

Pursuant to Governor Newsom's Executive Order N-29-20, members of the Board of Directors and staff will participate in this meeting via a teleconference. Members of the public can submit written comments to the Deputy District Clerk at boardcomment@cambriacsd.org



CAMBRIA COMMUNITY SERVICES DISTRICT

I, Harry Farmer, President of the Cambria Community Services District Board of Directors, hereby call a Special Meeting of the Board of Directors pursuant to California Government Code Section 54956. The Special Meeting will be held: **Thursday, June 25, 2020, 2:00 PM**. The purpose of the Special Meeting is to discuss or transact the following business:

AGENDA

SPECIAL MEETING OF THE CAMBRIA COMMUNITY SERVICES DISTRICT BOARD OF DIRECTORS

Thursday, June 25, 2020, 2:00 PM

Please click the link below to join the webinar:

<https://zoom.us/j/93977535853pwd=QnorTCtLR3JOWjjiUVRacm5GZDIIZz09>

Password: 037808

Or iPhone one-tap:

US: +16699006833,,93977535853# or +13462487799,,93977535853#

Or Telephone:

Dial (for higher quality, dial a number based on your current location):

US: +1 669 900 6833 or +1 346 248 7799 or +1 253 215 8782 or +1 929 205 6099 or +1 301 715 8592 or
+1 312 626 6799

Webinar ID: 939 7753 5853

International numbers available: <https://zoom.us/j/93977535853pwd=QnorTCtLR3JOWjjiUVRacm5GZDIIZz09>

1. **OPENING**
 - A. **Call to Order**
 - B. **Pledge of Allegiance**
 - C. **Establishment of Quorum**
 - D. **Report from Closed Session**
2. **PUBLIC COMMENT ON AGENDA ITEMS**
3. **BOARD MEMBER, COMMITTEE AND LIAISON REPORTS**
 - i. President's Report
 - ii. Finance Committee's Report
 - iii. Policy Committee's Report

- iv. Resources & Infrastructure Committee's Report
- v. Other Liaison Reports and Ad Hoc Committee Reports

4. REGULAR BUSINESS

- A.** DISCUSSION AND CONSIDERATION OF ADOPTION OF RESOLUTION 32-2020
DECLARING A CONTINUED LOCAL EMERGENCY IN THE CAMBRIA COMMUNITY
SERVICES DISTRICT DUE TO THE CORONAVIRUS PANDEMIC
- B.** DISCUSSION REGARDING THE COASTAL DEVELOPMENT PERMIT PROGRESS
AND DRAFT PROJECT DESCRIPTION FOR THE SUSTAINABLE WATER FACILITY

5. FUTURE AGENDA ITEM(S)

Requests from Board members to receive feedback, direct staff to prepare information, and/or request a formal agenda report be prepared and the item placed on a future agenda. No formal action can be taken except to direct staff to place a matter of business on a future agenda by majority vote.

6. ADJOURN

CAMBRIA COMMUNITY SERVICES DISTRICT

TO: Board of Directors

AGENDA NO. **4.A.**FROM: John F. Weigold, IV, General Manager
Timothy Carmel, District Counsel

Meeting Date: June 25, 2020

Subject: DISCUSSION AND CONSIDERATION
OF ADOPTION OF RESOLUTION 32-
2020 DECLARING A CONTINUED
LOCAL EMERGENCY IN THE
CAMBRIA COMMUNITY SERVICES
DISTRICT DUE TO THE
CORONAVIRUS PANDEMIC**RECOMMENDATIONS:**

Staff recommends that the Board of Directors discuss and consider adoption of Resolution 32-2020 declaring a continued local emergency in the Cambria Community Services District due to the Coronavirus Pandemic.

FISCAL IMPACT:

Fiscal impacts associated with this item are unknown at this time.

DISCUSSION:

As the Board is aware, the State and County of San Luis Obispo have adopted a number of executive orders declaring a public health emergency and imposing restrictions on the general population to help control the spread of the COVID-19 virus. The Board of Directors adopted Resolution 09-2020 on March 23, 2020, which declared a local State of Emergency and provided the General Manager with authority to allow for a more expeditious and effective response to various situations related to the Coronavirus Pandemic as they occur. Resolution 09-2020 requires the Board to determine whether a local State of Emergency continues to exist at each regular and special meeting. As the COVID-19 virus continues to ravage the State and country, it is recommended that the Board adopt Resolution 32-2020 declaring a continued State of Emergency.

Attachment: Resolution 32-2020

RESOLUTION 32-2020
JUNE 25, 2020

A RESOLUTION OF THE BOARD OF DIRECTORS OF
THE CAMBRIA COMMUNITY SERVICES DISTRICT DECLARING A
CONTINUED LOCAL EMERGENCY DUE TO THE CORONAVIRUS (COVID-19)

WHEREAS, on March 23, 2020, the Board of Directors adopted Resolution 09-2020 declaring the existence of a State of Emergency in the Cambria Community Services District as a result of the Coronavirus Pandemic; and

WHEREAS, Resolution 09-2020 requires the Board of Directors to determine whether the local State of Emergency continues to exist at each regular or special Board meeting; and

WHEREAS, the Board finds that this emergency, which involves the outbreak of an extremely infectious disease (COVID-19), is a highly fluid and evolving situation, and in the interest of public health, safety and welfare, such a State of Emergency continues to exist in the Cambria Community Services District.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Cambria Community Services District that a State of Emergency continues to exist in the Cambria Community Services District as a result of the Coronavirus Pandemic.

PASSED AND ADOPTED this 25th day of June, 2020.

Harry Farmer, President
Board of Directors

APPROVED AS TO FORM:

Timothy J. Carmel
District Counsel

ATTEST:

Haley Dodson
Deputy District Clerk

CAMBRIA COMMUNITY SERVICES DISTRICT

TO: Board of Directors

AGENDA NO. **4.B.**FROM: John F. Weigold, IV, General Manager
Ray Dienzo, Utilities Department Manager/District Engineer

Meeting Date: June 25, 2020

Subject: DISCUSSION REGARDING THE
COASTAL DEVELOPMENT PERMIT
PROGRESS AND DRAFT PROJECT
DESCRIPTION FOR THE
SUSTAINABLE WATER FACILITY**RECOMMENDATIONS:**

Staff recommends that the Board receive a report regarding the Coastal Development Permit progress, review the draft project description for the Sustainable Water Facility (SWF) and direct staff to process submittal.

FISCAL IMPACT:

There are costs associated with this item related to staff wages, AGP video, online conferencing, and preparation of documents.

DISCUSSION:

The District's SWF project was permitted under an Emergency Coastal Development Permit in May 2014. As required by conditions of the emergency CDP, the District applied for a regular Coastal Development Permit (CDP) in June 2014. Since then, a Subsequent Environmental Impact Report (SEIR) was prepared and certified and included project modifications that warrant changes to the Project Description for the CDP application. The project modifications selected from the SEIR are listed below and are required to operate the facility as built. Revisions to the Project Description were made in collaboration with County of San Luis Obispo Planning Department staff and the CDP Board Ad Hoc Committee. An earlier version of this draft was sent to California Coastal Commission staff, in mid-April 2020 to get their preliminary feedback. This current draft incorporates many of Coastal Commission staff's comments and suggestions.

Project Modifications

The project description includes the following project modifications which were evaluated within the SEIR.

- **Brine Storage Tanks and Off-site Hauling:** This project modification is in response to the closure of the emergency project's brine evaporation pond, which was decommissioned in accordance with the Water Board's 2017 Cease and Desist Order. Use of the pond is not being included as part of the current project description. Intermediate brine storage in Baker tanks and off-hauling via tanker truck is proposed, as required by our operating permit.

- **Lagoon Surface Discharge:** The lagoon surface discharge is an emergency project component with modifications to relocate the discharge point further south to the San Simeon Creek bank.
- **New Conveyance Piping:** An extension of the existing filtrate pipeline for the relocated lagoon surface discharge is proposed.
- **Modified SWF Operations:** In response to a prolonged dry season, the SWF could run for 24 hours per day seven days per week (24/7), during the driest time of the year (approximately six months). During normal precipitation years, average operation would likely be nine hours per day, four days per week for approximately two to six months. Actual operating parameters in any given year will be determined by the status of the basin aquifer and results of monitoring required within the Adaptive Management Plan.

In order to provide technical support for our CDP application, staff is currently generating a scope of work for an in-stream flow study to address any data gaps regarding potential project impacts to coastal resources. The in-stream flow study will build off and more fully inform the Adaptive Management Plan. Staff is coordinating with our environmental consultants, Urban Water Management Plan (UWMP) consultants, County of San Luis Obispo Planning Department staff and California Coastal Commission staff to prepare a useful study that would address these concerns. As we obtain updated data, some elements of the Project Description may need to be modified, but the current draft of the Project Description is sufficient to submit with our application for a CDP.

Staff recommends that the Board review and discuss the updated draft Project Description and the status of the CDP application, and direct staff to process submittal.

Introduction

The Cambria Community Services District (CCSD) provides water, wastewater, fire protection, administration, parks and recreation and other services to the community of Cambria. The CCSD service area covers nearly 3,200 acres (five square miles) and includes the adopted Urban Reserve Line (URL) and land surrounding the URL (Figure 1). Cambria's water system serves 4,034 service connections while delivering an average of 520 acre-feet per year¹ (AFY) of water to its customers. The CCSD's 2015 Urban Water Management Plan² (UWMP) projects that less than 700 AFY will be required to serve the development holding capacity accommodated by the currently adopted Local Coastal Program, which is discussed in more detail later in this project description.

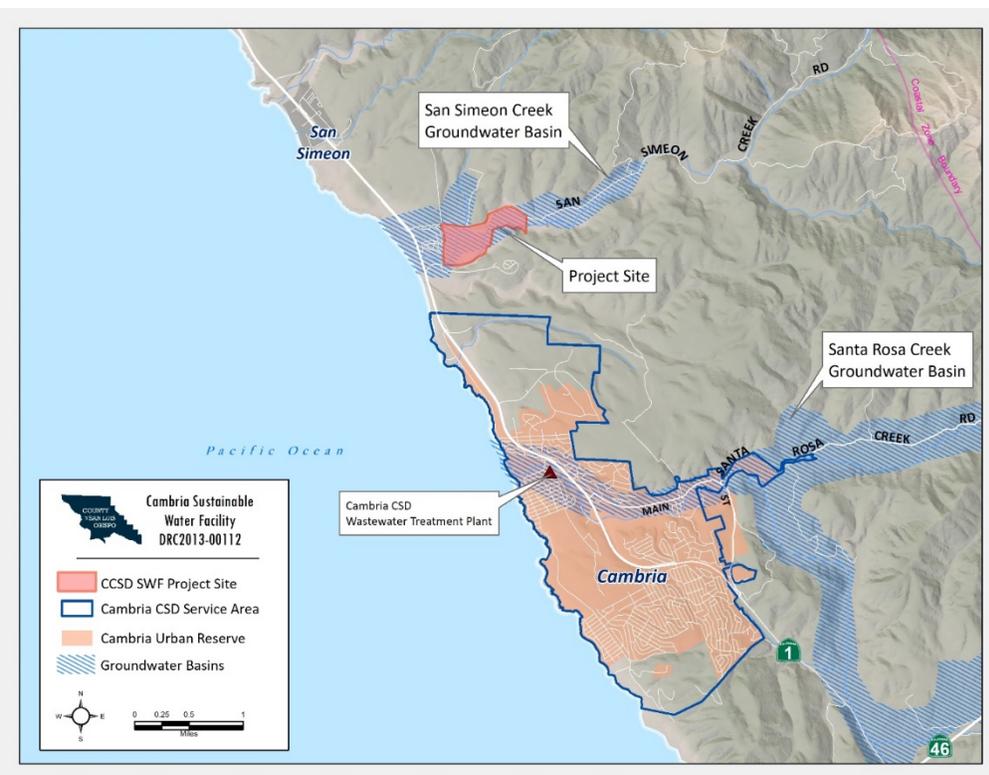


Figure 1 Project Location

The CCSD obtains all of its potable water supply from the San Simeon Creek and Santa Rosa Creek groundwater basins (Figure 1). Neither aquifer has been adjudicated; however, the CCSD's current State Water Resources Control Board (SWRCB) water rights diversion licenses limit the combined pumping from both basins to a maximum of 1,017 acre-feet (AF) annually. During the dry season, the diversion is conditioned to include not exceeding 370 acre-feet from the date of flow cessation at the San Simeon Creek Palmer Flats bridge until October 31st. The Santa Rosa

¹ An acre-foot is 325,851 gallons. Figure is based on 2015-2019 consumption.

² The CCSD is currently preparing an update of the UWMP which will contain revised estimates for supply and demand based on the Division of Water Resources' (DWR) forthcoming guidebook for the 2020 UWMP. The DWR is expected to release the final guidebook in Fall 2020; the deadline to submit the 2020 UWMP is July 1, 2021.

diversion cannot exceed 155.3 acre-feet between May 1st and October 31st. In addition to the SWRCB issued diversion licenses, a May 29, 1981 Coastal Development Permit amendment issued to CDP 132-18 (rehabilitation of the CCSD's water distribution system and San Simeon well field) and CDP 132-20 (CCSD WWTP) limits the total diversion from both basins to no more than 1,230 acre-feet per year (AFY).

Data compiled since 1988 indicate that the average groundwater level at the District's San Simeon Creek well field typically ranges from 8 to 20 feet in depth. However, a succession of below-average rainfall years beginning in 2010 resulted in significantly less than the minimum needed to recharge the two aquifers. In response, the CCSD imposed stringent water conservation measures while it continued to consider strategies for improving the short-term and long-term reliability of the community's water supply. During the 2013/2014 water year³, well levels dropped to as low as three feet during the month of September and fluctuated between four to seven feet in depth from October through February. The CCSD determined that if the drought continued, well levels could decline to a point where the community's water supply was in serious jeopardy. In January 2014, the CCSD Board of Directors (Board) declared a Stage 3 Water Shortage Emergency Condition, the most severe of three levels. The Stage 3 Condition was declared based on the Board's determination that:

...the demands and requirements of water consumers cannot be satisfied without depleting the water supply of the CCSD to the extent that there would be insufficient water for human consumption, sanitation, and fire protection and that, based on this condition and on concerns regarding the anticipated prolonged drought conditions.

In light of the urgency of the situation, the CCSD decided to construct an emergency water supply system that could be completed as quickly as possible. The chosen approach, originally known as the Emergency Water Supply project, involved the construction and operation of an advanced water treatment plant at the CCSD's existing San Simeon well field and treated wastewater effluent land disposal system property (Figure 1). The facility utilizes an indirect potable reuse process through which a mixture of treated effluent, deep brackish water from a saltwater wedge, and lost aquifer underflow are recovered and treated through advanced treatment methods to produce "advanced treated water" which is then injected into the groundwater basin to augment the community's potable water supply. The system is designed to provide a minimum of sixty days' travel time from the point of injection to the point of diversion (e.g., San Simeon well field). Potable water is then consumed and converted to wastewater where it is treated by the wastewater treatment plant, pumped to the percolation ponds (after secondary treatment), and infiltrated back into the groundwater to restart the cycle. This process is illustrated by Figure 2. Because the processed water is returned to the aquifer from which it was pumped, it is not included in the CCSD's annual diversion totals⁴.

An emergency Coastal Development Permit (CDP) was issued by the County in May of 2014 and construction began soon thereafter. The facility began operation in January 2015. Condition No. 6 of the Emergency CDP required the CCSD to apply for a regular CDP within 30 days of the

³ The State Water Resources Control Board defines a 'water year' as October 1st to September 30th.

⁴ RO waste discharge is removed from the aquifer during plant operations, so it is included in the CCSD's annual diversion total. This accounts for approximately 8% of the total volume treated at the plant.

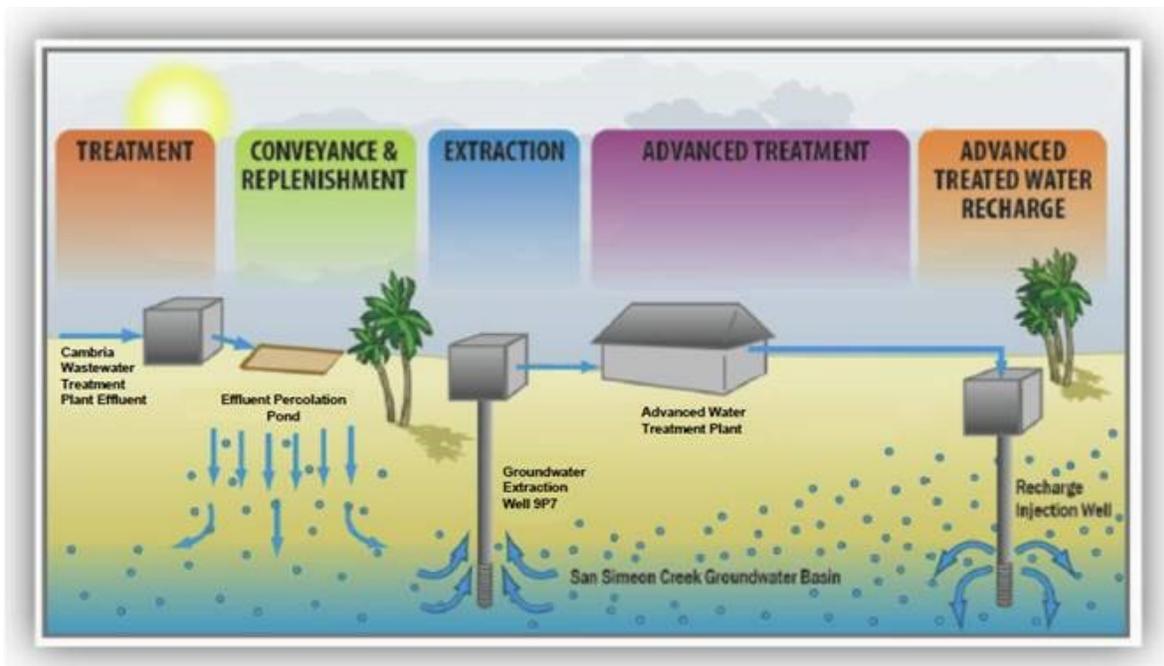


Figure 2 Steps in the Advanced Water Treatment Process

issuance of the emergency permit. As part of the application for the regular CDP, Condition No. 6 required the CCSD to include, at a minimum, the following in the application materials:

- Expected discharge volumes into the proposed evaporation ponds.
- Hydrogeologic modeling analyzing the expected effects of project operations on the underlying aquifer.
- Hydrogeologic monitoring to ensure project operations do not adversely impact coastal waters.
- A description of project operations informed by the hydrogeologic modeling and monitoring.
- An analysis of potential project-related noise and light impacts on biological resources and public recreation.
- Documentation of the impacts of withdrawals on creek and stream resources.

The CCSD applied for a Regular CDP in June 2014. To help address the items required by Condition No. 6, and in compliance with the California Environmental Quality Act (CEQA), the CCSD prepared a Subsequent Environmental Impact Report (SEIR) based on the Emergency Project but with proposed modifications. The Emergency Project, combined with the modifications derived from the SEIR process, became known as the Sustainable Water Facility (SWF) and is the project sought by the Regular CDP. The SEIR was certified in July 2017.

Project Site/Pre-Project Facilities

The project site consists of about 96 acres located on the south side of San Simeon Creek Road immediately east of the San Simeon State Park campground (Figure 3). Based on an assessment

of project alternatives prepared by the CCSD in 2019⁵, the entire project site consists of mapped and unmapped Environmentally Sensitive Habitat Areas (ESHA) of varying quality. The 2019 assessment considered a range of alternative project sites and configurations to determine the feasibility of locating some or all of the project components in areas that would have the least impact on mapped and unmapped ESHA. The 2019 study considered seven project alternatives and alternative sites that were determined to be infeasible for a variety of reasons that include the following:

- Regulatory (permitting) constraints;
- Significantly increased project costs;
- Land acquisition;
- Uncertainty regarding groundwater quality and yield;
- Insufficient water production;
- Significantly larger areas of disturbance that ranged from 2.4 acres to over 43 acres;

In addition, each of the alternatives would result in a range of potentially significant environmental impacts, including impacts to ESHA. The assessment concluded that the SWF project, as represented in the 2017 SEIR, disturbs 1.06 acres, the lowest acreage of disturbance of any of the considered alternatives. The project as represented in this description would have an even smaller impact due to the exclusion of certain project modifications, such as the Surface Water Treatment Plant.

Prior to construction of the SWF, the CCSD-owned property was developed with various water and wastewater facilities, including the San Simeon Well Field and potable water supply line, pumping and monitoring wells, treated wastewater effluent percolation pond system, and Van Gordon Reservoir, which had previously been used as an effluent storage basin.

- **San Simeon Well Field and Potable Water Supply Line.** The San Simeon Well Field (well field) is located on the eastern portion of the project site, approximately one mile inland from the ocean. The well field contains three municipal water wells (CCSD Wells SS-1, SS-2, and SS-3) used to extract groundwater from the San Simeon Aquifer. An underground potable water supply pipeline, which generally parallels the northern and western site boundaries, is used to transport the potable water from the well field to Cambria, approximately 2.5 miles to the south.
- **Pumping, Monitoring and Irrigation Wells.** Pumping, monitoring and irrigation wells include:
 - The CCSD municipal pumping wells described above.
 - Well 9P2, an inactive irrigation well used to monitor the gradient between the CCSD's San Simeon Well Field and the percolated mound of treated wastewater.
 - Well 9P4, which supplies irrigation water pursuant to an agreement with the CCSD that replaced the use of Well 9K1.
 - Well 9P7, a former gradient control well which has been repurposed as part of the project.
 - Well 16D1, an existing monitoring well.

⁵ Cleveland, Cindy, & Gresens, Robert C., Sustainable Water Facility, Feasibility Study and Assessment of Environmentally Sensitive Habitat Areas (ESHA), February 15, 2019.

- Abandoned irrigation wells 9K2 and 9L1; and,
- Well 9P5 (CCSD Well SS-4) which was previously used for monitoring and is located within an offsite easement that is south of San Simeon Creek and on State Park property.

In the past, groundwater was pumped from Well 9P7 to control the gradient between the well field and the percolation ponds. Water was pumped into a buried eight-inch diameter PVC (polyvinyl chloride) pipeline that discharged into Van Gordon Creek. Monitoring Well 16D1 is located at the southwest corner of the project site and is used to monitor groundwater quality down-gradient from the percolation ponds.

- **Treated Wastewater Effluent Percolation Pond Disposal System.** Cambria's Wastewater Treatment Plant (WWTP) is located approximately 2.5 miles to the south, at 5500 Heath Lane (Figure 1). The system, which operates under RWQCB Waste Discharge Requirements Order No. 01- 100 (December 7, 2001), includes four percolation ponds, and associated treated wastewater effluent pipelines. After secondary treatment, treated effluent is pumped to the four percolation ponds. Treated effluent recharges the aquifer through the ponds to maintain a hydraulic mound/barrier, which reduces potable groundwater losses at the San Simeon Creek aquifer/ocean interface and slows the creek underflow. This practice is also important in preventing saltwater intrusion into the freshwater aquifer.

Project Description

The SWF was designed and constructed to improve the reliability of the CCSD's potable water supply during drought conditions and other dry periods. The design and operation of the facility has been informed by several previous studies including, but not limited to, the following:

- The 2006 Water Master Plan and Program EIR (August, 2008);
- Cambria Water Supply Alternatives Engineering Technical Memorandum (CDM Smith, November 27, 2013);
- The Cambria Emergency Water Supply Project San Simeon Creek Basin Groundwater Modeling Report (GMR) (CDM Smith, May, 2014);
- CCSD's 2010 and 2015 Urban Water Management Plans (UWMP);
- Emergency Coastal Development Permit Mitigation Monitoring and Reporting Program (E-CDP MMRP);
- Draft Initial Study and Mitigated Negative Declaration prepared for the project in 2014;
- The Subsequent Environmental Impact Report certified by the CCSD in July, 2017 (Michael Baker International).
- Cleveland, Cindy, & Gresens, Robert C., Sustainable Water Facility, Feasibility Study and Assessment of Environmentally Sensitive Habitat Areas (ESHA), February 15, 2019

Further refinements and modifications were incorporated into the final design in response to comments received on the draft Initial Study and Mitigated Negative Declaration prepared for the emergency project in 2014, and through continued consultation with other regulatory agencies. Lastly, the SEIR identified several mitigation measures to avoid and/or reduce potentially adverse environmental impacts associated with the continuation of project operations within and adjacent to sensitive habitat areas. The project requested under the regular Coastal Development Permit includes the facilities constructed under the Emergency CDP plus select Project Modifications. The components of the proposed project are described below and illustrated by Figures 4 and 5.

Where relevant, the SEIR mitigation measures are referenced with the corresponding Project Modifications.

Source Water -- Extraction Well 9P7

Emergency Project Components

The brackish source water for the SWF is pumped from existing Well 9P7 and is a blend of native basin groundwater, deep aquifer brackish water, and percolated secondary effluent from the CCSD's WWTP. The brackish groundwater is comprised of diluted seawater (that occurs from the subterranean dispersion of salts from a deeper saltwater wedge into an overlying freshwater interface zone), creek underflow, and percolated treated wastewater effluent. The degree to which this groundwater source is impaired depends on the ultimate contribution of secondary effluent in the extracted water and the level of treatment achieved for this water through soil aquifer treatment and aquifer travel time. With the system in operation, the water elevation at the potable well field is maintained higher than the secondary effluent mound, and higher than that of seawater. This serves as a barrier to prevent seawater from moving inland to the potable well field.

Advanced Water Treatment Plant (AWTP)

Emergency Project Components

The AWTP treats the potentially impaired groundwater to advanced treated water quality standards suitable for injection further upstream into the groundwater basin to augment the potable water supply. A portion of the advanced treated water will also be conveyed to a point immediately upstream of the San Simeon Creek Lagoon to maintain water levels during dry weather conditions (discussed below).



AWTP Treatment Processes. The AWTP's main treatment processes include membrane filtration (MF), reverse osmosis (RO), and advanced oxidation process (AOP) utilizing ultraviolet (UV) light and hydrogen peroxide.

Key AWTP unit processes equipment were pre-packaged and mounted in six shipping containers, which were installed within an area measuring approximately 100 feet by 170 feet. Each treatment plant container is approximately 15 feet in height. UV vessels, water tanks, pump skids and self-contained chemical totes were installed outdoors on concrete housekeeping pads. The AWTP process flow is shown in Figure 6.

AWTP Production Flows. Table 1 summarizes recoveries, waste flows, and treatment process capacities for MF and RO systems required to meet the target potable water augmentation of 250 AFY (452,570 gallons per day (gpd) over six months) and San Simeon Creek Lagoon water recharge of 62 AFY (112,980 gpd over six months). The water supply augmentation goal of 250 AFY was determined to meet the minimum capacity necessary to improve water supply reliability to serve approximately 4,650 residential units (including both existing connections and CCSD-approved wait list customers) accommodated by the adopted Local Coastal Program. This

residential service connection goal was established through Board action as part of the proposed Buildout Reduction Program and is included within the County's North Coast Area Plan, as well as other CCSD water resource management studies.

The AWTP feed water flow rate would be about 581 gpm. Assuming all process-associated losses and a 100 gpm flow of filtrate product water to recharge San Simeon Creek Lagoon, the AWTP's daily average product water flow rate would be 400 gpm. Thus, 400 gpm of advanced treated water would be pumped to RIW-1, located a minimum of two-months travel time from existing potable production Wells SS-1 and SS-2. A total of 400 gpm maximum extraction from existing Wells SS-1 and SS-2 (or a combination of both) can occur during project operations.

| Parameter | Unit | Average Flow |
|---|-------------|---------------------|
| MF Recovery | % | 92 |
| RO recovery | % | 92 |
| Influent flow to AWTP | gpm | 581 |
| MF filtrate production (581 x 92%) | gpm | 535 |
| MF filtrate flow to San Simeon Creek Lagoon | gpm | 100 |
| MF filtrate flow to RO feed | gpm | 435 |
| RO permeate production (435 x 92%) | gpm | 400 |
| UV feed flow | gpm | 400 |
| AWTP product water flow for well RIW-1 injection | gpm | 400 |
| Automatic strainer backwash and MF backwash waste | gpm | 37 |
| RO concentrate and membrane cleaning waste | gpm | 35 |

Source: CDM Smith, *Cambria Emergency Water Supply Project Description Table 2-2*, October 2014. Modified to reflect production flow reductions required to achieve the required sixty-day retention time.

AWTP Hours of operation. Operating and maintaining the equipment requires onsite full-time staff, although the AWTP is designed to operate with minimal operator intervention. Up to two employees visit the site daily to visually inspect and maintain the AWTP.

In response to prolonged dry season, the SWF could run for 24 hours per day seven days per week (24/7), during the driest time of the year (approximately six months). During normal precipitation years, average operation would likely be 9 hours per day four days per week for approximately two to six months. The plant would not need to be operated during wet or normal rainfall periods, except for gradient control purposes. During such periods of inactivity, the AWTP is maintained in a ready state, which may include routinely exercising equipment and valves, as well as pickling of the RO elements.

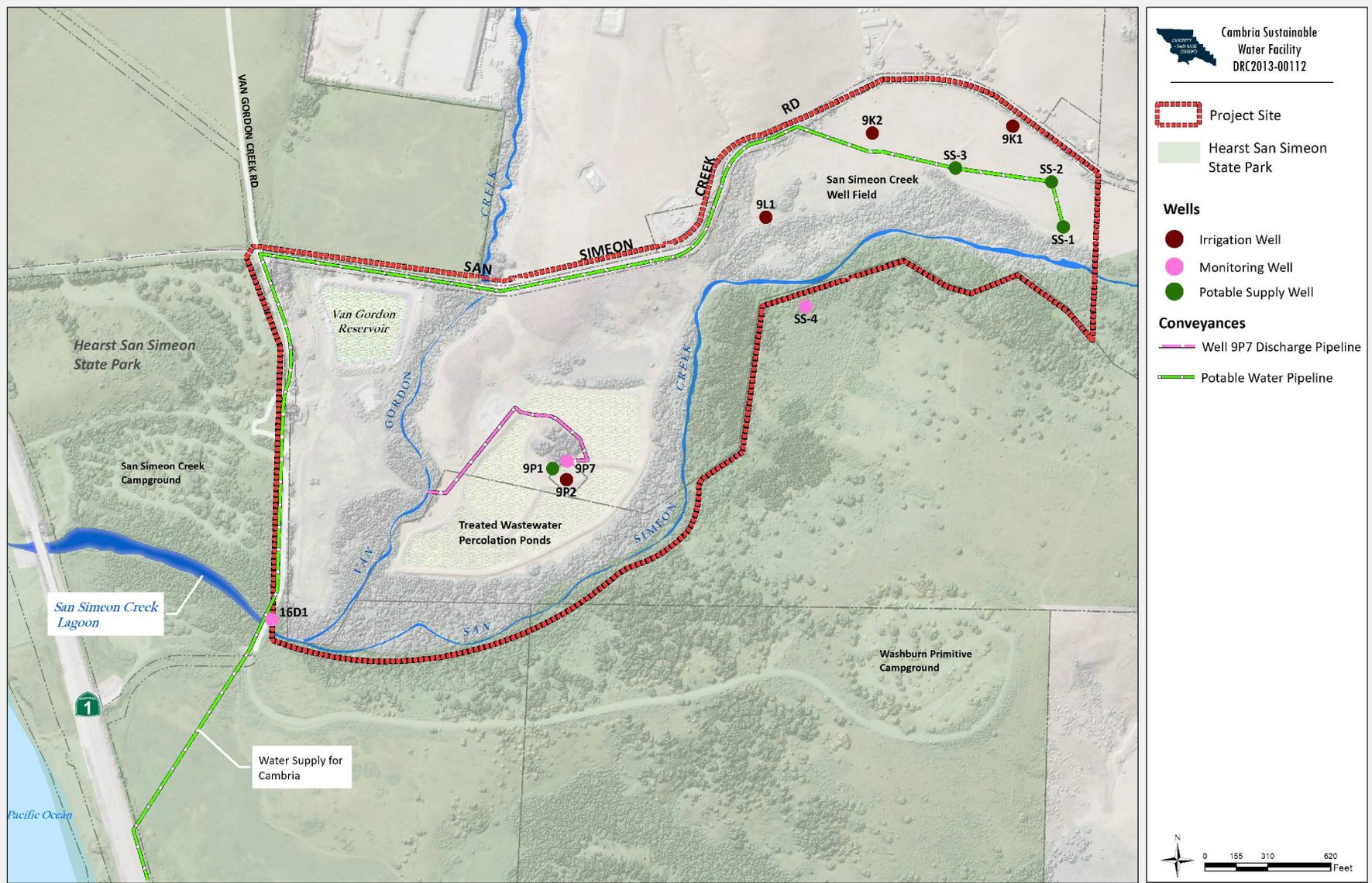


Figure 3 Cambria CSD's Pre-project Facilities

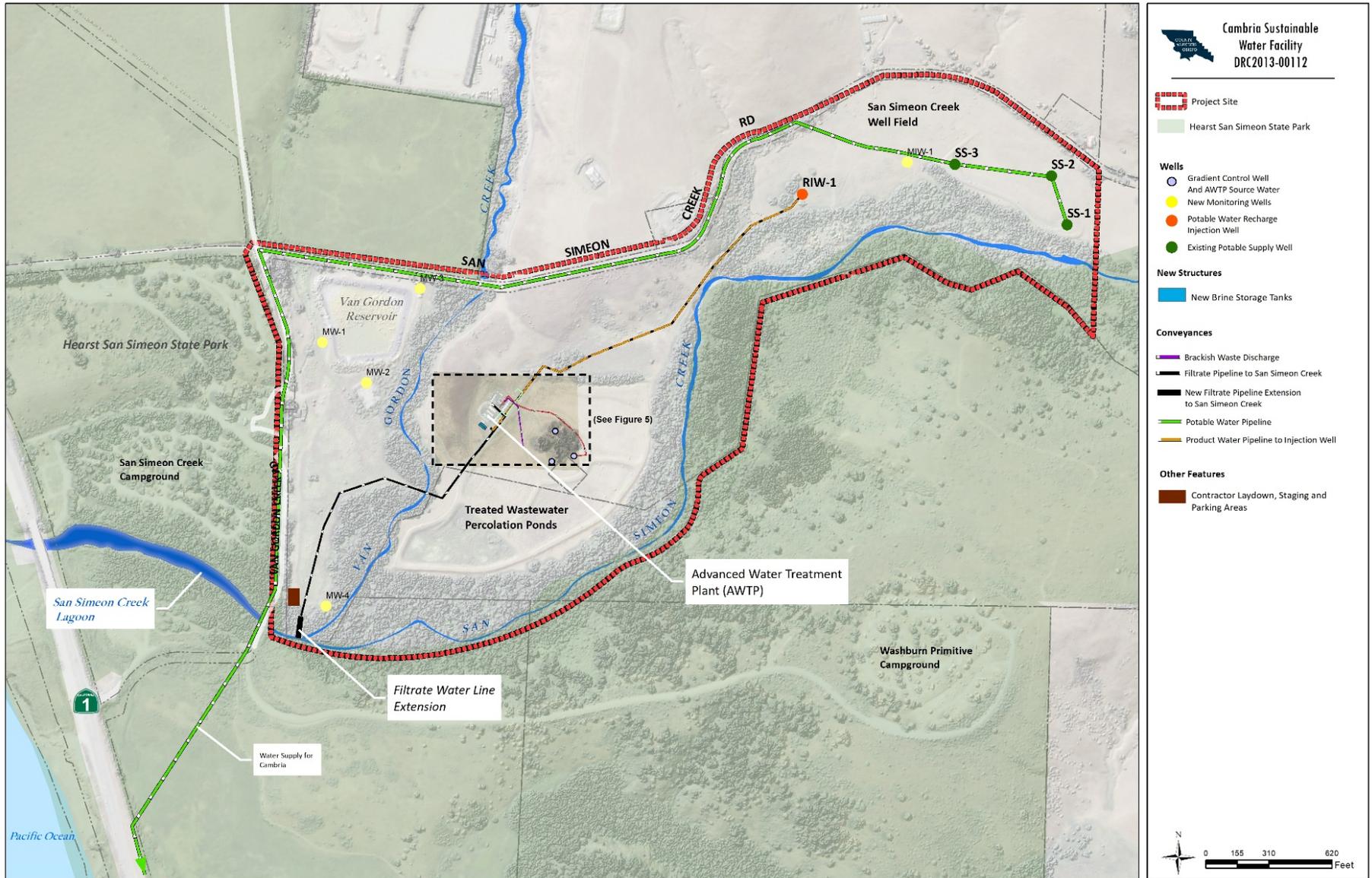


Figure 4 SWF with Project Modifications (in italics)

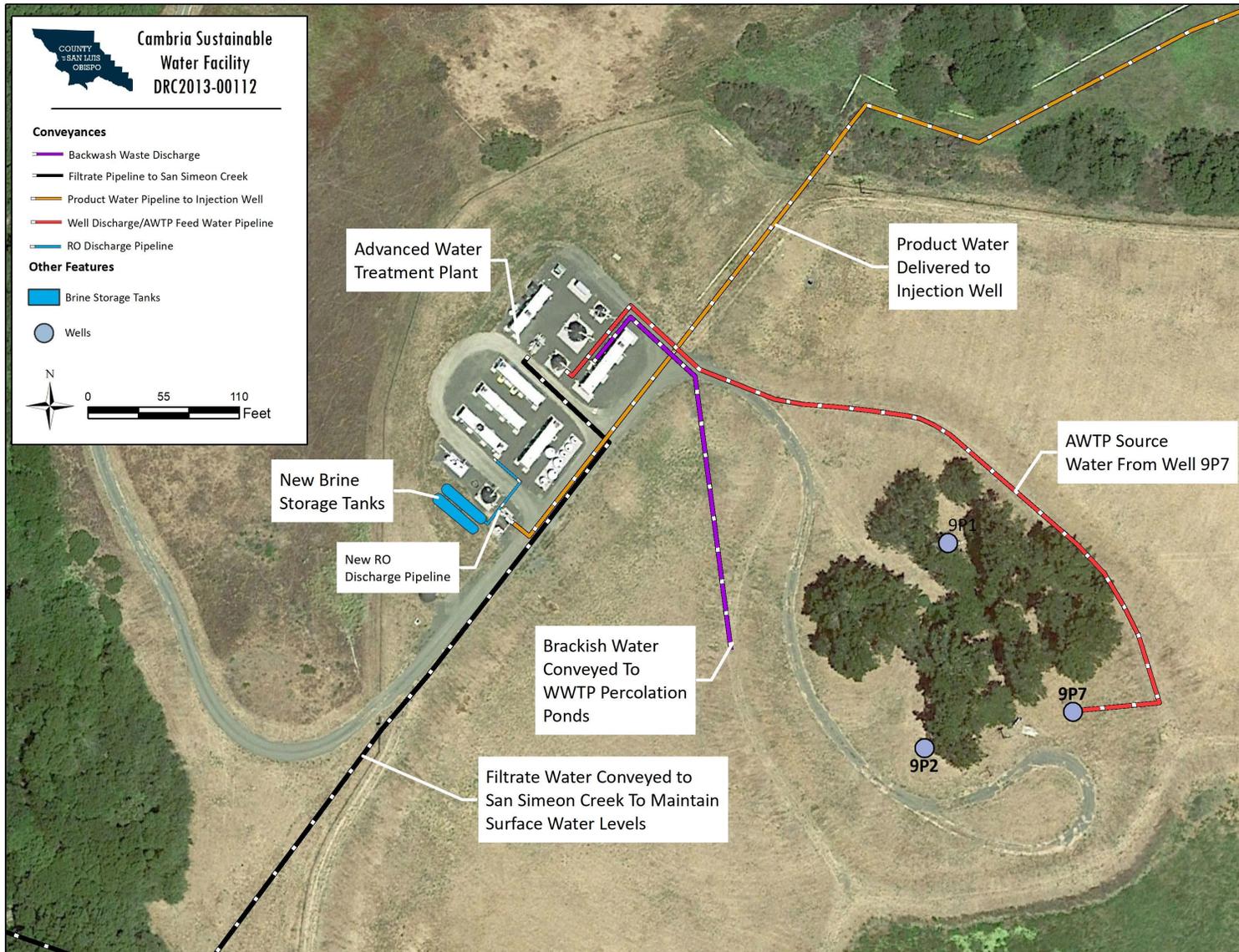
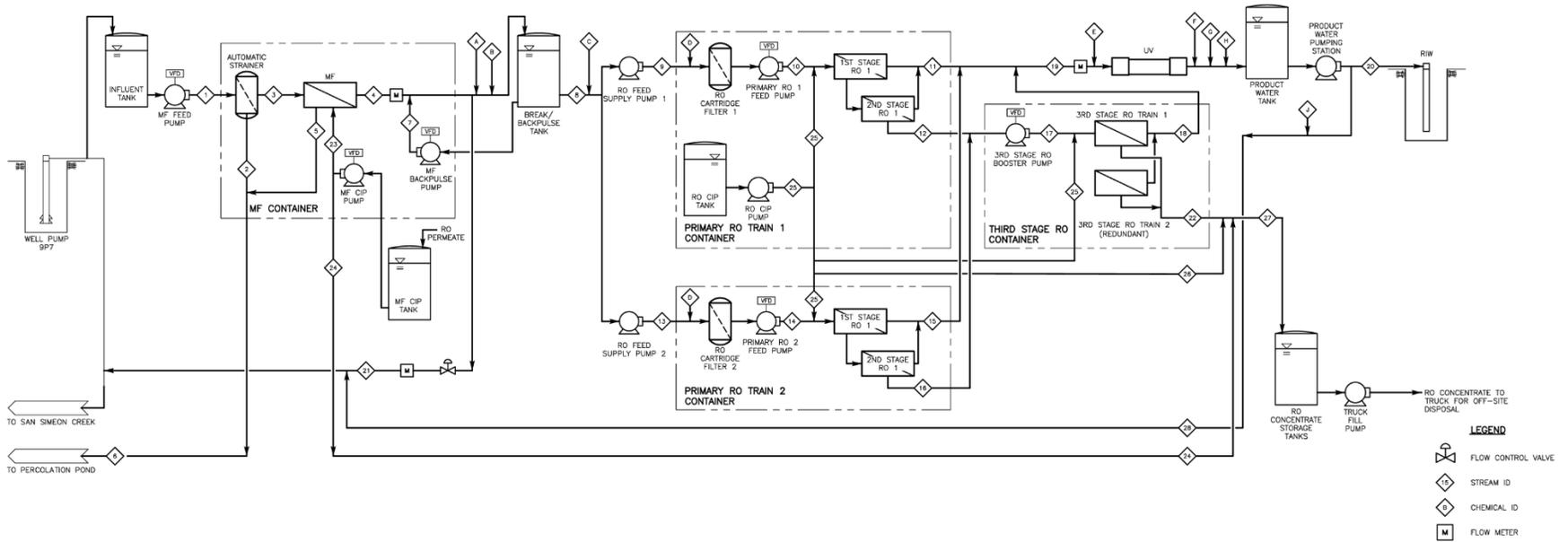


Figure 5 Advanced Water Treatment Plant and Associated Facilities



FLOW BALANCE
 AUTOMATIC STRAINER RECOVERY 99%
 MF RECOVERY 95%
 PRIMARY RO RECOVERY 83%
 THIRD STAGE RO RECOVERY 53%
 OVERALL RO RECOVERY 92%

| FLOW STREAM | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
|---|-----|---|-----|-----|----|----|------|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| AWMP FEED | 629 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AUTOMATIC STRAINER WASTE | | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MF FEED | | | 623 | | | | | | | | | | | | | | | | | | | | | | | | | |
| MF PERMEATE | | | | 592 | | | | | | | | | | | | | | | | | | | | | | | | |
| MF BACKWASH WASTE (NOTE 1) | | | | | 31 | | | | | | | | | | | | | | | | | | | | | | | |
| MF AND AUTOMATIC STRAINER COMBINED WASTE | | | | | | 37 | | | | | | | | | | | | | | | | | | | | | | |
| MF BACKWASH FEED (NOTE 1) | | | | | | | 31 | | | | | | | | | | | | | | | | | | | | | |
| TOTAL RO FEED | | | | | | | 492 | | | | | | | | | | | | | | | | | | | | | |
| PRIMARY RO 1 FEED SUPPLY | | | | | | | 248 | | | | | | | | | | | | | | | | | | | | | |
| PRIMARY RO 1 FEED | | | | | | | 246 | | | | | | | | | | | | | | | | | | | | | |
| PRIMARY RO 1 PERMEATE | | | | | | | 204 | | | | | | | | | | | | | | | | | | | | | |
| PRIMARY RO 1 CONCENTRATE | | | | | | | 42 | | | | | | | | | | | | | | | | | | | | | |
| PRIMARY RO 2 FEED SUPPLY | | | | | | | 246 | | | | | | | | | | | | | | | | | | | | | |
| PRIMARY RO 2 FEED | | | | | | | 246 | | | | | | | | | | | | | | | | | | | | | |
| PRIMARY RO 2 PERMEATE | | | | | | | 204 | | | | | | | | | | | | | | | | | | | | | |
| PRIMARY RO 2 CONCENTRATE | | | | | | | 42 | | | | | | | | | | | | | | | | | | | | | |
| THIRD STAGE RO FEED | | | | | | | 84 | | | | | | | | | | | | | | | | | | | | | |
| THIRD STAGE RO PERMEATE | | | | | | | 44 | | | | | | | | | | | | | | | | | | | | | |
| CONCENTRATE PERMEATE/NO FEED | | | | | | | 452 | | | | | | | | | | | | | | | | | | | | | |
| PRODUCT WATER TO RECHARGE INJECTION WELL (RW) | | | | | | | 462 | | | | | | | | | | | | | | | | | | | | | |
| MF FILTRATE TO SAN SIMON CREEK LAGOON | | | | | | | 100 | | | | | | | | | | | | | | | | | | | | | |
| THIRD STAGE RO CONCENTRATE | | | | | | | 39 | | | | | | | | | | | | | | | | | | | | | |
| MF CIP FEED (NOTE 1) | | | | | | | 0.34 | | | | | | | | | | | | | | | | | | | | | |
| MF CIP WASTE (NOTE 1) | | | | | | | 0.34 | | | | | | | | | | | | | | | | | | | | | |
| RO CIP FEED (NOTE 1) | | | | | | | 0.01 | | | | | | | | | | | | | | | | | | | | | |
| RO CIP WASTE (NOTE 1) | | | | | | | 0.01 | | | | | | | | | | | | | | | | | | | | | |
| EVAPORATION POND INFLUENT | | | | | | | 200 | | | | | | | | | | | | | | | | | | | | | |
| PRODUCT WATER BLEND TO LAGOON | | | | | | | 468 | | | | | | | | | | | | | | | | | | | | | |

| CHEMICAL | A | B | C | D | E | F | G | H | I |
|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| AQUEOUS AMMONIA | | | | | | | | | |
| SODIUM HYPOCHLORITE | | | | | | | | | |
| SULFURIC ACID | | | | | | | | | |
| THRESHOLD INHIBITOR | | | | | | | | | |
| HYDROGEN PEROXIDE | | | | | | | | | |
| SODIUM HYPOCHLORITE | | | | | | | | | |
| CALCIUM CHLORIDE | | | | | | | | | |
| SODIUM HYDROXIDE | | | | | | | | | |
| SODIUM BISULFITE | | | | | | | | | |
| CHEMICAL STREAM ID | A | B | C | D | E | F | G | H | I |
| Bulk Chemical Concentration | 19% | 12.5% | 93% | 100% | 25% | 12.5% | 34.7% | 25% | 25% |
| Chemical Dose, Avg | 1.0 mg/L | 4.0 mg/L | 30 mg/L | 2.0 mg/L | 3.0 mg/L | 15 mg/L | 30 mg/L | 33 mg/L | 2.2 mg/L |
| Dosing Rate, Avg | 5.7 gpd | 26 gpd | 14 gpd | 0.6 gpd | 7.7 gpd | 69 gpd | 49 gpd | 74 gpd | 0.5 gpd |

NOTES
 1. INTERMITTENT FLOW.
 2. ALL CHEMICAL DOSING SKIDS EXCEPT THRESHOLD INHIBITOR WILL BE INSTALLED IN CHEMICAL CONTAINER (NOT SHOWN). THRESHOLD INHIBITOR DOSING SKIDS WILL BE INSTALLED IN PRIMARY RO TRAIN 1 AND PRIMARY RO TRAIN 2 CONTAINERS.
 3. RO FLOW CONDITIONS ARE BASED ON AN AVERAGE MEMBRANE AGE OF 3 YEARS.

Figure 6 Advanced Water Treatment Plant Process Flow

The CCSD may also adjust the project's operational period according to need based on the amount and timing of seasonal rainfall and the groundwater levels within the lower San Simeon aquifer. Other considerations will influence the timing and duration of plant operation, including the Adaptive Management Plan (AMP), riparian water use, and licensed diversion totals.

Recharge Injection Well (RIW-1)

Emergency Project Components

The stabilized AWTP finished product water is pumped for injection into the groundwater basin at the San Simeon Well Field utilizing a new recharge injection well (RIW-1) located west of existing potable supply water Well SS-3. The RIW has a 5.0-foot, stainless steel sediment trap below the well screen. A total of 400 gpm is injected into RIW-1. The wellhead facilities are located above grade and include steel pipe, a control valve to control the flow into RIW-1, a flow meter to measure the flow, and isolation valves for removal of above ground equipment. No pumps or noise generating equipment are located at RIW-1. A small control panel is provided at the wellhead.

Brine Storage Tanks and Off-site Hauling

Project Modification

The emergency project included the use of Van Gordon Reservoir as a Brine Evaporation Pond. However, during a flood emergency declared by the Governor in early January 2017, storm water drained across San Simeon Creek Road, with a portion of the storm water entering the Emergency Project's Brine Evaporation Pond. This resulted in a Cease and Desist order from the Water Board directing the CCSD to stop using the pond for brine disposal. Accordingly, the brine disposal facilities associated with the pond were subsequently decommissioned. Final pond closure and termination of the associated Title 27 permit was approved by the Water Board at its regional meeting on December 13, 2019. Although future use of the decommissioned brine evaporation pond is uncertain, it is not a component of the project sought by the Regular CDP.

Brine Storage Tanks. The AWTP-generated waste stream (RO concentrate or RO reject water) from the RO process, as well as any chemical cleaning waste, is temporarily being sent to two 21,000 gallon Baker tanks for intermediate storage prior to being pumped to tanker trucks for off-site disposal at a properly licensed and regulated facility. The RO concentrate is conveyed to the brine storage tanks via the rerouted RO concentrate pipeline. Both tanks are staged within spill containment berms, and the truck-fill station is fitted with a drive-on perimeter berm to capture any water that could inadvertently spill during fill operation. Conventional clay litter or other absorbent material is kept onsite to address incidental spillage.

Future tasks within this project modification may include acquisition of permanent brine storage tanks, such as the four Baker tanks proposed within the SEIR. The tank(s) would be double walled with a capacity of approximately 60,000 gallons (final tank selection will be sized based on maximum RO concentrate volume during peak operation). The RO concentrate pipeline would connect from the third stage RO unit to the intermediate storage tank(s) with a four-inch pipeline.

Offsite RO Concentrate Disposal. Under prolonged dry weather conditions, the facility could run 24 hours per day seven days per week (24/7), during the driest time of the year, approximately six months. When the project operates 24/7 during the driest time of year, the estimated RO

concentrate volume would be approximately 50,000 gpd. Average operations during years of normal precipitation would likely be 9 hours per day, four days per week, 2 to six months per year. Under this scenario, the estimated RO concentrate volume would be approximately 20,000 gpd.

Concentrate from the RO treatment process would be hauled away to a disposal site, such as the South San Luis Obispo County Sanitation District (SSLOCSD), which is in Oceano, San Luis Obispo County, California, approximately 53 miles from the project site.

SSLOCSD is a fully permitted 7.6-acre wastewater treatment, storage, and disposal facility. Under normal operations, three truck trips per day would be needed to haul the RO concentrate to SSLOCSD, assuming a 6,000-gallon truck would be used. Under peak operations, nine truck trips per day (limited to operating within the SWF site between the hours of 7:00 AM and 7:00 PM) would be needed to haul the RO concentrate to SSLOCSD.

Should CCSD reach the SSLOCSD daily brine disposal limit, currently set at 50,000 gpd, an alternative disposal site would be utilized, such as Kettleman Hills Hazardous Waste Facility.

Lagoon Surface Discharge

Emergency Project Components with Project Modifications

To maintain and enhance the San Simeon Creek Lagoon, micro-filter (MF) effluent and/or de-chlorinated and oxygenated product water is pumped during dry weather conditions for surface discharge to the upstream end of San Simeon Creek Lagoon. The filtrate (lagoon water) pipeline is used to deliver the lagoon water from the AWTP to a surface discharge structure. The discharge structure, which is located just north of the San Simeon Creek tree line (Figure 3), dissipates velocity, to create a sheet flow of lagoon water, prior to entering the upstream end of San Simeon Creek Lagoon. The quantity of lagoon water delivered will depend on the results of monitoring and surveys performed under the AMP but are anticipated to be approximately 100 gpm when the creek is dry.

When product water is blended with the MF effluent for lagoon surface water discharge, it is de-chlorinated at the AWTP to reduce high chlorine residual in the water. Sodium bisulfite is used to de-chlorinate the product water to meet the RWQCB's low threat discharge permit requirements, which have a very low maximum limit of 0.02 mg/l for chlorine residual. Also included in the product water de-chlorination process is an in-line aeration system to make sure the water provided to the lagoon has sufficient dissolved oxygen prior to its discharge.

The water discharged to the lagoon is treated and tested to meet RWQCB conditions specified within Order No. R3-2011-0223, NPDES Permit No. CAG993001, *General Permit for Discharges with Low Threat to Water Quality*; and, *Draft Waste Discharge Requirements Order No. R3-2011-0223, National Pollutant Discharge Elimination System (NPDES) Permit No. CAG993001, General Permit for Discharges with Low Threat to Water Quality* (and its associated Modified December 8, 2014 Monitoring and Reporting Program issued to the CCSD).

Project Modifications – Mitigation Measures BIO-3, BIO-18, BIO-19

This proposed Project Modification involves extending the filtrate pipeline to relocate the discharge point further south to the San Simeon Creek bank (Figure 4). The filtrate pipeline would be routed/placed by hand to protect the riparian habitat. This discharge location was identified to

further avoid biasing Well 16D1 water quality samples and more efficiently deliver surface water into the upper San Simeon Creek lagoon area.

At the relocated discharge point, articulating concrete block (ACB) (Armorflex) lining or similar (approximately 87 square feet) erosion prevention measures would be installed to protect the San Simeon Creek channel bank. Armorflex would allow for the continued growth of riparian vegetation, further protecting the channel from any potential erosion.

Monitoring Wells

Emergency Project Components

The project includes five monitoring wells (MW-1, MW-2, MW-3, MW-4, and MIW-1 (Figure 4)). MW-1, MW-2, and MW-3 are up-gradient and down-gradient from the existing evaporation pond. MW-4 was installed outside of the tree drip line and approximately 150 feet up-gradient from the lagoon water discharge structure to ultimately replace existing MW-16D1. MW-4 was constructed in response to RWQCB concerns over the 100 gpm filtrate product water potentially biasing its testing towards higher quality results. MW-4 is used to monitor groundwater quality downgradient of the percolation ponds. These wells are approximately 3.0 feet in height. MIW-1 is located at the well field, between RIW-1 and the existing production wells.

Pipelines and Conveyances

Emergency Project Components

Yard Piping. All yard piping is installed below ground at the AWTP site.

Conveyance Piping. The project includes five interconnecting pipelines as described below. The conveyance piping totals approximately 4,630 linear feet (LF), most of which was installed above grade (480 LF were installed below grade).

AWTP Feed Water Pipeline. This pipeline delivers the source water (brackish groundwater) from 9P7 to the AWTP. This pipeline also connects with the Well 9P7 Discharge Pipeline, which was originally constructed to discharge pumped groundwater from Well 9P7.

Product Water Pipeline. This pipeline delivers the AWTP product water from the AWTP to RIW-1, where it is injected into the basin.

Filtrate Pipeline. This pipeline delivers de-chlorinated MF effluent/product water from the AWTP to the surface discharge structure located near the confluence of San Simeon and Van Gordon Creeks. The pipeline is a combination of pipeline laid along the ground surface, horizontal directionally drilled pipeline, and direct burial pipeline. The pipeline was direct burial within the existing service road from the AWTP to the eastern edge of the Van Gordon Creek riparian corridor.

To avoid impacts to the Van Gordon Creek riparian corridor, a reach of this pipeline was installed using horizontal directional drilling under Van Gordon Creek. At the western edge of the Van Gordon Creek riparian corridor, the pipeline was continued outside of the Van Gordon Creek tree line and along the ground surface to the surface discharge structure. The discharge structure is located just north of the San Simeon Creek tree line.

MF Backwash Waste Discharge Pipeline. This pipeline delivers the backwash water from the AWTP's MF system to an existing percolation pond.

RO Concentrate Disposal Pipeline. This double contained pipeline delivers concentrate from the AWTP's RO process and chemical cleaning waste to the brine storage tanks for off-site hauling.

Project Modifications – Mitigation Measure BIO-3

New Conveyance Piping. An extension of the existing filtrate pipeline is proposed. The new above-grade conveyance piping (Project Modifications) totals approximately 300 LF. This modification will avoid biasing Well 16D1 water quality samples (as requested by the RWQCB) and will more efficiently deliver water into San Simeon Creek to maintain water levels at San Simeon Creek Lagoon. The current surface discharge structure will be removed and relocated further south to the San Simeon Creek bank. At the discharge point, articulating concrete block (Armorlex or similar) lining shall be installed to protect the northern San Simeon Creek channel bank from erosion. The lining shall allow for continued growth of riparian vegetation, further protecting the channel from any potential erosion and avoiding/reducing and sedimentation within the water bodies.

Construction Activities

Emergency Project Components

The emergency project components required general construction activities including clearing, grading (nominal), excavating, trenching, pipe installation, placement of backfill, and installation of other limited equipment/improvements on structural footings and concrete housekeeping pads. Approximately 50 cubic yards (CY) of cut and 50 CY of fill were generated during construction of the proposed wells and AWTP, and approximately 200 CY of cut and 200 CY of fill were generated during pipeline installation. Ground disturbance activities for well construction included drilling between 40 and 100 feet in depth. Excavated soils were retained for backfill to avoid soil exportation and minimize truck trips. Additionally, vegetation was removed as part of the evaporation pond liner installation. The project was constructed entirely within CCSD property boundaries. The laydown/staging areas were located at the northern and western portions of the Project site.

Project components were designed and constructed in accordance with applicable provisions of the SLO County-issued emergency CDP, the California Water Board's General Construction Storm Water Permit, American Water Works Association (AWWA) Standards, California State Building Code (CBC), and the Uniform Building Code (UBC). Ground disturbing activities were reviewed and monitored by biological, archeological, and Native American monitors.

Construction Phasing

Emergency Project Components

The emergency project involved a design-build construction delivery method that included construction and installation of the water facilities described above. Construction of the emergency project occurred over approximately six months, with construction beginning on May 20, 2014 and substantially completed on November 14, 2014. Construction work times occurred between 7:00 AM and 5:00 PM, Mondays through Fridays, and between 8:00 AM and 5:00 PM,

Saturdays, consistent with CZLUO Section 23.06.042 regulations. The construction phase was followed by an approximately two-month start-up period that included facility testing and commissioning.

Operations

Project Modifications – Mitigation Measure BIO-7

Mitigation Measure BIO-7 states:

The CCSD shall develop and implement an Adaptive Management Program (AMP) for post-construction operations upon commencement of SWF operations. The AMP shall be incorporated while the facility is operating and indefinitely until the facility is no longer in use or until deemed no longer necessary by applicable regulatory agencies. The AMP is intended to monitor and protect the lagoon, creek, and riparian habitats adjacent to the Project site and, by extension, protect the species that inhabit it. The AMP's primary goal shall be to require the CCSD to develop and adopt an Adaptive Management Plan (AMP) to monitor the response of the lagoon, creeks, and riparian habitats to SWF operations. This shall include, but not be limited to, the following:

- *Regular monitoring of groundwater levels, surface water levels, surface water flow, instream and riparian habitat extent and health, available in-stream and fish habitat, and water quality;*
- *Surveys for tidewater goby, steelhead, CRLF, western pond turtle, and/or two-striped garter snake a minimum of two times per year to measure population levels over time; and*
- *Monitoring of riparian vegetation in the water bodies and in their upland extents.*

Based on the results of the biological monitoring and any noted adverse changes in these habitats, operations shall be adjusted such that the amount of treated water that is injected or discharged back into the system, is either increased or decreased to restore affected habitat features. It is expected that the typical amount of water returned would be 100 gpm.

As required by BIO-7, the CCSD has prepared an Adaptive Management Plan which sets forth a systematic process for monitoring and managing the ongoing operation of the facility in a manner that protects the sensitive resources of San Simeon Creek, Van Gordon Creek and San Simeon Creek Lagoon. These resources include (but are not limited to):

- Riparian and wetland resources;
- Habitat for listed plant and animal species;
- Important surface water and groundwater resources;

Adaptive management is the process by which resource management activities are implemented and monitored using scientific research design, which allows analysis of changes due to management and, therefore, an evaluation of management effectiveness. Using this approach, management strategies and techniques will be developed and implemented using an integrated approach in which science is used to inform management, which in turn will incorporate scientific methods to increase knowledge of the system and enhance success. The primary goals of the

AMP are described below. A *goal* specifies the desired conditions for the resources affected by the Project.

Riparian and Wetland Resources

Goal: Maintain and enhance the structure and species composition of native riparian and wetland plant communities affected by the Facility.

Habitat for Listed Species

Goal: Achieve and maintain sustainable and persistent populations of listed species within the project area.

Surface Water

Goal: Preserve and enhance the surface water quality of San Simeon Creek, Van Gordon Creek and the San Simeon Creek lagoon consistent with applicable federal and State standards.

Goal: Maintain surface water volumes in Van Gordon and San Simeon Creeks to sustain riparian and wetland resources and listed species.

Groundwater

Goal: Preserve and enhance groundwater quality associated with San Simeon Creek, Van Gordon Creek and the San Simeon Creek lagoon.

Goal: Prevent adverse impacts to wells on surrounding properties.

An instream flow study of San Simeon Creek is tentatively scheduled for completion in the Summer of 2020. This study will build from and better inform the Adaptive Management Plan and ensure that the operation of the SWF will not adversely impact existing ESHA and riparian resources. The CCSD has also initiated consultation with the US Fish and Wildlife Service in accordance with Section 7 of the Endangered Species Act. The Section 7 ESA process will further ensure involvement of and concurrence from other resources agencies.