



City of Pismo Beach  
Public Works Department  
760 Mattie Road  
Pismo Beach, California 93449  
T: (805) 773-4658

[www.pismo-beach.org](http://www.pismo-beach.org)

## Revised Notice of Preparation

**TO:** Responsible Agencies & Interested Parties

**SUBJECT:** REVISED NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT

**NOTICE IS HEREBY GIVEN** that the City of Pismo Beach will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project, if applicable. The City is issuing this Revised Notice of Preparation to notify public agencies and the public regarding the determination of locations for the proposed Advanced Treatment Facility (ATF) complex, distribution pipelines, and monitoring wells, which were previously unknown, and to request input regarding the scope and content of the Draft EIR in light of these modifications of the project.

The public review and comment period for this revised Notice of Preparation begins Monday, April 13, 2020 and ends Thursday, May 28, 2020 at 5:00 p.m. A detailed revised project description with revised location maps is available online at <https://centralcoastblue.com/recent-updates>. No Initial Study is attached because the lead agency has already determined that an EIR is clearly required for the project and is therefore not required to prepare an Initial Study per CEQA Guidelines Section 15063(a).

Written comments may be submitted to City of Pismo Beach, Attn: Matthew Downing, 760 Mattie Road, Pismo Beach, California 93449. In addition, because the project is of regional and areawide significance, a scoping meeting will be held by the City of Pismo Beach on Thursday, May 7, 2020 at 6:00 p.m. via video conference. This videoconference will be held in accordance with the provisions of Executive Order N-29-20, which authorizes local legislative bodies to hold public meetings via teleconferencing and to make public meetings accessible telephonically or otherwise electronically to all members of the public seeking to observe and to address the local legislative body during the period in which state or local public health officials have imposed or recommended social distancing measures. Executive Order N-29-20 also waives all requirements in the Brown Act requiring the physical presence of personnel of the legislative body or of the public as a condition of participation in or quorum for a public meeting during the period in which state or local public health officials have imposed or recommended social distancing measures. To access the video conference, visit <https://global.gotomeeting.com/join/571841381> or call (646) 749-3112 with access code 571-841-381 on Thursday, May 7, 2020 at 6:00 p.m.

**Project Title:** Central Coast Blue Project

**State Clearinghouse #:** 2019120560

**Project Location:**

The project would be located on several properties in the city of Grover Beach and portions of unincorporated San Luis Obispo County, including the community of Oceano. A specific map of the project components with known locations can be viewed online at <https://centralcoastblue.com/recent-updates>. Additional project components will be located at yet to be determined locations within the city of Grover Beach in San Luis Obispo County and portions of unincorporated San Luis Obispo County.

**Project Sponsors:** City of Pismo Beach, Public Works Department  
760 Mattie Road, Pismo Beach, CA 93449  
South San Luis Obispo County Sanitation District  
1600 Aloha Place, Oceano, CA 93445

**Brief Project Description:**

The proposed project is a regional advanced purified water project intended to enhance supply reliability by reducing the Santa Maria Groundwater Basin's (SMGB) vulnerability to drought and seawater intrusion. The project would involve injection of advanced purified water into the SMGB via a series of injection wells installed at various locations to create a seawater intrusion barrier. Water for the project would be sourced from two of the region's wastewater treatment facilities - the Pismo Beach Wastewater Treatment Plant (WWTP) and the South San Luis Obispo County Sanitation District (SSLOCSD) WWTP. Prior to injection to the SMGB, water would be treated to an advanced level of purification at a proposed ATF constructed at Assessor's Parcel Number 060-543-016 in Grover Beach. The proposed ATF would treat a combination of flows from the Pismo Beach WWTP and flows from the SSLOCSD WWTP for injection in the SMGB and/or for agricultural irrigation. In addition to the ATF, project components include an advanced purified water storage tank, an equalization basin, a pump station, distribution pipelines, injection wells, monitoring wells, one new production well, and potential agricultural irrigation pipelines. The project would alter the pumping regime of existing, operational production wells in the project area and would include construction of one new production well to optimize groundwater production in the area. Potential environmental effects include, but are not necessarily limited to, impacts related to air quality, biological resources, cultural and tribal cultural resources, energy, greenhouse gas emissions, hazards and hazardous materials, hydrology/water quality, land use, noise, and transportation.

**Consulting firm retained to prepare draft EIR:**

**Firm Name:** Rincon Consultants, Inc.  
**Address:** 180 N. Ashwood Avenue, Ventura, California 93003  
**Contact:** Annaliese Miller, Associate Environmental Planner

**Date:** April 8, 2020

**Signature:**

Matthew Downing, AICP

**Title:** Planning Manager, City of Pismo Beach

**Phone:** (805) 773-7044

# Project Description

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## 1. Project Title

Central Coast Blue

## 2. Lead Agency Name and Address

City of Pismo Beach  
Community Development Department, Planning Division  
760 Mattie Road  
Pismo Beach, California 93449

## 3. Contact Person and Phone Number

Matthew Downing, AICP, Planning Manager  
(805) 773-7044

## 4. Background and Project Overview

The cities of Pismo Beach, Grover Beach, and Arroyo Grande and the Oceano Community Services District (OCSD) obtain water from a combination of three sources: the California State Water Project, Lopez Reservoir, and local groundwater. Each of these sources is highly variable, with supply fluctuations on the order of thousands of acre-feet per year over the past decade (City of Pismo Beach 2016). The primary source of groundwater for these agencies is the Northern Cities Management Area (NCMA) of the Santa Maria Groundwater Basin (SMGB). The cities of Pismo Beach, Grover Beach, and Arroyo Grande and OCSD (collectively referred to as the NCMA agencies) manage groundwater extraction in their portion of the basin to protect long-term sustainable use and to prevent seawater intrusion.

Historically, elevated freshwater levels along the coastline and natural outflow to the ocean have prevented seawater from intruding into the groundwater basin. However, groundwater elevations along the coastline have dropped due to changing climatic conditions, including more frequent periods of extended drought resulting in reduced inflow into the groundwater basin and increased demands on groundwater supplies resulting in a higher rate of groundwater extraction. These lower levels reduce the flow of freshwater out toward the ocean, which reduces the effectiveness of groundwater as a barrier to seawater, and in 2009, water quality constituents consistent with seawater intrusion were detected in the NCMA monitoring wells. If conditions worsen, seawater will draw toward the freshwater zone of the aquifer, contaminating it with elevated salt concentrations.

Central Coast Blue (herein referred to as the “proposed project” or “project”) is a regional advanced purified water project intended to enhance supply reliability by reducing the SMGB’s vulnerability to drought and seawater intrusion. The project is a multi-agency collaboration between the City of Pismo Beach, the South San Luis Obispo County Sanitation District (SSLOCSO), and other NCMA agencies. The project would involve injection of advanced purified water into the SMGB via a series of injection wells, installed at various locations in the SMGB, to develop a seawater intrusion barrier.

Water for the project would be sourced from two of the region's wastewater treatment facilities - the Pismo Beach Wastewater Treatment Plant (WWTP) and the SSLOCSD WWTP. Prior to injection to the SMGB, water would be treated to an advanced level of purification at a proposed Advanced Treatment Facility (ATF) complex, which would include an ATF, equalization basin, advanced purified water storage tank, and pump station. The proposed ATF would treat a combination of flows from the Pismo Beach WWTP and the SSLOCSD WWTP for injection in the SMGB and/or for agricultural irrigation. The blend of source water treated at the ATF would depend on the amount of water available from each WWTP, the water quality characteristics of each of the water flows, the production capacity of the ATF, and the demand for advanced purified and/or irrigation water. The amount of water from each WWTP treated at the ATF would be adjusted periodically based on operational needs.

This EIR analyzes the majority of project components, including the injection wells, monitoring wells, water distribution pipelines, and ATF complex at a more detailed, project-specific level because they would be constructed in the near-term and the construction details, locations, and component specifications are generally well-known at this time. However, because the location, engineering, and/or construction details are not known for some project components at this time, this analysis evaluates the environmental impacts of those components at a programmatic level. Once details are known, these project components will be examined in light of this EIR to determine what, if any, additional CEQA documentation needs to be prepared. Project components are described in detail in Section 2.8, *Description of Project*.

## **Project Objectives**

The objectives for the proposed Central Coast Blue project are as follows:

1. Produce advanced purified water of a quality that can safely be used to augment groundwater supply while maintaining or improving existing groundwater quality
2. Create a sustainable, drought-resistant, local water supply and improve water supply reliability for southern San Luis Obispo County
3. Provide a new source of recharge to the SMGB to protect the basin from degradation via seawater intrusion
4. Reduce wastewater discharges to the ocean and maximize utilization of local water supplies
5. Facilitate continued water resources collaboration in the NCMA

## **5. Project Location**

The project area is in the city of Grover Beach and portions of unincorporated San Luis Obispo County, including the community of Oceano, which is a census-designated place. Figure 1 shows the regional location of the project area, which is approximately 8.5 miles south of the city of San Luis Obispo. The project area is regionally accessible from U.S. Highway 101 and locally accessible from California State Route (SR) 1. Figure 2 shows the boundaries of the NCMA agencies overlain on an aerial view of the project area and the known locations of project components. The project area extends from West Grand Avenue in Grover Beach in the north to unincorporated San Luis Obispo County, including Oceano, in the south. The total project area measures approximately 3.5 miles north to south to allow for appropriate spacing of the proposed injection wells.



Figure 1 Regional Location



 Project Area

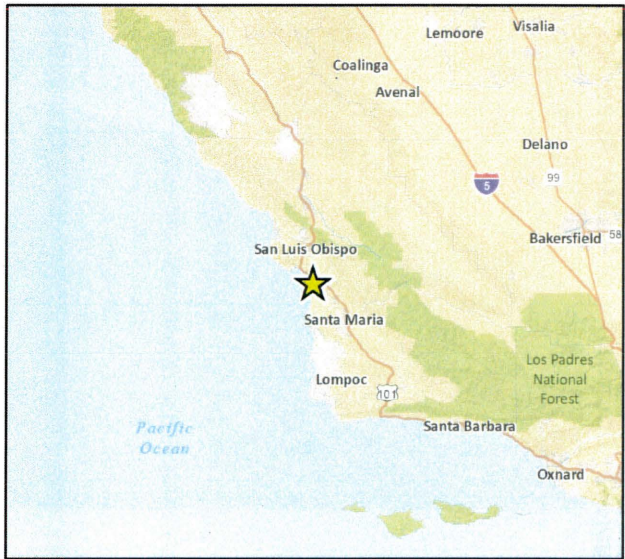
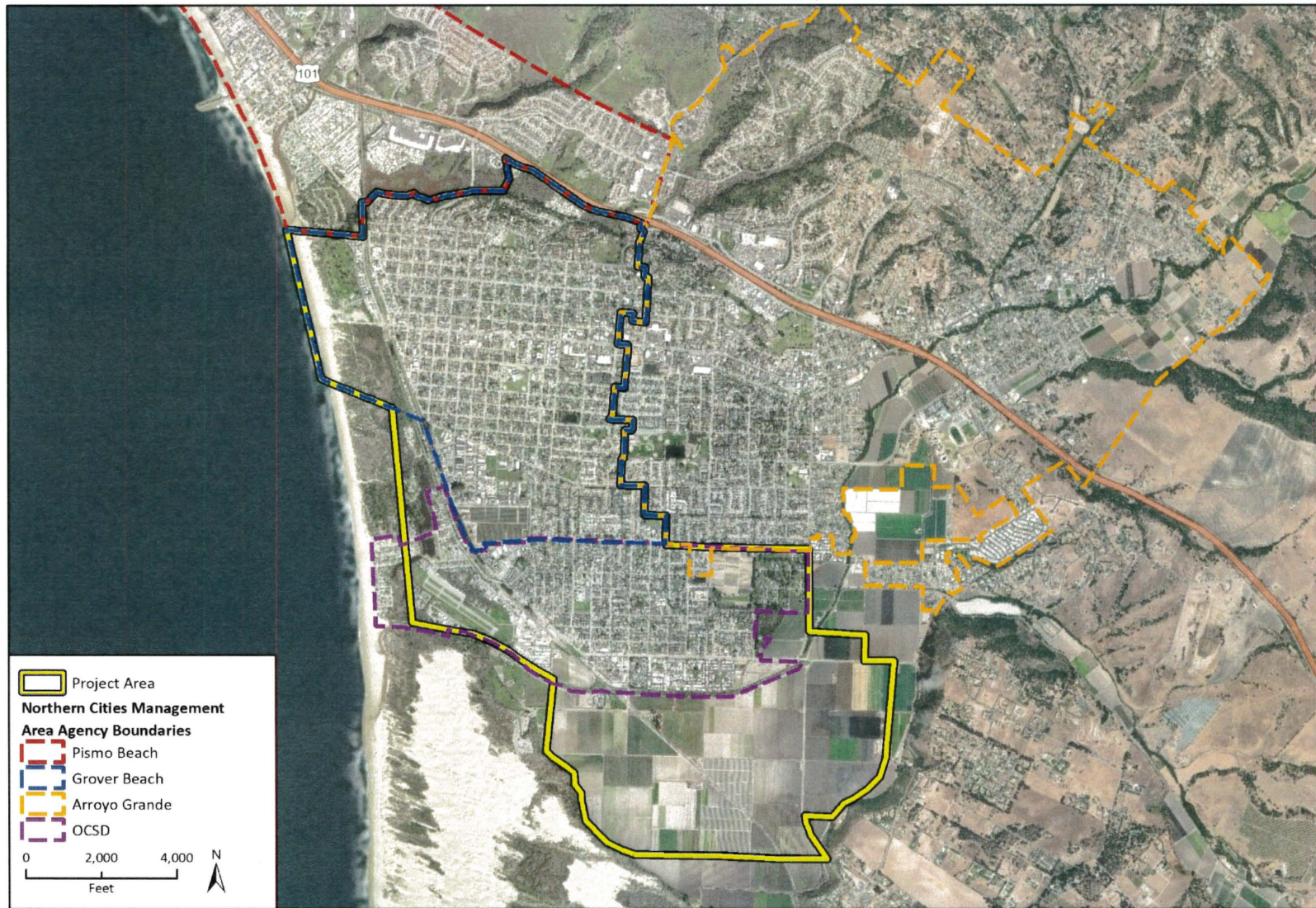




Figure 2 Boundaries of NCMA Agencies



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Additional data provided by South San Luis Obispo County Sanitation District 2016

Table 1 and Figure 3 present the known locations of project components. All of the project components would be located within one mile of the coast with the exception of the existing production wells that would be used for the proposed project, the one new production well likely to be located in Grover Beach, and the agricultural irrigation pipelines and associated irrigated lands. The new production well would be owned and operated by the City of Pismo Beach and likely would be located in Grover Beach on land leased or acquired by the City of Pismo Beach. Potential agricultural irrigation pipelines would likely be located within public rights-of-way, as feasible. These pipelines would also traverse Arroyo Grande Creek and extend through agricultural lands south of Oceano, where they would terminate at the agricultural properties to be irrigated.

**Table 1 Known Locations of Project Components**

Project Component	APN	Address/Description	Existing Use
ATF Complex and MW-3D/3E	060-543-016	980 Huber Street (between Huber Street and Barca Street approximately 120 feet north of Calvin Court), Grover Beach <sup>1</sup>	An approximately 1.5-acre parcel that contains several unpaved storage yards separated with chain link fencing that are used for the storage of automobiles, trucks, recreational vehicles, storage containers, boats, trailers and miscellaneous equipment storage. Northwestern portion of the parcel occupied by American Roof Removal/American Roofing Co.
IW-1	060-267-001	West of the western terminus of Manhattan Avenue, Grover Beach	Coastal Dunes RV Park and Campground
IW-2A, IW-2B, and MW-2A/2B/2C	060-323-004	West of South 4th Street between Trouville Avenue and Farroll Road, Grover Beach	Coastal Dunes RV Park and Campground
IW-3	061-111-018	Northeast of intersection of SR 1 and Coolidge Drive, Oceano	Coastal Dunes RV Park and Campground
IW-4	061-111-017	East of SR 1 between Truman Drive and Pershing Drive, Oceano	Coastal Dunes RV Park and Campground
IW-5A, IW-5B, and MW-5A/5B/5C	061-093-047	1600 Aloha Place, Oceano	SSLOCSD WWTP
MW-1A/1B	060-193-022	Northeast corner of Longbranch Avenue and South 6th Street, Grover Beach	Undeveloped land
MW-1C/1D	Public right-of-way of Manhattan Avenue	Manhattan Avenue right-of-way west of South 4th Street, Grover Beach	Paved roadway
MW-2D/2E/2F	Public right-of-way of South 5th Street	South 5th Street right-of-way between Mentone Avenue and Farroll Road, Grover Beach	Paved roadway
MW-3A/3B	Public right-of-way of South 4th Street	South 4th Street right-of-way between Leoni Drive and Calvin Court, Grover Beach	Paved roadway

City of Pismo Beach  
**Central Coast Blue Project**

Project Component	APN	Address/Description	Existing Use
MW-4A/4B	061-111-017	East of the eastern terminus of Pier Avenue, Oceano	Coastal Dunes RV Park and Campground
MW-4C/4D	060-591-018	West of the western terminus of The Pike, Grover Beach	Stormwater detention basin
MW-5D/5E/5F	062-271-006	1650 Front Street, Oceano	Oceano Depot
Water Distribution Pipelines	Public rights-of-way of Barca Street, South 4 <sup>th</sup> Street, Calvin Court, SR 1, Coolidge Drive, Norswing Drive, Pershing Drive, and Mendel Drive	Barca Street, South 4 <sup>th</sup> Street, Calvin Court, SR 1, Coolidge Drive, Norswing Drive, Pershing Drive, and Mendel Drive in Oceano and Grover Beach	Paved roadways
	061-093-047	1600 Aloha Place, Oceano	SSLOCSD WWTP
	061-093-044	561 Air Park Drive, Oceano	Oceano County Airport
	061-111-017 and -018	East of intersection of SR 1 and Coolidge Drive, Oceano	Coastal Dunes RV Park and Campground
	061-111-019, -021 and -022	East of intersection of SR 1 and Coolidge Drive, Oceano	Union Pacific Railroad track

APN = Assessor's Parcel Number; ATF = advanced treatment facility; IW = injection well; MW = monitoring well; SSLOCSD = South San Luis Obispo County Sanitation District; WWTP = wastewater treatment plant

<sup>1</sup> A sign on one of the gates that provides access to this parcel identifies the site address as 980 Huber Street.



Figure 3 Project Components with Known Locations



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## 6. Project Sponsors' Name and Address

City of Pismo Beach  
Public Works Department  
760 Mattie Road  
Pismo Beach, California 93449

South San Luis Obispo County Sanitation District  
1600 Aloha Place  
Oceano, California 93445

## 7. General Plan and Zoning Designations

Table 2 summarizes the General Plan and zoning designations for project components with known locations. See Figure 4 and Figure 5 for maps of General Plan land use and zoning designations, respectively.

**Table 2 General Plan and Zoning Designations for Project Components with Known Locations**

Project Component	General Plan Land Use Designation	Zoning Designation <sup>1</sup>	Combining Designation <sup>2</sup>
ATF Complex and MW-3D/3E	Industrial	Industrial	Coastal Zone
IW-1	Visitor Serving – Mixed-Use	Coastal Visitor Serving	Coastal Zone Flood Hazard Area
IW-2A and IW-2B	Recreation	N/A	Coastal Zone Airport Review Area
IW-3, IW-4, MW-2A/2B/2C, MW-4A/4B	Recreation	N/A	Coastal Zone Archaeologically Sensitive Area Airport Review Area
IW-5A, IW-5B, and MW-5A/5B/5C	Public Facilities	N/A	Coastal Zone Archaeologically Sensitive Area Wetland Airport Review Area Flood Hazard Area
MW-1A/1B	Public right-of-way	Public right-of-way	N/A
MW-1C/1D	High Density Residential	High Density Residential	None
MW-2D/2E/2F	Public right-of-way	Public right-of-way	N/A
MW-3A/3B	Public right-of-way	Public right-of-way	N/A
MW-4C/4D	Public/quasi-public	Urban Reserve	None
MW-5D/5E/5F	Recreation	N/A	Coastal Zone Airport Review Area

Project Component	General Plan Land Use Designation	Zoning Designation <sup>1</sup>	Combining Designation <sup>2</sup>
Water Distribution Pipelines	Public Facilities, Recreation, Industrial, public rights-of-way	Industrial, public rights-of-way	Coastal Zone Archaeologically Sensitive Area Coastal Zone Creek or Stream Wetland Airport Review Area Flood Hazard Area

ATF = advanced treatment facility; IW = injection well; MW = monitoring well; SSLOCSD = South San Luis Obispo County Sanitation District; WWTP = wastewater treatment plant; N/A = Not applicable

<sup>1</sup> The County of San Luis Obispo does not assign zoning designations to parcels in unincorporated San Luis Obispo County.

<sup>2</sup> Combining designations are assigned by the County of San Luis Obispo.

Sources: City of Grover Beach 2014 and 2018; County of San Luis Obispo 2020

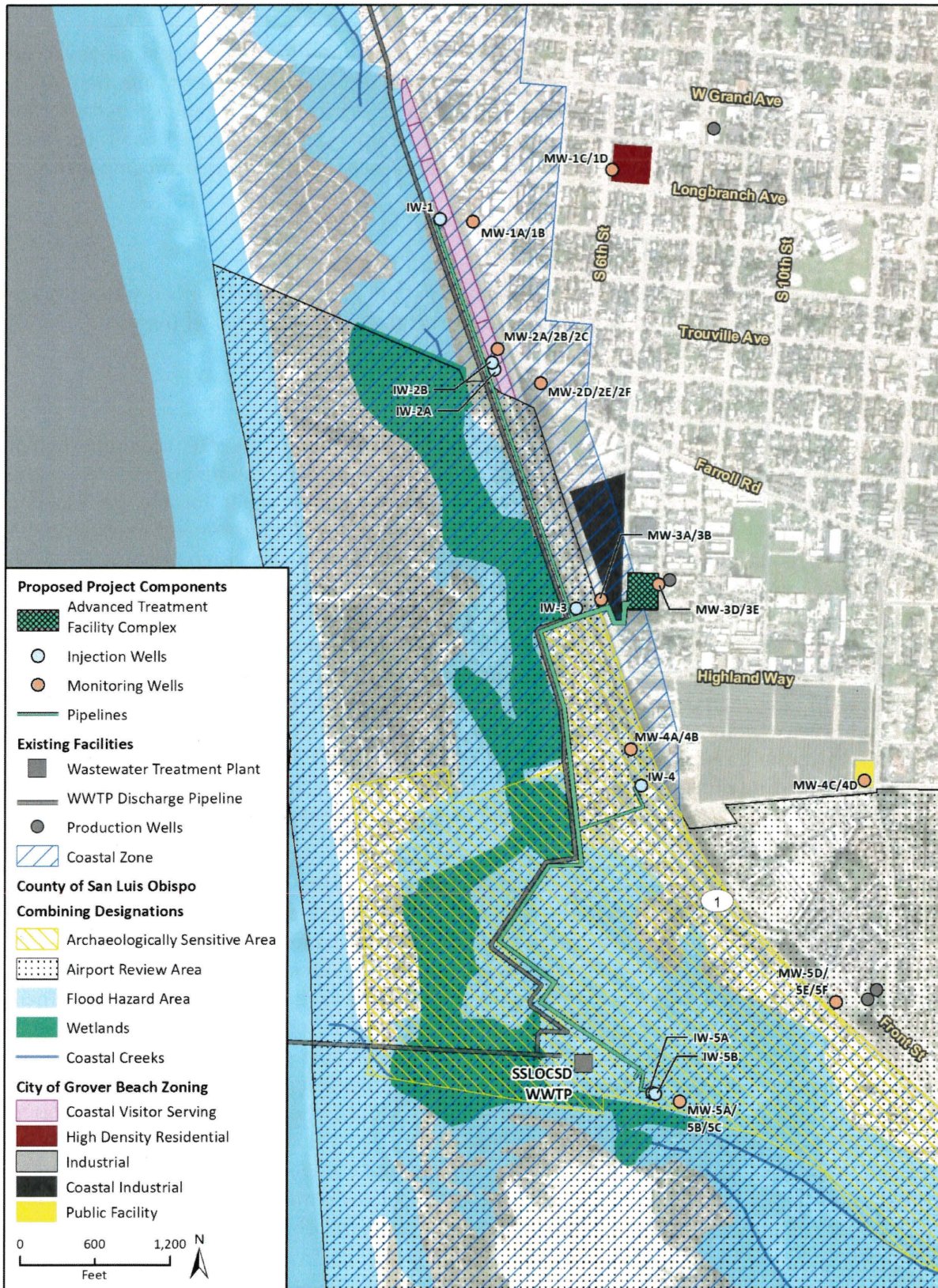


**Figure 4 General Plan Land Use Designations of Project Components with Known Locations**





**Figure 5 Zoning Designations of Project Components with Known Locations**



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Additional data provided by County of San Luis Obispo and City of Grover Beach, 2017.

## 8. Description of Project

The proposed project consists of an ATF complex (including an equalization basin, an advanced purified water storage tank, and a pump station), water distribution pipelines, injection wells, monitoring wells, one new production well, and potential agricultural irrigation pipelines. The project would also include groundwater injection via the proposed injection wells and increased groundwater pumping from existing production wells. Each of these project components is described below.

### **Advanced Treatment Facility Complex**

The ATF complex would include an ATF, an equalization basin, an advanced purified water storage tank, and a pump station, which would all be constructed on the same parcel (Assessor's Parcel Number 060-543-016).

#### *Advanced Treatment Facility*

The ATF would treat flows from the Pismo Beach WWTP and the SSLOCSD WWTP. The proportion of the ATF source water that each of these flows comprises would be determined based on the operational needs of the project and the need for supplemental water for the participating agencies, among other factors. The ATF would be designed to initially receive and treat up to 1.3 million gallons per day (mgd) of secondary treated influent flows from the Pismo Beach WWTP with a final influent capacity of 5.4 mgd for flows from both the Pismo Beach and SSLOCSD WWTPs. The ATF could initially produce up to 1.0 mgd of advanced purified water with a final production capacity of 3.9 mgd.<sup>1</sup> The Pismo Beach WWTP currently treats an average of 0.9 million gallons per day (mgd) of wastewater to a secondary treatment level. The existing treatment process starts with a bar screen to remove debris. After the bar screen, the water flows through oxidation ditches. The oxidation ditches operate under anoxic and aerobic conditions to remove nitrogen/ammonia from the water. Next, the water flows to a clarifier, where solids are settled out. At this point, the water has been treated to a non-potable level and can be disinfected in the chlorine contact basins and conveyed to the SSLOCSD WWTP where it is discharged to the ocean through the existing ocean outfall, which is shared with SSLOCSD.

The existing treatment process at the SSLOCSD WWTP is slightly different than the process described above for the Pismo Beach WWTP. The SSLOCSD WWTP currently treats approximately 2.4 mgd of wastewater to a secondary level. Similar to the process at the Pismo Beach WWTP, the first step of treatment is a bar screen that physically separates solids and large debris from the flow. After the bar screen, the water is sent to the grit removal stage to remove sand, silt and grit. Then, the wastewater flows to the primary clarifier, which uses gravity to separate solid compounds out of the water. Next, the wastewater flowing out of the primary clarifier goes to the fixed film reactor. The fixed film reactor is a large circular basin filled with a network of plastic media. Microorganisms grow on the plastic media. As the wastewater runs through the media, the microorganisms consume the dissolved organic matter in the water as their food supply. After the water leaves the fixed film reactor, it then goes to the secondary clarifier. The secondary clarifier performs the same process as the primary clarifier, using gravity to separate out any remaining solids or new solids that may have formed during the fixed film reactor stage of treatment. At this point, the water has been

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<sup>1</sup> The difference between influent and production flows from the ATF are a result of the water losses that occur over the course of several steps of treatment processes, which are described in detail below.



treated to a non-potable level and can be disinfected in the chlorine contact chambers before being discharged to the ocean through the existing ocean outfall.

Advanced treatment would add several additional treatment steps to further purify water from the Pismo Beach WWTP and SSLOCSD WWTP. Additional treatment steps include microfiltration/ultrafiltration (MF/UF), reverse osmosis (RO), and ultraviolet (UV) disinfection with advanced oxidation. The first step in the advanced treatment process is MF/UF, which filters the wastewater that has already undergone secondary treatment through a physical membrane barrier with very small pores to remove turbidity, particles, and microorganisms. These pores range in size depending on the level of filtration; MF typically has a pore diameter of 0.1 micrometer ( $\mu\text{m}$ ) and UF typically has a pore diameter of 0.01  $\mu\text{m}$ . For comparison, 0.1  $\mu\text{m}$  is 1/600th the diameter of a human hair. In comparison, the smallest size of bacteria is approximately 0.3  $\mu\text{m}$ , which is 1/300th the diameter of a human hair. MF/UF removes very small particles and prepares the water for the next step of RO. The MF/UF membranes are permeable and retain suspended particulates, including bacteria, protozoa, and some organics and viruses, thereby removing these constituents from the water. The MF/UF membranes are designed to adapt to water quality conditions and flow with automatic adjustments to the filter system, which saves energy, chemical use, and manpower. Figure 6 provides an illustrated example of the MF process. The UF process is similar to that of the MF process; however, more organics and viruses are removed in the UF process due to the smaller pore size.

From the MF component, the water travels downstream to the RO component. RO removes dissolved solids, organic contaminants, sugars, salts, and sub-micron particles and pathogens, including viruses, bacteria, and protozoa, from the water. It also uses a physical membrane barrier with pore sizes that range from 0.02  $\mu\text{m}$  to 0.0001  $\mu\text{m}$  depending on the membranes used. Figure 7 provides an illustrated example of the RO process. Unlike MF/UF, RO produces a clean water stream (permeate) and a wastewater stream (concentrate). This means that not all the water is recovered from this process as permeate water. A percentage of the water becomes concentrate (typically about 10 to 30 percent), which contains a higher concentration of the dissolved particles than were in the source water flow. This concentrate will ultimately be discharged to the ocean through the existing ocean outfall that currently receives all the flow from the Pismo Beach and SSLOCSD WWTPs. While the concentrate stream is more concentrated than typical drinking water, it is still much less salty than ocean water or concentrate from ocean desalination facilities. As discussed in the *RO Concentrate Sampling Plan Results* prepared by Carrollo Engineers (2018), the large majority of constituents present in RO concentrate produced using treated wastewater from the City's WWTP will not cause exceedances of the City of Pismo Beach's National Pollutant Discharge Elimination System permit effluent concentration limits (Appendix B). Although testing determined that Total Residual Chlorine concentrations exceed the effluent concentration limits, this issue is present in both the RO source water and RO concentrate and is therefore a result of the secondary treatment process at the Pismo Beach WWTP, not the proposed advanced treatment process. Nevertheless, the ATF would include a process to neutralize the chlorine, which would resolve the exceedance of Total Residual Chlorine concentrations. Testing of RO concentrate produced using the treated wastewater from the SSLOCSD WWTP has not been performed because the advanced treatment pilot plant was located at the Pismo Beach WWTP and the SSLOCSD WWTP effluent water quality is expected to change with implementation of the planned SSLOCSD WWTP Redundancy Project.

After the dissolved solids have been removed, the water that passed through the RO membranes is of very high quality and is ready for the UV disinfection/advanced oxidation treatment process. The

UV disinfection component provides additional treatment by oxidizing trace chemical pollutants that may have passed through the MF and RO stages. Advanced oxidation uses UV light and oxidation chemicals to initiate a series of chemical reactions that break down compounds in the water that cannot be broken down by biological treatment or removed using the membranes. Figure 8 provides an illustrated example of the UV/advanced oxidation treatment process.

In addition to the advanced treatment components described above, the ATF would include staff support facilities that may include office space, a locker room, restrooms, file storage, a break room and kitchen, chemical storage and feed facilities, and an emergency power generator. The ATF would occupy approximately 0.85 acre, and the support facilities would occupy approximately 0.14 acre.

### *Equalization Basin, Storage Tank, and Pump Station*

The project would involve construction of an equalization storage basin as part of the ATF complex, providing greater capacity and operational flexibility to the ATF. The 1.1 million gallons of storage is required to store the secondary treated effluent from the Pismo Beach and SSLOCSD WWTPs prior to advanced purification in the ATF, allowing operations staff to address fluctuations in flow from the WWTPs without impacting the flow rate to the ATF. The equalization basin would occupy approximately 7,500 square feet of area.

Following advanced purification in the ATF, water would travel to the proposed 538,632-gallon advanced purified water storage tank and then to the proposed pump station, where advanced purified water would be pumped to the injection wells. The advanced purified water storage tank would provide operational flexibility and help to maintain a consistent flow in the advanced purified water pump station. The storage tank would be located below ground adjacent to the ATF as part of the ATF complex. The pump station would be housed in a rectangular, cast-in-place concrete building to limit noise and corrosion due to weather. The pump station would occupy approximately 0.03 acre and would be located above the storage tank and adjacent to the ATF as part of the ATF complex. A conceptual drawing of the overall treatment process that would be used is shown in Figure 9.

## **Water Distribution Pipelines**

Water distribution pipelines would be installed along the alignments shown in Figure 3. These pipelines would accomplish four purposes: 1) convey secondary treated effluent from the Pismo Beach WWTP from the existing ocean outfall pipeline to the proposed ATF; 2) convey secondary treated effluent from the SSLOCSD WWTP to the proposed ATF; 3) convey advanced purified water from the proposed ATF to the injection wells; and 4) convey concentrate from the proposed ATF to the existing ocean outfall pipeline. The pipelines would range in size from approximately 6 to 24 inches.

## **Groundwater Injection and Monitoring Wells**

Seven injection wells would be installed at five locations throughout the NCMA, which are shown in Figure 3. The injection wells would be located generally within one-half mile of the coast and would each require approximately 3,000 square feet of land.<sup>2</sup> Each injection well would be approximately 12 inches in diameter and would be constructed of 316L stainless steel casing. Each injection well

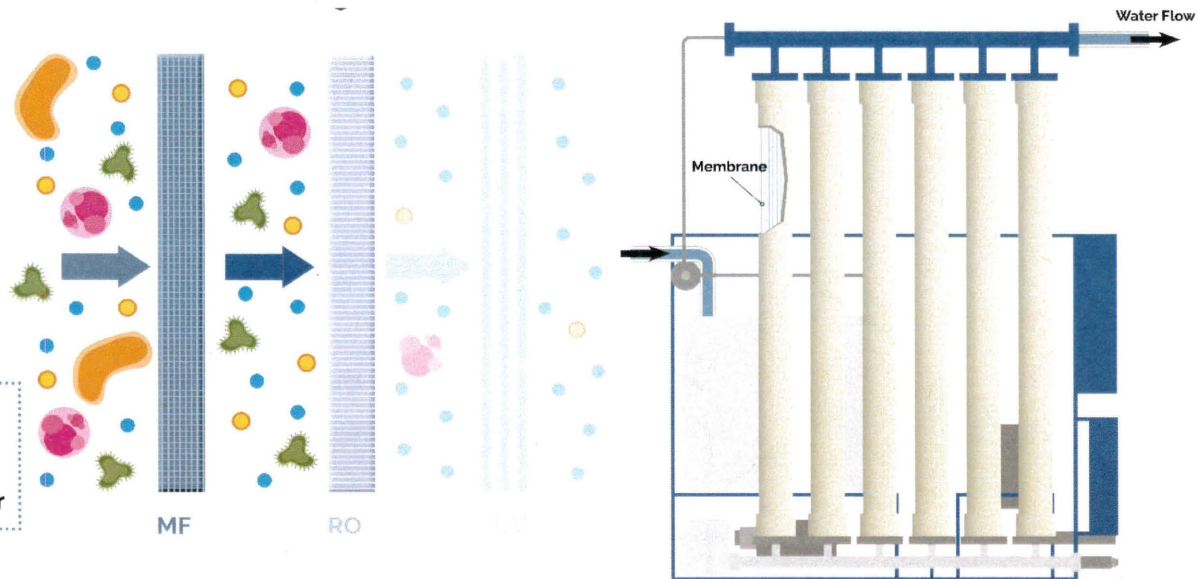
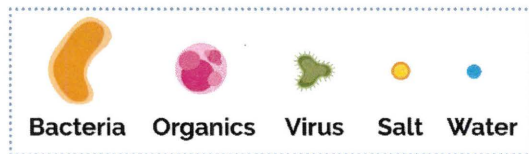
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<sup>2</sup> This is a conservative assumption of the footprint of each injection well.

**Figure 6 Conceptual Microfiltration Process Detail**

The smallest size of bacteria is approximately 0.3 microns or equal to about 1/300<sup>th</sup> of a diameter of human hair.

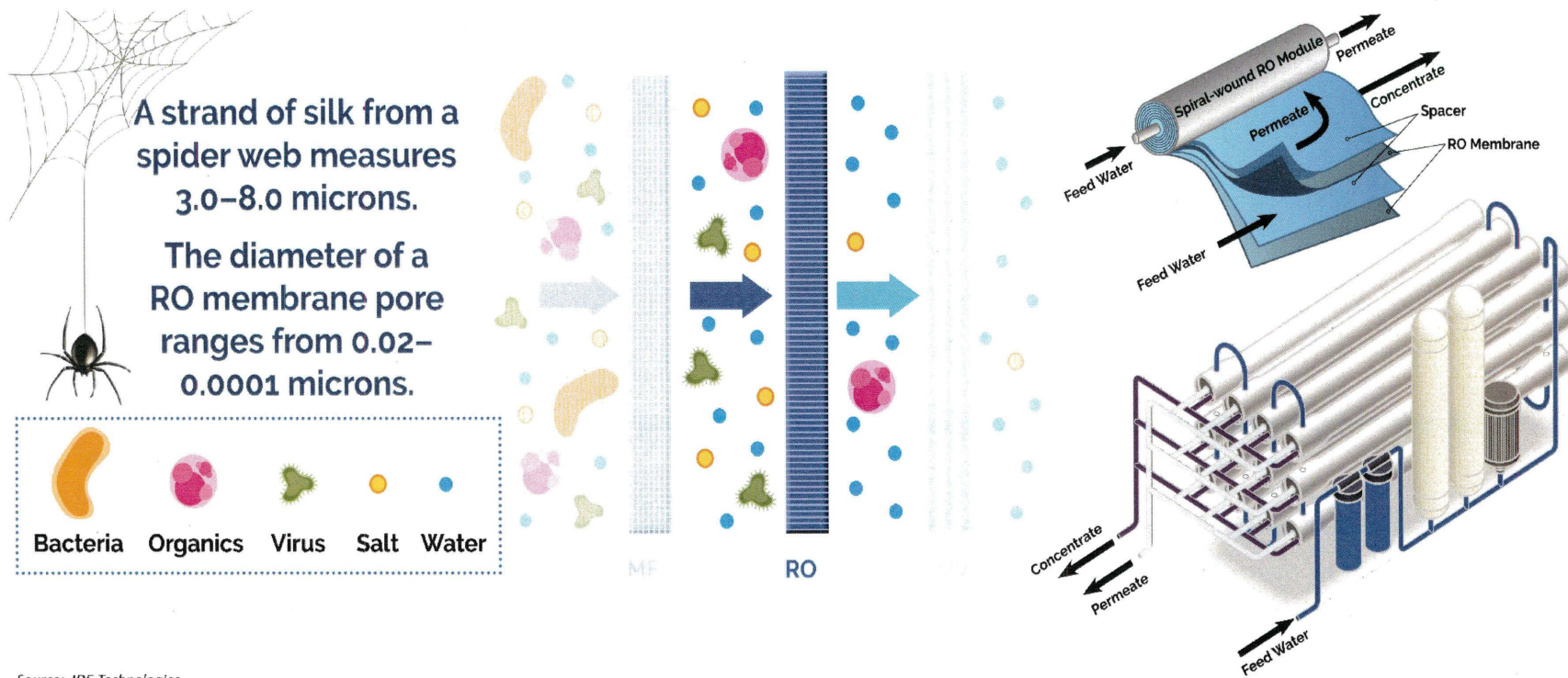
The pore diameter of the MF membrane is 0.1 microns, which is smaller than bacteria.



Source: IDE Technologies.

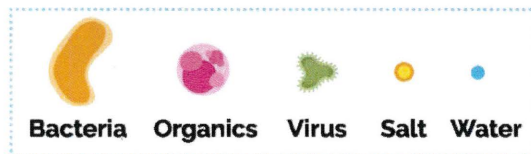


Figure 7 Conceptual Reverse Osmosis Process Detail



**Figure 8 Conceptual Ultraviolet/Advanced Oxidation Process Detail**

Advanced oxidation uses UV light and electrodes to initiate a series of chemical reactions, which break down compounds in the water that may have passed through the MF/RO stages. This is an added measure to provide safe water.



Source: IDE Technologies

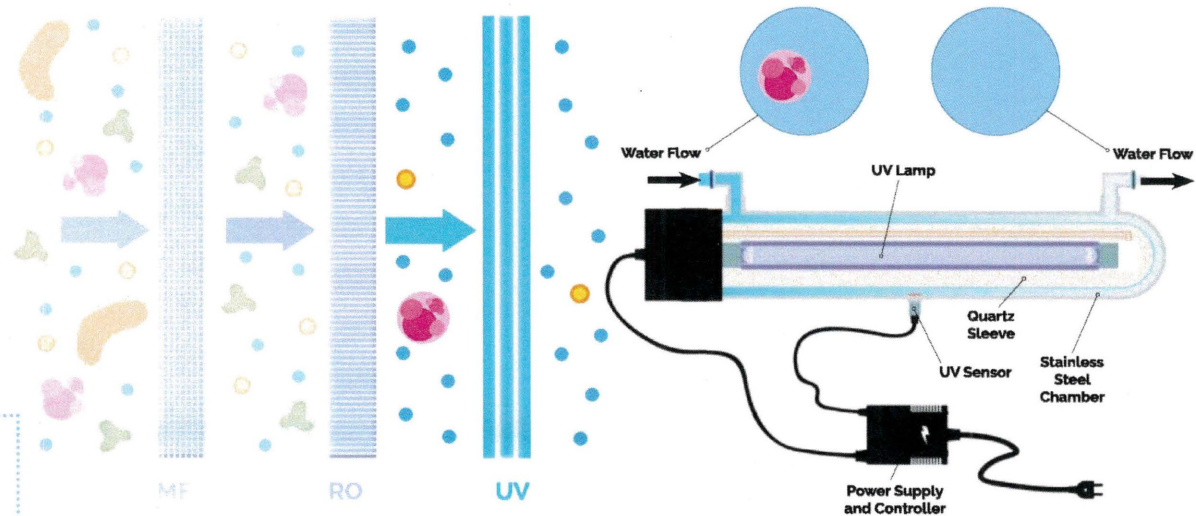
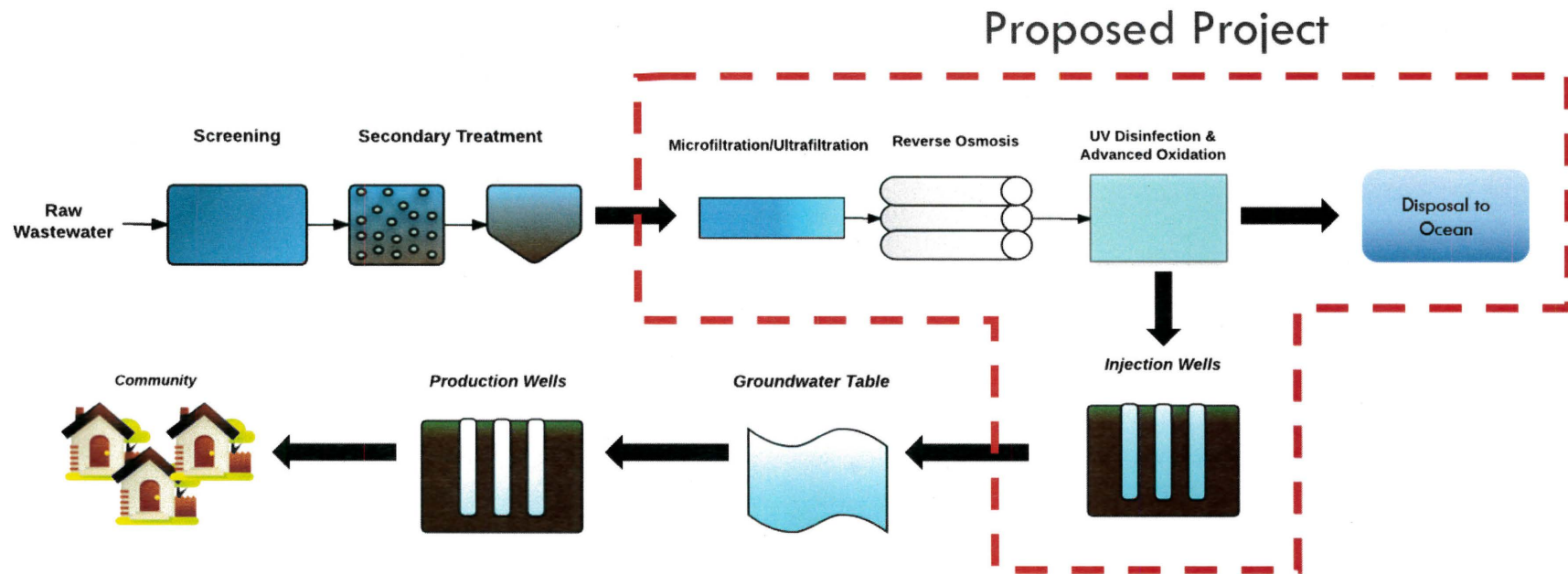


Figure 9 Conceptual Advanced Treatment Process





would be capable of injecting approximately 800 acre-feet per year (AFY). The advanced purified water would be injected at a depth of approximately 200 to 600 feet below ground surface. The injection well network would be accompanied by a network of nested monitoring wells at ten locations throughout the project area. Nested monitoring wells would each include two to three well casings constructed of polyvinyl chloride that would extend to varying depths up to 400 feet. Each monitoring well would have a surface footprint of approximately 25 square feet and would be equipped to measure and monitor water level and water quality. Injection wells would include aboveground piping and infrastructure such as electrical panels, control panels, and storage facilities that would be approximately six feet in height. Monitoring wells would be flush-mounted or encased in a protective casing that extends several feet above ground.

Injection well IW-4 and monitoring well MW-4A/4B will be initially constructed as test wells to conduct a preliminary investigation of the physical and technological constraints and opportunities in the project area. The purpose of this investigation is to gather data and information that may be used to modify the engineering design of the proposed project. As such, these wells were determined by the City of Pismo Beach to be categorically exempt from CEQA under CEQA Guidelines Section 15306, which exempts projects that are classified as basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. Therefore, construction of IW-4 and MW-4A/4B and the testing activities conducted via these wells were covered under previous environmental review and are not evaluated in this analysis. However, the long-term operational impacts of IW-4 and MW-4A/4B are addressed in this EIR.

## Production Wells

Several existing production wells would be available for extraction of the injected advanced purified water. The project would involve increased pumping at these wells but would not involve modification of these existing production wells or any associated ground disturbance. Figure 3 shows the existing production wells that are anticipated to be used. In 2018, the NCMA agencies pumped approximately 764 AFY from the SMGB, which was approximately 18 percent of their total allocation for urban groundwater uses of 4,330 AFY (NCMA 2018). Under full buildout (both Phase I and Phase II) of the proposed project, the NCMA agencies would potentially increase groundwater pumping up to their full allocation for urban uses of 4,330 AFY, which would be a net increase of approximately 3,566 AFY. While the project would lead to increased groundwater pumping over recent rates, groundwater pumping will still be below historical (i.e., 2009) levels.

One new production well would be constructed to optimize the system, but the precise location of that new well has not been determined at this time. The new production well likely would be located in Grover Beach, likely on land leased or acquired by the City of Pismo Beach, and would require approximately 3,000 square feet of land.<sup>3</sup> The characteristics of the new production well, which would be approximately 14 inches in diameter and 300 to 600 feet in depth, would be similar to those of the City's existing production wells. The new production well would include aboveground components typical of production wells, including piping, control systems, a sunshade, storage facilities, a pump and motor, and security fencing/walls. The well pump would be submersible and would therefore not generate substantial noise.

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<sup>3</sup> This is a conservative assumption of the footprint of the production well.

## **Agricultural Irrigation**

A portion of the advanced purified water may be used for agricultural irrigation. Potential agricultural irrigation areas include agricultural lands located generally south of Oceano. If agricultural irrigation is included in the proposed project, additional distribution pipelines would be constructed to carry advanced purified water from the ATF complex to the irrigated lands.

## **Construction Activities**

Project construction would occur in two main phases. Phase I would include construction of five injection wells (IW-1, IW-2A, IW-3, IW-4, and IW-5A), the water distribution pipelines, and the ATF complex with its initial capacity (1.0 mgd of produced water) designed to treat flows from the Pismo Beach WWTP. Phase II would include construction of the remaining two injection wells (IW-2B and IW-5B), installation of approximately 40 feet of additional water distribution pipelines to connect these injection wells to the water distribution pipelines constructed under Phase I, construction of the agricultural irrigation pipelines, and expansion upgrades to the ATF complex to accommodate flows from the SSLOCSO WWTP (3.9 mgd of produced water). Construction of the project components with known locations is anticipated to last approximately 24 months. During the construction period, portions of the project area would be closed to public access.

Construction of the project components is not expected to result in removal of large numbers of mature trees. Also, the project would include planting trees for accenting, screening, or other purposes as space allows, with a preference for native trees.

### *Injection, Monitoring, and Production Wells*

Construction activities would occur from 7:00 a.m. to 7:00 p.m., Monday through Friday with the exception of a three-week period for each well during which well drilling activities would occur for 24 hours per day, Monday through Sunday. Temporary lighting would be required during 24-hour drilling activities and would consist of several lights adhered to the mast of the drill rigs that would be pointed downward and portable lights that would be placed around the working areas.

Construction equipment would include a drilling rig, a gradall forklift, four diesel-powered generators, a compressor, and a backhoe. Additional construction components would include a pipe trailer, water storage tanks, a tool trailer for supply storage, a mud tank, and a roll-off bin. Construction equipment would be up to 50 feet in height. Approximately seven construction workers would be on the project site at any given time. Wells would be drilled up to a depth of approximately 600 feet. Approximately 553 cubic yards of soil would be excavated and exported during well drilling activities.<sup>4</sup>

Project construction would require groundwater pumping activities during well development at a rate of approximately 100 to 300 gallons per minute (gpm) for the monitoring wells and 100 to 1,500 gpm for the injection wells. Well development would produce approximately 300,000 gallons (0.9 acre-feet) of water per monitoring well and approximately 3,500,000 gallons (10.8 acre-feet) of water per groundwater well. Groundwater produced during well development would be disposed of via connections to the existing Pismo WWTP ocean outfall pipeline that runs below SR 1.

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<sup>4</sup> Assumes a swell factor of 1.5.

### *Water Distribution Pipelines*

Construction methods for the proposed pipelines would predominantly involve open trenching, with augur boring or horizontal directional drilling methods used as needed. Trenches would be excavated to approximately six feet in depth and would be backfilled after pipeline installation.

### *ATF Complex*

To accommodate the ATF complex, the existing pavement and fencing at the location of the ATF complex would be removed. In addition, the location of the ATF complex would likely need to be graded to provide a level base for the ATF and appurtenant structures, to provide site access, and to provide appropriate stormwater drainage. It is assumed a moderate amount of existing soil would be excavated and exported and a moderate amount of clean engineered fill or another suitable substrate would be imported to provide geotechnical stability for the ATF complex. Soil export would also be required to accommodate the underground advanced purified water storage tank. Excavation depth is not anticipated to exceed 20 feet.

### **Site Access**

Site access at the ATF complex would be provided via an entrance gate or gates through the ATF complex fencing. Construction of the project components, including the water distribution pipelines and the injection and monitoring wells, would result in temporary access restrictions along public roadways throughout the project area.

### **Operation and Maintenance**

The proposed project would require approximately 15 employees, including operators, electricians, mechanics, and administrative staff, that would work at the ATF complex. Operation and maintenance of the injection, monitoring, and production wells would require weekly visits for inspections, monitoring of pressures, cleaning out well casings, removing microbial build-up, and backflushing. Operation and maintenance of the pipelines would require inspections of pipeline and exercising valves every six months. Chemical deliveries to the ATF complex would occur approximately eight times per month.

Construction of IW-2A, IW-2B, IW-3, and IW-4 could preclude use of up to two campsites per injection well in the Coastal Dunes RV Park and Campground. To compensate for this impact, the City would negotiate a cost agreement with the County of San Luis Obispo Parks and Recreation Department to offset lost revenue from these campsites.

## **9. Surrounding Land Uses and Setting**

Table 3 summarizes the surrounding land uses for each of the project components with known locations.



**Table 3 Surrounding Land Uses for Project Components with Known Locations**

Project Component	Direction	Land Use
ATF Complex and MW-3D/3E	North	Industrial
	East	Industrial
	South	Undeveloped land with a eucalyptus tree grove (zoned Coastal Low-Density Residential)
	West	Industrial
Water Distribution Pipelines	North	Pismo State Beach/Oceano Lagoon, Oceano County Airport, Coastal Dunes RV Park and Campground, Industrial
	East	Residential, Oceano Park, Oceano County Airport, undeveloped land with a eucalyptus tree grove (zoned Coastal Low-Density Residential)
	South	Residential, SSLOCSD WWTP
	West	Pismo State Beach/Oceano Lagoon, Oceano Memorial Campground, Oceano County Airport, Residential, SSLOCSD WWTP, Industrial, Coastal Dunes RV Park and Campground
IW-1, IW-2A, IW-2B, IW-3, IW-4, MW-2A/2B/2C, and MW-4A/4B	North	Undeveloped land (zoned Coastal Visitor Serving), Coastal Dunes RV Park and Campground
	East	Union Pacific Railroad track, South 4 <sup>th</sup> Street, Residential, Industrial
	South	Industrial and Coastal Dunes RV Park and Campground
	West	Pismo State Beach/Oceano Lagoon
IW-5A and IW-5B and MW-5A/5B/5C	North	SSLOCSD WWTP and Oceano County Airport
	East	Oceano County Airport and Arroyo Grande Creek
	South	Arroyo Grande Creek
	West	SSLOCSD WWTP
MW-1A/1B	North	Industrial
	East	Industrial, Manhattan Avenue
	South	Industrial
	West	Union Pacific Railroad track, Coastal Dunes RV Park and Campground
MW-1C/1D	North	Residential
	East	Residential
	South	Longbranch Avenue, Residential
	West	South 6 <sup>th</sup> Street, Residential
MW-2D/2E/3F	North	South 5 <sup>th</sup> Street
	East	Residential
	South	South 5 <sup>th</sup> Street
	West	Residential
MW-3A/3B	North	South 4 <sup>th</sup> Street
	East	Industrial
	South	South 4 <sup>th</sup> Street
	West	Union Pacific Railroad track, Coastal Dunes RV Park and Campground

Project Component	Direction	Land Use
MW-4C/4D	North	Agricultural
	East	South 13 <sup>th</sup> Street, church
	South	Industrial
	West	Agricultural
MW-5D/5E/5F	North	Oceano Depot
	East	Parking lot, undeveloped land
	South	Union Pacific Railroad track, industrial
	West	Union Pacific Railroad track, industrial

ATF = advanced treatment facility; IW = injection well; MW = monitoring well; SSLOCSD = South San Luis Obispo County Sanitation District; WWTP = wastewater treatment plant

## 10. Other Public Agencies Whose Approval is Required

Other agencies whose approval is potentially required include the United States Bureau of Reclamation, the United States Army Corps of Engineers (USACE), the United States Environmental Protection Agency, the Federal Aviation Administration, the California Department of Fish and Wildlife (CDFW), the State Lands Commission, the California Coastal Commission, the California Department of Parks and Recreation, the State Water Resources Control Board (SWRCB) Division of Funding Assistance and the Division of Drinking Water, the California Department of Water Resources, the Central Coast Regional Water Quality Control Board, the California Department of Transportation (Caltrans), SSLOCSD, the County of San Luis Obispo, the City of Arroyo Grande, the City of Grover Beach, and OCSD.

Several partner agencies, potentially including the City of Pismo Beach, SSLOCSD, the County of San Luis Obispo, the City of Arroyo Grande, and the City of Grover Beach, may form a Joint Powers Authority (JPA) at a future time. Should a JPA be formed for the purposes of project funding, management, and operation, that JPA likely would serve as a CEQA Responsible Agency for the proposed project.

## 11. References

- Carollo Engineers. 2018. Appendix B of Technical Memorandum 3 RO Concentrate Sampling Plan Results. November 2018.
- Grover Beach, City of. 2014. "General Plan Land Use Element Map." Last modified: October 2014. [http://www.grover.org/DocumentCenter/View/2751/LUE-Map-after-CoastalComm-approval-includes-Tract3038\\_Oct2014?bidId=](http://www.grover.org/DocumentCenter/View/2751/LUE-Map-after-CoastalComm-approval-includes-Tract3038_Oct2014?bidId=) (accessed March 2020).
- \_\_\_\_\_. 2018. "Official Zoning Map." Last modified: January 3, 2018. [https://www.grover.org/DocumentCenter/View/2749/ZoningMap-11x17-after-CoastalCommissionApproval-includesTract3038\\_Oct2014?bidId=](https://www.grover.org/DocumentCenter/View/2749/ZoningMap-11x17-after-CoastalCommissionApproval-includesTract3038_Oct2014?bidId=) (accessed March 2020).
- Northern Cities Management Area (NCMA) Technical Group. 2018. Northern Cities Management Area 2017 Annual Monitoring Report. April 22, 2018. Available online at: <https://www.pismo beach.org/DocumentCenter/View/42377/NCMA-2017-Annual-Monitoring-Report?bidId=>

Pismo Beach, City of. 2016. 2015 Urban Water Management Plan for the City of Pismo Beach. June 29, 2016. Available online at: <https://pismo-beach.org/DocumentCenter/View/47720/Pismo-Beach-2015-UWMP-?bidId=>

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