Exhibit E

Final Project Report (2021 Update):
"Monterey One Water and the City of Salinas Storm Water Project for the Salinas Region Proposition 1 Storm Water Grant Project"

March 25, 2022

Final Project Report – 2021 Update

Monterey One Water and City of Salinas Storm Water Project for the Salinas Region Proposition 1 Storm Water Grant Project

Agreement No.: D712659

Date of Report: 3/25/2022

Watershed(s): Salinas River and Reclamation Ditch

Total Project Cost: $ 22,420,165 (including match)

Acknowledgement

Funded by: Proposition 1 Storm Water – Section 79747 of the Water Code

"Funding for this Project has been provided in full or part by Proposition 1 – the Water Quality Supply, and Infrastructure Improvement Act of 2014 through an agreement with the State Water Resources Control Board. The contents of this document do not necessarily reflect the views and policies of the State Water Resources Control Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use."

Prepared by:

Monterey One Water
Providing Cooperative Water Solutions

5 Harris Court, Building D
Monterey, CA 93940

Alison Imamura, PE, AICP

This page intentionally left blank.

Table of Contents

Tables

Figures

Grant Summary

Project Purpose

The ***Monterey One Water and City of Salinas Storm Water Project for the Salinas Region - Proposition 1 Storm Water Grant Project*** (Grant Project) was implemented to capture and convey storm water, dry weather runoff, including agricultural tile drain water, to the Monterey One Water Regional Wastewater Treatment Plant through the construction of diversion structures, a pump station, and conveyance pipelines as part of the Pure Water Monterey Groundwater Replenishment Project. The diversion of these waters reduces pollutant loads to receiving waters, including the impaired Salinas River and the Monterey Bay and Pacific Ocean. It also increases recycled water available for beneficial use including currently, for groundwater recharge to potable water supply aquifers and in the future for agricultural irrigation.

Project Goals

a. Short-term Goals:

The short-term goals of the Grant Project were to leverage existing infrastructure and construct new infrastructure to reduce pollutant loads to lower Salinas River waterbodies and the Monterey Bay and to provide additional sustainable, recycled water supplies to replace constrained and/or dwindling water supplies. Generally, goals for the Grant Project are to achieve the following:

- improve water quality in surface waters of the lower Salinas Valley and regional groundwater basin by removing pollutant loads that have flowed to those water bodies, including meeting the goal of reducing nitrogen (N) discharge by 375,000 pounds per year of nitrite plus nitrate as nitrogen over the long-term,
- provide solutions to adapt to climate change,
- improve regional water self-reliance,
- capture 3,500 acre-feet per year of storm water, including dry weather flows, and treat it for reuse,
- increase subsurface water storage to offset groundwater over pumping,
- decrease seawater intrusion into the Salinas Valley Groundwater basin,
- provide additional recycled water for regional agricultural use, and
- improve water quality discharging to the Monterey Bay National Marine Sanctuary.

b. Long-Term Goals:

The long-term goals of the Grant Project were to further progress the goals of the larger Pure Water Monterey Project, including to:

- provide recycled water for agricultural irrigation in the CSIP area to mitigate seawater intrusion,
- provide a sustainable potable water supply to replace use of other supplies through advanced water purification and groundwater injection in the Seaside Basin, and
- improve water quality in the surface waters and the Monterey Bay.

The completed Grant Project infrastructure will assist in solving many regional water resource challenges, including surface water quality impairments, and increasing climate resiliency with sustainable treatment and delivery of additional recycled water. The project will recycle wastewater for potable reuse using

groundwater recharge with purified recycled water. Additional groundwater recharge may be used as storage for drought conditions to mitigate impacts of seawater intrusion in the Salinas Valley. A component of the project, currently not funded, would increase use of recycled water for irrigation in lieu of groundwater in an area adversely affected by seawater intrusion due to over-pumping of aquifers and chronic lowering of groundwater levels. In addition, the diversion of impaired waters for recycling also will mitigate existing water quality impacts to downstream water bodies and the Monterey Bay National Marine Sanctuary.

Project Location

The Grant Project components are located on the central coast of California in northern Monterey County, near the City of Salinas. The following provides the latitude and longitude of the components of the grant that were constructed. A location map is provided in Figure 1 of this report.

Component Name (Phase)	Latitude	Longitude
Dry Weather Flow Diversion Project (Phase 1A)	36.660454	121.683745
Salinas Treatment Facility Storage and Recovery (Phase 1B)	36.652117	121.697657
Reclamation Ditch (Phase 1C)	36.688659	121.671345
Blanco Drain (Phase 1E)	36.714021	121.767431

a. Physical Size of Project

The Grant Project components are located within the Monterey One Water/Salinas Area Storm Water Resource Plan area which encompasses about 150,000 acres (Figure 1). Construction of the grant-funded components occurred on approximately 14 acres of land at four separate sites (Phase 1A on 0.11 acres, Phase 1B on 1.31 acres, Phase 1C on 1.75 acres, and Phase 1E on 10.85 acres)

b. Counties Included in the Project

Monterey County

c. Legislative Districts

- State Senate District 12 and 17
- State Assembly District 29 and 30

Grant Time Frame

From: 2017-08-01 **To:** 2021-03-31

Project Partner Information

City of Salinas
200 Lincoln Avenue
Salinas, CA 93901
https://www.cityofsalinas.org/

Brian Frus, P.E., Senior Engineer
Water Waste and Energy Division Manager
Phone: (831)758-7485
brianf@ci.salinas.ca.us

Nutrient and Sediment Load Reduction Projection

The projects are expected to result in a load reduction of approximately 375,000 pounds per year of nitrite + nitrate as nitrogen at full project implementation, which is the long-term average goal. Sediment load reduction was not included in the grant agreement nor in the Performance Evaluation and Assessment Plan.

Executive Summary

This report contains updates to the Final Project Report related to diversions and load reductions monitoring for 2021 in the form of two new sections 3.5 and 3.6, and additional text in sections 3.2, 3.3, 4.1, and 4.6 compared to the Final Project Report (M1W, 2/28/2021).

The Monterey One Water and City of Salinas Storm Water Project for the Salinas Region - Proposition 1 Storm Water Grant Project (Grant Project) was planned, designed, and implemented by Monterey One Water (M1W) and the City of Salinas to capture and convey storm water, dry weather runoff, and agricultural tile drain water as additional sources of water to be treated for beneficial reuse. The Salinas area has multiple water resource challenges, such as water supply limitations, surface water quality impairments, and seawater intrusion into groundwater aquifers caused by over pumping and chronic lowering of groundwater levels. Additional water for recycling purposes was needed to supplement agricultural irrigation and provide a sustainable potable water supply for the urban sector.

The Grant Project components assist in mitigating seawater intrusion, replenishing a groundwater basin, reducing surface water quality impairments, and increasing climate resiliency with sustainable treatment and delivery of additional recycled water. The Salinas Storm Water Phase 1A ("Dry Weather Flow Diversion") Project component enables the diversion of City of Salinas' urban dry weather and storm water flows to be captured, treated, and stored at the City's existing Industrial Wastewater Treatment Facility (IWTF). This was accomplished by constructing a new, short pipeline segment connecting the City's storm water infrastructure to an existing 42-inch gravity industrial wastewater pipeline. The Salinas Storm Water Phase 1B ("Storage and Recovery") Project component by way of a new pump station at the IWTF that pumps water into the M1W interceptor pipeline. Ultimately, these two components enable dry weather urban runoff to be recycled for beneficial supply at M1W's facilities. The Reclamation Ditch diversion and pump station (Phase 1-C) captures surplus agricultural and urban runoffs and utilizes an existing conveyance pipeline to add to the amount of wastewater available for recycling in the regional system. The Blanco Drain Pump Station (Phase 1-E) collects subsurface tile drain flows from 6,000 acres of irrigated agricultural fields directly to the Monterey One Water Regional Wastewater Treatment Plant (Regional Treatment Plant) for treatment and recycling.

These Grant Project components will reduce the pollutant load on local receiving waters, including the impaired Salinas River, the Monterey Bay, and Pacific Ocean by diverting impaired agricultural and urban land runoff before it enters higher quality water bodies lower in the watershed. These impaired waters will instead be conveyed to M1W's Regional Treatment Plant where they will be treated and ultimately used to recharge the Seaside Groundwater Basin for potable supply or used for crop irrigation in northern Salinas Valley. The Grant Project is a true testament to multi-agency collaboration, regional, long-range planning, this Grant Project leverages existing infrastructure assets to reuse under-utilized resources to provide multiple water supply and quality benefits the area.

The table on the following page shows the Grant Requirements related to construction and the actual results achieved.

Table A. Grant Agreement Requirements and Requirements Achieved

Grant Agreement Requirement	Requirements Achieved
Dry Weather Flow Diversion (Phase 1A)	
Install two (2) diversion structures with a minimum design capacity of five thousand (5,000) gallons per minute (GPM) and a minimum of one (1) Parshall flumes.	Installed two diversion structures with a design capacity of five thousand (5,000) gallons per minute (GPM) and a minimum of one Parshall flumes.
Install a minimum of two hundred fifty (250) linear feet (LF) of thirty (30)-inch pipeline to divert dry weather flow and first flush wet weather flow to the Salinas Treatment Facility.	Installed two hundred fifty (250) linear feet (LF) of thirty (30)-inch pipeline to divert dry weather flow and first flush wet weather flow to the Salinas Treatment Facility.
Salinas Treatment Facility Storage & Recovery (Phase 1B)	
Install a pump station with a minimum design capacity of nine thousand (9,000) GPM.	Installed a pump station with a design capacity of greater than nine thousand (9,000) GPM.
Install a minimum of one thousand eight hundred thirty (1,830) LF of a minimum twenty-four (24)-inch diameter pipeline to convey water from the storage ponds to an existing thirty-six (36)-inch sanitary sewer for main pipeline, then to the WWTP.	Installed one thousand eight hundred thirty (1,830) LF of twenty-four (24)-inch diameter pipeline to convey water from the storage ponds to an existing thirty-six (36)-inch sanitary sewer for main pipeline, then to the Monterey One Water Regional Wastewater Treatment Plant (WWTP).
Reclamation Ditch (Phase 1-C)	
Install a diversion structure with a minimum design capacity of two thousand (2,000) GPM.	Installed a diversion structure with a minimum design capacity of two thousand (2,000) GPM.
Install a pump station with three (3) ten (10) horsepower (HP) pumps, and a minimum of fifty (50) LF of twelve (12)-inch pipeline to divert water from the Reclamation Ditch to the Salinas Pump Station, and ultimately to the WWTP.	Installed a pump station with three (3) ten (10) HP pumps, and a minimum of fifty (50) LF of twelve (12)-inch pipeline to divert water from the Reclamation Ditch to the Salinas Pump Station, and ultimately to the WWTP.
Blanco Drain (Phase 1-E)	
Install a diversion structure with a minimum design capacity of two thousand (2,000) GPM.	Installed a diversion structure with a minimum design capacity of two thousand (2,000) GPM.
Install a pump station with three (3) eighty-five (85) HP pumps.	Installed a pump station with three (3) eighty-five (85) HP pumps.
Install a minimum of eight thousand, nine hundred seventy-six (8,976) LF of sixteen (16) to eighteen (18)-inch force main pipeline to divert water from the Blanco Drain to the WWTP.	Installed more than eight thousand, nine hundred seventy-six (8,976) LF of sixteen (16) to eighteen (18)-inch force main pipeline to divert water from the Blanco Drain to the WWTP.
Conveyance to Storm Water Ponds (Segments 1 and 2)	
Replace a deteriorated segment of an existing twenty-seven (27)-inch pipeline with a minimum of two thousand (2,000) LF of thirty-six (36)-inch pipeline to convey captured water from the industrial wastewater collection system to the Salinas pump station.	Replaced a deteriorated segment of an existing twenty-seven (27)-inch pipeline with a minimum of two thousand (2,000) LF of thirty-six (36)-inch pipeline to convey captured water from the industrial wastewater collection system to the Salinas pump station.
Install a minimum of nine thousand (9,000) LF of forty-two (42)-inch pipeline, to convey captured water from the Salinas pump station to the aeration basin for treatment and discharge into the storage ponds.	Installed a minimum of nine thousand (9,000) LF of forty-two (42)-inch pipeline, to convey captured water from the Salinas pump station to the aeration basin for treatment and discharge into the storage ponds.

1.0 Background

1.1 Introduction

The initial purpose of this Grant Project was to leverage and upgrade existing infrastructure to improve water quality, provide solutions to adapt to climate change, improve regional water resiliency, increase storm water capture and treatment, increase subsurface water storage to offset groundwater use, decrease seawater intrusion into the Salinas Valley Groundwater Basin, provide additional recycled water for regional agricultural use, and overall improve water quality discharging to the Monterey Bay National Marine Sanctuary. The specific goals of the Grant Project are to:

- Goal 1: Increase in storm water capture using Grant Project facilities for storage and/or delivery to M1W's Regional Treatment Plant (RTP) for treatment and reuse for agricultural irrigation and/or groundwater injection and reduction in storm water runoff from the City of Salinas urban areas.
- Goal 2: Reduce pollutant loads to surface waters using Grant Project facilities for storm water diversion and/or trash removal.

The Grant Project components included the following key components which are described in detail in Section 2:

- Phase 1A. Dry Weather Flow Diversion
- Phase 1B. Salinas Storage and Recovery
- Phase 1C. Reclamation Ditch
- Phase 1E. Blanco Drain
- Conveyance to Storm Water Ponds (Segments 1 and 2)

See **Figure 1** for the location of the Phase 1A, 1B, 1C, and 1E facilities.

1.2 Purpose, Need and Benefits

The Monterey Peninsula and Salinas areas have a range of high priority water supply and water quality challenges including legal limitations on surface waters to meet environmental and fisheries needs and groundwater pumping limitations due to overdraft in the Salinas Valley Groundwater Basin and in the Seaside Groundwater Basin (classified as a sub basin area of the Salinas Valley Groundwater Basin by the US Geological Survey in the document "California Groundwater Units, Data Series 796"). The overdraft has also resulted in seawater intrusion in the 180/400 Foot Aquifer subbasin; the extent of seawater intrusion is over eight miles inland in the shallower 180 Foot Aquifer and over 6.5 miles inland in the deeper 400 Foot Aquifer and have impacted both urban and agricultural wells. These ground and surface water limitations result in water supply curtailments that are difficult to resolve as the Monterey area does not have access to imported water.

The storm water grant project components are part of the Pure Water Monterey Project which includes collecting new raw source waters (urban storm water runoff and surface waters) and treating them through its water recycling facilities, thereby improving water quality. Many of these source waters, including urban storm water and agricultural tile drain runoff, are contaminated by pollutants, and the water bodies to which they flow are listed as impaired water bodies according to the Clean Water Act 303(d) program. The Pure Water Monterey Project will divert these contaminated raw source waters away from surrounding water bodies and towards the Regional Treatment Plant for treatment to tertiary levels for agricultural irrigation or for purification at the Advanced Water Purification Facility for injection into the Seaside Groundwater Basin. 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.

1.2.1 Surface Water Impairments in Lower Salinas Valley

According to the Greater Monterey County Integrated Water Resources Management Plan (2018), the water bodies in the lower Salinas Valley have some of the worst pollutant impairments on the Central Coast and have been listed since 2004 on the 303d water quality impairments list, a precursor to development of a Total Maximum Daily Load (TMDL). In the Salinas Valley, surface waters are largely impacted by intensive agricultural use and nonpoint source pollutants from urban uses. Agriculture runoff is particularly detrimental to fisheries and aquatic habitats due to nitrates, from synthetic fertilizers, and pesticides. The City of Salinas is presently subject to a TMDL for fecal coliform, nutrient pollution, and sediment toxicity (pyrethroids/pesticides) for the Lower Salinas River. The landowners in other areas of the watershed, such as farmland, could also be subject to these TMDLs depending upon applicable regulatory program(s). Known sources of storm water contamination include agriculture (runoff from irrigated cropland, livestock), homeless encampments, and residential/commercial activities in urban storm watersheds. Salinas was incorporated in 1874 and developed a highly profitable agricultural industry with the highest per capita income in the US in 1924. Intensive agricultural land use and urbanization have continued to grow in the Salinas Valley for over 100 years with it, associated long-term water quality impacts. Widespread impairments impact beneficial uses of water, including designated drinking water supplies, aquatic habitat, agricultural water supplies, groundwater recharge, and water contact recreation.

The Blanco Drain and the Reclamation Ditch diversion components (Phases 1C and 1E) of Grant Project are prime examples of the project achieving a critical programmatic need to address water quality and supply challenges. Agricultural return flows from land in the Reclamation Ditch and Blanco Drain watersheds have caused impairment to receiving waters pursuant to the CWA and both surface waters were listed on the 303(d) list of impaired water bodies. Both the Blanco Drain and the Reclamation Ditch discharge into the lower Salinas River watershed and then to the Monterey Bay National Marine Sanctuary. As pollutants enter the Salinas River, the following are negatively impacted: cold freshwater habitats, warm freshwater habitats, migration of aquatic organisms, spawning, reproduction, and/or early development, and preservation of rare, threatened, and endangered species. The Grant Project will divert these impaired sources to the Regional Treatment Plant for reuse. This will improve water quality conditions in the Salinas River and provide better habitat for the native aquatic species that live there, particularly the federally listed South-Central California Coast steelhead and the California red-legged frog. The capture of project diversions from these sources would result in significant pollutant load reductions including nitrite plus nitrate as N, chloride, dissolved solids, and phosphate.

1.2.2 Storm Water Permit for the City of Salinas

The Grant Project elements facilitate Salinas' compliance with the Phase 1 MS4 permit by reducing flow of storm water, dry weather runoff, and agricultural pollutants upstream of the sensitive Monterey Bay National Marine Sanctuary. By providing diversion and additional treatment of storm water, the project protects and improves water quality in the 303(d)-listed water bodies downstream of Salinas.

1.2.3 Irrigated Lands Regulatory Program/Ag Order 4.0

Agricultural land in the Grant Project area includes over 3,000 acres of agricultural land that drains to the Blanco Drain and over 20,000 acres that drains to the Reclamation Ditch. Certain agricultural operations are subject to the Regional Water Quality Control Board's Irrigated Lands Regulatory Program which requires monitoring and reporting in what is commonly referred to as Ag Order 3.0. A draft Ag Order 4.0 was first published in February 2020, and subsequently revised and republished on June 11, 2020, and again on January 26, 2021. The intent of the proposed Ag Order 4.0 is to regulate discharges from agricultural land, including requiring best management practices, water treatment, and water quality standards to protect groundwater and surface water quality.

Diversions of water from Blanco Drain by Phase 1E of the Grant Project has the potential to assist landowners in the watershed with complying with Ag Order 4.0, for example exemptions or waivers from certain best management practices and/or monitoring and reporting requirements if all flows are diverted to the Regional Treatment Plant instead of flow to the Salinas River.

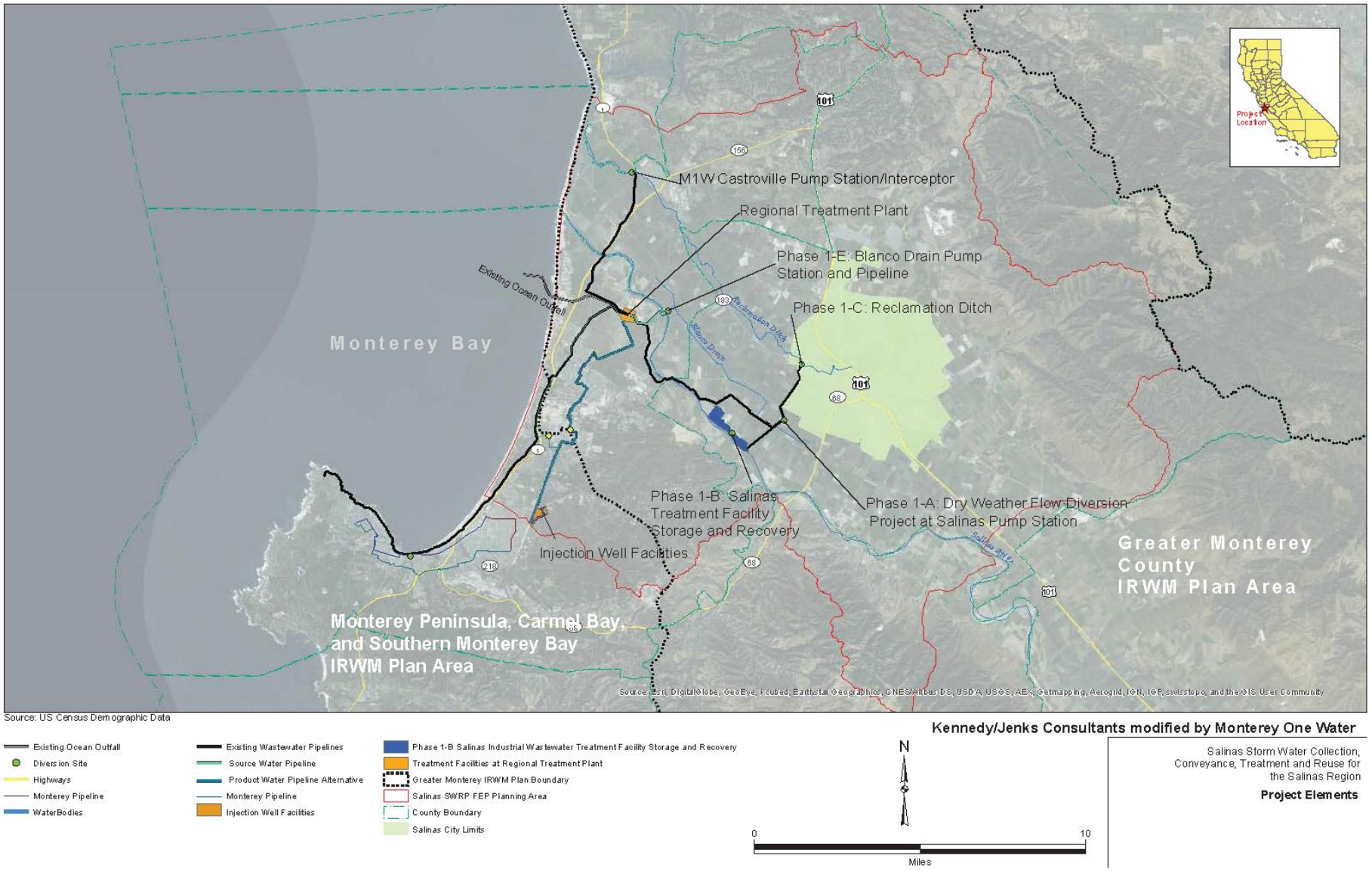
1.2.4 Climate Change

The project helps water infrastructure systems adapt to climate change by combatting seawater intrusion in groundwater basin from sea level rise while addressing the future uncertainty of water supply through increasing groundwater supplies for drought protection. The project reduces flood risk due to anticipated changes in rain patterns and intensity by providing additional storm water collection and storage, reducing runoff rate and volume.

1.2.5 Regional Collaboration and Multiple Benefits

Pure Water Monterey Project (of which the grant projects are a key component) is a regional collaborative of M1W, City of Salinas as well as Monterey Peninsula Water Management District, Monterey County Water Resources Agency, and Marina Coast Water District and has the support of many other public agencies, water suppliers, and non-governmental organizations. This project improves regional water self-reliance by increasing water in aquifer storage as a regional drought-resistant supply; reducing use of groundwater by agriculture through an alternative supply in the form of recycled water; and providing new storm water and dry weather flow sources. For instance, Phase 1-C, Reclamation Ditch Diversion, of this project delivers agricultural tail water and will capture residential or commercial irrigation and car wash urban runoff in the dry season for treatment and recycling. The project increases water supply reliability and involves conjunctive use. The two regional IRWM groups (Greater Monterey County and Monterey Peninsula-Carmel) endorsed this project as a solution to both the beneficial reuse of urban storm water and agricultural runoff. Additionally, this project relies on the continued collaboration between M1W and the City of Salinas, two entities that have had a proven, successful working relationship for many years. The Pure Water Monterey Project and this Grant Project assists the compliance activity of the City of Salinas related to their Municipal Separate Storm Sewer System (MS4) Storm Water Permit that applies to City areas. The Grant Project also supports the State Water Resources Control Board's Non-Point Source Program and the Monterey Bay National Marine Sanctuary's Water Quality Protection Program. The Pure Water Monterey Project and this Grant Project also achieve multiple goals and objectives in the Great Monterey County and Monterey Peninsula Integrated Regional Water Plans, and the U.S. Bureau of Reclamation's Drought Contingency Plan for Northern Monterey County.

Figure 1. Grant Component Site Locations



This page is intentionally left blank.

1.2.6 Water Supply Needs and Benefits

The approximate quantity of storm water flow to be captured by the Grant Project components is estimated to be 3,500 acre-feet per year (AFY) (Note: 1 acre-foot equals approximately 325,851 gallons), of which approximately 700 to 1,500 AFY will be consistently used for providing water supply. Additional reuse would be possible in the future with new or amended agreement(s) between M1W and MCWRA or another entity or entities. The project waters will be comingled with municipal wastewater and other source waters, treated to the appropriate level, and used for recharge to the Salinas Valley Groundwater Basin (Phase 1A diversions to Salinas' ponds) or for recycling either for groundwater injection for potable supply or, in the future, for agricultural or other irrigation demands. Secondary effluent produced at the Regional Treatment Plant is used as influent to the Pure Water Monterey Project Advanced Water Purification Facility and the Salinas Valley Reclamation Project[1] (SVRP) tertiary treatment facility, respectively. Additional information about these relevant water supply projects is provided in this section.

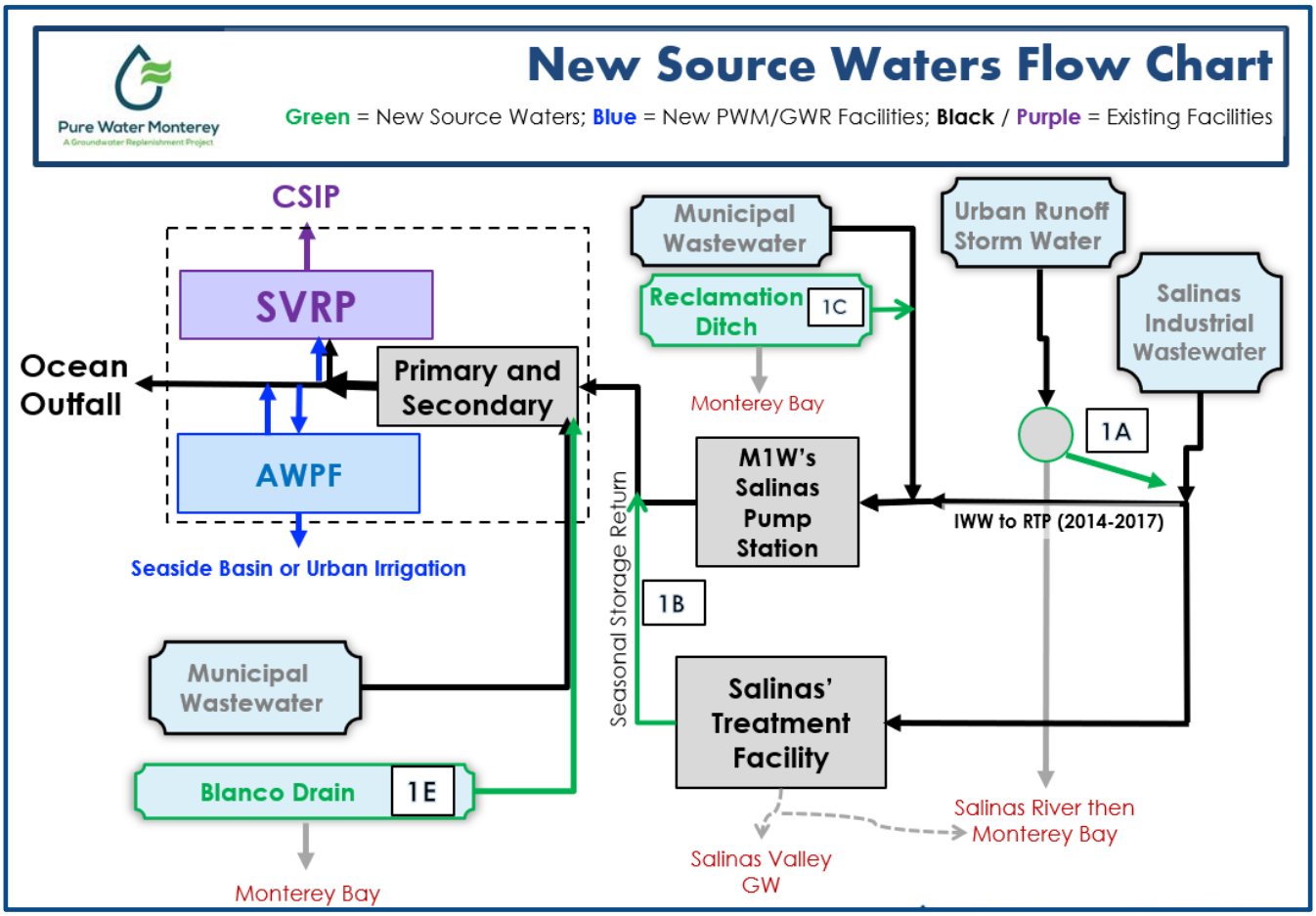
In response to a severe drought, the City of Salinas, M1W and the Monterey County Water Resources Agency (MCWRA) agreed in early 2014 to make Salinas industrial (agricultural) wash water that was being discharged to the IWTF available for crop irrigation and thus enabling the water to be recycled. This is accomplished by diverting the Salinas industrial wastewater into the M1W's Salinas Pump Station at Hitchcock Road south of the city. The industrial wash water is mixed with wastewater from the sanitary sewer and pumped to the M1W's Regional Treatment Plant in Marina where the water is has been treated, recycled, and distributed for reuse by the farmers in the Castroville Seawater Intrusion Project (CSIP) area and for groundwater replenishment in the Seaside Groundwater Basin.

Wastewater currently treated at the IWTF is one of several supplemental (referred to as "new") source waters for recycling and reuse for the Pure Water Monterey Groundwater Replenishment Project. The project's Advanced Water Purification Facility provides purified water for recharge of the Seaside Groundwater Basin that serves as drinking water supply. Several new source waters, such as those collected by the Grant Project components were also planned to be used to supply additional recycled water for CSIP agricultural irrigation supply. The Salinas Storm Water Projects (Phase 1A and 1B), which enable use of urban storm water and additional industrial wastewater seasonally stored at the IWTF, are two of the Pure Water Monterey new source waters projects. Other new source water facilities that M1W has constructed include the Industrial Wastewater Diversion Project,[2] and the Reclamation Ditch (Phase 1C) and the Blanco Drain (Phase 1E) Diversions. A regional map of the facilities was provided in **Figure 1**. An overall system process flow schematic representing M1W's existing wastewater facilities, recycling facilities and new source water facilities is provided in **Figure 2**.

[1] The Salinas Valley Reclamation Plant/Project is a component of the Monterey County Water Recycling Projects, which also include the Castroville Seawater Intrusion Project, or "CSIP", the agricultural irrigation distribution system, and the Salinas River Diversion Facility (or "SRDF"), a seasonally-operated surface water diversion facility on the Salinas River.

[2] The Industrial Wastewater Diversion Project was completed in 2016 and enables M1W to divert industrial wastewater directly to M1W's Salinas Pump Station and then to the Regional Treatment Plant to supplement inflow or as needed for IWTF maintenance.

Figure 2. Overall M1W Process Flow Diagram



The Grant Project components and the Pure Water Monterey Project, more generally, could provide additional water for treatment at the Salinas Valley Reclamation Project and for use by agricultural irrigators in the Castroville Seawater Intrusion Project area of northern Salinas Valley. However, currently there is no funding mechanism in place to enable this use to occur. One or more agreement(s) and/or amended agreement(s) between M1W and the Monterey County Water Resources Agency (and between those parties and the City of Salinas) are needed for these waters to be used for the benefit of the Salinas Valley. The water rights and operating permits allow for use for groundwater replenishment with purified recycled water from the Advanced Water Purification Facility or use for agricultural irrigation use within the existing Castroville Seawater Intrusion Project area. When one or more funding agreements are entered, additional recycled use of these waters can be accrued as an additional benefit of the Grant Components. For now, beneficial reuse of diverted flows is limited by demands and capacity of the Pure Water Monterey Advanced Water Purification Facility. Specifically, water diverted to the Regional Treatment Plant from the Phase 1B, 1C, and 1E facilities using M1W's pump stations at Salinas Industrial Wastewater Treatment Facility (IWTF) Pond 3, Reclamation Ditch, and Blanco Drain, respectively (although it is commingled with other wastewater) will only be beneficially reused when there are no other excess secondary flows available. Staff at M1W, MCWRA, and the City have been working collaboratively to achieve funding agreements for both plants to benefit from the new source water diversion capabilities.

2.0 Project Description

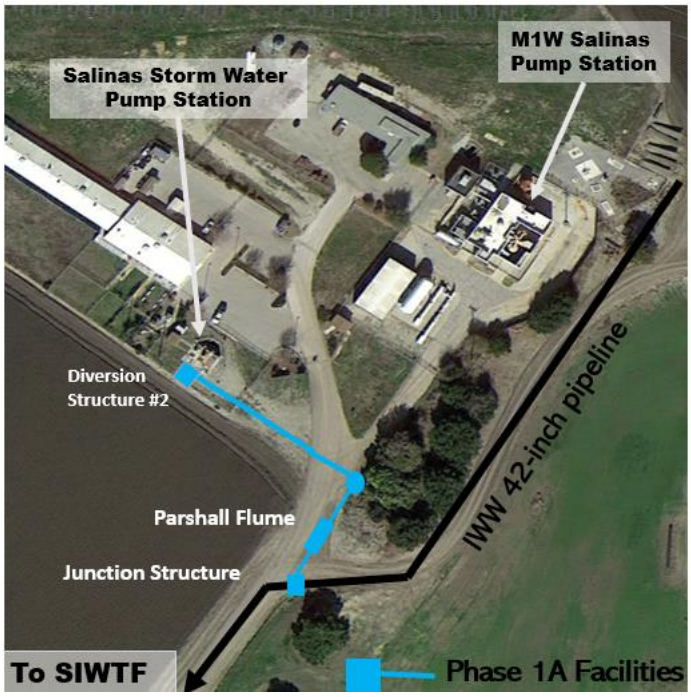
2.1 Description of Phases 1A and 1B

Phases 1A, Dry Weather Flow Diversion, and Phase 1B, Storage and Recovery, components are located near to each other and are both located on sites owned by the City of Salinas (City). Phase 1A included design and construction of remotely operated and metered diversion facilities from the City's storm water system to the City's Industrial Wastewater Collection and Conveyance System (IWCCS). Phase 1B implemented a physical connection (also controllable and metered) from the City's industrial wastewater system to M1W's wastewater collection system. Photographs of the construction site (before, during and after construction) are provided in Section 2.4.

The City's Industrial Wastewater Collection and Conveyance System (IWCCS) is a separate wastewater system that does not collect sewage, but instead collects process wastewater for treatment from an agricultural processing industrial area located on the southeastern portion of the city. The IWCCS receives industrial wastewater discharges and site storm water from approximately 25 agricultural-related industrial facilities, including predominantly produce washing and packaging facilities. The City conveys this industrial wastewater (also known as "agricultural wash water") to their treatment plant adjacent to the Salinas River about three miles southwest of the City known as the Salinas Industrial Wastewater Treatment Facility (IWTF).

In the past, the only inflow to the IWTF was agricultural wash water (industrial wastewater), plus minor amounts of storm water from those facilities and from direct precipitation. The recently completed Salinas Storm Water Phase 1A Project now enables storm water runoff from the southern part of Salinas to be a new source of inflow to the IWTF. The completed Phase 1A project includes two new storm water diversion structures with gates and automated controls, flow metering manhole (flume), and pipelines that allow diversion of up to 5,000 GPM of dry weather and storm water flows to the IWTF facilities using excess capacity in the City's 42-inch industrial wastewater conveyance pipeline. The Phase 1A enables the diversion of urban dry weather and storm water flows to the IWTF via a short pipeline segment to the 42-inch pipeline, when capacity is available. The maximum diversion that can be accommodated during a peak storm event is 15 million gallons per day (MGD). **Figure 3** shows the location of the Phase 1A components at the City's TP1 site. Photographs of the construction site (before, during and after construction) are provided in **Section 2.4.**

Figure 3. Phase 1A Component Site Location



Industrial wastewater will continue to consistently flow to the IWTF from November through April, when irrigation demand is low. During May-October, industrial wastewater can be sent directly to Monterey One Water's Regional Wastewater Treatment Plant (Regional Treatment Plant) for immediate treatment and recycling, or it could be diverted to the IWTF if the water does not meet water quality requirements or if additional flows for recycling are not needed.

Previously, the only outflows from the IWTF have been evaporation and percolation. The recently completed Salinas Storm Water Phase 1B project facilities enable M1W to convey water stored in the IWTF ponds

to the Regional Treatment Plant. The IWTF consists of an aeration pond for treatment of incoming water and three large percolation ponds that dispose of wastewater by percolation and evaporation. Additional disposal capacity during the high-inflow season (May-October) is provided by drying beds and by temporary Rapid Infiltration Basins (RIBs) located between the main ponds and the Salinas River channel.

All wastewater entering the facility must pass through a bar screen at the influent pumping station. The station includes three identical 4.0 MGD pumps that can handle the design peak flow of 6.8 MGD. Piping and valves allow direct pumping or gravity flow to the aeration lagoon, the percolation ponds, the drying beds, and infiltration basins. Subsequent flow within the facility is by gravity except for water pumped from Pond #3 to the disposal beds.

Treatment is achieved in a facultative aeration lagoon. Twelve 50-horsepower surface aerators keep the lagoon aerobic to at least a third of the water depth. Natural anaerobic decomposition then completes treatment with the breakdown of settled solids in the lower layer of the lagoon. The aeration lagoon was designed with a water surface of 13 acres and a depth of 10 feet. It was originally sized to hold an average design flow of 4.0 MGD for 10 days. With the increased freeboard requirements in the current permit and the reduce volume due to solids that have settled, retention time is estimated to be nine days.

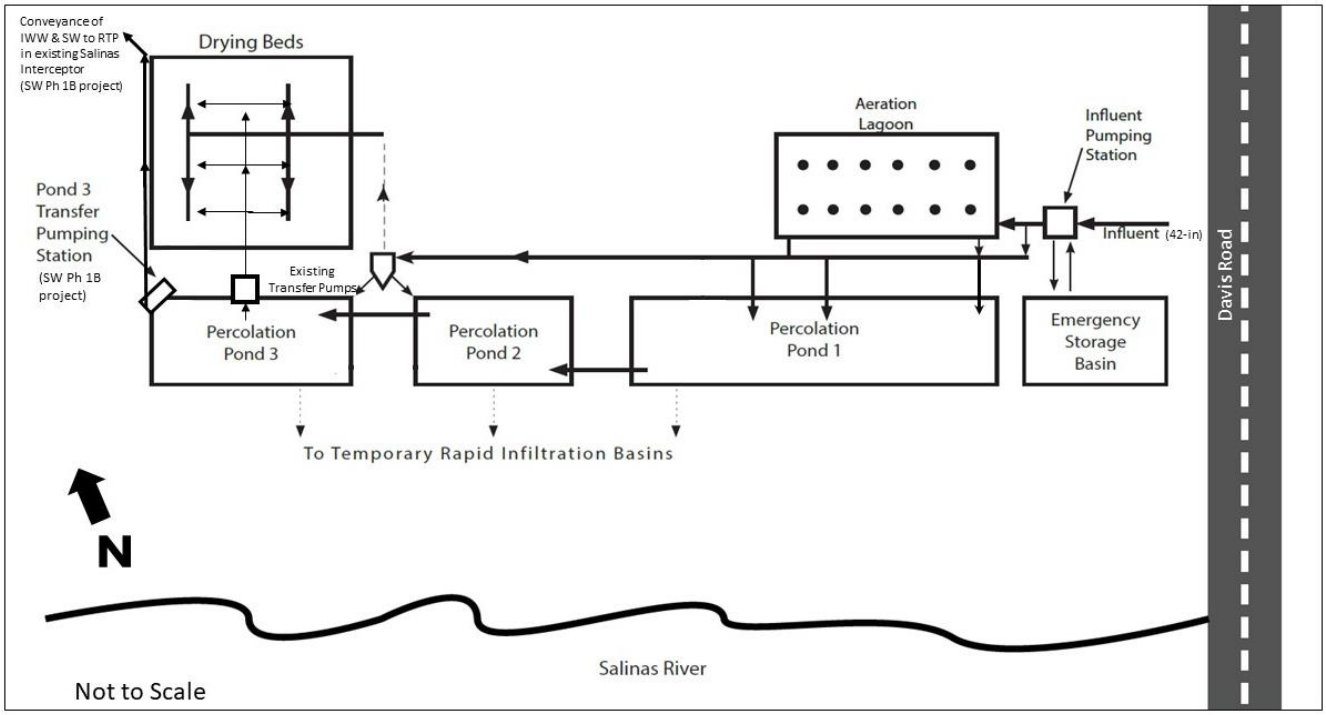
Treated effluent is disposed into one of three percolation/evaporation ponds in series and, if needed, water from Pond 3 is disposed into 54 infiltration drying beds. The total surface area of these ponds is 110 acres, and the drying beds contain 67 acres. Water depth in the ponds ranges from five to seven feet, when at peak capacity. Water levels are required to be kept low enough to maintain at least 24 inches of freeboard in all three ponds and in the aeration lagoon.

The 54 shallow disposal beds are alternately loaded with water for disposal by percolation and evaporation. When in use, the beds have a design disposal rate of 1.7 MGD. Percolation accounted for 80.8% of the loss of water from the ponds and evaporation accounted for 19.2%. The daily percolation rate for the three ponds was observed to be 4.67 AF/day with the contribution of Pond 3 being 1.54 AF/day of the combined rate.[3]

Water that percolates from the ponds either flows a short distance through the subsurface and emerges as seepage into the Salinas River or flows downward to the shallow aquifer that is present in some places at varying depths of up to 80 feet, above the regionally extensive Salinas Valley Aquitard. The shallow aquifer is not used directly as a source of water supply, but gradual downward percolation from the shallow aquifer is a minor source of recharge to the 180-foot aquifer, which is used for water supply in the Salinas region. A process flow diagram for the IWTF is provided in **Figure 4.**

[3] MPWMD, Salinas Industrial Ponds Percolation and Evaporation Technical Memorandum 2015-01, July 31, 2015.

Figure 4. Flow Diagram of IWTF



Urban storm water and industrial wastewater flows can now both be diverted to the IWTF for treatment through the existing aeration basin and then temporary storage during wet weather months (October-March), with subsequent return pumping (recovery) to the Regional Treatment Plant during dry months of each year. Based on historic data and flow projections, M1W determined that there is available pumping and conveyance capacity to accommodate additional flows in the Salinas Interceptor and within the Regional Treatment Plant. This surplus conveyance capacity is the result of a decline in municipal wastewater flows from the City of Salinas in recent years due to water conservation and other sewer system improvements. Recovery to the Regional Treatment Plant would occur with the use of the new Phase 1B Storage and Recovery Project's Pond 3 Pump Station (or "P3PS") which draws water from the most westerly percolation pond at the Salinas IWTF for conveyance through a new pipeline. The completed Phase 1B facility includes the pump station and a 24-inch pipeline that connects to M1W's 36-inch Salinas Force Main Interceptor pipeline to convey storm water stored at the ponds to the Regional Treatment Plant. These facilities are vital to maximize the yield of storm water and other source waters because it provides for winter water to be seasonally stored and recovered for use in summer water. Facilities constructed include:

- Pond 3 Pump Station, including:
  - a cast-in-place concrete wet well that can accommodate up to three submersible pumps[4] with slide gate
  - electrical building and electrical transformer
  - valves and flow meter in precast concrete vaults, and associated piping and appurtenances
  - associated electrical and instrumentation and controls (I&C)

[4] Currently, only one 470 HP pump is installed enabling up to approximately 7,000 gallons per minute (GPM). The pump station has been designed and built to accommodate two additional pumps for a firm capacity of 14,000 gallons per minute with one pump in stand-by.

- an 1,830 LF of 24-inch force main and including valves and precast concrete valve vault at the connection of the force main to M1W's 36-inch Salinas Interceptor

A site map for the Phase 1B component at the IWTF is provided in **Figure 5.** Photographs of the construction site (before, during and after construction) are provided in **Section 2.4**.

Figure 5. Phase 1B Component Site Location

Based on scenario analysis, the estimated Salinas urban storm water runoff that can be captured is presented in **Table 1** for three cases: 1) under a normal water year building a drought reserve, 2) under a normal water year with a full drought reserve, and 3) under a drought year starting with a full reserve. During a normal water year, a monthly average maximum (during the wettest month of the year, January) of approximately 0.55 MGD is expected as urban runoff to the IWTF ponds compared to 0.18 MGD during a drought year (Schaaf &Wheeler, October 2017). The amount of dry weather and storm runoff that is anticipated to be captured by the Phase 1A facilities is estimated to average 225 AFY (with a minimum of zero when precipitation does not occur). If industrial wastewater flows are being diverted directly to the Regional Treatment Plant during the dry irrigation season, additional capacity within the IWTF will be available to capture and store more storm water during the wet season.

The volume of water to be recovered from Pond 3 depends on the following factors which can vary greatly year to year and season to season, including:

- volume of existing municipal wastewater flows to the Regional Treatment Plant, including flow within the Salinas Interceptor,
- volume available within Pond 3 of the IWTF,
- recycled water demands (and associated cost reimbursement for treatment and operations/maintenance) triggering the need for additional influent flows, and
- the amount available and use of other new source waters, including direct diversion of the industrial wastewater at the Salinas Pump Station, and the Reclamation Ditch and Blanco Drain components of the Pure Water Monterey Source Waters Project) Salinas Storm Water Grant Phase 1-C, and 1-E, respectively.

The yield of storm water and dry weather runoff for recycling supplies due to implementation of the Phase 1B facilities is expected to range from 50 to 225 AFY during the irrigation season.[5]

Table 1. Salinas Storm Water Phases 1A and 1B Capture Estimates (in million gallons per day)

Month	Number of Days	Normal Water Year, Building a Drought Reserve		Normal Water Year, with a Full Reserve		Drought Year, Starting with a Full Drought Reserve	
		Urban runoff to ponds	Urban runoff to RTP	Urban runoff to ponds	Urban runoff to RTP	Urban runoff to ponds	Urban runoff to RTP
Jan	31	0.55	0.00	0.55	0.00	0.18	0.00
Feb	28	0.48	0.00	0.48	0.00	0.16	0.00
Mar	31	0.36	0.00	0.36	0.00	0.12	0.00
Apr	30	0.00	0.17	0.00	0.17	0.00	0.05
May	31	0.00	0.02	0.00	0.02	0.00	0.01
June	30	0.00	0.00	0.00	0.00	0.00	0.00
July	31	0.00	0.00	0.00	0.00	0.00	0.00
Aug	31	0.00	0.00	0.00	0.00	0.00	0.00
Sept	30	0.00	0.02	0.00	0.02	0.00	0.01
Oct	31	0.08	0.00	0.08	0.00	0.03	0.00
Nov	30	0.25	0.00	0.25	0.00	0.09	0.00
Dec	31	0.49	0.00	0.49	0.00	0.17	0.00
Range	---	0-0.55	0-0.17	0-0.55	0-0.17	0-0.18	0-0.05

Notes:
Reference: Sterbenz, Andrew, Schaaf & Wheeler. *"600 AFY RUWAP Recycled Water Urban Irrigation Use and Implications for CSIP Yields"* Memorandum. Addressed to Bob Holden, M1W, and Denise Duffy, Denise Duffy & Associates, Inc. October 23, 2017. Attachments Tables 8A through 8C.

2.2 Description of Phases 1C and 1E

Phases 1C and 1E were built together as one project, called the Pure Water Monterey New Source Waters Project; however, their location and operation are not interrelated, so they are described separately in this section. Photographs of the construction site (before, during and after construction) are provided in **Section 2.4**.

2.2.1 Phase 1C. Reclamation Ditch Pump Station and Pipeline

Excess summer flows in the Reclamation Ditch are primarily from urban runoff and agricultural subsurface tile drainage. Excess winter flows are primarily associated with storm water runoff. The purpose of the Reclamation Ditch Diversion Facility project is to capture this surplus water and convey it to M1W's Regional Treatment Plant where it will be treated and ultimately used to recharge the Seaside Groundwater Basin and/or used for crop irrigation using the CSIP system. The project consists of the Reclamation Ditch Diversion Facility and includes the following:

- An intake structure in the channel bottom of the Reclamation Ditch which includes a screen on the intake providing fish protection and preventing debris from entering the wet well and pumps.
- A level indicator for water level in the Reclamation Ditch to be used, when necessary, to modulate pumping to allow for adequate fish passage flows.
- An intake pipe to convey the diverted flow from the ditch to the Reclamation Ditch pump station.
- A pump station and force main to lift convey the diverted flow into the trunk sewer (City of Salinas Gravity Sewer).
- Pump station monitoring and control to be integrated into M1W's Supervisory Control and Data

[5] Schaaf & Wheeler, *Salinas River Inflow Impacts Report*, October 2015.

Acquisition (SCADA) system.

2.2.2 Phase 1E: Blanco Drain Pump Station and Pipeline.

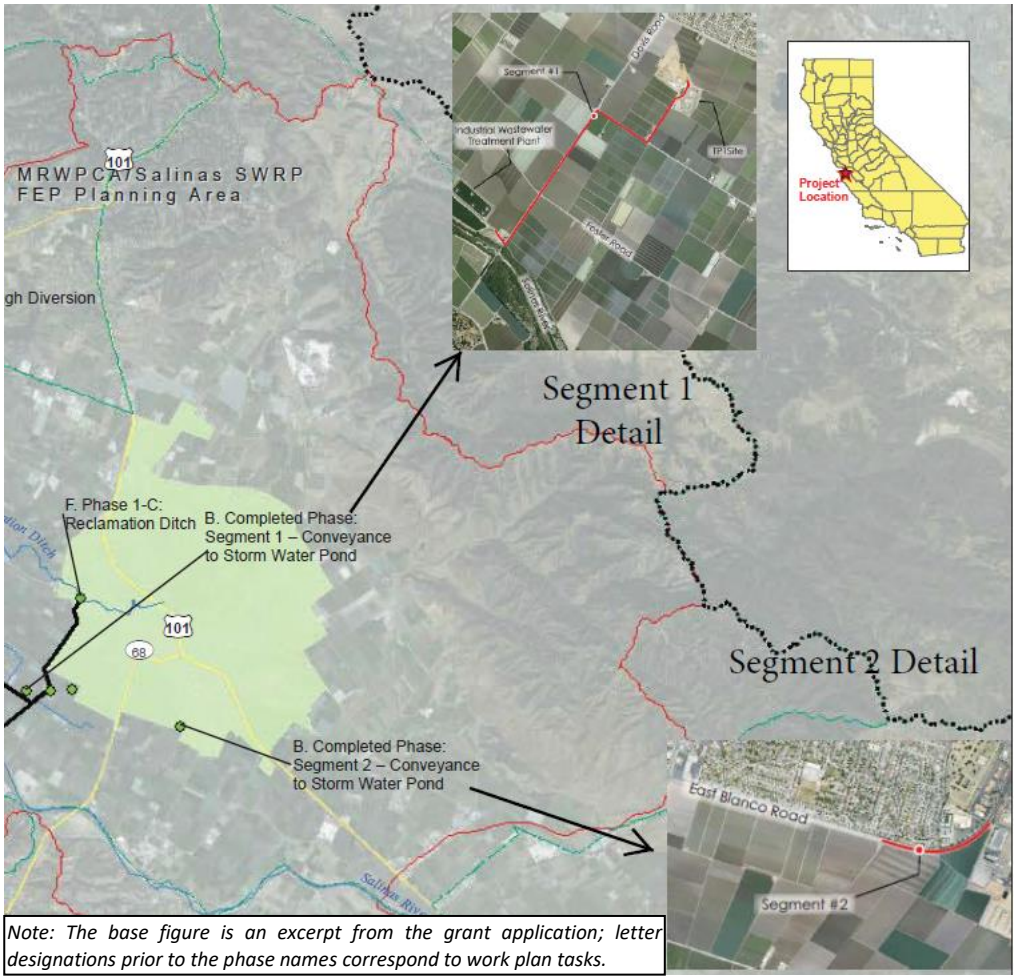
Excess summer flows in the Blanco Drain are primarily from subsurface tile drains installed in the surrounding agricultural fields coupled with surface irrigation runoff. Excess winter flows are primarily associated with storm water runoff. The purpose of the Blanco Drain Diversion Facility project is to capture this surplus water and pump it to M1W's Regional Treatment Plant site where it would be treated and ultimately used to recharge the Seaside Groundwater Basin and/or used for crop irrigation using the CSIP system. The project consisted of the Blanco Drain Pump Station and Conveyance Pipeline Facilities and included the following:

- An intake structure in the channel bottom of the Blanco Drain which includes a screen on the intake providing fish protection and preventing debris from entering the wet well and pumps.
- An intake pipe to convey the diverted flow from the Blanco Drain to the Blanco Drain Pump Station wet well.
- A pump station to route the diverted flow into the force main and lift the diverted flow to M1W's Regional Treatment Plant.
- Force main to convey the diverted flow to M1W's Regional Treatment Plant site.
- Pump station monitoring and control to be integrated into M1W's SCADA system.

2.2.3 Conveyance to Storm Water Ponds (Segments 1 and 2)

This component of the project was completed by the City of Salinas prior to commencing detailed design of the above four facilities and costs for this component were used as match. This component included consists of two segments of a conveyance line to increase the capacity of the industrial wastewater collection and conveyance system to enable industrial wastewater and storm water to flow by gravity to the IWTF. The project replaced two segments of existing pipeline that were in poor condition and leaking; the two segments are joined by existing pipeline in good condition and, thereby, allow full function of the conveyance. Segment 1 is 9,600 linear feet (LF) of 42-inch pipeline and Segment 2 is 2,300 LF of 36-inch pipeline. **Figure 6** shows the location of this component.

Figure 6. Location of Conveyance Pipelines (Segments 1 and 2)



Note: The base figure is an excerpt from the grant application; letter designations prior to the phase names correspond to work plan tasks.

2.3 Environmental Review and Permitting

An Environmental Impact Report (EIR) and relevant Addendum to the EIR for the Pure Water Monterey Project have been provided to the State Water Resources Control Board previously as part of the Grant Project submittal requirements. In addition, for the Grant Project Phase 1B, a more specific CEQA memorandum was prepared and submitted in February 2018. Construction permits and land entitlements were achieved in a timely way prior to construction of each component.

Operational permits included a M1W NPDES permit reissuance by the Regional Water Quality Control Board for the M1W Regional Treatment Plant in December 2018. In addition, on November 17, 2020, the RWQCB sent a letter notifying the City of the applicability and pending enrollment in General Waste Discharge Requirements Order No. R3-2004-0066 for Discharges of Fruit and Vegetable Processing Waste. They also transmitted a Revised Monitoring and Reporting Program (MRP) and indicated that the existing permit was applicable until it was terminated. The final sampling event for 2020 occurred on December 2, 2020. On December 11, 2020, the Board terminated the prior order (Waste Discharge Requirements Order No. R3-2003-0008) making the General Order and new MRP effective as of that date. The MRP accounted for the Salinas Storm Water Projects, Phase 1A and 1B.

2.4 Implementation Photographs

2.4.1 Dry Weather Flow Diversion – Phase 1A

Before construction

Site Funding Sign

Drilling Dewatering Wells

Relocation of Fiber Optic And Phone line Conduit

Excavation for Stormwater Diversion Structure

During construction

Electric Work at Salinas Pump Station

Diversion Structure IV Connection to 30-inch Pipeline

Diversion Structure #2 Rebar and concrete forms

Restrained Coupling

After construction

New Paving with Junction Structure in Background

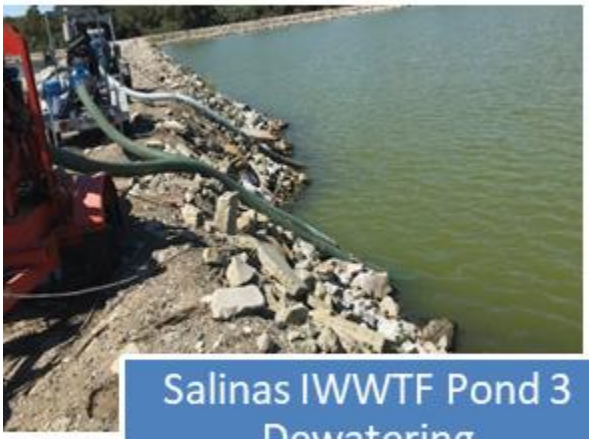
Panel and Antenna at Salinas IWPS

Main Stormwater Diversion Structure

Completed Diversion Structure II with Gate Actuators

2.4.2 Salinas Treatment Facility Storage and Recovery – Phase 1B

Before construction



Salinas IWWTF Pond 3 Dewatering

Pond 3 Drained

Setting up Stormwater BMP's and Endangered Species Act (ESA) Mitigation Measures

Stormwater BMP's, removing rip-rap

During construction

Start of pump station excavation in Pond #3

Placing concrete slurry subgrade for Pump Station wet well

CMU Block Electrical Building

View of Pump Station Structure up to Access Road Elevation

Hot-tap into 36" Force Main

Nearly Completed Hot-tap Valve Vault

Pump Station Wet Well

Installing 24" Force Main


Pouring Pump Station Walls


Valve Vault Rebar


Pump Station Wet Well


Installing 24" Force Main

After construction

PG&E Energization of Pump Station

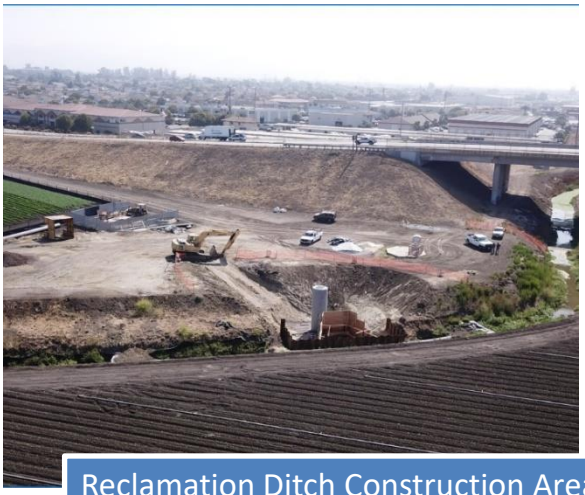
HVAC System installed and conduit stub-outs for Water Quality Analyzer Cabinet

Completed Pump Station with recently refilled Pond 3 in foreground

Water Quality Analyzer Cabinet ready for install

2.4.3 Reclamation Ditch – Phase 1C

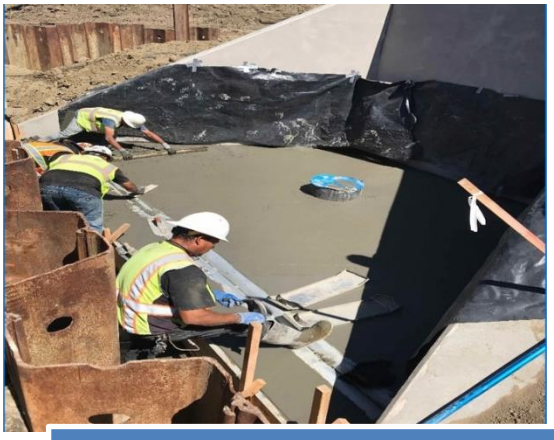
Before construction



Reclamation Ditch Construction Area

Weir manhole, Sidewall Form Rebar

Installation of Flow Bypass



Water Intake

During construction

Reclamation - Ditch - Setting PS Valve Vault

Reclamation Ditch - Pump Discharge Manifold

Reclamation - Ditch - Installation of Trash Rack & Fish Screen

Reclamation Ditch - Articulated Concrete Block Lining

Reclamation - Ditch - Installation of

Reclamation Ditch - Outside Wall Forms

Nearly complete Reclamation Ditch PS

Electrical Equipment Start - Up Testing

After construction

Reclamation - Ditch - Intake structure

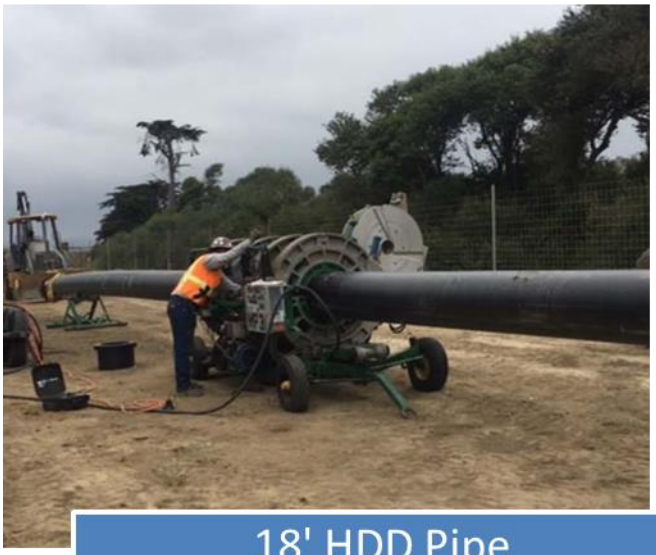
Reclamation Ditch - Backfill and Compaction

Electrical Equipment Start-Up

Substantially Complete Rec Ditch PS w/ Security Fencing

2.4.4 Blanco Drain – Phase 1E

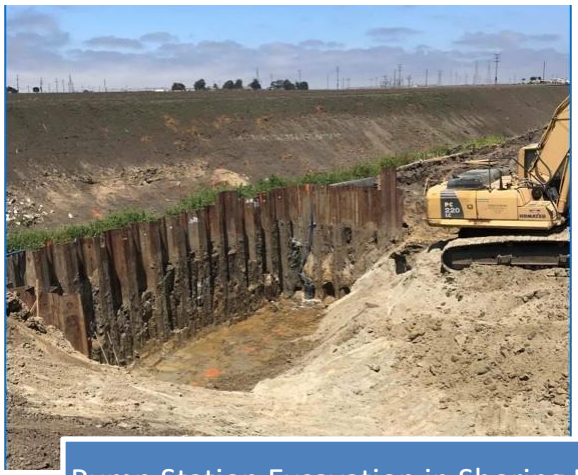
Before construction



18' HDD Pipe

Shoring

HDD Pull Back Operations



Pump Station Excavation in Shoring Box

Photos during construction

Backfill Around Pump Station Wet Well & Sheet Removal

Blanco Drain- Pump Station Site From South Bank of Blanco Drain

Blanco Drain - Wet Well Ready for Wall Pour

Blanco Drain - Wall Forms & Rebar Inside of Wet well

After construction

Coating Work and Site Photo - Westerly View

Post-By-Pass Removal Northerly View

Post-By-Pass Removal Flow - Southerly View

Surge Tank Appurtenant Installation

2.5 Project Cost

The total project cost was $22,420,165, including $10,000,000 grant funds and $12,420,165 local match. The source of funds for the project was the Prop1 Stormwater Grant program. Matching funds were provided by the City of Salinas and Monterey One Water. Table 2 contains a summary of costs for each budget category.

A deviation request was submitted on June 7, 2019. Due to lack of adequate qualifying match expenses, M1W requested a reduction of match funds by $122,682 (a change from $12,686,941 to $12,564,259) on June 7, 2019. The change still provided for more than a 1:1 match as required by the grant program. M1W requested a shift in budget from Construction to Planning/Engineering due to the additional $75,000 in design costs for M1W to redesign and rebid the projects to meet budget constraints. M1W also proposed to shift budget from Phases 1C and 1E to Phases 1A and 1B. In response to the deviation request, the SWRCB amended the grant agreement on June 18, 2019.

Table 2. Budget Summary

Prop 1 STORMWATER GRANT PROGRAM

Applicant: Monterey One Water **FAAST PIN: 36506**

Project: M1W & City of Salinas Storm Water Collection, Conveyance, Treatment & Reuse Project for the Salinas Region

	Estimated		Actual	
	Proposition 1 Grant	**Local Match**	**Proposition 1 Grant**	**Local Match**
1. Direct Project Administration Costs	**$83,126**	**$120,614**	**$79,346**	**$25,961.10**
B. Completed Phase: Segment 1 & 2 - Conveyance to SW Pond	$0	$120,614	$0	$0
H. Grant Administration and Other Related Costs	$83,126	$0	$79,346	$25,961.10
2. Planning/Design/Engineering/ Environmental	**$658,000**	**$946,000**	**$652,487**	**$585,198**
B. Completed Phase: Segment 1 & 2 - Conveyance to SW Pond	$0	$0	$0	$0
E. Phase 1-B: Salinas Treatment Facility Storage and Recovery	$658,000	$0	$652,487	$0
F. Phase 1-C: Reclamation Ditch	$0	$222,200	$0	$117,040
G. Phase 1-E: Blanco Drain (Pump Station and Pipeline)	$0	$723,800	$0	$468,158
3. Construction/Implementation	**$9,258,874**	**$11,497,645**	**$9,268,168**	**$11,809,006**
B. Completed Phase: Segment 1 & 2 - Conveyance to SW Pond		$3,822,359	$0	$3,822,359
B. Completed Phase: Segment 1 & 2 - Conveyance to SW Pond		$58,432	$0	$58,432
D. Phase 1-A: Dry Weather Flow Diversion Project Construction	$1,809,651		$1,866,186	$0
E. Phase 1-B: Salinas Treatment Facility Storage and Recovery	$5,101,004		$5,097,580	$0
F. Phase 1-C: Reclamation Ditch	$1,700,850	$317,000	$1,718,402	$336,944
G. Phase 1-E: Blanco Drain (Pump Station and Pipeline)	$647,369	$7,299,854	$586,000	$7,591,271
4. Monitoring/Performance	**$0**	**$0**	**$0**	**$0**
5. Education/Outreach	**$0**	**$0**	**$0**	**$0**
Grand Total	**$10,000,000**	**$12,564,259**	**$10,000,000**	**$12,420,165**

2.6 Schedule

Table 3 summarizes the proposed and actual dates for the completion of the key phases of implementation of the Grant Project. All projects were completed by December 31, 2020, and a Final Disbursement request will be submitted by April 30, 2021. **Appendix A** provides the detailed schedule for deliverables associated with the Grant Project Scope of work

Table 3. Grant Project Schedule Summary

Task	Proposed Date	Actual Date	Delay (and how addressed)
Permitting	February 28, 2018	February 28, 2018	
Planning, Design, and Engineering	November 30, 2017 – February 28, 2018	November 9, 2017 – May 25, 2018	Deviation request was submitted to the State on December 6, 2017, and revised May 2018; an amended agreement was issued on June 18, 2019
Construction Commenced	July 2019 (Phases 1A & 1B) November 2017 (Phases 1C &1E)	July 2019 (Phases 1A & 1B) November 2017 (Phases 1C & 1E)	
Construction Complete	December 31, 2020	August 26, 2020 (Phases 1C & 1D) December 31, 2020 (Substantial completion of Phase 1A & 1B)	
As-built drawings and O&M Manuals	December 31, 2020	December 31, 2020; updated January 6, 2021	Updated information submitted one week after due date
Final Disbursement Request Due	April 30, 2021		

3.0 Evaluation and Assessment

3.1 Performance Evaluation and Assessment Plan

The Revised Performance Evaluation and Assessment Plan (PEAP) is provided in **Appendix B** (changes since the adopted PEAP in 2018 are based on "as-built" components and associated operational considerations). The performance metrics or targets to evaluate project success are provided in **Table 4**. Additional data charts, tables, and M1W's SCADA system screenshots and reports are provided in **Appendix C**.

Table 4. Performance Targets for Salinas Storm Water Grant Project

Project Goals (What are you measuring?)	Measurement Tools and Methods (How are you measuring it?)	Targets
Goal 1: Increase storm water capture using Grant Project facilities for storage and/or delivery to M1W RTP for treatment and reuse for agricultural irrigation and/or groundwater injection and reduction in storm water runoff from the City of Salinas urban areas	**Tools:** Flow measuring devices, including Parshall Flume for gravity diversions (Phase 1-A) and magnetic flow meters for pressurized. force mains (Phases 1-B, 1-C, and 1-E) **Method***:* Collect data from the Parshall flumes and flow meters via on-line SCADA and historian database.	3,900 acre-feet per year of storm water captured under the maximum diversion conditions, and 2,500 AFY in minimum flow conditions. Reuse of the diversions will include between 726 and 1,654 AFY.
Goal 2: Reduce pollutant loads to surface waters using Grant Project facilities for storm water diversion and/or trash removal	**Tools:** Water quality sample collection at each point of diversion and measurement of trash removed (photograph and volume estimation) from trash racks located at diversion locations. **Method***:* Use publicly available water quality sampling results, including samples for Nitrate + Nitrite as N monitored by the City of Salinas as required for the MS4 NDPES storm water permit (EPA Method #353.2 with reporting limit of 0.1 mg/L) and by the Cooperative Monitoring Program (Standard Method 4500-NO3-E with reporting limit of 0.02 to 0.05 mg/L); trash removed from screens and racks at each diversion will be photographed and the volume estimated.	Removal of 375,000 lbs. of nitrate + nitrite as nitrogen (N) per year and five (5) cubic yards of trash (both previously carried by the storm water to the river) would be diverted to the IWTF because of Project elements.

3.2 Volume of Diversions for Capture and Reuse (2020)

M1W meters the flow that is diverted to the wastewater systems as described in section 4.2 of the PEAP.M1W has confirmed that the physical facilities are complete, and the SCADA system is recording the flows diverted:

- Phase 1A was successfully operated for 1.5 hours on February 2, 2021 during a moderately sized storm during which, approximately 291,912 gallons of urban storm water runoff was diverted to the IWTF for treatment and discharge to percolation/evaporation ponds (See Appendix C, Flowrate of Storm Water Diverted to Salinas IWTF).

- Completion of start-up, testing and commissioning of the Phase 1B Pond 3 Pump Station took place from 11/30 through 12/2. Contractor (Mountain Cascade Inc.) and their System Integrator (Telstar) worked with M1W's SCADA Programmer to confirm successful radio communication between Pond 3 Pump Station and the M1W Control Room and demonstrated successful operation of the facility through SCADA. During this time, 1.37 million gallons was diverted to M1W. Work on data collection/historization through SCADA continued through December and January. An additional 0.250 million gallons was diverted on 2/26/21. During these testing periods a total of approximately 1.62 million gallons (5 AF) of treated industrial wastewater and storm water were diverted from the IWTF Pond 3 to the Regional Treatment Plant for further treatment and reuse.

- The relevant resultant volumes by month for Phase 1C, Reclamation Ditch, and Phase 1E, Blanco Drain, are provided in **Tables 5** and **6,** respectively.

Volumes were diverted by the Phase 1B, 1C and 1E while Advanced Water Purification Facility was operating; therefore, all diverted volumes were recycled for beneficial reuse through groundwater injection into the Seaside Groundwater Basin and subsequent extraction for potable supply.

Table 5. Reclamation Ditch (Phase 1C) Pump Station Diversion Volumes (2020)

Month	in cubic feet	in acre-feet	in gallons
January	0	0.00	0
February	0	0.00	0
March	1,115	0.03	8,339
April	0	0.00	0
May	23	0.00	171
June	0	0.00	0
July	227	0.01	1,700
August	0	0.00	0
September	893	0.02	6,679
October	0	0.00	0
November	0	0.00	0
December	24,654	0.57	184,428
Total	**26,912**	**0.62**	**201,315**

Source: M1W SCADA Historian, Generated by Tom Kouretas, PE, January 14, 2021.

Table 6. Blanco Drain (Phase 1E) Pump Station Diversion Volumes (2020)

Month	in cubic feet	in acre feet	in gallons
January	20,862	0.50	156,062
February	4,208	0.10	31,480
March	6,752	0.20	50,511
April	2,042	0.00	15,277
May	6,149,689	141.20	46,002,868
June	8,635,821	198.30	64,600,425
July	3,707,292	85.10	27,732,473
August	46	0.00	343
September	4,722,523	108.40	35,326,923
October	187,236	4.30	1,400,621
November	1,551,884	35.60	11,608,895
December	1,510,607	34.70	11,300,128
Total	**26,498,963**	**608.30**	**198,226,005**

Source: M1W SCADA Historian, Generated by Tom Kouretas, PE, January 15, 2021.

Because only Phases 1C and 1E operated substantially in 2020 and early 2021 and they only operated for a portion of the year, the Grant Projects did not achieve the target diversions of capture and reuse identified in Table 4. Only 614 acre-feet have been diverted for capture and reuse to date. With completion of the Phases 1A and 1B portions of the Grant Project in December 2020, and with the upcoming full year of operation of all phases, M1W anticipates meeting the targets in 2021.

3.3 Water Quality Data

The California Environmental Data Exchange Network (CEDEN) is an on-line data base for chemical, field data for habitat, taxonomy of species, organism tissue data, toxicity to organisms and bioassessment monitoring data.[6] Collection of data regarding storm water capture/diversion will be collected on an on-going basis as part of project operation using SCADA infrastructure. Therefore, monitoring data regarding water supply benefits will be collected and data summaries prepared on an annual basis in conjunction with review of CEDEN.

The project used data for three specific storm water infrastructure and surface water monitoring sites to characterize the quality of water that would be diverted for treatment at either the IWTF or the Regional Treatment Plant. Phase 1B only diverts *treated* storm water mixed with treated industrial wastewater to the RTP in lieu of evaporation or percolation into the Salinas Valley perched, shallow aquifer system. This report does not provide or utilize water quality of the Pond 3 water at the IWTF because use of that water insignificantly reduces nitrogen pollutant loads.

- For Phase 1A (diversion of City urban storm runoff to the IWTF rather than to the Salinas River), water quality data used was from grab samples of storm water taken at the City's MS4 NPDES monitoring site at the City's property on Hitchcock Road, Salinas (referred to as "309U19"). See **Figure 7**.
- For Phase 1C (diversion of dry weather and storm water from the Reclamation Ditch to the RTP rather downstream waters), water quality data used was from grab samples at the City's MS4 NPDES receiving water monitoring site on the Reclamation Ditch downstream of urban discharges, the most representative site (referred to as "309ALD"). See **Figure 7**.

[6] http://www.ceden.org

- For Phase 1E (diversion of dry weather and storm water from the Blanco Drain to the RTP rather to the Salinas River), water quality data used was from grab samples at the Cooperative Monitoring Program's monitoring site was the most representative site (referred to as "309BLA"). This site is immediately downstream of the Blanco Diversion pump station shown on **Figure 1.**

The methods for sampling at each of the site are provided in the reports submitted by the City of Salinas and by the Cooperative Monitoring Program, including their respective conformance of monitoring with Quality Assurance Project Plans and any explanation of deviations. These documents and complete water quality data can be provided, if requested.

Additional data from the City of Salinas and from CEDEN was reviewed as part of the 2021 update to modify representative water quality for the load reduction calculation.

3.4 Load Reduction Calculation (2020)

To calculate the load reduction, monthly water quality data for each of the sampling points listed above was averaged and monthly diversion volumes were multiplied by concentrations to get the weight of the nitrate + nitrate as nitrogen (N) in pounds per month. The total annual load reductions were then calculated as the sum of the monthly load reduction volumes. Phase 1A diversions resulted in negligible load reduction of nitrite + nitrate as N because only 292,000 gallons were diverted during the initial months of operation and typically, wet season urban runoff contains only very low nitrite + nitrate as N. Load reduction to surface waters attributable to Phase 1B diversions can only be modeled and currently those are negligible. The results of the calculation are provided in **Table 7** for Phase 1C, the Reclamation Ditch, and **Table 8** for Phase 1E, the Blanco Drain.

Figure 7. Water Quality Sampling Locations

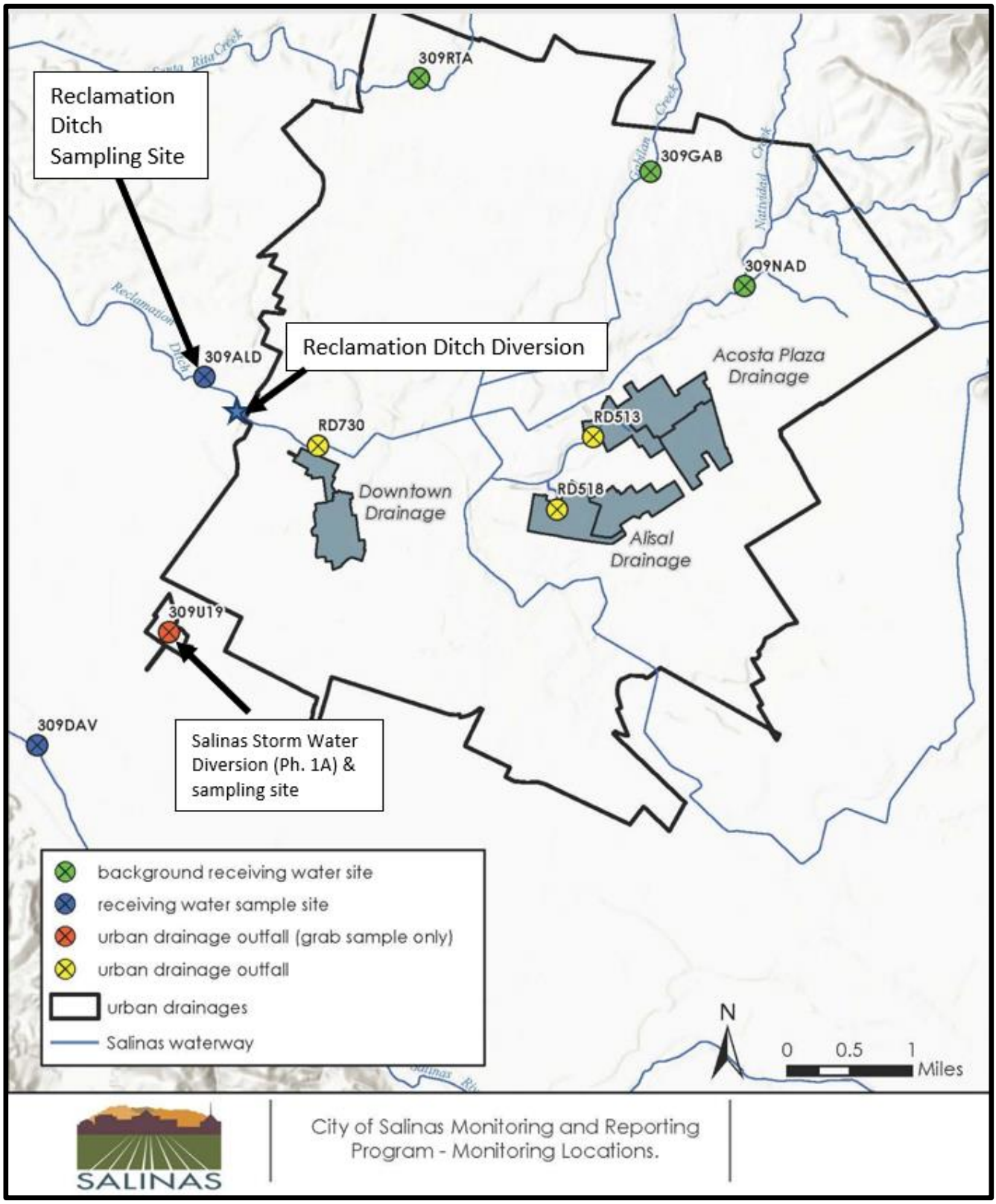


Table 7. Load Reduction Calculation for Reclamation Ditch Diversions

	Concentration of Nitrate + Nitrite as N (mg/L) (monthly average Jan 2013 - Sept. 2019)	Concentration of Nitrate + Nitrite as N (pounds/ gallon)	Volume Diverted from Reclamation Ditch (gallons)	Nitrate+nitrite as N Load Reduction to downstream waterbodies (pounds)
Jan	9.83	0.00008	-	0.00
Feb	13.25	0.00011	-	0.00
Mar	6.13	0.00005	8,339	0.43
Apr	20.43	0.00017	-	0.00
May	37.50	0.00031	171	0.05
Jun	22.00	0.00018	-	0.00
Jul	11.63	0.00010	1,700	0.17
Aug	22.00	0.00018	-	0.00
Sept	11.87	0.00010	6,679	0.66
Oct	1.57	0.00001	-	0.00
Nov	3.53	0.00003	-	0.00
Dec	2.74	0.00002	184,428	4.21
Total			**201,316**	**5.52**

Source: CEDEN data accessed Jan.7, 2021 (www.ceden.org/central_coast_data_catalog.shtml)

Table 8. Load Reduction Calculation for Blanco Drain Diversions

	Concentration of Nitrate + Nitrite as N (mg/L) (monthly average btwn Jan 2013 - Sept. 2019)	Concentration of Nitrate + Nitrite as N (pounds/ gallon)	Volume Diverted from Blanco Drain (gallons)	Nitrate+nitrite as N Load Reduction to Salinas River (pounds)
Jan	74.9	0.00063	156,062	97.62
Feb	67.3	0.00056	31,480	17.67
Mar	71.8	0.00060	50,511	30.25
Apr	58.5	0.00049	15,277	7.46
May	65.1	0.00054	46,002,868	25,002.47
June	72.5	0.00061	64,600,425	39,108.83
July	66.4	0.00055	27,732,473	15,361.57
Aug	73.3	0.00061	343	0.21
Sept	70.8	0.00059	35,326,923	20,864.02
Oct	59.0	0.00049	1,400,621	689.95
Nov	62.0	0.00052	11,608,895	6,004.42
Dec	62.2	0.00052	11,300,128	5,862.01
Total			**198,226,005**	**113,046**

Source: CEDEN data accessed Jan.7, 2021 (www.ceden.org/central_coast_data_catalog.shtml)

3.5 Volume of Diversions for Capture and Reuse (2021)

M1W meters the flow that is diverted to the wastewater systems as described in section 4.2 of the PEAP. In 2021, all the facilities were operating, and the SCADA system recorded the flows diverted as described below.

In 2021, Phase 1A was successfully operated for 1.5 hours on February 2, 2021, during a moderately-sized storm during which, approximately 291,912 gallons of urban storm water runoff was diverted to the IWTF for treatment and discharge to percolation/evaporation ponds. In addition, dry weather urban runoff was diverted to the IWTF periodically between May 19th and Sept 2nd. The following provides the 2021 summary of storm water and dry weather runoff diversion volumes.

Table 9. Dry Weather Flow Diversion (Phase 1A) Volumes (2021)

	cubic feet	AC-FT	gallons
January	-	0.000	-
February	39,023	0.896	291,912
March	-	0.000	-
April	-	0.000	-
May	1,986	0.046	14,860
June	7,557	0.173	56,530
July	4,724	0.108	35,340
August	1,281	0.029	9,580
September	5,367	0.123	40,150
October	-	0.000	-
November	-	0.000	-
December	-	0.000	-
Total	**59,939**	**1.38**	**448,372**

Source: M1W SCADA Historian, Generated by Tom Kouretas, 2/7/202

In 2021, Phase 1B was successfully operated in February 2021, and periodically, between July 21st and August 20th. The following provides the 2021 summary of Pond 3 water diverted to the Regional Treatment Plant.

Table 10. Storage and Recovery (Phase 1B), Pond 3 Pump Station, Diversion Volumes (2021)

	cubic feet	in acre-feet	gallons
January	-	0.000	-
February	33,437	0.768	250,130
March	-	0.000	-
April	-	0.000	-
May	-	0.000	-
June	-	0.000	-
July	409,630	9.404	3,064,250
August	30,772	0.706	230,190
September	-	0.000	-
October	-	0.000	-
November	-	0.000	-
December	-	0.000	-
Total	**473,840**	**10.88**	**3,544,570**

Source: M1W SCADA Historian, Generated by Tom Kouretas, 2/7/2022

In 2021, Phase 1C, Reclamation Ditch was successfully operated periodically throughout the year as shown in the following table

Table 11. Reclamation Ditch (Phase 1C) Pump Station Diversion Volumes (2021)

	cubic feet	acre-feet	gallons
January	16	0.00	0
February	-	0.00	0
March	-	0.00	0
April	-	0.00	0
May	186	0.00	0
June	36,334	0.83	271760
July	-	0.00	0
August	-	0.00	0
September	37,813	0.87	282513
October	223,515	5.13	1672267
November	232,313	5.33	1738089
December	-	0.00	0
Totals	**530,177**	**12**	**3,964,629**

Source: M1W SCADA Historian, Generated by Tom Kouretas, 1/27/2022

In 2021, Phase 1E, Blanco Drain was successfully operated periodically throughout the year as shown in the following table

Table 12. Blanco Drain (Phase 1E) Pump Station Diversion Volumes (2021)

	cubic feet	acre-feet	gallons
January	33	0.00	-
February	38	0.00	-
March	1,057,276	24.30	7,918,179
April	3,196,174	73.40	23,917,463
May	7,602,848	174.50	56,861,000
June	5,737,494	131.70	42,914,577
July	7,106,759	163.10	53,146,298
August	6,379,999	146.50	47,737,172
September	1,300,714	29.90	9,742,945
October	1,211,744	27.80	9,058,658
November	5,276	0.10	32,585
December	5	0.00	-
Totals	**33,598,359**	**771.30**	**251,328,876**

Source: M1W SCADA Historian, Generated by Tom Kouretas, 1/27/2022

Volumes diverted to the Regional Treatment Plant by the Phase 1B, 1C and 1E while Advanced Water Purification Facility was operating; therefore, all diverted volumes were recycled for beneficial reuse through groundwater injection into the Seaside Groundwater Basin and subsequent extraction for potable supply.

3.6 Load Reduction Calculation (2021)

To calculate the load reduction, monthly water quality data for each of the sampling points listed above was averaged and the 2021 monthly diversion volumes were multiplied by concentrations to get the weight of the nitrate + nitrate as nitrogen (N) in pounds per month. The total annual load reductions were then calculated as the sum of the monthly load reduction volumes. The results of the 2021 calculation are provided in **Table 13** for Phase 1A, the Salinas Storm Water Diversion, **Table 14** for Phase 1C, the Reclamation Ditch, and **Table 15** for Phase 1E, the Blanco Drain.

Table 13. Load Reduction Calculation for Salinas Urban Storm Water Diversions (2021)

	Concentration of Nitrate + Nitrite as N (mg/L) (monthly average Jan 2013 - Sept. 2019)	**Concentration of Nitrate + Nitrite as N** (pounds/ gallon)	**Volume Diverted from Salinas Urban Runoff to Salinas River Watershed** (gallons)	**Nitrate+nitrite as N Load Reduction to downstream waterbodies** (pounds)
Jan	0.25	0.00000	-	-
Feb	0.55	0.00000	291,912	1.34
Mar	0.44	0.00000	-	-
Apr	0.40	0.00000	-	-
May	8.14	0.00007	14,860	1.01
Jun	8.14	0.00007	56,530	3.84
Jul	8.14	0.00007	35,340	2.40
Aug	8.14	0.00007	9,580	0.65
Sept	8.14	0.00007	40,150	2.73
Oct	8.14	0.00007	-	-
Nov	1.60	0.00001	-	-
Dec	0.70	0.00001	-	-
Total			**448,372**	**12**

Source: Water Quality Data from City of Salinas MS4 NPDES Permit Monitoring Data; M1W SCADA Historian, Generated by Tom Kouretas, PE, February 7, 2022.

Table 14. Load Reduction Calculation for Reclamation Ditch Diversions (2021)

	Concentration of Nitrate + Nitrite as N (mg/L) (monthly average Jan 2013 - Sept. 2019)	**Concentration of Nitrate + Nitrite as N** (pounds/ gallon)	**Volume Diverted from Reclamation Ditch** (gallons)	**Nitrate + Nitrite as N Load Reduction to downstream waterbodies** (pounds)
Jan	9.83	0.00008	0	0.00
Feb	13.25	0.00011	0	0.00
Mar	6.13	0.00005	0	0.00
Apr	20.43	0.00017	0	0.00
May	37.50	0.00031	0	0.00
Jun	22.00	0.00018	271760	49.90
Jul	11.63	0.00010	0	0.00
Aug	22.00	0.00018	0	0.00
Sept	11.87	0.00010	282513	27.98
Oct	1.57	0.00001	1672267	21.91
Nov	3.53	0.00003	1738089	51.26
Dec	2.74	0.00002	0	0.00
Total			**3,964,629**	**151**

Source: Concentration from CEDEN data pulled Jan.7, 2021 from http://www.ceden.org/central_coast_data_catalog.shtml; Diversion Volumes [Tom Kouretas, Jan. 27, 2022 from M1W SCADA]

Table 15. Load Reduction Calculation for Blanco Drain Diversions (2021)

	Concentration of Nitrate + Nitrite as N (mg/L) (monthly average btwn Jan 2013 - Sept. 2019)	**Concentration of Nitrate + Nitrite as N** (pounds/ gallon)	**Volume Diverted from Blanco Drain** (gallons)	**Nitrate+nitrite as N Load Reduction to Salinas River** (pounds)
Jan	74.9	0.00063	-	-
Feb	67.3	0.00056	-	-
Mar	71.8	0.00060	7,918,179	4,742.55
Apr	58.5	0.00049	23,917,463	11,673.92
May	65.1	0.00054	56,861,000	30,903.85
June	72.5	0.00061	42,914,577	25,980.31
July	66.4	0.00055	53,146,298	29,438.79
Aug	73.3	0.00061	47,737,172	29,216.94
Sept	70.8	0.00059	9,742,945	5,754.17
Oct	59.0	0.00049	9,058,658	4,462.32
Nov	62.0	0.00052	32,585	16.85
Dec	62.2	0.00052	-	-
Total			**251,328,876**	**142,190**

Source: Concentration from CEDEN data pulled Jan.7, 2021 from http://www.ceden.org/central_coast_data_catalog.shtml; Diversion Volumes [Tom Kouretas, Jan. 27, 2022 from M1W SCADA]

4.0 Conclusions and Recommendations

This section provides the following as requested:

- describes whether each goal in the PEAP has been met, and if it has not, the potential cause or causes of the outcome.
- describe lessons learned.
- describe the way this Project has prevented or reduced pollution and demonstrated desired environmental results.
- explain the potential causes of continual postings of exceedances and the objective(s) of the Project that have not been met.
- describe the extent of outreach that has been conducted.
- explain what additional steps should be taken to improve the water quality of the Project area.
- describe how similar efforts could be utilized within the Project area, as well as in other watersheds.
- describe other plans to further promote the results of the project to achieve additional implementation.

New green text in sections 4.1 and 4.6 address requests in a March 14, 2022 email from the State Water Resources Control Board, Bridgette Holliway, to Mike McCullough, including:

- an explanation of why the targets were not met (Section 4.1).
- a corrective action plan to explain how the issues will be resolved (section .
- a timeline of the steps necessary to improve reaching the targets.

4.1 Achieving Goals

Goal 1: Storm water capture for treatment and reuse

M1W has now successfully operated all grant-funded components. M1W has diverted storm water from the City's urban storm water collection system to the IWTF (Phase 1A) and from Pond 3 (Phase 1B), the Reclamation Ditch (Phase 1C), and the Blanco Drain (Phase 1E), including over 200 million gallons of storm water and dry weather runoff, to the RTP. The water diverted to the RTP was able to be treated at the RTP and then provided as influent to the Advanced Water Purification Facility at the RTP. Because neither full operational production of the Advanced Water Purification Facility nor demand/funding from irrigation project stakeholders have occurred to date, the full-scale diversions, pollutant load reductions, and reuse envisioned to be possible using the Grant Project facilities has not occurred to date. Starting in 2021, M1W anticipates increased demand for diversion of the surface flows from the Grant components for reuse.

In 2021, M1W increased the cumulative volume of diversions to over 457 million gallons (just under ½ billion gallons), 29% increase in the amount diverted compared to the first year of operating the projects. A summary of the total diversions by year is provided below.

Table 16. Summary of Diversion Volumes

2020	
Reclamation Ditch Diversion (Ph 1C)	201,315
Blanco Drain Diversion (Ph 1E)	198,226,005
2021	
Salinas Urban Storm Water (Ph 1A)	448,372
Pond 3 Pump Station (incl. SW & treated IWW)(Ph 1B	3,544,570
Reclamation Ditch Diversion (Ph 1C)	3,964,629
Blanco Drain Diversion (Ph 1E)	251,328,876
Total for 2020 and 2021	**457,713,767**
Total storm water & dry weather runoff reused:	**454,169,197**

Explanation for Why Targets Were Not Met

The 2021 diversions and the associated pollutant load reductions were lower than the targets listed in Table 4 for the following reasons:

- Precipitation in Monterey County throughout 2021 was extremely low. Some parts of Monterey County were classified as a critically dry water year while others were classified as a dry water year, (without storms there is no stormwater to capture), [see Appendix E],
- There were lower demands for recycled water overall because the Salinas River Diversion Facility was operational for most of the growing season and thus excess secondary effluent water was available for both recycling facilities for much of the year (In other words, diverting more new source waters would only increase the amount discharged to the bay, thus making any additional new source water not able to be reused),
- Pure Water Monterey was not yet producing at its expected average capacity until December of 2021,
- Monterey County Water Resources Agency (MCWRA) is not participating in funding the diversion and treatment of these new source waters so they cannot currently be diverted for beneficial reuse for agricultural land within the Castroville Seawater Intrusion Project area, and
- MCWRA's SWRCB water rights permit conditions for Reclamation Ditch (Phase 1C) and Blanco Drain (1E) limit the ability for M1W to capture flows using these facilities.

Future Conditions and M1W Actions to Increase Diversion of Storm Water and Dry Weather Runoff

In 2022, M1W expects increased reuse and load reduction due to severe drought conditions and lack of water from the Salinas River Diversion Facility for Castroville Seawater Intrusion Project (CSIP). MCWRA has indicated an interested in negotiating agreements for joint funding of operations and maintenance costs. A three-way agreement is being negotiated between M1W, the City, and Salinas with objectives to enter the agreement by May 2022.

Starting in 2023, Marina Coast Water District will be using more wastewater for reuse for meeting irrigation demands within their service area, requiring MCWRA and M1W to replace the sources of supply that they will be using.

Although droughts and dry weather and large storms have become more severe and seemingly more frequently, climate models, including the states' CalAdapt, do not predict a severe downward trend in average annual

precipitation in Monterey County. See Appendix E. Therefore, scientists do not predict the drought conditions in Monterey County in the winters of 2020 - 2021 and 2021 – 2022 to occur consistently every year.

In addition to the above background conditions, M1W is working to adopt an interruptible rate that will be applicable to reuse of storm water such that funds will be available to increase M1W staff resources and for electricity and materials to operate the diversions more consistently. M1W is also working diligently toward a long-term agreement with the City of Salinas and MCWRA to increase the diversion and use of IWW effluent in Pond 3 for beneficial reuse, to enable greater capture and storage of storm water at the City's IWTF.

Finally, M1W is diligently pursuing the expansion of the Pure Water Monterey Project with a planned completion date of 2024. In particular, the Expanded Pure Water Monterey Project will increase winter, early spring, and late fall recycling using the Advanced Water Purification Facility additional capacity (for example, from an average production of 3.5 to 6.5 million gallons or more in the winter months). This project will increase the ability for M1W to reuse storm water because additional influent is needed to meet project needs when the Expanded Project is operating.

Goal 2: Reduction of pollutant loads

Even though construction of two of the four Grant Project components (Phases 1A and 1B) were completed only several months prior to preparing the initial 2020 report, M1W successfully reduced pollutant loads to downstream waterbodies in the Reclamation Ditch watershed from the Reclamation Ditch (Phase 1C) facilities and in the Salinas River from the Blanco Drain (Phase 1E) facilities, including 113,051 pounds of nitrite + nitrate as N in 2020 and 142,353 pounds in 2021. This represents a 27% increase between 2020 and 2021. Similar to the discussion above, M1W expects annual increases in pollutant load reduction in 2022 through 2024. The additional pollutant load reduction will occur in the future due to:

1) M1W actions to serve additional recycled water users and increased demands,

2) M1W securing increased operational funding and staffing for operating diversions,

3) M1W and its partners entering agreements for diversion of Pond 3 treated IWW, and

4) the City and M1W implement the next storm water grant project and Expanded PWM Project.

Trash build-up up on the diversion structure grates and screens has not occurred to date due to the lack of significant rain events, the new City of Salinas trash compliance activities, and the existing structures that prevent significant trash from being captured or otherwise entering M1W's diversion boxes and wet wells.

4.2 Lessons Learned

The following are several lessons learned in carrying out the Grant Project:

- Certain unanticipated economic conditions can cause much higher construction costs for infrastructure projects, making engineering cost estimates inaccurate. In this case, U.S. and China trade negotiations and high demand for electrical contractors caused much higher than anticipated bids.
- Careful and thorough preparation of piping and instrumentation diagrams (P&IDs) is critical to successful transition from construction to operation.
- Early and ongoing coordination with utilities, operations, and maintenance staff is critical to successful startup and operation of unique and precedent-setting infrastructure projects such as storm water capture. In particular, the team learned to better understand concerns and accommodate education and training to alleviate concerns about water quality and provide for safety of maintenance workers.

4.3 Pollution Prevention and Environmental Results

As discussed in more detail in sections 1.2 and 3.0, the Grant Projects have enabled large amounts of pollutants to be prevented from entering downstream water bodies and harming beneficial uses, including those related to water supply, ecosystems, habitat, recreation use, etc. The Grant Project, combined with the treatment/recycling facilities and distribution systems, provide M1W the capability of supplying an alternative water supply in lieu of use of surface waters and groundwater in the region.

4.4 Public Outreach

There are no specific education and outreach elements, nor costs included in the Grant Project. This project is part of the Pure Water Monterey Program, which has an education and outreach component; therefore, additional funding was not requested. However, in addition to Pure Water Monterey meetings, both M1W and the City of Salinas also hold public meetings and are active in public education and outreach.

At these meetings staff provides updates and information to the M1W Board, Salinas City Council, and other members of the public regarding the project elements. In addition, members of M1W staff give presentations regarding the project at local city council meetings and colleges, and often provide tours of the treatment and pumping facilities to interested persons and parties. M1W advertises public meetings on their website, posting both full agendas, meeting packets, and approved meeting minutes for those interested in either attending or following M1W activities (www.mp).

Similarly, the City of Salinas maintains a website and public Facebook page. Both are used to advertise community meetings. The City's website maintains current meeting agendas and minutes for City Council, Board, and Commission meetings. These meetings are televised live on local TV station (Channel 25) and rebroadcast at 2:00 pm, and 7:00 pm on the Wednesday, Friday, Saturday, and Monday following City Council, Board, and Commission meetings. City leadership meeting agendas and minutes can be found on their website (wm).

Pure Water Monterey created a website (www.purewatermonterey.org) and maintains an active public Facebook page (www.facebook.com/PureWaterMonterey/) and Twitter accounts as part of their public education and outreach program.

4.5 Remaining Regional Water Challenges

This Grant Project is only a small part of the solution for the water resource challenges of northern Monterey County. Substantial additional work and activities, including best management practices, enforcement, and infrastructure improvements, are needed to eliminate impairment of surface waters, stop seawater intrusion into coastal aquifers, provide adequate surface water flows and quality for protection of all beneficial uses, including for water supply, recreation, and healthy ecosystems and habitat.

4.6 Next Steps with Timeline/Recommendations

M1W will continue efforts to capture more storm water for beneficial reuse and pollutant load reduction, including through the following activities that will help M1W more consistently achieve grant targets:

1) increase funding, and associated staff and material resources, for operating the pump stations and diversions through an M1W Board update of the Interruptible Rate by **May 31, 2022;**

2) entering and amending agreements with the City of Salinas and the MCWRA for diversion and use of treated IWW effluent to enable M1W to capture and store more storm water and dry weather and thus increase diversion and water supply yields through optimized operation of the storage and diversion facilities by **June 30, 2022;**

3) implementing the Expanded Pure Water Monterey Project, described above **by 2024;** and

4) working with MCWRA and the SWRCB Division of Water Rights and other interested stakeholders to pursue enhanced water rights permit conditions to enable increased capture from the Reclamation Ditch and Blanco Drain, including starting the process in **summer 2022 with goal to modify water right by 2025**.

In addition, as stated in the prior version of this report (dated Feb. 2021), M1W is cooperating with the City of Salinas in the pursuit and implementation of the following additional storm water grant project to enhance storm water capture and reuse potential of the Round 1 facilities. This project is proposed to be implemented by 2026.

To enhance and leverage the Grant Project infrastructure, the City of Salinas has proposed and included in the relevant Storm Water Resource Plan, a Round 2 Storm Water Grant Project, called "Salinas Project to Enhance Regional Stormwater Supply" which would consist of the following two phases:

- Phase 2A. The City would add a trash capture device and a diversion facility that includes conveyance piping, metering, and associated infrastructure to improve the capacity and quality of stormwater transported to the IWTF.
- Phase 2B. The influent pump station will be upgraded including the addition of remote monitoring and conveyance automation, and provision of a back-up power source at the IWTF. These improvements provide greater overall resiliency, flow control and source water utilization at the facility.

Recently, the City learned that this proposed project was selected for award of storm water grant money. Additional steps necessary to achieve the water quality objectives, Total Maximum Daily Loads, local watershed plans, and to provide sustainable water supplies to replace over-subscribed surface and groundwater sources are provided in the Greater Monterey County and Monterey Peninsula Integrated Regional Water Management and Storm Water Resources Plans.

M1W is hopeful that other jurisdictions with similar water quality and supply challenges could use this Grant Project as an example for creatively maximizing the use of existing infrastructure to provide multiple benefits. Storm water and wastewater flow by gravity more efficiently and can both be captured and treated if storage for storm water is available to convert winter water to summer water. New water supplies can be made available by conjunctively using storm water and dry season surface flows together with *existing* treatment system, to avoid the need for new more costly and energy-intensive treatment and conveyance systems.

5.0 Acknowledgements

Funding for this project has been provided in full or in part through an agreement with the State Water Resources Control Board. The contents of this document do not necessarily reflect the views and policies of the State Water Resources Control Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

The following entities were instrumental in planning, design, construction, and operation of the Grant Projects:

Partner Agencies

- Monterey One Water
- City of Salinas
- Monterey Peninsula Water Management District

Cooperating Agencies

- Regional Water Quality Control Board
- Monterey County
- Monterey County Water Resources Agency
- Cooperative Monitoring Program

Consultants

- E2 Consulting Engineers
  Conceptual Design through Bidding and Engineering Services During Construction for all Components

- Schaaf & Wheeler Consulting Engineers
  Surface Water Hydrology and Civil Design of Reclamation Ditch

- Todd Groundwater
  Percolation Study of the Salinas Ponds

- Denise Duffy & Associates
  Environmental Review, Permitting, and Mitigation/Condition Compliance

- Kennedy-Jenks Consultants
  Grant Application Preparation

- Psomas
  Construction Management and Inspection Services

Contractors

- Anderson Pacific Contractors
  Construction of the Pure Water Monterey Source Waters Project (Phases 1C and 1E)

- Monterey Peninsula Engineers
  Construction of Phase 1A, Dry Weather Flow Diversion Project

- Mountain Cascade
  Construction of Phase 1B, Salinas Treatment Facility Storage and Recovery Project

6.0 References

California Environmental Data Exchange Network, CEDEN.org, accessed, January 7, 2021.

City of Salinas, *MS4 NPDES Permit 2018-2019 Annual Report*, 2020.

Greater Monterey County Regional Water Management Group, *Greater Monterey County Integrated Regional Water Management and Storm Water Resources Plans*, 2018).

Monterey One Water, *CEQA Memorandum for the Salinas Storage and Recovery Project*, February 2018.

Monterey One Water, *Revised Performance Evaluation and Assessment Plan*, January 2021.

Monterey One Water, *Quarterly Progress Reports for the Proposition 1 Storm Water Grant Agreement (D1712659)*, various.

Monterey One Water/Denise Duffy & Associates, *Consolidated Final Environmental Impact Report (certified October 2015)*, published January 2016.

Monterey One Water/Denise Duffy & Associates, *Addendum No. 3 to the Environmental Impact Report*, October 2017.

Monterey One Water/State water Resources Control Board, Grant Agreement Storm Water Construction/Implementation Monterey One Water and City of Salinas Storm Water Project for the Salinas Region [CALSTARS AGREEMENT NO. D1712659 FI$CAL AGREEMENT NO. SWRCB0000000000D171265900 AMENDMENT 2, June 2019]

Monterey Peninsula, Carmel, and Southern Monterey Bay Regional Water Management Group, Monterey Peninsula, Carmel, and Southern Monterey Bay Integrated Regional Water Management and Storm Water Resources Plans, 2019.

Pacific Ecorisk, *Quality Assurance Project Plan for the Monitoring Requirements for the Region 3 Conditional Agricultural Waiver Cooperative Monitoring Program*, October 25, 2006.

Regional Water Quality Control Board, *Order R3-2019-0073 NPDES NO. CA0049981 National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements for City of Salinas Municipal Stormwater Discharges.*

Appendices

Appendix A: Deliverables

Work Item#	Items for Review #	Due Date	Critical Due Date?	% Of Work Complete	Date Submitted
A.1.2	Notification of Upcoming Meetings, Workshops, & Training	Ongoing	☐		
A1.3	Detailed Project Schedule	Day 60	☐	100%	Revisions to project schedule provided in quarterly progress reports
A.1.4	Status Review Meetings with the GM	As Needed	☐		
A.1.5	Pre-, During, Post-Construction Photos	Ongoing	☒	100%	Ongoing and herein
A.2.2	Performance Evaluation and Assessment Plan	Day 30	☐	100%	4/27/18; revised and resubmitted with this report
A.3.1	California Environmental Quality Act Addendum	Day 120	☐	100%	2/28/18
A.3.2	List of Approvals, Entitlements, or Permits	As Needed	☒	100%	11/9/17 and As Needed
A.4.1	100% Design Plans & Specifications-Phase 1A	1/2/18	☒	100%	12/29/17
	Salinas Treatment Facility Storage and Recovery (Phase 1-B)				
A.4.2	Design Report	Day 30	☐	100%	12/12/17, 4/20/18 (revised)
A.4.3	50% Design Plans and Specifications	Day 60	☐	100%	12/29/17
A.4.4	100% Design Plans & Specifications & Summary of Changes	Day 210	☒	100%	5/25/18
	Reclamation Ditch (Phase 1-C)				
A.4.5	100% Design Plans and Specifications	Day 30	☒	100%	11/9/17
	Blanco Drain (Phase 1-E)				
A.4.6	100% Design Plans and Specifications	Day 30	☒	100%	11/9/17
	Conveyance to Storm Water Ponds (Segments 1&2)	-	-	-	-
A.4.7	100% Design Plans and Specifications	Day 30	☒	100%	11/9/17
A.5.1	Advertised Bid Documents and Summary	10 days after Bid Process	☐	100%	01/18/19; 4/10/2019; 5/30/19
A.6.1	Construction: Noticed to Proceed	Day 180	☐	100%	100% complete for Phases 1-C and 1-E; Phase 1A & Phase 1B NTP submitted on 9/20/19

Work Item#	Items for Review #	Due Date	Critical Due Date?	% Of Work Complete	Date Submitted
A.6.2	Construction: Proposed Changes	Ongoing	☒	100%	12/6/17-letter with Reclamation Ditch plan Changes. Deviation request-6/11/2018; Deviation request put on hold by State Board; 6/7/19-Deviation request submitted to State Board; 7/24/19-Deviation Approval from State (received Amended Agreement)
A.6.3	As-built Drawings	12/31/2020	☒	100%	12/31/2020
A.6.4	O&M Plan(s)	12/31/2020	☒	100%	01/06/2020
A.(a)	Progress Reports	Quarterly	☒		Quarterly commencing 11/15/17 and most recently 11/15/20
A.(b)	As Needed Info/Reports	Ongoing			As needed
A.(d)(1)	Draft Final Project Report	1/31/21	☒		Herein
A.(d)(2)	Final Project Report	2/28/21	☒		
A.(d)(3)	Final Project Summary	Before Work Completion Date	☒		
A.(d)(4)	Final Project Inspection & Certification	Before Work Completion Date	☒		
B.4(b)	Final Disbursement Request	4/30/2021	☐		
B.9(b)(4)	Disbursement Requests	Quarterly	☐		Quarterly commencing 11/15/17 and most recently 11/15/20

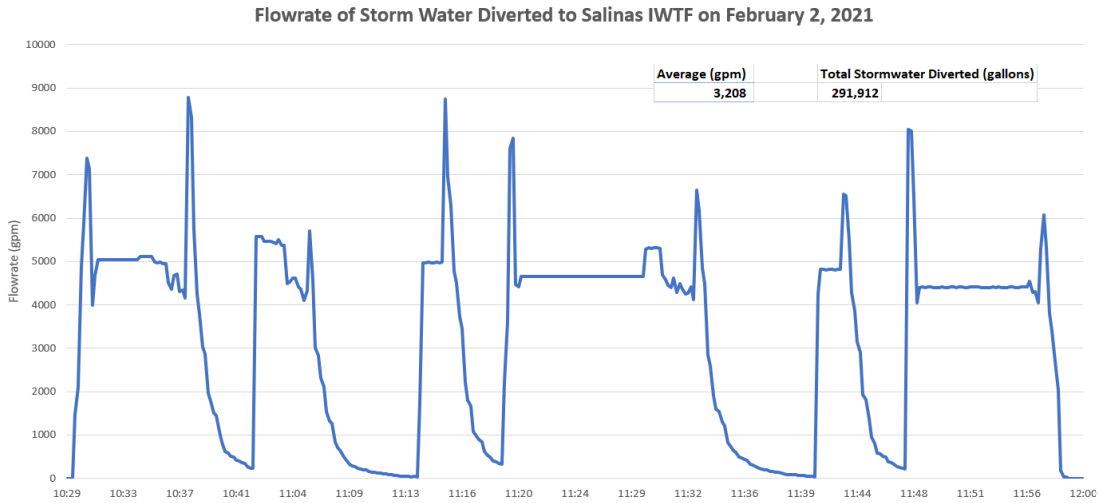
Appendix B: Performance Evaluation and Assessment Plan

See Separately Transmitted

Revised Performance Evaluation and Assessment Plan, January 2021

Appendix C: Monitoring Data, Load Analyses, and SCADA Information

Salinas Dry Weather Flow Diversion (Phase 1A) SCADA Output



Reclamation Ditch Pump Station Diversion Volumes

	Volume Diverted and Reused from the Reclamation Ditch		
Month	**CF (cubic feet)**	**AF (acre-feet)**	**gallons**
January	-	0.00	-
February	-	0.00	-
March	1,115	0.03	8,339
April	-	0.00	-
May	23	0.00	171
June	-	0.00	-
July	227	0.01	1,700
August	-	0.00	-
September	893	0.02	6,679
October	-	0.00	-
November	-	0.00	-
December	24,654	0.57	184,428
Total	**26,912**	**0.62**	**201,315**

Source: M1W SCADA Historian, Report Generated by Tom Kouretas, PE, January 14, 2021.
Note: Volumes were diverted while AWPF was operating; therefore, all diverted volumes were recycled and will be beneficially reused through groundwater injection into the Seaside Groundwater Basin and subsequently extracted for potable supply.

Reclamation Ditch Water Quality and Load Reduction Calculation

	Concentration of Nitrate + Nitrite as N (mg/L) (monthly average btwn Jan 2013 - Sept. 2019)	**Concentration of Nitrate + Nitrite as N** (pounds/ gallon)	**Volume Diverted from Blanco Drain** (gallons)	**Nitrate+nitrite as N Load Reduction to downstream waterbodies** (pounds)	
Jan	9.83	0.00008	-	0.00	
Feb	13.25	0.00011	-	0.00	
Mar	6.13	0.00005	8,339	0.43	
Apr	20.43	0.00017	-	0.00	
May	37.50	0.00031	171	0.05	
Jun	22.00	0.00018	-	0.00	
Jul	11.63	0.00010	1,700	0.17	
Aug	22.00	0.00018	-	0.00	
Sept	11.87	0.00010	6,679	0.66	
Oct	1.57	0.00001	-	0.00	
Nov	3.53	0.00003	-	0.00	
Dec	2.74	0.00002	184,428	4.21	
Total			**201,316**	**5.52**	**pounds**

Conversion Factors:

2.21E-06 pounds = 1 mg

0.264172 gallons = 1 L

Source: Concentration from CEDEN data pulled Jan.7, 2021 from http://www.ceden.org/central_coast_data_catalog.shtml; Diversion Volumes [Tom Kouretas, Jan. 15, 2021 from M1W SCADA]

Blanco Drain Pump Station Diversion Volumes

Month	Volume Diverted and Reused from the Blanco Drain (in cubic feet, CF)	(acre feet, in AF)	(gallons, gals)
January	20,862	0.50	156,062
February	4,208	0.10	31,480
March	6,752	0.20	50,511
April	2,042	0.00	15,277
May	6,149,689	141.20	46,002,868
June	8,635,821	198.30	64,600,425
July	3,707,292	85.10	27,732,473
August	46	0.00	343
September	4,722,523	108.40	35,326,923
October	187,236	4.30	1,400,621
November	1,551,884	35.60	11,608,895
December	1,510,607	34.70	11,300,128
Total	**26,498,963**	**608.30**	**198,226,005**

Source: M1W SCADA Historian, Report Generated by Tom Kouretas, PE, January 14, 2021.
Note: Volumes were diverted while AWPF was operating; therefore, all diverted volumes were recycled and will be beneficially reused through groundwater injection into the Seaside Groundwater Basin and subsequently extracted for potable supply.

Blanco Drain Water Quality and Load Reduction Calculation (2020)

	Concentration of Nitrate + Nitrite as N (mg/L) (monthly average btwn Jan 2013 - Sept. 2019)	**Concentration of Nitrate + Nitrite as N** (pounds/ gallon)	**Volume Diverted from Blanco Drain** (gallons)	**Nitrate+nitrite as N Load Reduction to Salinas River** (pounds)	
Jan	74.9	0.00063	156,062	97.62	
Feb	67.3	0.00056	31,480	17.67	
Mar	71.8	0.00060	50,511	30.25	
Apr	58.5	0.00049	15,277	7.46	
May	65.1	0.00054	46,002,868	25,002.47	
June	72.5	0.00061	64,600,425	39,108.83	
July	66.4	0.00055	27,732,473	15,361.57	
Aug	73.3	0.00061	343	0.21	
Sept	70.8	0.00059	35,326,923	20,864.02	
Oct	59.0	0.00049	1,400,621	689.95	
Nov	62.0	0.00052	11,608,895	6,004.42	
Dec	62.2	0.00052	11,300,128	5,862.01	
Total			**198,226,005**	**113,046**	pounds

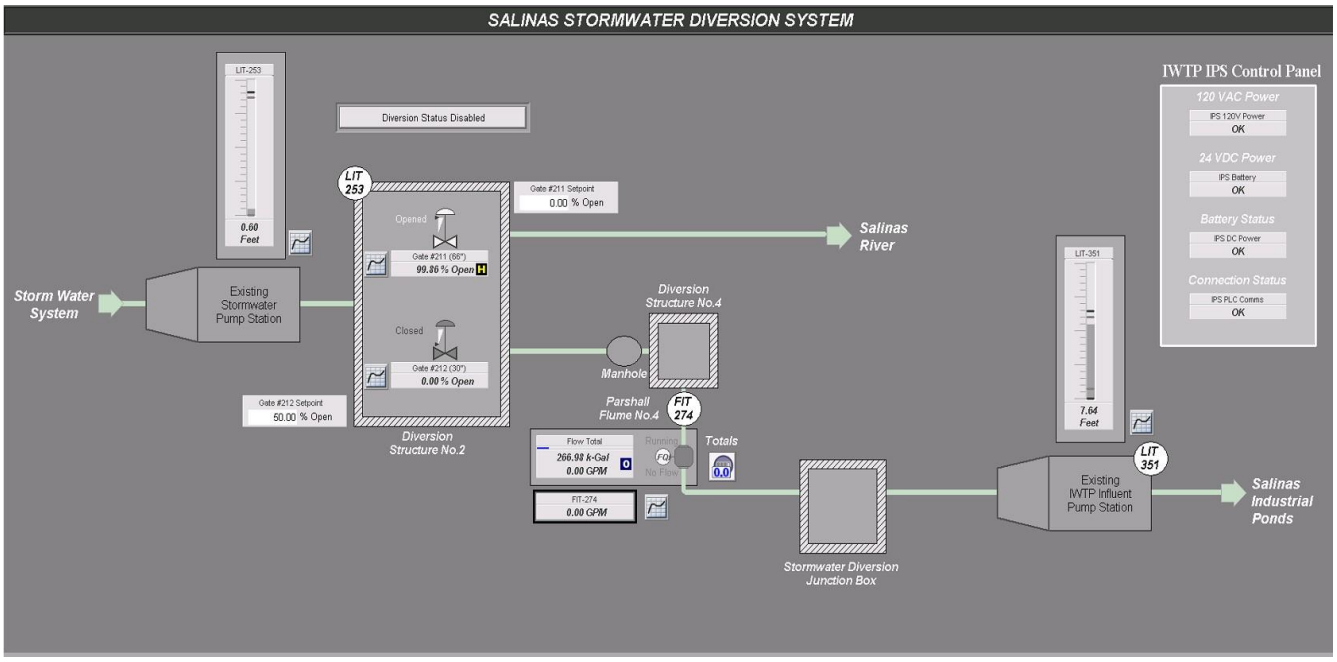
Conversion Factors:

2.21E-06 pounds = 1 mg

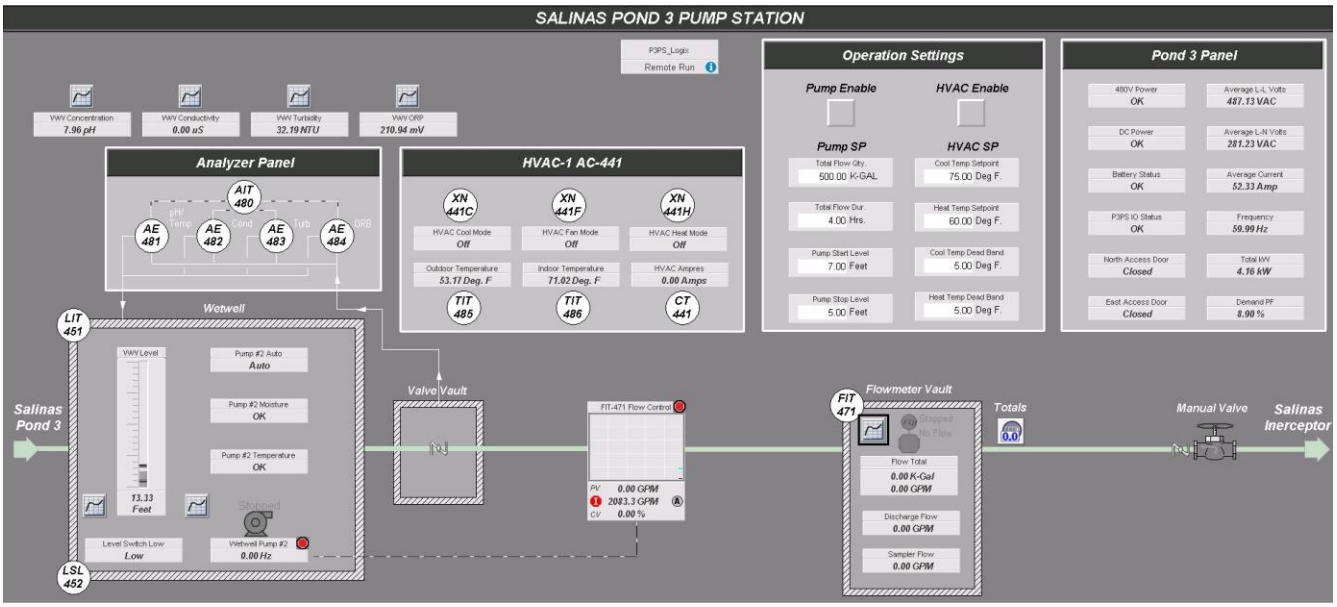
0.264172 gallons = 1 L

Source: Concentration from CEDEN data pulled Jan.7, 2021 from http://www.ceden.org/central_coast_data_catalog.shtml; Diversion Volumes [Tom Kouretas, Jan. 15, 2021 from M1W SCADA]

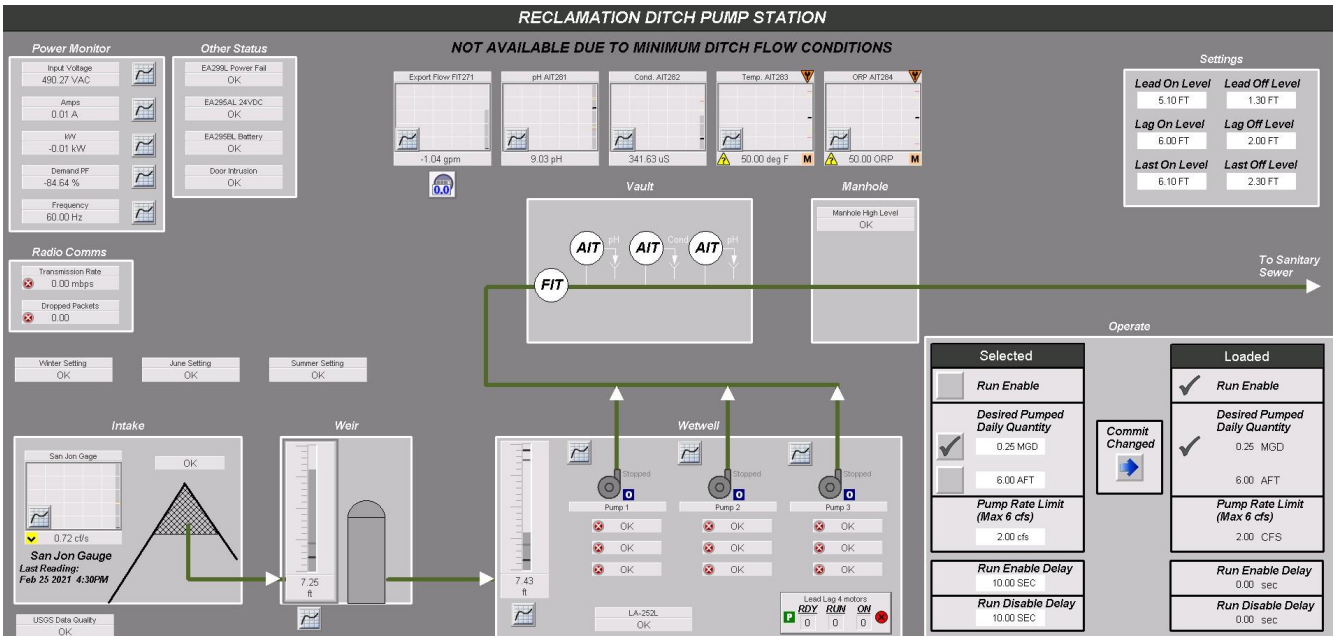
Phase 1A M1W SCADA Screenshot:



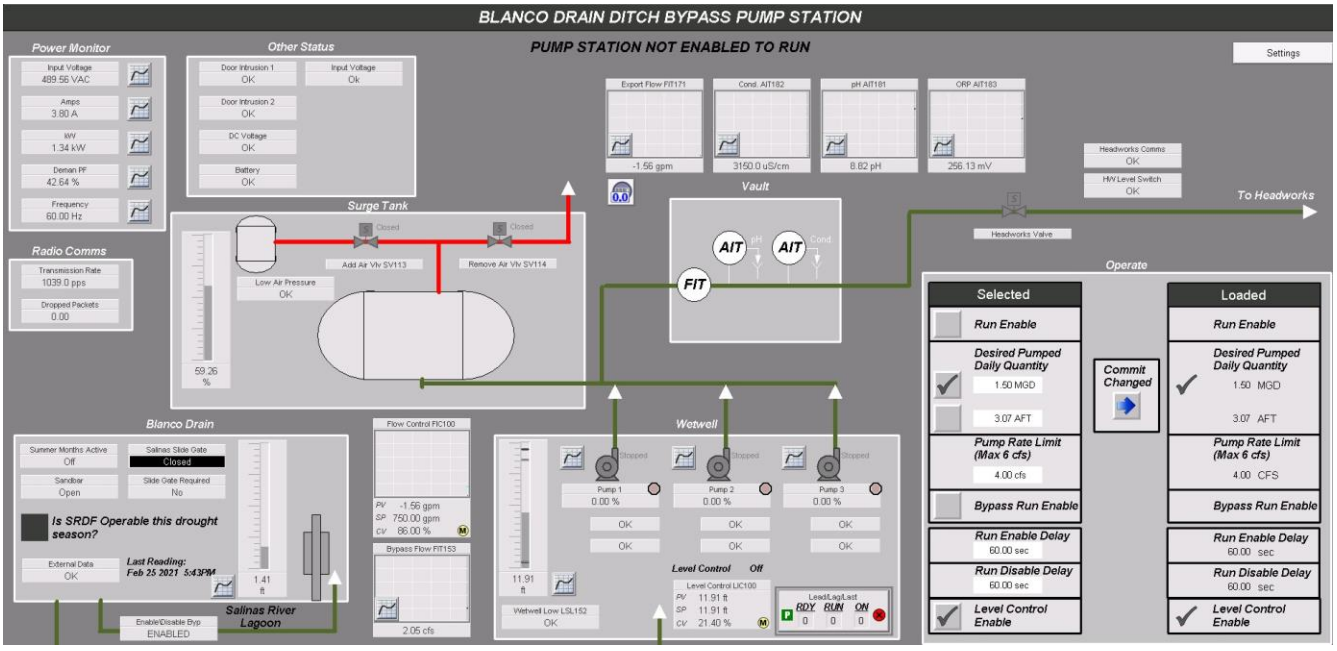
Phase 1B M1W SCADA Screenshot:



Phase 1C M1W SCADA Screenshot:



Phase 1E M1W SCADA Screenshot:



Phase 1A SCADA Report:

Monterey One Water

Salinas Storm Water Diversion System Monthly

February 2021

SSWDS Flow to Ponds

Date	Total Flow Diverted (gallons)	(MG)	(AC-FT)
2/2/2021	0.000	0.000	0.000
2/3/2021	291,912	0.292	0.895
2/4/2021	0.000	0.000	0.000
2/5/2021	0.000	0.000	0.000
2/6/2021	0.000	0.000	0.000
2/7/2021	0.000	0.000	0.000
2/8/2021	0.000	0.000	0.000
2/9/2021	0.000	0.000	0.000
2/10/2021	0.000	0.000	0.000
2/11/2021	0.000	0.000	0.000
2/12/2021	0.000	0.000	0.000
2/13/2021	0.000	0.000	0.000
2/14/2021	0.000	0.000	0.000
2/15/2021	0.000	0.000	0.000
2/16/2021	0.000	0.000	0.000
2/17/2021	0.000	0.000	0.000
2/18/2021	0.000	0.000	0.000
2/19/2021	0.000	0.000	0.000
2/20/2021	0.000	0.000	0.000
2/21/2021	0.000	0.000	0.000
2/22/2021	0.000	0.000	0.000
2/23/2021	0.000	0.000	0.000
2/24/2021	0.000	0.000	0.000
2/25/2021	0.000	0.000	0.000
2/26/2021	0.000	0.000	0.000
2/27/2021	0.000	0.000	0.000
2/28/2021	0.000	0.000	0.000

Phase 1B SCADA Report:

Monterey One Water

Salinas Storm Water Recovery Annual Report

FY 20/21

Pond 3 Pump Station (P3PS) Flow to M1W

Total Flow Diverted

Date	(gallons)	(MG)	(AC-FT)
Jul-20	Not-in-service		
Aug-20	Not-in-service		
Sep-20	Not-in-service		
Oct-20	Not-in-service		
Nov-20	381206.000	0.381	1.170
Dec-20	991373.000	0.991	3.042
Jan-21	0.000	0.000	0.000
Feb-21	250130.000	0.250	0.768
Mar-21			
Apr-21			
May-21			
Jun-21			

Phase 1C SCADA Report:

Monterey One Water
Providing Cooperative Water Solutions

Reclamation Ditch Pump Station: Diversion and Bypass Flow Rates

Month:	December			Facility Name:	M1W RDPS	
Year:	2020			System Numbers:	XXXXXXXXX	

	Reclamation Ditch Pump Station Daily Diversion				Reclamation Ditch Bypass Flow Monitoring			
	Water Right A32263B				USGS Sta 11152650, Reclamation Ditch at San Jon Rd			
Date	Cubic Feet of Export	Acre-Feet of Export	Avg Rate of Diversion (cfs)	Max Daily Diversion (cfs)	Reclamation Ditch Bypass Flow Daily Mean cfs	Reclamation Ditch Min Bypass Flow Required cfs	Reclamation Ditch Min Bypass Flow % of time met	Notes
	cu-ft	AFT	cfs	cfs	cfs	cfs	%	
12/1/2020	0.0	0.000	0.00	0.00	0.7	0.7	100	% of time met > 0 means pump station met conditions to run
12/2/2020	0.0	0.000	0.00	0.00	0.7	0.7	67	% of time met > 0 means pump station met conditions to run
12/3/2020	0.0	0.000	0.00	0.00	1.2	0.7	67	% of time met > 0 means pump station met conditions to run
12/4/2020	0.0	0.000	0.00	0.00	0.6	0.7	100	% of time met > 0 means pump station met conditions to run
12/5/2020	0.0	0.000	0.00	0.00	0.8	0.7	29	% of time met > 0 means pump station met conditions to run
12/6/2020	0.0	0.000	0.00	0.00	1.0	0.7	96	% of time met > 0 means pump station met conditions to run
12/7/2020	0.0	0.000	0.00	0.00	1.0	0.7	100	% of time met > 0 means pump station met conditions to run
12/8/2020	0.0	0.000	0.00	0.00	1.1	0.7	100	% of time met > 0 means pump station met conditions to run
12/9/2020	0.0	0.000			1.2			
12/10/2020	0.0	0.000			1.2			
12/11/2020	0.0	0.000	0.00	0.00	7.3	0.7	100	% of time met > 0 means pump station met conditions to run
12/12/2020	0.0	0.000	0.00	0.00	10.5	0.7	100	% of time met > 0 means pump station met conditions to run
12/13/2020	0.0	0.000	0.00	0.00	10.4	0.7	100	% of time met > 0 means pump station met conditions to run
12/14/2020	0.0	0.000	0.00	0.00	3.1	0.7	100	% of time met > 0 means pump station met conditions to run
12/15/2020	0.0	0.000	0.00	0.00	2.1	0.7	100	% of time met > 0 means pump station met conditions to run
12/16/2020	11125.3	0.255	2.39	2.40	12.5	0.7	100	% of time met > 0 means pump station met conditions to run
12/17/2020	13313.0	0.306			4.3			
12/18/2020	5.6	0.000	0.00	0.00	2.5	0.7	100	% of time met > 0 means pump station met conditions to run
12/19/2020	0.0	0.000	0.00	0.00	2.2	0.7	100	% of time met > 0 means pump station met conditions to run
12/20/2020	0.0	0.000	0.00	0.00	1.2	0.7	100	% of time met > 0 means pump station met conditions to run
12/21/2020	0.0	0.000	0.00	0.00	0.9	0.7	100	% of time met > 0 means pump station met conditions to run
12/22/2020	0.0	0.000	0.00	0.00	0.7	0.7	100	% of time met > 0 means pump station met conditions to run
12/23/2020	0.0	0.000	0.00	0.00	0.5	0.7	50	% of time met > 0 means pump station met conditions to run
12/24/2020	0.0	0.000	0.00	0.00	0.5	0.7	0	
12/25/2020	0.0	0.000	0.00	0.00	0.8	0.7	0	
12/26/2020	0.0	0.000	0.00	0.00	0.6	0.7	58	% of time met > 0 means pump station met conditions to run
12/27/2020	0.0	0.000	0.00	0.00	1.2	0.7	50	% of time met > 0 means pump station met conditions to run
12/28/2020	0.0	0.000	0.00	0.00	2.0	0.7	71	% of time met > 0 means pump station met conditions to run
12/29/2020	0.0	0.000	0.00	0.00	1.3	0.7	100	% of time met > 0 means pump station met conditions to run
12/30/2020	0.0	0.000	0.00	0.00	1.7	0.7	54	% of time met > 0 means pump station met conditions to run
12/31/2020	0.0	0.000	0.00	0.00	0.9	0.7	67	% of time met > 0 means pump station met conditions to run

Phase 1E SCADA Report:

Monterey One Water
Providing Cooperative Water Solutions

Blanco Drain Bypass Pump Station: Diversion Reporting

Month:	June							Facility Name:	M1W BDDPS		
Year:	2020							System Number:	XXXXXXXXX		
	Blanco Drain Daily Diversion Water Right A32263A				Bypassed Flow	Bypass Flow Requirement Conditions					
Date	Daily Export	Daily Export	Avg Rate of Diversion (cfs)	Max Daily Diversion (cfs)	Daily Mean Diversion (cfs)	Operational Date 4/1/ to 10/31?	SRDF Operating?	Salinas Lagoon Open To Ocean?	Old Salinas River (OSR) Slide Gate Open?	Blanco Drain Bypass To Salinas River Required?	Blanco Drain Bypass To Salinas River Flow Met?
	cu-ft	acre-ft	cfs	cfs	cfs	Y/N	Y/N	Y/N	Y/N	Y/N or N/A	Y/N or N/A
6/1/2020	317061.9	7.28	4.00	4.34	2.66	Y	Y	N	Y	N/A	N/A
6/2/2020	337020.7	7.74	4.00	6.34	2.72	Y	Y	N	Y	N/A	N/A
6/3/2020	338613.8	7.77	4.00	4.33	3.68	Y	Y	N	Y	N/A	N/A
6/4/2020	345621.0	7.93	4.00	4.02	6.14	Y	Y	N	Y	N/A	N/A
6/5/2020	345593.4	7.93	4.00	4.02	7.23	Y	Y	N	Y	N/A	N/A
6/6/2020	345565.1	7.93	4.00	4.02	7.18	Y	Y	N	Y	N/A	N/A
6/7/2020	329819.3	7.57	4.00	4.14	7.08	Y	Y	N	Y	N/A	N/A
6/8/2020	340724.5	7.82	4.00	4.17	6.49	Y	Y	N	Y	N/A	N/A
6/9/2020	344908.1	7.92	3.99	6.36	4.59	Y	Y	N	Y	N/A	N/A
6/10/2020	345592.4	7.93	4.00	4.02	5.66	Y	Y	N	Y	N/A	N/A
6/11/2020	345605.9	7.93	4.00	4.02	6.87	Y	Y	N	Y	N/A	N/A
6/12/2020	345593.1	7.93	4.00	4.02	6.96	Y	Y	N	Y	N/A	N/A
6/13/2020	345610.0	7.93	4.00	4.02	7.11	Y	Y	N	Y	N/A	N/A
6/14/2020	345614.4	7.93	4.00	4.01	6.49	Y	Y	N	Y	N/A	N/A
6/15/2020	333406.3	7.65	4.00	4.23	6.38	Y	Y	N	Y	N/A	N/A
6/16/2020	338373.2	7.77	3.99	4.59	4.44	Y	Y	N	Y	N/A	N/A
6/17/2020	345455.7	7.93	4.00	4.58	2.17	Y	Y	N	Y	N/A	N/A
6/18/2020	170647.5	3.92	4.00	6.12	1.78	Y	Y	N	Y	N/A	N/A
6/19/2020	133770.4	3.07	4.00	6.27	2.06	Y	Y	N	Y	N/A	N/A
6/20/2020	133796.7	3.07	3.99	6.41	1.77	Y	Y	N	Y	N/A	N/A
6/21/2020	133796.9	3.07	3.99	4.35	1.81	Y	Y	N	Y	N/A	N/A
6/22/2020	133798.3	3.07	3.99	4.20	2.11	Y	Y	N	Y	N/A	N/A
6/23/2020	267480.8	6.14	3.99	4.38	1.50	Y	Y	N	Y	N/A	N/A
6/24/2020	267478.2	6.14	4.00	4.22	2.50	Y	Y	N	Y	N/A	N/A
6/25/2020	267480.9	6.14	3.96	6.10	3.67	Y	Y	N	Y	N/A	N/A
6/26/2020	267480.3	6.14	4.00	6.49	6.14	Y	Y	N	Y	N/A	N/A
6/27/2020	267479.8	6.14	3.99	4.28	7.95	Y	Y	N	Y	N/A	N/A
6/28/2020	267477.4	6.14	3.99	4.29	7.00	Y	Y	N	Y	N/A	N/A
6/29/2020	267468.8	6.14	3.99	4.41	6.76	Y	Y	N	Y	N/A	N/A
6/30/2020	267478.0	6.14	3.99	4.26	6.37	Y	Y	N	Y	N/A	N/A
Totals	**8635812.6**	**198.25**	**4.00**	**6.49**							

Appendix D: List of Acronyms

AF - acre feet

AFY - acre feet per year

AICP - American Institute of Certified Planners

CEDEN - California Environmental Data Exchange Network

CEQA - California Environmental Quality Act

CSIP - Castroville Seawater Intrusion Project

EIR - Environmental Impact Report

GPM – gallons per minute

HDD - Horizontal Directional Drilling

IWCCS - Industrial Wastewater Collection and Conveyance System

IWTF - Industrial Wastewater Treatment Facility

LF - linear feet

M1W - Monterey One Water

MCWRA - Monterey County Water Resources Agency

MGD - million gallons per day

MPWMD - Monterey Peninsula Water Management District

MRP - Monitoring and Report Program

NPDES - National Pollutant Discharge Elimination System

NTP - Notification to Proceed

O&M - Operation & Maintenance

P3PS - Pond 3 Pump Station

PE - Professional Engineer

PEAP - Performance Evaluation and Assessment Plan

RIBs - Rapid Infiltration Basins

RTP - Regional Treatment Plant or Regional Wastewater Treatment Plant

RWQCB -Regional Water Quality Control Board

SCADA - Supervisory Control and Data Acquisition

SVRP - Salinas Valley Reclamation Plant

SW - Storm Water

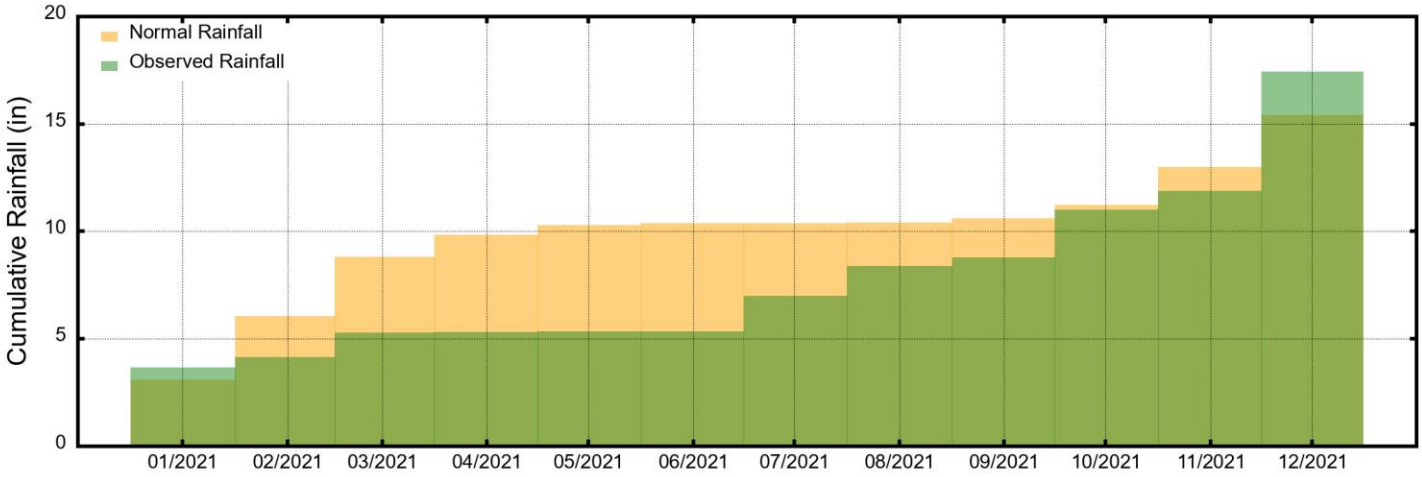
SWRCB -State Water Resource Control Board

TMDL - Total Maximum Daily Load

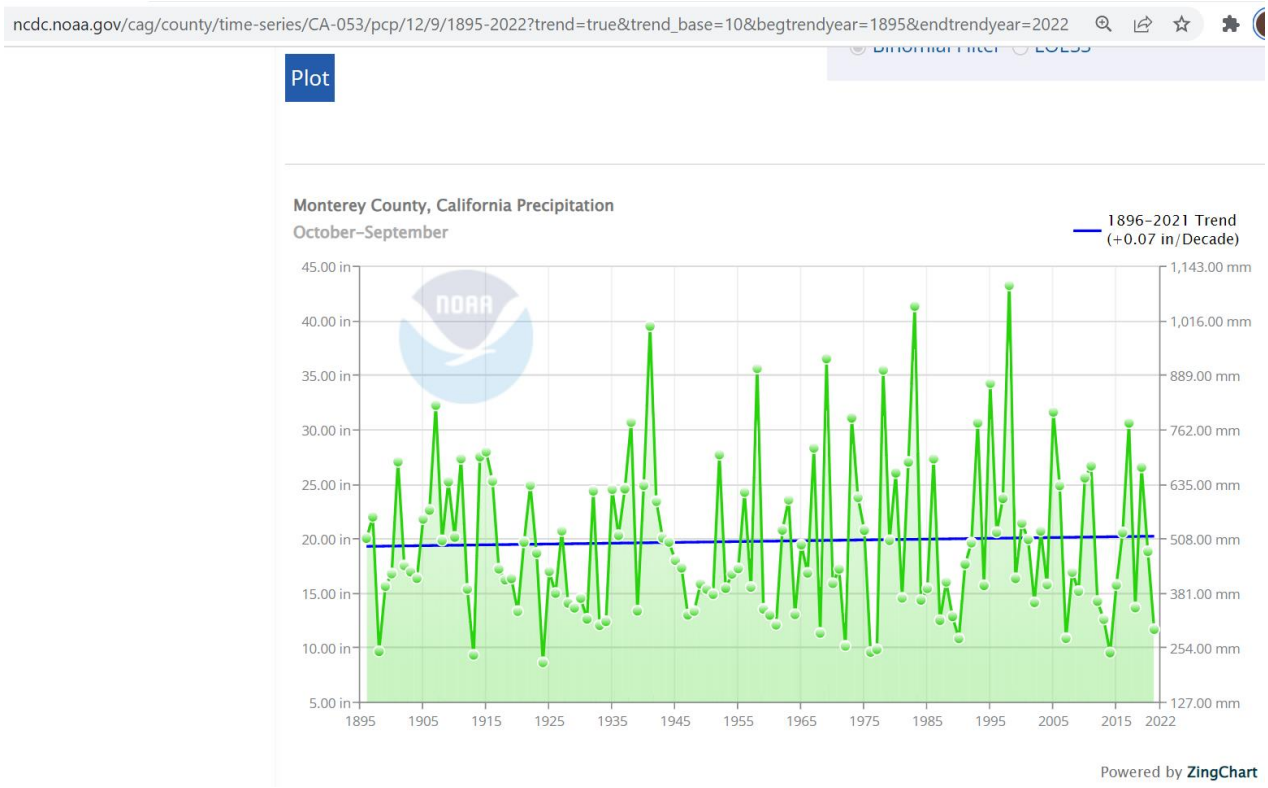
This page intentionally left blank.

Appendix E. Precipitation Charts for Monterey County

Chart of Precipitation 2021 versus Historic Average



NOAA Historic Water Year Precipitation Chart with Trendline:



CalAdapt Historic and Projected Precipitation Chart (Medium Emission Scenario):

https://cal-adapt.org/tools/annual-averages

EXPLORE DATA | ABOUT THE TOOL | RESOURCES | HELP

Monterey County, California

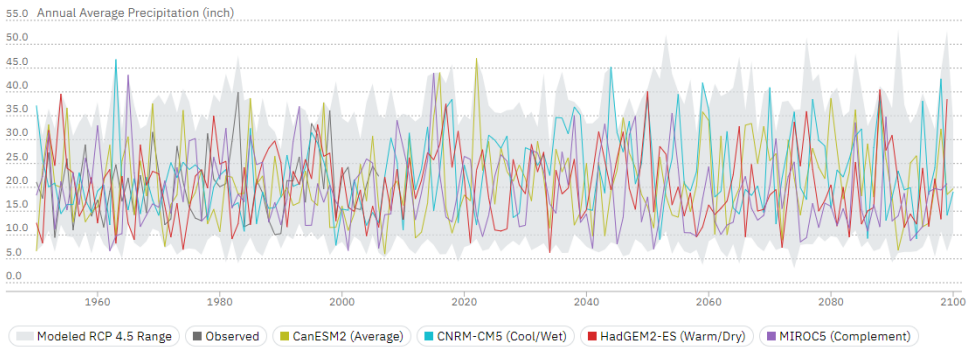
Change Location

Projected changes in **Annual Average Precipitation** under a **Medium Emissions (RCP 4.5) Scenario**.

MODELED HISTORICAL
Baseline (1961-1990)
Change Period
30 YEAR AVG: 20.1 inch
30 YEAR RANGE: 6.7–46.8 inch
Learn More

FUTURE PROJECTIONS
Mid-Century (2035-2064)
Change Period
30 YEAR AVG: 21.7 inch
30 YEAR RANGE: 7.0–45.3 inch
Learn More

FUTURE PROJECTIONS
End-Century (2070-2099)
Change Period
30 YEAR AVG: 21.2 inch
30 YEAR RANGE: 6.8–42.7 inch
Learn More



Source: Cal-Adapt. Data: LOCA Downscaled CMIP5 Climate Projections (Scripps Institution of Oceanography), Gridded Observed Meteorological Data (University of Colorado Boulder), LOCA Derived Products (Geospatial Innovation Facility).

SELECT LOCATION

Learn More

SELECT CLIMATE VARIABLE

Precipitation

Learn More

SELECT SCENARIO

- (•) Medium (RCP 4.5)
- ( ) High (RCP 8.5)

Learn More

SELECT MODELS

4 × Select...

CanESM2, CNRM-CM5, HadGEM2-ES, MIROC5

Learn More