Monterey project will increase the amount of wastewater M1W will be able to recycle in the future and will enhance water supplies for a region steeped in water supply challenges.

Expanding the Pure Water Monterey project will allow M1W to expand their capacity to process for reuse even more water that comes into their system. I strongly endorse this grant application and appreciate your consideration of this worthy project. If you have any questions, please feel free to contact me at (831) 649-2832.

Sincerely,

A handwritten signature in blue ink that reads 'Mark Stone'. The signature is fluid and cursive, with the first name 'Mark' being more prominent than the last name 'Stone'.

Mark Stone  
Assembly Member  
Twenty-Ninth District

STATE CAPITOL  
P.O. BOX 942849  
SACRAMENTO, CA 94249-0030  
(916) 319-2030  
FAX (916) 319-2130

E-MAIL  
Assemblymember.RRivas@assembly.ca.gov

# Assembly California Legislature



**ROBERT RIVAS**  
ASSEMBLYMEMBER, THIRTIETH DISTRICT

DISTRICT OFFICE  
60 WEST MARKET STREET, SUITE 110  
SALINAS, CA 93901  
(831) 759-8676  
FAX (831) 759-2961

525 MONTEREY STREET  
SOLEDAD, CA 93960  
17555 PEAK AVENUE, SUITE 100  
MORGAN HILL, CA 95037  
(831) 256-1272

March 7, 2022

United States, Bureau of Reclamation  
Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007

## **Re: Support of Monterey One Water's Grant Application for Expanding Pure Water Monterey**

Dear Amanda Erath:

I write in support of Monterey One Water's (MIW) grant application for the WaterSMART: Title XVI WIIN Act Water Reclamation and Reuse Projects. The expansion of the Pure Water Monterey (PWM) program is an important water supply projects for the Central Coast district I represent.

Adequate water supplies will ensure Monterey County continues to be an agricultural powerhouse in producing leafy greens, wine grapes, and other foods. MIW's Salinas Valley Reclamation Project and Castroville Seawater Intrusion Projects have helped recycle wastewater and slow down seawater intrusion, the largest threat to Monterey County's water supply, for over 20 years. The PWM project identifies additional water resources that can create additional recycled water for Monterey County.

Tourism is also a vital economic strength on our Central Coast thanks to our pristine shorelines and inviting climate. An unreliable water supply will damage the local hospitality industry through lower hotel occupancy rates. This will hurt the general funds of local cities through lost sales tax revenue. In the wake of tremendous economic damage done to the tourism industry by the COVID-19 pandemic, our region cannot afford additional shocks to our tourism industry. The Pure Water Monterey project will supply over fifty percent of the peninsula's water supply and help to diversify and stabilize the water portfolio on the Central Coast.

In addition to agricultural and urban benefits, the Pure Water Monterey program will also lower the region's carbon footprint, reducing pollutant loads to local water bodies and protecting sensitive aquatic habitats.



In regions where water is limited and alternative supplies are economically challenging, multi-benefit projects like Pure Water Monterey serve as an exemplary model in the State of California and will be critical to meeting the needs of the Central Coast region.

If you have any questions, please feel free to contact my office at (831) 759-8676.

Respectfully,

A handwritten signature in blue ink, consisting of a stylized 'R' followed by a horizontal line and a small flourish.

Robert Rivas  
Assemblymember, District 30  
State of California



511 Forest Lodge Road  
Suite 100  
Pacific Grove, CA 93950  
www.amwater.com

February 17, 2022

United States, Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007

RE: Support for Expanding the Pure Water Monterey Project

Dear Ms. Erath,

California American Water (Cal Am) is pleased to support the grant application Monterey One Water (M1W) is submitting for the solicitation of the WaterSMART: Title XVI WIIN Act Water Reclamation and Reuse Projects. Cal Am is the investor-owned water company purveyor which owns and operates the water utility system for the Monterey Peninsula's residents and businesses. We are excited to support a project which is a collaborative effort among the area's cities, water and wastewater districts, and ourselves.

The Central Coast of California is one of the most scenic areas in all of California. However, regulatory mandated cutbacks of the existing water supplies have placed a high priority for identifying additional water supplies into the future. The base Pure Water Monterey project and now with the inclusion of the Expanded PWM project will become the majority of the area's water supply in the near term with additional supplies still needed. This in turn allows for reduced pumping off the Carmel River helping local habitat like Steelhead and red legged frog. There is also a replenishment component for the Seaside Basin, which will reduce the chance of saltwater intrusion.

In addition to recycling project providing environmental benefits and water supply, M1W will also be utilizing a renewable energy supply, biogas from the neighboring landfill, to power the advanced water purification facility by 2023. Both the energy and water supply aspects of this project demonstrates the advantages of multiple entities working together to solve regional issues.

Cal Am fully supports the Pure Water Monterey Expansion project and urges the Bureau of Reclamation to consider the importance of this water supply for the area and fund the M1W grant application.

Sincerely,

Chris Cook, PE  
Director of Operations – Central Division  
California American Water



February 10, 2022

United States, Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007

Dear Amanda,

**Re: CASA Support for Pure Water Monterey Project Expansion**

The California Association of Sanitation Agencies (CASA) appreciates the opportunity to express our support for funding the expansion of the Pure Water Monterey (PWM) project, sponsored by Monterey One Water (M1W), under the Bureau of Reclamation's Title XVI WIIN Act Water Reclamation and Reuse Projects funding announcement. CASA represents more than 125 local public agencies engaged in the collection, treatment and recycling of wastewater and biosolids to protect public health and the environment. Our mission is to provide trusted information and advocacy on behalf of California clean water agencies, and to be a leader in sustainability and utilization of renewable resources.

The PWM project is a multi-benefit project that incorporates elements designed to address climate resiliency as well as water supply and water quality. Specifically, the project utilizes biogas from the nearby regional landfill as a renewable energy source. In addition, the project's innovative water reclamation components will reduce the pollutants entering a very sensitive marine environment, the Monterey Bay National Marine Sanctuary. By diverting untreated water into the existing wastewater collection system, the PWM project not only protects surface water quality, but also creates an opportunity to produce additional recycled water, which can then become a valuable water resource and sustainable source of water supply for the Monterey Peninsula. The Central Coast of California is one of the most water challenged in the state, consistently dealing with drought conditions and water supply constraints. When the expansion of the project is online, it is expected to provide over 60% of the water supply for the Monterey Peninsula.

CASA embraces projects that advance the "One Water" concept which includes capturing, storing, treating and ultimately reusing wastewater, including stormwater where feasible. We understand that M1W has garnered much support from other public entities in the region as they have proceeded with this much needed water supply project for the area. To date, the PWM has demonstrated that cooperation among entities can result in beneficial projects that improve water quality and sensitive habitat. The Project is a model for utilizing multiple source waters for increasing the amount of water that can be reused, and we support its expansion under this program.

We are excited about Pure Water Monterey maximizing its existing water resource, and we encourage the Bureau to support and continue to fund this important multi- benefit project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Adam D. Link'.

Adam D. Link  
Executive Director

CAPITOL OFFICE  
1021 O STREET, SUITE 8720  
SACRAMENTO, CA 95814  
TEL (916) 651-4017  
FAX (916) 651-4917

MONTEREY DISTRICT OFFICE  
99 PACIFIC STREET, SUITE 575-F  
MONTEREY, CA 93940  
TEL (831) 657-6315  
FAX (831) 657-6320

SAN LUIS OBISPO DISTRICT OFFICE  
1026 PALM STREET, SUITE 201  
SAN LUIS OBISPO, CA 93401  
TEL (805) 549-3784  
FAX (805) 549-3779

SANTA CRUZ DISTRICT OFFICE  
701 OCEAN STREET, SUITE 318A  
SANTA CRUZ, CA 95060  
TEL (831) 425-0401  
FAX (831) 425-5124

SANTA CLARA COUNTY SATELLITE OFFICE  
TEL (408) 847-6101

# California State Senate

SENATOR  
JOHN LAIRD

SEVENTEENTH SENATE DISTRICT



## COMMITTEES

BUDGET SUBCOMMITTEE #1  
(EDUCATION)  
CHAIR  
JOINT LEGISLATIVE AUDIT  
VICE CHAIR  
APPROPRIATIONS  
BUDGET & FISCAL REVIEW  
JOINT LEGISLATIVE COMMITTEE  
ON BUDGET  
JUDICIARY  
LABOR, PUBLIC EMPLOYMENT  
& RETIREMENT  
NATURAL RESOURCES & WATER  
RULES  
JOINT LEGISLATIVE  
COMMITTEE ON RULES

March 4, 2022

United States Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007

### **Re: Support for Monterey One Water's Grant Application to Expand Pure Water Monterey**

Dear Ms. Erath:

As the State Senator whose boundaries encompass all the Monterey Peninsula, I support Monterey One Water's application for funding for Pure Water Monterey (PWM) Expansion.

The Monterey Peninsula has a long history fraught with water supply challenges. While the area leads the State in gallons per capita per day, we have struggled for years to produce a long-term sustainable water supply. Pure Water Monterey is the first new water supply for our region in 40 years. As such, Pure Water Monterey Expansion is a critical piece of our water supply, and it is critical for fulfilling the region's water demand over the next two decades.

Additionally, PWM has been an example that has laid the groundwork for many other coastal communities to explore utilizing wastewater as a source for potable water. Increasing the output of the existing PWM facility is the most cost-effective option our region has for securing additional water supply.

My office is committed to meeting our water supply needs with sustainable and ecologically sound projects such as PWM. Thank you for your consideration of this very important water supply project for the Central Coast of California.

Sincerely,

Handwritten signature of John Laird.

Senator John Laird  
California Senate District 17



---

## Central Coast Regional Water Quality Control Board

March 3, 2022

United States Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007

Dear Ms. Erath:

### **LETTER OF SUPPORT FOR MONTEREY ONE WATER'S TITLE XVI GRANT APPLICATION: PURE WATER MONTEREY EXPANSION**

The Central Coast Regional Water Quality Control Board is one of the state's nine regional governing bodies that provides technical and regulatory permitting oversight of wastewater treatment facilities and projects such as Pure Water Monterey for the recharge of purified recycled water into the Seaside Groundwater Basin. We have worked closely with Monterey One Water for many years, and they are a model agency implementing leading edge projects like Pure Water Monterey in the central coast region.

Pure Water Monterey is a high priority multi-benefit and multi-watershed regional project addressing significant water supply, water quality and aquatic habitat issues in the Carmel Valley and Monterey Peninsula areas. The initial phase of the Pure Water Monterey project has already been very successful in reducing the unlawful taking of water from the Carmel River watershed and is having a positive impact on the Carmel River and Carmel River Lagoon habitats. By having more water in the Carmel River watershed, sensitive aquatic species, such as steelhead trout and the red-legged frog, are benefitting from a more favorable environment. The Pure Water Monterey project also reduces environmental pollutants from reaching sensitive aquatic habitats by capturing and recycling agricultural tail water and other wastewater sources for agricultural irrigation and drinking water purposes. In addition, the project utilizes renewable energy as a power supply. When implemented, the expanded Pure Water Monterey project will provide over half of the Monterey Peninsula's potable supply.

Pure Water Monterey is a model project for how to increase water supply resiliency while also restoring and improving essential watershed functions by treating and repurposing wastewater for community and ecological benefit. I strongly encourage the Bureau of Reclamation to continue their financial support to expand the Pure Water Monterey project because of the multiple benefits it provides.

JANE GRAY, CHAIR | MATTHEW T. KEELING, EXECUTIVE OFFICER

Ms. Erath

- 2 -

March 3, 2022

Sincerely,

Matthew T. Keeling  
Executive Officer

r:\rb3\shared\wdr\wdr facilities\monterey co\monterey one water pure water\wiin act  
grant letter of support.docx  
ECM# CW-805968



CHIEF DEPUTY WHIP

COMMITTEE ON  
WAYS AND MEANS

COMMITTEE ON  
AGRICULTURE

COMMITTEE ON  
ARMED SERVICES

Congress of the United States  
House of Representatives  
Washington, DC 20515-0520

406 CANNON HOUSE OFFICE  
BUILDING  
WASHINGTON, DC 20515  
(202) 225-2861

142 WEST ALISAL  
ROOM E116  
SALINAS, CA 93901  
(831) 424-2229

701 OCEAN STREET  
ROOM 318  
SANTA CRUZ, CA 95060  
(831) 429-1976

February 8, 2022

The Honorable Camille Touton  
Commissioner  
Bureau of Reclamation  
U.S. Department of Interior

Dear Commissioner Touton:

I write in support of the application from Monterey One Water to the Bureau of Reclamation's Title XVI Water Reclamation and Reuse Program. Funding awarded to these entities would support expanding the Pure Water Monterey project, an advanced groundwater replenishment initiative currently benefiting the residents and businesses of the Monterey Peninsula.

Due to the unique geography of the Monterey Peninsula on the central coast of California, the communities in California's twentieth congressional district are dependent on groundwater for residential and commercial uses. The Pure Water Monterey project benefits these users by capturing underutilized wastewaters, treating this wastewater through advanced purification systems, and then injecting treated water into the groundwater basin.

Since the project commenced in February of 2020, the Pure Water Monterey project now constitutes about a third of the Monterey Peninsula's water supply, and the agency is recycling over 70% of wastewater entering the treatment plant. Through this process, the project has already injected over 5,600 acre-feet of water into our supply. Expansion of this project will provide an additional 2,250 acre-feet of water to the basin each year and supply over 60% of the drinking water for the Monterey Peninsula by the end of 2023.

Successful expansion of this project is critical for the residents and businesses on the Monterey Peninsula. The robust agriculture and tourism industries of the Central Coast can only thrive with access to a clean and sustainable source of groundwater. With funding support from the Bureau of Reclamation, Monterey One Water can work to its full potential and invest in the future of these communities.

Thank you for your consideration of Pure Water Monterey as a candidate for the Title XVI Water Reclamation and Reuse Program. Please contact my office if you have any questions concerning this project.

Sincerely,

A handwritten signature in blue ink, consisting of a large, stylized 'J' and 'P' followed by a horizontal line.

Jimmy Panetta  
Member of Congress



February 16, 2022

United States, Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007

**Re: Pure Water Monterey Expansion Funding Application**

Dear Ms. Erath:

I am pleased to submit this letter of support for Monterey One Water’s grant application for the Pure Water Monterey Expansion project under the current announcement WaterSMART: Title XVI WIIN Act Water Reclamation and Reuse Projects. Monterey One Water is producing over 3,500 AF/YR from the base Pure Water Monterey project. The purified water injected into the Seaside Groundwater Basin is replacing this same amount of water from being diverted from the Carmel River. This annual volume of water makes up over 30% of the Monterey Peninsula’s water supply. If the Pure Water Monterey project were to expand, it would provide over 60% of the water supply for the privately owned utility provider who serves the residents and businesses of this location.

The Pure Water Monterey project has a number of unique elements which provide a bevy of benefits to local cities, public entities, and the environment. A few of the benefits include a drought-resistant water supply for local residents and businesses, a reduction in pollutants reaching the Monterey Bay National Marine Sanctuary, utilizing a renewable energy supply to power a renewable water treatment facility, and the “Holy Grail” of water resource management - storm water capture, storage, and treatment for beneficial reuse.

Monterey One Water and their partners continue to provide cooperative water solutions which not only improve water quality for surface water receiving bodies but enhance water supplies for areas steeped in water supply challenges.

We are excited about the expansion of the Pure Water Monterey program and Monterey One Water's ability to use existing water resources to their highest and best use. We encourage the selection committee to support and fund this important multiple benefit project.

Sincerely,

A handwritten signature in cursive script that reads "Susan Robinson".

Susan Robinson  
Program Director  
Greater Monterey County Integrated Regional Water Management Program  
srobinsongs@frontier.com  
[www.greatermontereyirwmp.org](http://www.greatermontereyirwmp.org)

# MONTEREY COUNTY

---



## BOARD OF SUPERVISORS

MARY L. ADAMS, SUPERVISOR – FIFTH DISTRICT

1200 Aguajito Road, Suite #1, Monterey, CA 93940

E-mail: District5@co.monterey.ca.us

Phone: (831) 647-7755

February 15, 2022

United States, Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007

### **Re: Pure Water Monterey – Cost of New Water Supplies**

Dear Ms. Erath:

Northern Monterey County and especially the Monterey Peninsula has had a unique set of water supply challenges for the past 25 years. A state mandated Cease and Desist Order and a state required adjudication of a local groundwater basin has limited the traditional supplies of water for an area with pollution of over 100,000 people.

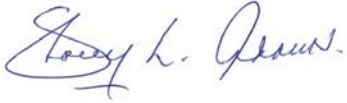
The Monterey Peninsula is one of most scenic areas on the California coast and is host to almost 9 Million visitors each year. The hospitality and tourism segments alone account for approximately \$3 Billion a year to the County's economy. With ample water supplies to feed this economic engine in the balance, a reliable water supply is critical to keeping the residential and hospitality segments viable for the long-term sustainability of the community.

As Monterey One Water (M1W) pursues the Pure Water Monterey Expansion project, using every type of water resources in an efficient and cost-effective manner will be the new normal. proposes innovative water reclamation strategies to assist the urban and agriculture communities in securing the water resources needed to maintain the economic vitality for both segments. The PWM team has worked tirelessly in creating a culture which fosters intra-agency cooperation which then maximizes opportunities to use existing infrastructure for multiple benefits including cost of water.

I strongly encourage the Bureau of Reclamation to examine how beneficial the Pure Water Monterey Expansion project will be in stabilizing the tenuous water supply in our area. The initial investment of the base Pure Water Monterey project laid the foundation to allow the additional modifications to expand the capacity for the multi-beneficial project that will also be providing landscape irrigation supplies to a former military installation. I am excited and

encouraged for M1W and their partner entities for taking the lead to expand this very cost-effective, and efficient use of recycled water supplies in creating a water supply for my district.

Sincerely,

A handwritten signature in blue ink that reads "Mary L. Adams". The signature is written in a cursive style with a large initial "M" and "A".

Mary L. Adams, Chair  
Monterey County Board of Supervisor, Chair  
Fifth District

# MONTEREY COUNTY

---



## BOARD OF SUPERVISORS

WENDY ROOT ASKEW, SUPERVISOR – FOURTH DISTRICT  
2616 FIRST AVENUE, MARINA, CA 93933  
EMAIL: askewwr@co.monterey.ca.us PHONE: (831) 883-7570

March 2, 2022

United States, Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007

### Re: Expansion of Pure Water Monterey is Locally Supported

Dear Ms. Erath:

The recent Bureau of Reclamation's Notice of Funding Opportunity entitled WaterSMART: Title XVI WIIN Act Water Reclamation and Reuse Projects is a perfect opportunity for my district to strengthen its limited water resources. Monterey One Water's (M1W) application for the Pure Water Monterey Project will help increase the potable reuse supply, bring needed water security to our residents and business, and it has my full support.

Monterey One Water has a proven track record of completing critical infrastructure projects and supporting the community's local water supply with recycled water. In 1998, M1W began producing recycled water for over 12,000 acres of food crops in northern Monterey County. If this supplemental water supply was not available over the past two decades, those growers in the area would be fallowing land or growing a very limited crop due to seawater intrusion in their groundwater wells.

M1W's experience producing recycled water for agriculture has now led to the Pure Water Monterey Project which uses groundwater replenishment to further champion the use of recycled water as part of the solution to sustainable water resource management. Pure Water Monterey received operational approval from the State in February 2020 to begin the commissioning and injection. In 2021, the Agency injected over 3,600 AF of water, accounting for 37% of the areas supply.

I strongly endorse this grant application and appreciate your consideration of this critical project. An increase in capacity to Pure Water Monterey will benefit both our local community and the environment.

Sincerely,

Wendy Root Askew  
Supervisor, District 5  
Monterey County Board of Supervisors



# Monterey One Water

**Providing Cooperative Water Solutions**

ADMINISTRATION OFFICE: 5 Harris Court, Bldg D, Monterey, CA 93940

MAIN: (831) 372-3367 or (831) 422-1001

FAX: (831) 372-6178

WEBSITE: [www.montereyonewater.org](http://www.montereyonewater.org)

March 8, 2022

United States, Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007

## **Re: Pure Water Monterey Expansion – Much Needed Water Supply Project Now**

Dear Ms. Erath:

Our area has been struggling to develop a viable, long-term water supply until now. The Pure Water Monterey Expansion will provide an additional 2,250 AF of much needed water supply to the residents and businesses within the next 2 years.

In my role as Chair, I along with the other Board Members look at how any Agency-related projects will affect our customers. We all want to provide our customers with excellent value plus reliable infrastructure at a reasonable rate. With this outlook, we believe the PWM Expansion project achieves all the Agency goals of utilizing all our local wastewater resources. We also believe this project serves as a model for other communities to investigate all sources of wastewater in order to reuse our most precious and valuable resource, water.

For Monterey One Water (M1W) to implement the Pure Water Monterey project, the Agency had to develop trust from within our member entities, with other public and private entities and businesses, plus influential community stakeholders. No small feat. Our Board continues to lead the effort in promoting how this multi-benefit project can galvanize our community in developing a sustainable, water supply that can provide a drought proof source for both urban and agriculture interests.

The base PWM project and now with an impending expansion of PWM will continue to advance the integrated water resource planning efforts needed to maximize the beneficial reuse of wastewater from local communities. Our Board strongly support M1W's efforts and encourages the Bureau of Reclamation to recognize the Agency's commitment of wastewater being used to the highest and best use through the Expanded Pure Water Monterey project.

Sincerely,

Mary Ann Carbone  
Chair, Monterey One Water Board of Directors





**2022 BOARD OF DIRECTORS**

BOARD CHAIR  
**JENNIFER KUYPER**  
Pinnacle Bank

IMMEDIATE PAST CHAIR  
**AARON WATERS**  
Rayne Technology Solutions

**JACQUIE ATCHISON**  
Arts Council for Monterey County

**KATHRYN AVILA**  
Avila Construction Company

**KEVIN CAUSEY**  
Montage Health Foundation

**NICK DEL POZZO**  
Hyatt Regency-Monterey Bay

**ELIZABETH DIAZ**  
Armanasco Public Relations

**JONATHAN GEISLER**  
Geisler3

**PHYLLIS GRILLO**  
CSUMB

**ADAM HUGHES**  
MBS Business Systems

**ANAIS MORA**  
JRG Attorneys at Law

**DJ (DJUNA) MUNIZ**  
The Mechanics Bank

**DOUGLAS ROBERTS**  
JHW Architects, Inc.

**CLARISSA ROWE**  
Monterey County Bank

**PAUL WEYANT**  
Express Employment  
of Monterey County

**JEFF WHITE**  
KRML

**N. MONICA LAL**  
Interim CEO

March 4, 2022

United States, Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007

**Re: Pure Water Monterey - Monterey Peninsula needs a Diversified Water Portfolio**

Dear Ms. Erath:

The residents and businesses on the Monterey Peninsula are the beneficiaries of the first indirect potable reuse project in Northern California. The Pure Water Monterey (PWM) Project is a solid example of utilizing various wastewater sources for beneficial reuse. Last year, the PWM Project injected 3,600 AF of purified recycled water into the Seaside Groundwater Basin. The Seaside Basin is one of the two major water supplies for the Monterey Peninsula.

The Monterey Peninsula Chamber of Commerce and our members support the expansion of the Pure Water Monterey Project as a component for an adequate, permanent, reliable solution to the water crisis the Peninsula is facing. Once the expansion of the Pure Water Monterey Project is completed at the end of 2023, it will potentially provide over half of the peninsula's annual water supply. This water supply will provide additional water security for Monterey Peninsula businesses.

Without the added potable water supply the Pure Water Monterey Project will provide, our community's ability to maintain a sustainable economy would be significantly compromised. I strongly encourage the Bureau of Reclamation to support Monterey One Water's grant application to expand the Pure Water Monterey Project. If you have any questions or comments, feel free to contact me at [Monica@montereychamber.com](mailto:Monica@montereychamber.com) or 831.648.5359.

Sincerely,

N. Monica Lal  
Interim Chief Executive Officer  
Monterey Peninsula Chamber of Commerce



March 1, 2022

United States, Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007

**Re: Pure Water Monterey – Making an Impact Now**

Dear Ms. Erath:

The Monterey Peninsula Water Management District (MPWMD) strongly supports the grant application submitted by the Monterey One Water (M1W) for the WaterSMART: Title XVI WIIN Act Water Reclamation and Reuse Projects. As a project partner with M1W, we have supported the Pure Water Monterey project financially and civically since the inception. Seeing Pure Water Monterey deliver purified water into the Seaside Basin and on to customers is already making an impact on local drinking water supplies that have been constrained by State regulators and the courts.

Our region is facing significant water supply challenges due to a state mandated cutback of one of the two main water supply sources for the Monterey Peninsula. The base Pure Water Monterey project has helped fill the gap in the actual demand versus needed supply. Expanding Pure Water Monterey will provide additional supplies of water for the area so that the state mandated order is lifted, and the area can thrive and prosper without the cloud of water supply uncertainty.

The project has many well-known multi-party, multi-regional benefits which can serve as a model for other communities across the West who need to implement an innovative recycling project. Benefits to the local area include storm water capture, storage, treatment for beneficial reuse, protecting surface and ocean water quality by diverting pollutants away from the Salinas River and the Monterey Bay National Marine Sanctuary, and diverting impaired agricultural tail water into the existing sanitary sewer collection system which then becomes a source water for recycling.

We are excited about expanding Pure Water Monterey and how it will enhance water supplies for many years to come.

Sincerely,

A handwritten signature in blue ink that reads "David Stoldt".

David Stoldt, General Manager

On behalf of the Monterey Peninsula Water Management District

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

January 31, 2022

United States, Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007  
[aerath@usbr.gov](mailto:aerath@usbr.gov)

**Subject: Support for the Pure Water Monterey Expansion Project**

Dear Ms. Erath:

On behalf of the Seaside Basin Watermaster, we support Monterey One Water's new project, the Pure Water Monterey Expansion (PWMX) Project.

In short, the PWMX Project will increase the amount of purified recycled water that the existing PWM project provides from 3,500 AFY to 5,750 AFY for injection into the Seaside Groundwater Basin. The PWMX Project will provide a large percentage of the existing Monterey Peninsula's water supply and it will diversify the area's water supply portfolio and improve groundwater sustainability.

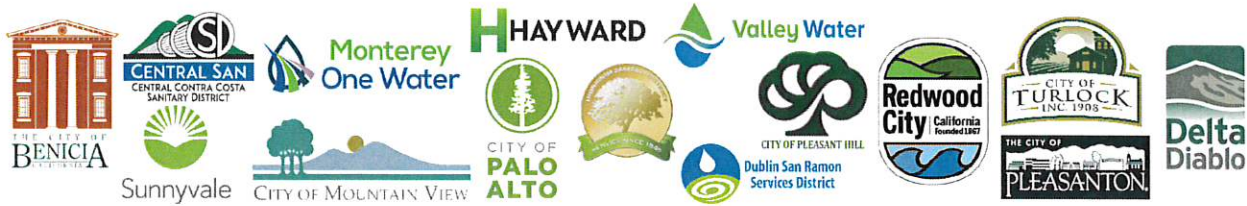
As the Court-appointed body responsible for carrying out the requirements of the Adjudication Decision governing the Seaside Groundwater Basin, the Seaside Basin Watermaster has been involved with the PWM Project for many years. It meets the rigorous water quality standards and regulations from both the Central Coast Regional Water Quality Control Board and the State of California's Division of Drinking Water. We expect the PWMX Project will also meet or exceed all human health and safety concerns as it pertains to water quality within the Basin.

We are pleased to support the PWMX Project which will benefit the Basin by providing an additional supplemental source of water to help mitigate over-drafting conditions.

Sincerely,



Paul Bruno  
Chair, Seaside Basin Watermaster



*Western Recycled Water Coalition: A Collaborative Approach to Developing Sustainable Supplies*

February 16, 2022

United States, Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007

RE: Support for Monterey One Water (M1W) Expansion of the Pure Water Monterey Project  
Application for Funding of Title XVI Projects Under the WIIN Act

Dear Ms. Erath,

The Western Recycled Water Coalition (WRWC) is pleased to support the grant funding application for M1W. The WRWC is a collaboration among cities, water and wastewater districts and investor owned water utilities, developing water reuse projects that will help ensure the security of water supplies in the western United States for years to come. M1W is an active member of the WRWC and we strongly support their efforts to expand the Pure Water Monterey Project as they work to develop a sustainable water supply for the region.

Pure Water Monterey is currently providing over 30% of the area's water supply. By expanding Pure Water Monterey, the total water supply provided by purifying wastewater and injecting into the groundwater aquifer will grow to over 60%. The innovative project will also have their renewable energy source online in 2023 which will also help the project in reducing their overall carbon footprint while providing a sustainable and safe water supply for one of the most picturesque areas in California.

Water is a scarce resource along the Central Coast of California and M1W is demonstrating how to provide solutions for the Peninsulas and the Salinas Valley's need for additional water supplies. M1W has taken a forward-thinking approach to water supply by taking waters that have previously been wasted and reusing them to help replenish groundwater and provide new, reliable supplies.

Securing federal funding to leverage with the current state and local funding will help expand a successful project. The WRWC supports this project and urges you to consider the importance and benefits of this project and to provide full and fair consideration of the M1W funding application.

Sincerely,

Tyson Zimmerman  
Executive Director  
Western Recycled Water Coalition



## United States Senate

July 25, 2018

Irene Hoiby  
Grants Management Specialist  
Bureau of Reclamation  
Financial Assistance Support Section  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225

Dear Irene,

I write in support of Pure Water Monterey's application for funding from the WaterSMART Water Reclamation and Reuse grant program, administered through the United States Bureau of Reclamation.

A combined effort by the Monterey Peninsula Water Management District and Monterey One Water, the Pure Water Monterey project will provide nearly a third of the water supply in Monterey's peninsula. The proposed project will purify reclaimed water and inject it into an adjudicated groundwater basin, creating a new local water source that will increase the overall available water supply, decrease reliance on outside sources, and improve regional resilience in times of drought or water shortage.

The project will also provide additional water supplies to assist growers in the Salinas Valley, where significant seawater intrusion is threatening local aquifers. Limiting groundwater pumping by increasing the use of recycled water will help to mitigate this intrusion. As the Valley's groundwater basin is already over drafted, additional supplied from the Pure Water Monterey project will also help in reducing the amount of groundwater pumped in this sensitive area. Overall, the project will provide benefits to agricultural, municipal, and industrial water users throughout the region, and is of great importance in an area where water supplies are limited and costly.

I urge you to give Pure Water Monterey's application your full consideration. If you have any questions, please do not hesitate to contact my San Francisco office at (415) 393-0707.

Sincerely,

A handwritten signature in blue ink that reads "Dianne Feinstein".

Dianne Feinstein  
United States Senator

**MONTEREY PENINSULA REGIONAL WATER AUTHORITY**



Received

**JUN 18 2019**

Monterey One Water  
Administration

June 14, 2019

United States, Bureau of  
Reclamation  
Attn: Ms. Amanda Erath  
Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007  
[aerath@usbr.gov](mailto:aerath@usbr.gov)

**Directors:**  
Clyde Roberson, President  
Bill Peake, Vice President  
Ian Oglesby, Treasurer  
Mary Ann Carbone, Secretary  
Dave Potter, Director  
Alison Kerr, Director

**Executive Director:**  
Jim Cullem, P.E.

**Re: Support for Integrated Approach to Regional Water Supply Issues**

Dear Ms. Erath:

This letter reflects the support of the Monterey Peninsula Regional Water Authority (MPRWA) for the Pure Water Monterey Project (PWM) submitted by Monterey One Water (M1W) for a Title XVI Water Reclamation and Reuse Projects grant.

M1W and the Monterey Peninsula Water Management District (MPWMD) have done a great job at implementing an innovative water recycling project to supplement water supplies in our region. Accordingly, the MPRWA has incorporated the M1W project as a critical component of the region's "portfolio" of new water supplies.

As urban conservation measures become hardened, M1W's search for reuse of wastewaters is in alignment with the "one water" concept being embraced by communities in the arid southwest. These wastewater sources can be treated and re-purposed for potable urban water supplies as well as for agriculture interests. Most municipalities are always searching for projects that utilize existing infrastructure, diversify water sources, provide multiple benefits to the community and region, and receive the proper approvals by regional and state regulatory agencies. The MPRWA believes the Pure Water Monterey project easily satisfies these requirements.

The project has a number of beneficial features that other communities could emulate. In particular, the project would:

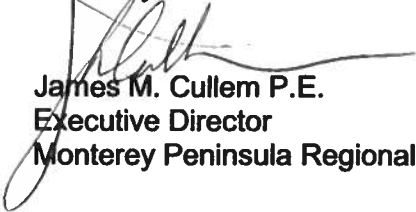
1. capture, store, treat, and reuse storm water
2. utilize a renewable green energy source (biogas) to power the new advanced water treatment facility
3. involve extensive collaboration between local and state entities.

Each one of these features could be highlighted as a case study for public entities across the U.S. interested in pursuing similar projects.

For nearly 40 years our region has been faced with serious water supply challenges both geologically and politically. M1W's effort to improve water quality, use existing local water resources to their highest and most beneficial use, and enhance water supplies by having the Pure Water Monterey Project come online in the near-term is a win-win for the local communities, the environment and customers.

In summary, the MPRWA is highly supportive of the Pure Water Monterey Project, and strongly endorses the M1W grant request.

Sincerely,



James M. Cullem P.E.  
Executive Director  
Monterey Peninsula Regional Water Authority



## FORT ORD REUSE AUTHORITY

920 2<sup>ND</sup> Avenue, Suite A, Marina, CA 93933  
Tel: 831 883 3672 | Fax: 831 883 3675 | [www.fora.org](http://www.fora.org)

July 24, 2018

United States Bureau of Reclamation  
Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007  
[aerath@usbr.gov](mailto:aerath@usbr.gov)

### **Re: Monterey One Water Title XVI Water Reclamation & Reuse Projects Grant Application**

Dear Ms. Erath,

I am writing on behalf of the Fort Ord Reuse Authority (FORA) to support the Monterey One Water (M1W) grant application to the US Department of the Interior, Bureau of Reclamation for the Title XVI Water Reclamation and Reuse Projects for the Pure Water Monterey Project (PWM). FORA is a regional agency responsible for the oversight of the economic recovery and reuse of the former Fort Ord military base located on the Monterey Bay. Economic recovery of a base closure is dependent on the infrastructure development outlined in its award winning Base Reuse Plan (BRP). Developers require reliable sources of water and wastewater services to construct viable, sustainable housing and business ventures, and Monterey One Water (M1W) has been a key partner in this effort.

FORA's BRP requires up to 2400 AFY of water augmentation be provided to the multiple jurisdictions in the former Fort Ord Cantonment Area. FORA is actively working with M1W and Marina Coast Water District (MCWD) to enable its augmented water supply. MCWD is FORA's water and wastewater purveyor.

The PWM uses water resources which were previously regarded as waste and transforms them into valuable water supplies for our communities which straddle urban and agriculture interests. Prior to this project, constructing MCWD's Regional Urban Water Augmentation Project (RUWAP) for minimal amounts of recycled water wasn't as economically feasible for FORA or MCWD. As the PWM project went through the planning stages, it became evident the two projects could share a single pipeline facility, thereby saving the region \$26M in capital costs. When presented with this information, the FORA Board resolved to endorse PWM in 2015 and authorized a three-party agreement with M1W and MCWD. Due to this collaboration, and FORA monies, we can finally provide the region with the augmented water needed for the economic recovery of Fort Ord, provide a benefit to the surrounding jurisdictions, and decrease the cost to the end user.

The PWM is a win/win/win for the region and a shining example of a collaboratively planned project providing water resiliency to an area with exceptionally impacted water considerations. Therefore, FORA supports the efforts of M1W to obtain USBR grant funding for the PWM. We appreciate your consideration for this application that is consistent with our policy framework. Its success is central to the region and the FORA regional recovery program.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Michael A. Houlemard, Jr.', is written over a large, stylized blue circular scribble.

Michael A. Houlemard, Jr.  
Executive Officer





**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
**NATIONAL OCEAN SERVICE**  
**Monterey Bay National Marine Sanctuary**  
99 Pacific Street, Bldg 455a  
Monterey, CA 93940

July 12, 2018

United States, Bureau of Reclamation  
Attn: Ms. Amanda Erath, Program Analyst  
Denver Federal Center  
P.O. Box 25007  
Denver, CO 80225-0007  
aerath@usbr.gov

Re: Pure Water Monterey – Enhancing the Environment

Dear Ms. Erath:

On behalf of the Monterey Bay National Marine Sanctuary (MBNMS), please accept our letter of support for the Pure Water Monterey (PWM) Project grant application submitted by the Monterey One Water (M1W). It is our understanding that this application falls under the Funding Opportunity Announcement (BOR-DO-18-F011), Title XVI Water Reclamation and Reuse Projects.

The MBNMS Water Quality Protection Program (WQPP) is dedicated to protecting and enhancing water quality in the Sanctuary and its watersheds. The Sanctuary's diverse marine ecosystems harbor an incredible variety of marine life, including 36 species of marine mammals, more than 180 species of seabirds and shorebirds, at least 525 species of fishes, and an abundance of invertebrates and algae. Controlling the amount of pollutants entering the system is important for protecting these species.

Another important aspect of this project is the capture, storage, treatment and ultimately beneficial reuse of stormwater. With PWM, dry weather urban runoff and seasonal first flush events will be diverted into the existing wastewater collection system which then will become a valuable water resource for growers or be a portion of the water supply for the residents and visitors of the Monterey Peninsula.

Please consider funding this innovative project. If you have any questions, I can be contacted at (831) 647-4217 or [bridget.hoover@noaa.gov](mailto:bridget.hoover@noaa.gov).

Sincerely,

Bridget Hoover,  
Director, Water Quality Protection Program



Appendix B

# OFFICIAL MONTEREY 1 WATER AUTHORIZING RESOLUTION

## **RESOLUTION NO. 2022-07**

### **A RESOLUTION OF THE BOARD OF DIRECTORS OF MONTEREY ONE WATER AUTHORIZING THE GENERAL MANAGER TO FILE AN APPLICATION AND EXECUTE A GRANT AGREEMENT WITH THE UNITED STATES BUREAU OF RECLAMATION FOR A GRANT PURSUANT TO THE WATERSMART: TITLE XVI WIIN ACT WATER RECLAMATION AND REUSE PROJECTS (No. R22AS00115), FOR THE PURE WATER MONTEREY EXPANSION PROJECT**

**WHEREAS**, the United States Bureau of Reclamation (USBR) is accepting applications for water recycling projects under WaterSMART: Title XVI WIIN ACT Water Reclamation and Reuse Projects; and

**WHEREAS**, the Monterey One Water (“M1W”) Pure Water Monterey Expansion Project is eligible for the USBR grant funding pursuant to Section 4009(c) of the WIIN Act (Project) guidelines and published eligibility guidelines; and

**WHEREAS**, this Board wishes to authorize an application pursuant to the Act for the Pure Water Monterey Expansion Project for fiscal year 2021/2022; and

**WHEREAS**, the USBR requires a grant applicant to provide a resolution adopted by applicant’s governing body designating an authorized representative to submit a funding application and execute an agreement with the USBR for a grant; and

**WHEREAS**, this Board wishes to authorize the Monterey One Water General Manager to enter into the grant agreement with the USBR and to sign such agreement, and any amendment thereto and other required documents, on behalf of M1W; and

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Directors of Monterey One Water, as follows:

1. This Board hereby authorizes submittal by Monterey One Water to USBR of a grant application for the Pure Water Monterey Expansion Project up to the \$30 million project cap.

2. Monterey One Water General Manager is hereby authorized and empowered to prepare the necessary data, conduct investigations, file such applications, and, if awarded, conduct all negotiations and execute in the name of the Monterey One Water, the Grant Agreement, amendments thereto, and all other required documents, if any, necessary for the funding of the Pure Water Monterey Expansion Project grant, provided that M1W is able to satisfy grant terms, conditions, and requirements, and comply with all applicable state and federal laws and regulations, including without limitation the California Environmental Quality Act.

3. Funds are available in M1W's budget to provide M1W's required funding and/or in-kind contributions, if the grant is awarded.

4. The M1W's General Manager is directed to work with the USBR to meet established deadlines for entering into a USBR grant pursuant to the Act.

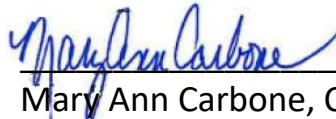
5. The M1W's General Manager is authorized and directed, if the grant is awarded, to apply the grant monies to the project for which the award is made.

**PASSED, APPROVED AND ADOPTED** by the Board of Directors of the Monterey One Water at a regular meeting held on February 28, 2022, by the following roll call vote:


**AYES: CARBONE, MOORE, WILLIAMSON, CAMPBELL, CROMEENES, GRIER, STEFANI, SMITH, DONALDSON, PHILLIPS**

**NOES: NONE**

**ABSENT: NONE**

  
\_\_\_\_\_  
Mary Ann Carbone, Chair  
M1W Board of Directors

ATTEST:

  
\_\_\_\_\_  
Paul A. Sciuto, General Manager  
Secretary to Board of Directors