STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF NOVEMBER 13-14, 2014

ITEM: **20**

SUBJECT: **Revision of Waste Discharge Requirements Order No. 01-100 and Issuance of Waste Discharge Requirements and Water Recycling Requirements Order No. R3-2014-0050 for Cambria Community Services District, San Luis Obispo County**

KEY INFORMATION

Wastewater Treatment Plant

Location: 5500 Heath Lane, Cambria
Discharge Type: Treated municipal wastewater
Design Capacity: Dry Weather: 1.5 mgd
Current Flow: 0.55 mgd
Treatment: Secondary (activated sludge)
Disposal: Land disposal to spray fields and percolation ponds
Reclamation: None
Existing Order: Order No. 01-100
WDID No: 3400102001

Advanced Wastewater Treatment Plant (emergency water supply facility)

Location: 990 San Simeon-Monterey Creek Road, San Simeon Creek watershed, 2.5 miles north of Cambria in San Luis Obispo County
Discharge Type: Recycled water (aquifer recharge by injection) and membrane filter backwash to percolation ponds
Design Capacity: Dry Weather: 1.0 million gallons per day (mgd)
Current Flow: 0 mgd
Treatment: Membrane filtration, reverse osmosis, ultra-violet, and chemicals
Disposal:

- Reverse osmosis water - Aquifer recharge through injection to the alluvial aquifer (700,000 gallons per day (gpd))
- Membrane filter backwash - land disposal to spray fields and percolation ponds (90,000 gpd)

Reclamation: 70 percent
New Order: Order No. R3-2014-0050
WDID No: 3400914532

SUMMARY

The Cambria Community Services District (Discharger) owns and operates a wastewater collection, treatment, and disposal system which provides service to the unincorporated community of Cambria. Wastewater treatment facilities consist of activated sludge processes with

a total design capacity of 1.5 million gallons per day (mgd). The treatment facilities are located in the community of Cambria. Treated wastewater is pumped to a 22-acre land disposal facility approximately 2 1/2 miles north of Cambria and adjacent to San Simeon and Van Gordon Creeks.

The Discharger also provides water supply to residents in the unincorporated area of Cambria. The Discharger, in response to the ongoing severe drought emergency, is constructing the Cambria Emergency Water Supply Project (Advanced Water Treatment Plant (AWTP)). The AWTP is located on District property at 990 San Simeon-Monterey Creek Road, in the San Simeon Creek watershed, adjacent to the 22-acre land disposal facility (See Figures 1, 2, and 3).

The AWTP will pump and treat 1.0 mgd, producing two product waters of different quality (membrane filtrate and reverse osmosis) and two wastewater discharges (membrane filter backwash and reverse osmosis concentrate and cleaning solutions).

The membrane filtrate water (144,000 gpd) is proposed for discharge to San Simeon Creek to maintain creek levels and associated habitat. The reverse osmosis product water (700,000 gpd) will be injected into the ground for indirect potable reuse. The membrane filter backwash water (90,000 gpd) will be discharged to the existing percolation ponds. The reverse osmosis concentrate and cleaning solutions water (65,000 gpd) will be discharged to an impervious evaporation impoundment.

This item asks the Board to adopt two separate orders, No. 01-100 and No. R3-2014-0050, to allow the operation of an emergency water supply project for the community of Cambria. The project will supply highly treated water for groundwater injection to help sustain Cambria's potable water supply.

DISCUSSION

Background

Purpose of the Orders

The purpose of these two orders, No. 01-100 and No. R3-2014-0050, is to facilitate the operation of an emergency water supply project for the community of Cambria. Order No. 01-100 regulates waste discharges to existing percolation ponds and will allow the additional discharge of 90,000 gpd of membrane filter backwash water. Order No. No. R3-2014-0050 regulates the injection of 700,000 gpd of reverse osmosis product water into the ground for indirect potable reuse.

The Discharger provides water supply and wastewater collection, treatment and disposal system services to residents in the unincorporated area of Cambria. The Discharger's potable water is supplied solely from groundwater wells in the San Simeon Creek and Santa Rosa Creek aquifers. The San Simeon Creek and Santa Rosa Creek aquifers (coastal stream aquifers) are relatively shallow and highly porous, with the groundwater typically depleted during the dry season and recharged during the rainy season.

For water year 2013/2014, the total rainfall in the Cambria community was approximately 80 percent of the minimum rainfall needed to fully recharge the two coastal stream aquifers. This below-average rainfall follows two years of below-average rainfall (2012, 2013). This severe drought condition has placed the water supply for the Cambria community in immediate jeopardy.

Location

The Cambria Community Services District (CCSD) serves a population of approximately 6,300 persons. The treatment facility processes approximately 550,000 gallons of sewage daily. Water is treated at the District's facility located at 5500 Heath Lane in Cambria. The facility is located next to Santa Rosa Creek and Highway One near downtown Cambria. The 22-acre disposal site for the treated wastewater is located approximately 2.5 miles north at the intersection of Van Gordon Creek Road and San Simeon Creek Road (Figures 1 and 2).

The CCSD is also constructing the Advanced Water Treatment Plant (AWTP) located at 990 San Simeon-Monterey Creek Road, in the San Simeon Creek watershed, adjacent to the land disposal facility (Figure 3). This plant will provide potable water for indirect reuse for the District's water users.

Facility Description: Wastewater Treatment Plant

The wastewater treatment system consists of flow equalization and grit removal facilities, two 0.5 million gallons per day (mgd) activated sludge treatment units (1.0 million gallons total treatment capacity), two 0.3 million gallon holding ponds, and disinfection facilities.

Facility Description:Advanced Water Treatment Plant

Figure 4 is a conceptual diagram of the AWTP system. The system consists of membrane filtration followed by reverse osmosis and includes the following steps:

- **Step 1** - 1.0 mgd is extracted from well 9P7. Water in well 9P7 is made up of the secondary treated wastewater discharge to percolation ponds, creek underflow, and deep basin brackish water.
- **Step 2** - 700,000 gallons per day (gpd) is treated by reverse osmosis, disinfected, and injected upstream of the District's San Simeon Creek aquifer water supply wells.
- **Step 3** - Discharge of 144,000 gpd of membrane filtrate to San Simeon Creek to maintain the fresh water lagoon.
- **Step 4** - Discharge of 90,000 gpd of membrane filter backwash water to CCSD percolation ponds.
- **Step 5** - Discharge of 65,000 gpd of reverse osmosis wastewater and cleaning solutions water to a lined impoundment for evaporation.

Regulatory Measures

The four water/waste streams produced by this project are regulated through different regulatory measures. Table 1 below summarizes those regulatory measures.

Table 1- Water/Waste Streams of the Cambria Emergency Water Supply Project

Water Streams	Waste Streams	Gallons Per Day	Regulatory Measure
	Membrane Filter backwash wastewater returned to the percolation ponds	90,000 gpd	Revised Existing Waste Discharge Requirements Order No. 01-100
Membrane Filter product water discharged to San Simeon Creek to prevent dewatering of the		144,000 gpd	National Pollutant Discharge Elimination System Permit

freshwater lagoon			
	Reverse Osmosis wastewater and cleaning solutions sent to brine disposal impoundment	65,000 gpd	Waste Discharge Requirements Order No. R3-2014-0047 (Title 27)
Advanced treated product water, recharge to groundwater		700,000 gpd	Waste Discharge Requirements Order No. R3-2014-0050 (Title 22)

CCSD Wastewater Plant Operation

The CCSD converted its wastewater disposal from a surface water discharge permit to a land discharge permit in 1993[1]. Since 1993, the CCSD has implemented various nutrient management practices to reduce nutrients in effluent. Septic systems in the vicinity of the disposal field have been removed and those discharges connected to the sewer. The treatment facility was retrofitted to include an anoxic zone designed to reduce effluent nitrogen to non-impacting levels. However, these denitrification efforts have resulted in minimal reduction of nutrients in the CCSD wastewater effluent.

Significant plant construction projects associated with the existing wastewater treatment plant (WWTP) include:

1. 1979 - Wastewater Treatment Plant construction. This project included an influent pump station, maceration of rags, grit removal, flow equalization, two parallel package-style activated sludge plants, effluent storage, and effluent pumping.
2. 1993 - Wastewater Treatment Plan Upgrade. The 1993 upgrades including installation of a new extended aeration activated sludge plant, a new blower building, converting the older package-style activated sludge plants to aerobic sludge digesters, modifications to the influent flow equalization system, and other miscellaneous modifications.
3. 2006 - Biosolids screw press thickener. During 2006, plant staff completed the installation of a screw press to further dewater biosolids.

In addition to nutrients, effluent salt levels are an ongoing concern. The supply water for Cambria comes from two sources: the well field upgradient from the discharge site in the San Simeon Creek watershed and a well field in the Santa Rosa Creek watershed. The Santa Rosa wells produce water with higher dissolved solids and when used, increase dissolved solids in effluent. Order No. 01-100 contains requirements for a comprehensive salts management and reduction plan for the unincorporated community of Cambria.

Groundwater

The San Simeon groundwater basin contains heterogeneous, unconsolidated alluvial deposits and is underlain by relatively impermeable bedrock. The alluvial deposits are approximately 100 feet in depth and San Simeon creek is the largest source of groundwater recharge (USGS 1998[2]).

Surface soils in the disposal area are generally sandy and silty clays, underlain by clays and relatively impermeable bedrock of franciscan chert, volcanic rock and sandstone. Permeability generally decreases with depth and distance from surface waters.

1 Staff understands that although the CCSD had an NPDES permit their spray fields were used for disposal. In 1993 the Order type became waste discharge requirements for land disposal only.

2 U.S. Geological Survey, 1998, Hydrogeology, Water Quality, Water Budgets, and Simulated Responses to Hydrologic Changes in the Santa Rosa and San Simeon Creek Ground-Water Basins, San Luis Obispo County, California, Water-Resources Investigations Report 98-4061

Depth to groundwater at the land disposal site is approximately 17 feet at the sprayfield percolation pond site. However, depth to groundwater is as little as 4 feet in low-lying areas near San Simeon Creek. Groundwater movement within the disposal area is generally towards San Simeon Creek to the south-southwest.

Groundwater quality data prior to the CCSD's discharging in the watershed are shown below in Table 2 (Boyle 1977)[3]. These data imply groundwater in lower San Simeon Creek was supportive of beneficial uses, and it should be noted that the nitrate concentrations in the Bonomi Ranch irrigation well had an average concentration of 5.4 mg/L NO3 as N prior to 1969. This concentration is similar to the average annual concentration for the period 2001-2012 of 4.8 mg/L from well 9P7.

Table 2 - Groundwater Quality in San Simeon Creek Watershed pre-1980

Parameter	Bonomi Ranch** Irrigation Well 1975 (mg/L)	Average* of Analyses Prior to 1969 Concentration (mg/L)		
		Average	Maximum	Minimum
Ca	34	46.8	58	26
Mg	29	36.3	40	33
Na	21	17.6	21	14
K	0.8	1.25	4	1
HCO3	220	277	307	203
SO4	44	40.2	47	35
CO3	0	1.3	14	0
Cl	20	22.3	53	16
NO3 (N)	10	5.4	30	1.8
F	0.1	0.25	0.9	0.1
B	0.33	0.18	0.22	0.13
Fe	0.10	No Data	No Data	No Data
Mn	Less than 0.01	No Data	No Data	No Data
TDS	350	323	396	260
Total Hardness	269	266	297	209

* Concentrations are averages based on Department of Water Resources (Memorandum 282.31, 1969) test results (12 samples per well).

**Bonomi Ranch is now CCSD's wastewater disposal sprayfileds/percolation ponds (State of California, 1977). Data here appears to be a single sample (not specified in source report).

CCSD groundwater data for years 2001 through 2012 from water supply and monitoring wells are presented below in Table 3. These data indicate groundwater in upper San Simeon Creek (upstream of the wastewater discharge) is supportive of beneficial uses, and it should be noted that the nitrate concentrations in well SS3 have an average concentration of 0.8 mg/L NO3 as N. The data for well 9P7 show that pollutant concentrations in groundwater are elevated when compared to samples from SS3, but the water quality is supportive of beneficial uses. Finally, the data for well 16D1 (down gradient of the CCSD wastewater discharge) show that pollutant concentrations in groundwater are elevated when compared to samples from SS3 and 9P7, and the water quality is not supportive of beneficial uses. Nitrate, sodium, and chloride exceed groundwater water quality objectives in samples from well 16D1.

[3] Boyle Engineering Corporation, 1977, Second Supplemental Report for County of San Luis Obispo on Cambria Wastewater Disposal Facilities, San Luis Obispo County, California, January 1977

Table 3- Groundwater Quality in the San Simeon Basin

Annual Average (mg/L)	Groundwater Quality Ave for years 2001 -2012*		
	SS3	9P7	16D1
Nitrate as N*	0.8	4.8	12.1
TDS	357	501	769
Sodium (Na)	20	54	123
Chloride (Cl)	21	72	170
SO_4	43	56	85
B	0.2	0.2	0.3

*Sample size range = 19-26 samples depending on well and constituent

A report by Jones & Stokes (1991)[4] confirms that groundwater below the CCSD discharge is seeping into surface waters adjacent to sprayfield operations. The Jones & Stokes report states "the lagoon is formed by seepage of groundwater into the creek, principally near the upstream end of the lagoon," which is adjacent to the wastewater disposal area. This same report goes on to state that locating the proposed percolation ponds[5] toward the downstream end of the sprayfields would maximize the likelihood that infiltrated pond water would seep into the creek and lagoon.

In July 1999, the CCSD submitted a Surface Water Monitoring Report (CCSD 1999)[6] to the Water Board. This report confirms "elevated levels of nitrate downstream of the effluent disposal ponds indicate water quality degradation in the surface water and in the groundwater at well 9P7." This report goes on to state there is a need to lower nitrate impacts associated with the CCSD effluent and that the effluent discharge should use an average level of "5.0 mg/L nitrate as nitrogen."

Groundwater quality is degraded as a result of the CCSD's discharge to the percolation ponds. Three reports (Boyle 1977, Jones and Stokes 1991, and CCSD 1999) developed for the CCSD confirm that the CCSD discharge is seeping into groundwater and the 1999 report states that the CCSD needs to lower nitrate impacts associated with wastewater discharge.

Surface Water

Table 4 below summarizes the water quality in San Simeon Creek. Sample collection site locations are shown on Figure 1. The data in Table 4, collected by the Central Coast Ambient Monitoring Program (CCAMP) from 2001 through 2013, show that water quality at monitoring site 310SSC is degraded. The data also show water at monitoring site 310SSU (the upstream station) is of high quality.

Table 4– Surface Water Quality in San Simeon Creek (Source CCAMP)

Pollutants in mg/L	Surface Water Monitoring Sites	
	310SSC (downstream)	310SSU (upstream)
Chloride	123 [A]	11.7 [C1]
Nitrogen (Total) – TN	7.82 [A]	0.43 [C]
TN – (Range)	0.298 – 28.4	0.076 – 3.91

[4] Jones & Stokes Associates, Inc., 1991, Hydrologic Evaluation of the Design and Impacts of the Cambria Community Services District's Proposed Groundwater Recharge Project, Prepared for John Carollo Engineers

[5] Sprayfield converted to percolation ponds in approximately 2000

[6] Cambria Community Services District, 1999, Surface Water Monitoring Study, Report of Preliminary Findings

Nitrate as N	7.45 [A]	0.11 [C]
Nitrate as N (Range)	0.021 - 28 [D]	0.01 - 0.88 [F]
Phosphorus (Total) – TP	0.68 [A]	0.05 [C]
Orthophosphate	0.63 [A]	0.01 [C]
Salinity (ppt)	0.56 [B]	0.24 [C]
Sodium	99 [A]	16 [C1]
TDS	659 [A]	300 [C]

A = Mean for all years (2001-2013); B = Mean for all years (2001-2012 through August); C = Mean for years (2002, 2003, 2009); D = years 2001-2013; E = years 2001-2012 through August; F = years 2002, 2003, 2009; 1 = no data for 2003; 2 = 2012 complete year; G = CCAMP webpage data

In addition to the CCSD wastewater percolation ponds, land use In the San Simeon Creek watershed includes a state campground, a gravel mining facility, range land, natural landscapes, and various agriculture operations (row crops, orchard, and vineyard). Throughout the watershed, there are approximately 53 parcels with houses, septic systems, and domestic wells.

Surface water quality downstream of the CCSD Wastewater Treatment Plant discharge is degraded by the discharge and the lower reach of San Simeon Creek has been included on the CWA 303(d) list as impaired for nitrate, low dissolved oxygen, sodium, and chloride. In 1999 the CCSD submitted a Surface Water Monitoring Report (CCSD 1999) to the Water Board. This report stated "elevated levels of nitrate downstream of the effluent disposal ponds indicate water quality degradation in the surface water and in the groundwater at well 9P7."

Beneficial Uses

Existing and anticipated beneficial uses of groundwater downgradient of the discharge include:

a. Domestic and municipal supply
b. Agricultural supply

Water Quality Objectives

Water quality objectives for the San Simeon sub-basin are not specifically prescribed in the Basin Plan. Historic concentrations for groundwater in this area are as follows:

Table 5 - Historic Groundwater Constituent Concentrations

Constituent	Concentration (mg/L)
Total Dissolved Solids	375
Sodium	21
Chloride	19

General groundwater quality objectives are summarized in Table 6:

Table 6 – General Water Quality ObjectivesBeneficial Use	Constituent	Water Quality Objectives (mg/L)
Domestic and municipal supply	Total Dissolved Solids	500 (MCL)
	Sodium	No MCL
	Chloride	250 (MCL)
	Nitrate	10
	Boron	No MCL
	Sulfate	250 (MCL)
Agricultural supply	Total Dissolved Solids	---

	Sodium	69
	Chloride	106
	Nitrate	5.0
	Boron	0.5
	Sulfate	--

Compliance History for Order No. 01-100

Thirty-nine violations for both the CCSD wastewater treatment plant and collection system have been reported since adoption of the Order (12/7/2001). The violations are summarized in Table 7.

Table 7 - Summary of Violations, CCSD Wastewater Treatment Plant and Collection System

Violation Type	Number of Violations	Year(s) of Occurrence	Action
Groundwater nitrate violation at well 9P7	4	10/2002 4/2003 10/2003 10/2008	The Cambria CSD staff is currently assessing the exceedance. Water Board staff are monitoring long-term trends in nitrate concentrations in Well 9P7.
Groundwater nitrate violation at well 16D1	6[7]	10/2003 4/2004 10/2008 4/2009 10/2010 4/2011	The Cambria CSD staff is currently assessing the exceedance. Water Board staff are monitoring long-term trends in nitrate concentrations in Well 16D1.
Wastewater Spill[8]	20	1/2003 11/2004 1/18/2005 (2 spills) 1/19/2005 3/2005 6/19/2007 7/2007 10/19/2007 11/8/2007 1/19/2008 8/29/2009 12/14/2009 2/27/2010 5/1/2010 1/2/2011 10/6/2011 12/17/2011 1/30/2013 12/15/2013	Root and grease clogged lines cleared. CCSD adjusted schedule/method of preventive maintenance. Cleaned-up (mitigated effects of spills)
Total Dissolved Solids violation, effluent	2	7/2003 1/2007	No action necessary. Elevated TDS a result of summer demand requiring the use of higher TDs source water.
Failure to submit required report	2	1/2005* 6/2005**	Staff enforcement letter sent 03/24/05. Report received 04/25/05. Staff enforcement letter sent 07/20/05.

[7] CIWQS shows 23 violations. One groundwater well violation was combined for both well 9P7 and 16D1. The table splits out those violations and shows 24 violations.

[8] In 2006 the State adopted a collection system order, Order No. 2006-0003-dwq, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. Cambria was enrolled in 2007 and has reported an additional 14 collection system spills between 6/2007 and 12/15/2013. These spills are included in Table 7.

Failure to complete required monitoring	1	10/2010	The Discharger has complied with all subsequent monitoring requirements
Exceedance of Daily Maximum Flow	2	3/20/2011 3/26/2011	The Discharger continues to implement the inflow/infiltration program through its sanitary sewer management plan.

* Failed to submit annual report. ** Failed to submit monthly effluent monitoring report.

Order No. 01-100, Section D. Provisions, requires that the Discharger "shall maintain an ongoing salts management program with the intent of reducing mass loading of salt in treated effluent to a level that will ensure compliance with Basin Plan Objectives and not negatively impact beneficial uses of groundwater." The first installment of this evaluation was due January 2003 with an annual report due thereafter. Staff has reviewed annual reports and there is no record of this information being submitted in any year since 2003 and no Water Board violations reported for failure to submit.

Similarly, in Order No. 01-100, Section D. Provisions, there is the requirement that the Discharger submit a written report by May 30, 2005, acceptable to the Executive Officer, addressing:

a. Whether there will be changes in the continuity, character, location, or volume of the discharge; and,

b. Whether, in their opinion, there is any portion of the Order that is incorrect, obsolete, or otherwise in need of revision.

c. A summary of all violations of Waste Discharge Requirements, Order No. 01-100, which occurred since adoption of the order along with a description of the cause(s) and corrective action taken.

Staff has reviewed the file and there is no record of this report's being submitted in 2005 and no Water Board violations reported for failure to submit.

Enforcement Actions

In response to three spills totaling 349,125 gallons, the Water Board issued "Settlement Agreement and Stipulation for Entry of Administrative Civil Liability Order No. R3-2014-0008 in the Matter of Cambria Community Services District (Order)." The Order resolves alleged violations of Statewide Waste Discharge Requirements for Sanitary Sewer Systems, State Water Resources Control Board Order No. 2006-2003-DWQ, that occurred January 2, 2011, October 6, 2011, and December 17, 2011.

As provided in the Order, the Cambria Community Services District (District) is subject to a total administrative civil liability of $226,826.60, with one-half of that liability, or $113,413.30, suspended pending the District's implementation of an Enhanced Compliance Action (ECA). The ECA is to address plant deficiencies, the need for de-nitrification, and to provide future Title 22 recycled water. The ECA comprises a comprehensive evaluation of the wastewater treatment plant and an associated preliminary design. Implementation of ECA is on schedule.

Proposed Revisions to Order No. 01-100

The proposed revisions to Order No. 01-100 include a statement that the CCSD added supplemental treatment units including microfiltration and reverse osmosis to produce water of suitable quality for upstream groundwater recharge. A provision is added to allow the discharge of 90,000 gpd of membrane filter backwash water to the CCSD percolation ponds.

Future revisions of Order No. 01-100 are necessary to address degradation of groundwater near the percolation ponds and of the lower reaches of San Simeon Creek. Staff will coordinate these actions with the ongoing Water Board assessment project and CCSD's efforts to upgrade the wastewater treatment plant.

Order No. 01-100 contains the following prohibitions:

1. Discharge to any areas other than the evaporation/percolation pond and spray area shown on Attachment B is prohibited.

2. Discharger of any wastes including overflow bypass, and seepage from transport, treatment or disposal system to adjacent drainage ways or properties is prohibited.

Proposed Order No. R3-2014-0050

The CCSD, in response to the ongoing severe drought emergency, owns and operates the Cambria Emergency Water Supply Project. The emergency water supply system treats groundwater to recharge the San Simeon well field aquifer with treated water. The groundwater includes a blend of creek underflow, percolated wastewater treatment plant effluent, and a mix of the lower seawater wedge where it blends with freshwater.
Order RB3-2014-0050 contains the following:

Prohibitions

1. Bypass, discharge, or delivery to the use area of inadequately treated recycled water, at any time, is prohibited.

Effluent Limitations

Effluent limitations for injection water into the San Simeon Creek aquifer as summarized in Table 8.

Table 8 – Effluent Limitations

Constituents	Units	Concentration
Ammonia as N	mg/L	0.1
Boron	mg/L	0.32
Chloride	mg/L	70
Nitrate as N	mg/L	2.3
Sodium	mg/L	62
Sulfate	mg/L	43
TDS	mg/L	357
Total Coliform	MPN/100ml	<2.2

Provisions, Specifications

The Order contains numerous provisions and specifications for product water injection, wastewater discharge and reporting. For example,

1. Injection of the advanced treated recycled water shall not cause or contribute to an exceedance of water quality objectives in groundwater.

2. The Discharger must evaluate and field validate the operating assumptions for the AWTP (quality of: water supply, membrane filter backwash discharge, membrane filtrate discharge, reverse osmosis product water re-injection, and lagoon condition) and compare the pre-project assumptions to documented operating data. The Discharger must submit a report detailing differences between documented operating

values and assumed concentrations/conditions. The report must be submitted within 10 days following the first 30 days of AWTP operation.

Startup and Shut down of AWTP

The order requires that the District operate the Facility in compliance with the Operations, Maintenance and Monitoring Plan (OMMP), which includes procedures and monitoring for startup and shut down of AWTP. The CCSD must submit and receive OMMP approval by the DDW and the Water Board prior to operating the Facility.

Lagoon Mitigation and Monitoring Plan

The Operations, Maintenance and Monitoring Plan (OMMP) includes a lagoon mitigation and monitoring plan. The CCSD must monitor the lagoon in compliance with the OMMP approved by the DDW and the Water Board.

Anti-Degradation

This Order is consistent with Resolution No. 68-16 (Anti-degradation policy). Groundwater recharge with recycled water for later extraction and use in accordance with the Recycled Water Policy and state and federal water quality laws is to the benefit of the people of the State of California.

Notification

On September 19, 2014, the Board notified the Discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharges and has provided them access to copies of the proposed Orders and an opportunity to submit written views and comments.

ENVIRONMENTAL SUMMARY

By proclamations dated January 17, 2014, and April 25, 2014, the Governor declared a state of emergency in California due to the ongoing extraordinary drought. Each proclamation included a directive that suspended the environmental review required by the California Environmental Quality Act (CEQA) to allow certain directive from the Governor to take place as quickly as possible. The project is consistent with the following directive from the April 25, 2014, proclamation: Directive 12: The California State Water Resources Control Board, Department of Drinking Water (DDW), the Office of Emergency Services, and the Office of Planning and Research will assist local agencies that the Department of Public Health has identified as vulnerable to acute drinking water shortages in implementing solutions to those water shortages. Under Directive 19 of the April 25, 2014 Proclamation, environmental review required by CEQA is suspended for actions taken pursuant to Directive 12, and for all necessary permits needed to implement those actions, when the Office of Planning and Research "concurs that local action is required."

DDW has identified the Cambria Community Services District (district) as having critical drinking water shortages, meaning that the city will deplete its available supplies within 60 to 90 days. The Office of Emergency Services has indicated that the project described in the attached Notices of Exemption is necessary to solve this critical drinking water shortage. The Office of Planning and Research concurred that local action is required on September 12, 2014. Therefore, the project is exempt from CEQA because the Governor suspended CEQA for this project pursuant to Directives 9 and 12 of the April 25, 2014 proclamation.

The project is also consistent with the statutory exemption for an emergency project. CEQA defines emergency as follows: "'Emergency' means a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. 'Emergency' includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage." [Public Resources Code Section 21060.3.] Specific actions necessary to prevent or mitigate an emergency are exempt from CEQA. Emergency activities do not include long-term projects undertaken for the purpose of preventing or mitigating a situation that has a low probability of occurrence in the short-term. [Title 14 California Code of Regulations, Section 15269(c).] The basis for claiming the exemption is that the Discharger's water situation is dire, and the Emergency Water Supply Project will avoid potentially disastrous consequences from not having adequate water for health, safety, sanitation and fire protection and will mitigate the effects of the drought emergency declared by the Governor and emergencies that result from future critical water shortages.

COMMENTS

On September 19, 2014, the Board notified the Discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharges and provided them access to copies of the proposed Orders and an opportunity to submit written views and comments. The following discusses comments received and staff's response. The comment letters are attached to this staff report.

1. *SWRCB-Division of Drinking Water*
   Division of Drinking Water (DDW) letter contained multiple comments and clarifications to the proposed Order. For example, new DDW regulations were finalized June 2014. The new regulations modified DDW's review process and the proposed Order is revised to accurately reflect those changes.

   Water Board Staff Response: Water Board staff revised the Order to address all Division of Drinking Water comments and clarifications to the proposed Order.

2. *Cambria Community Services District*
   A letter from the Cambria Community Services District (CCSD) letter contained multiple comments and requests for clarifications to the proposed Order.

   Staff addressed typographic errors and other administrative changes directly. Substantive comments are discussed below.

   a. *Order No. R3-2014-0050, Table 9 – The CCSD requests a number of changes to Table 6 – Reverse Osmosis Recycled Water Discharge Limits, Groundwater Reinjection.*

   The table below summarizes the proposed and requested recycled water quality discharge limits and also shows the existing groundwater quality. The CCSD is requesting an increase in the proposed discharge limits equal to basin plan water quality objectives.

Constituents	Units	Concentration[9]			Monitoring Frequency	Compliance Interval
		Proposed	Requested	Existing		
Ammonia as N	mg/L	0.08	5	--	Weekly grab or 24 hour composite	Sample Result: no averaging
Boron	mg/L	0.32	0.5	0.2	Quarterly	Running Annual Average
Chloride	mg/L	70	106	21	Quarterly	Running Annual Average
Nitrate as N	mg/L	2.3	--	0.8	Weekly grab or 24 hour composite	Sample Result: no averaging
Sodium	mg/L	62	69	20	Quarterly	Running Annual Average
Sulfate	mg/L	6.3	43	43	Quarterly	Running Annual Average
TDS	mg/L	242	357	357	Quarterly	Running Annual Average
Total Coliform	MPN/ 100ml	<2.2	--	--	Daily grab	Weekly Maximum

Water Board Staff Response: Staff recommends the following changes to Table 9 in the revised table below. The recommended concentrations for boron, chloride, nitrate, and sodium will result in short term degradation of groundwater. The Order, findings 42 and 43, address degradation of the groundwater and finds that it is in the best interest of the people of the State to allow this emergency water recycling project.

Constituents	Units	Concentration			Recommended Concentrations
		Proposed	Requested	Existing	
Ammonia as N	mg/L	0.08	5	--	0.1 (this is the detection limit)
Boron	mg/L	0.32	0.5	0.2	0.32 (the discharger proposed concentration)
Chloride	mg/L	70	106	21	70 (the discharger proposed concentration)
Nitrate as N	mg/L	2.3	--	0.8	2.3 (the discharger proposed concentration)

[9] Source, CCSD Emergency Water Supply Title 22 Report

Sodium	mg/L	62	69	20	62 (the discharger proposed concentration)
Sulfate	mg/L	6.3	43	43	43 (existing water quality)
TDS	mg/L	242	357	357	357 (existing water quality)
Total Coliform	MPN/100ml	<2.2	--	--	--

b. *Order No. R3-2014-0050, Section IV.9 - the CCSD requests that requirements for double containment of the Reverse Osmosis concentrate to the surface impoundment be removed.*

Water Board Staff Response: This finding is consistent with findings contained in Order No. R3-2014-0047 for the discharges to the impoundment. Staff did not remove the finding.

c. *MRP No. R3-2014-0050, Table M-2 and M-3 - please provide rationale for extensive water quality requirements for plant influent and membrane filtrate. If this monitoring data is desired to better characterize the source water supply, a temporary timeframe (3 to 6 months) should be specified.*

Water Board Staff Response: It is clear from the information submitted to the Water Board that influent water quality will change as the facility operates. To ensure that surface and groundwater quality is protected, it is necessary for the Discharger to provide water quality data that documents influent water quality and treatment plant water quality.

Water Board staff has requested the Discharger provide a description of plant startup and plant shut down, and that description included limited water quality testing procedures. To date, the Discharger has provided a limited indication of how the influent or membrane filtrate water will be monitored, so the data requested in Table M-2 and M-3 is necessary to characterize both the source water and water potentially discharged to San Simeon Creek lagoon.

Staff did not propose a temporary timeframe for the system, because as proposed, the system will only be operated on an emergency basis and the estimated time of operation each year is three to six months.

d. *MRP No. R3-2014-0050, Section IV – Please clarify requirements for monitoring membrane filtrate.*

Water Board Staff Response: As proposed, the membrane filtrate will be discharged directly to San Simeon Creek. Monitoring of the membrane filtrate is necessary to protect water quality and beneficial uses of San Simeon Creek.

Staff recognizes that initially there may be some redundant monitoring requirements. However, based on the information evaluated to date, it is clear that the water quality of the influent, membrane filtrate, reverse osmosis product water, and the reverse osmosis wastewater are not completely known. The CCSD and the Water Board staff agree that the water supply quality will change during plant operation and this change in water quality will influence the water quality of the membrane filtrate, reverse osmosis product water, and the reverse osmosis wastewater.

Staff recommends collecting water quality data necessary to assess water quality and protection of surface water and groundwater. After several months of plant operation and water quality analysis, if the Discharger has data that show water quality and associated beneficial uses are protected, the Discharger may submit a request for modification of the monitoring requirements.

3. *The Land Conservancy of San Luis Obispo (LCSLO)*
LCSLO has a land conservation program aimed at retiring "antiquated lots." The net result is reduced development and reduced demands on limited water supply. Regrettably, the program has been indefinitely suspended by the CCSD board.

The Water Board should consider the future demand for water in Cambria and balance the demands for water in light of sustainable production.

Water Board Staff Response: Staff agrees that there is benefit in the LCSLO efforts to reduce water demand while placing "antiquated lots" into permanent land conservation status.

4. *Monterey Regional Water Pollution Control Agency (MRWPCA)*
a. *Division of Drinking Water Conditions. - Per Provision VI.12, the Draft Order incorporates the September 9, 2014 Division of Drinking Water (DDW) Conditions not explicitly included in the Order by reference. We recommend that the DDW Conditions be included as an attachment to the Order so that the specific requirements imposed by DDW are transparent and easily available for review.*

Water Board Staff Response: On September 9, 2014 the Division of Drinking Water (DDW) submitted a letter to the Water Board containing comments on the project compliance with the Groundwater Replenishment Regulations. The letter approved the Cambria Emergency Water Supply project and staff incorporated DDW comments into Order No. R3-2014-0050.

DDW reviewed the draft Order and submitted comments on October 2, 2014. staff incorporated DDW comments into Order No. R3-2014-0050.

The comments and conditions submitted by DDW remain in the Order. However, both the September 9, 2014 letter and the October 2, 2014 comments are included as part of the public record and are easily available for review.

b. *Table 9 in the Section 111.1 - Table 9 of the Draft Order presents recycled water discharge limits for selected constituents with only the footnote "Source, CCSD Emergency Water Supply Title 22 Report." No other explanation is provided as to the basis of the limits. They appear to be Reverse Osmosis (RO) performance-based limits, rather than limits based on any of the DDW requirements per the Title 22 Groundwater Replenishment Regulations, or the Central Coast Water Quality Control Plan (Basin Plan). Thus, the Draft Order appears to not be consistent with California Water Code (CWC) Section 13263(a) regarding what the Regional Water Quality Control Board (RWQCB) must consider when prescribing waste discharge requirements. Namely, "[t]he requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be*

protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241."

MRWPCA is concerned that the performance-based limits are somehow linked to an ill-advised interpretation of Best Practicable Treatment or Control (BPTC) per Resolution 8-16, the Anti-degradation Policy. The application of BPTC does not dictate the application of performance-based limits. As noted in State Water Resources Control Board (SWRCB) Order WQ 2014-090-DWQ-Corrected (General Waste Discharge Requirements for Recycled Water), BPTC is defined as "a combination of title 22 and the Regional Water Board Water Quality Control Plans (Basin Plans)." See Finding 24, pg. 7.

We understand that the RWQCB intends to remove the performance-based limits and support that decision. Moreover, we suggest that the RWQCB review the existing waste discharge requirements for the 6 permitted groundwater replenishment projects in California, and in particular, the most recent permit, Order No. R4-2014-0111, which was issued in June 2014 for the Leo J. Vander Lans Water Treatment Facility and the Alamitos Barrier Recycled Water Project. This project injects advanced treated recycled water into the Central Groundwater Basin to prevent seawater intrusion and replenish groundwater. In addition to the DDW Conditions attached to the Order, Table 3 in Section III of Order No. R4-2014-0111 included recycled water discharge limits based on groundwater objectives in the Los Angeles Basin Plan (not the performance of the advanced water treatment system):

Ill. RECYCLED WATER DISCHARGE UMITS

1. The advanced treated recycled water shall not contain constituents in excess of the following limits:

Table 3.Recyded Water Dlscharae Limits

Constituent	Unit	Concentration	Monitoring Frequency	Compliance Interval
TDS	mail	700	Quarterlv	Running annual average
Chloride	mail	150	Quarterlv	Running annual average
Sulfate	mail	250	Quarterlv	Running annual average
Boron	mg/l	1.0	Quarterly	Running annual average
Total Nitrogen	mg/l	10	Weekly grab or 24 hour	Sample result: no averaging
Nitrate plus Nitrite as N	mg/L	10	Weekly grab or 24 hour composite	Sample result no averaging
Nitrate as N	mg/L	10	Weekly grab or 24 hour composite	Sample result: no averaging
Nitrite as N	mg/l	1	Weekly grab or 24 hour composite	Sample result no averaging
Total Coliform	MPN/100 ml	1.1	Dally grab	Weekly maximum

2. Compliance with the recycled water discharge limits shall be determined after the injection point for sodium hypochlorite and before injection into the Barrier.

Water Board Staff Response: Table 9 of the Draft Order did present Reverse Osmosis (RO) performance-based limits for recycled water discharge limits. Use of these limits is based on preservation of existing high water quality to the maximum extent practical. In the current version of the Order, effluent limits for sulfate and total dissolved solids concentrations have been revised to reflect current groundwater quality. The ammonia concentration has been revised consistent with laboratory detection levels.

For the other pollutants (e.g. boron, sodium, chloride, and nitrate), even with the proposed level of treatment, the injected recycled water will degrade existing groundwater quality. Consistent with the Basin Plan and Resolution 68-16, the Anti-degradation Policy, it is necessary to protect high-quality water. The limits set are consistent with the protection of high-quality groundwater.

b. *Request to Remove "Waste" References When Referring to Advanced Treated Recycled Water.*

Water Board Staff Response: The use of the term "Waste" is consistent with Water Board legal requirements. Board staff is explicit in the Order in differentiating between waste water and product water.

5. *Greenspace, the Cambria Land Trust, letter dated October 17, 2014*
The Greenspace questions are summarized below.

a. *"…permitting for this project should be conducted only with the benefit of full environmental review…."*

Water Board Staff Response: By proclamations dated January 17, 2014, and April 25, 2014, the Governor declared a state of emergency in California due to the ongoing extraordinary drought. Each proclamation included a directive that suspended the environmental review required by the California Environmental Quality Act (CEQA) to allow certain directives from the Governor to take place as quickly as possible. This includes all actions taken by local agencies that are identified by the State Water Resources Control Board, Department of Drinking Water, as vulnerable to acute drinking water shortages and that are necessary to implement solutions to such shortages if the Office of Planning and Research "concurs that local action is required." (Proclamation No. 4-25-2014, #12 & #19). Cambria was identified as having critical water shortages and the Office of Planning and Research concurred that local action is required. Therefore, under the Governor's proclamations, CEQA is suspended for this project, including CEQA for the draft Orders.

b. *What is status of Regional Water Board request for "additional need for environmental review, permitting and assessment for potential water quality impacts"?"*

Water Board Staff Response: With respect to environmental review and permitting, please see response to item a. above. The Water Board also has more information about the project's water quality impacts now than when it drafted the comment letter. Thus the board is able to adequately assess water quality impacts and impose appropriate requirements pursuant to its authority under the Porter-Cologne Water Quality Control Act, Water Code section 13000 et seq.] Additionally, a Total Maximum

Daily Load (TMDL) analysis is in process, and that assessment should be available for public review in 2015.

The commenter also excerpts comments by other agencies on the Discharger's draft CEQA document, which are outside the purview of this Order due to the suspension of CEQA under the Governor's proclamations.

c. *What analysis has been done on the adverse effects of the chemical waste reservoir on wildlife?"*

Water Board Staff Response: Please see response to item a. above.

d. *How will the Regional Water Board's TMDL report affect this action as the report is not yet publicly released?"*

Water Board Staff Response: The TMDL report will not affect this action. The water recycling requirements in Order R3-2014-0050 are for re-injection of highly treated groundwater. Revision of Order 01-100 modifies the existing Order to allow discharge of membrane filter backwash to the existing percolation ponds.

e. *What is the contingency for chemical waste reservoir failure?"*

Water Board Staff Response: This question is addressed in comment responses for Order R3-2104-0047.

f. *What are the effects of brine discharges and chemical waste storage reservoirs at the confluence of two creeks that contain endangered species? "*

Water Board Staff Response: This question is addressed in comment responses for Order R3-2104-0047.

g. *How much water will the project actually produce and at what cost? "*

Water Board Staff Response: The proposed flows are shown in the table below. The Water Board does not have cost estimates. This information is available from the CCSD.

	Membrane Filter backwash wastewater returned to the percolation ponds	90,000 gpd
Membrane Filtrate product water discharged to San Simeon Creek to prevent dewatering of the freshwater lagoon		144,000 gpd
	Reverse Osmosis concentrate and cleaning solutions sent to brine disposal impoundment	65,000 gpd
Advanced treated product water, recharge to groundwater		700,000 gpd

h. *How much water will have to be released back in to San Simeon Creek? "*

Water Board Staff Response: San Simeon Creek will typically receive 144,000 gpd while the recycled water facility is running. The CCSD will monitor San Simeon Creek lagoon during operation to ensure water levels are maintained.

i. *What are the effects of re-injecting chemically treated water into this sensitive location?"*

Water Board Staff Response: Groundwater will be degraded; however, the degraded water will support beneficial uses. The Order contains a finding that, based on available information and monitoring data, any change in the existing high quality of the groundwater basin as a result of groundwater recharge allowed by this Order will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not cause exceedance of applicable water quality standards for the basin.

j. *"The water quality measured in source well 9P7, supplying the AWTP, is high quality before treatment, already complying with every drinking water MCL and secondary MCL. Why is the State or Regional board allowing this well to be polluted with effluent?"*

Water Board Staff Response: Well 9P7 is a monitoring well located in the middle of the CCSD wastewater discharge percolation pond system. Even though water quality in well 9P7 meets water quality objectives, water quality is degraded by the wastewater discharge. The Water Board is aware that the wastewater treatment plant discharge is impacting water quality and is working with the CCSD to improve effluent quality to protect and enhance water quality. The CCSD is in the design phase for upgrade of the wastewater treatment plant. The upgrade will reduce total nitrogen in the effluent. Management of sodium and chloride still needs to be addressed.

k. *Why is the State or Regional board allowing salt water intrusion to be induced into a "high quality, drinking water well?"*

Water Board Staff Response: Groundwater will be degraded; however, the degraded water will support beneficial uses. The Order contains a finding that, based on available information and monitoring data, any change in the existing high quality of the groundwater basin as a result of groundwater recharge allowed by this Order will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not cause exceedance of applicable water quality standards for the basin.

l. *The Cambria CSD is proposing to complete enough tasks by August of 2014 to provide safe and reliable drinking water for the community of Cambria by October 1, 2014. The emergency permit is not appropriate for this project as timelines for produced water have been moved into the 2014-15 rainfall season. No drinking water from this project is expected to be available until 2015. Goals will not be met."*

Water Board Staff Response: The recycled water treatment facility is expected to begin producing water in November of 2014.

m. *Fast tracking of permits, avoiding CEQA or NEPA review is not justifiable at this location."*

Water Board Staff Response: See response to Item 5.a above.

n. *The CCSD will not be able to complete the necessary studies and all regulatory requirements within the 180 day timeframe mandated by the Central Coast Water Board November 2014."*

Water Board Staff Response: See response to Item 5.a above.

o. *On June 11, 2014 the Central Coast Water Board warned that the CCSD had not started the process for obtaining permits from the CA Department of Fish and Wildlife, the US Fish and Wildlife, and the California Dept. of Public Health. What is the status of these permits?"*

Water Board Staff Response: See response to Item 5.a above.

p. *In Title 22 report, Photograph 8 states: "Facing east. A second alternative for disposing of unusable brine left over from the water treatment is to send it via an existing pipeline to be discharged into the ocean." An Ocean Outfall must not be considered.*

Water Board Staff Response: Comment noted. Ocean discharge is not allowed by this order.

q. *"This location contains a number of threatened and endangered species. San Simeon Creek empties into the CA State Parks Natural Preserve, the Monterey Bay National Marine Sanctuary, the CA Sea Otter Refuge, and the Cambria State Marine Park and is National Marine Fisheries CORE 1 Steelhead Habitat."*

Water Board Staff Response: Comment noted.

r. *Section 404 or 401 of the US Environmental Protection Act required yet not begun."*

Water Board Staff Response: The current version of the project will not disturb waters of the state. Therefore, Section 404 and/or 401 will not be initiated.

s. *Section 7 of the CA Endangered Species Act required yet not begun."*

Water Board Staff Response: See response to Item 5.a above.

t. *Two supporting documents were submitted with the Greenspace letter; comments from Greenspace and the California Coastal Commission to the CCSD regarding the project.*

Water Board Staff Response: The CCSD indicates it will address those questions during the development of an EIR for its County conditional use permit for a long-term recycled water project.

6. *Greenspace, the Cambria Land Trust, letter dated October 20, 2014*

The letter expresses concern about lack of environmental review/permitting, impacts to threatened and endangered species, legality of water rights, potential discharge of wastewater to the ocean, water diversion, sea water intrusion, and that the project is "sidestepping the law."

Water Board Staff Response: Although the emergency project is exempt from environmental review through the CEQA process, Order R3-2014-0050 includes monitoring of surface water, groundwater, and San Simeon Creek lagoon to prevent potential water quality impacts and impacts to beneficial uses.

7. *Lynne Harkins, email October 19, 2014*
   a. *Revision of Order 01-100 does not seem sufficient to address ongoing degradation of the creek with respect to nitrate, low dissolved oxygen, sodium, and chloride.*

Water Board Staff Response: The community of Cambria is short on water and in the near term, although water quality data show that both surface and ground water have been degraded by the existing discharge to the percolation ponds, staff is recommending adoption of the proposed order. The AWTP will remove some nitrate, sodium, and chloride from groundwater, but the load associated with this treatment process has not been determined. Futures updates to Order No. 01-100 will require the Discharger to mitigate impacts, calculate load reductions, and implement management practices to prevent any additional water quality degradation.

   b. *There is a concern that mercury could be present in the discharge of wastewater to the CCSD percolation ponds and that continued discharge could create conditions that encourage the bio-availability of mercury, causing it to move through the food chain.*

Water Board Staff Response: The project has the potential to mobilize and modify environmental mercury in and among various involved environmental media (soil, sediment, surface water, groundwater and air) and anthropogenic media (wastewater, waste solids, brine, precipitates, possibly other). Insufficient data exist to determine the likelihood of that potential. Mercury was not detected (at suitably low detection limits of 0.02 ug/L) in two samples of wastewater treatment plant effluent and in two samples of groundwater extracted from well 9P7, indicating, for the time those samples were collected, mercury was not being contributed to those two waste or product streams, and those streams were not contributing mercury to the hydrologic system. Those two waste or product streams likely vary chemically through time.

8. *Public Support*
   Twenty eight members of the public submitted form letters expressing support for the project and urging the Water Board to grant the CCSD a Title 22 permit for the re-injection of highly treated groundwater into the San Simeon Creek aquifer.

As a result of comments received, staff modified the draft order and monitoring requirements as follows:

<u>Changes to the Draft Order</u>

1. Division of Drinking Water (DDW) submitted a letter with multiple comments and clarifications to the proposed Order. For example, new DDW regulations were

finalized June 2014. The new regulations modified DDW's review process and the proposed Order is revised to accurately reflect those changes.

2. Updated Table 3, Water Quality of Product Water and Waste Streams (Page 7, #15).

3. Recycled Water Retention Time - the predicted recycled water retention time is no less than 120 days before it enters wells SS-1 and SS-2 (Page 12, #24).

4. Results from the tracer study show the bromide ion reached well SS2 in approximately 58 days using detection of two percent (2%) of the initially introduced tracer concentration. The same analysis showed the tracer reaching well SS1 in 67 days. The CCSD proposes a well pumping program to ensure a minimum of 61 days travel time to well SS2. Once the facility is operating and injecting water, the Discharger will repeat the tracer study to confirm travel times under normal operating conditions. Conditions of operation will be included in the OMMP (Page 12, #24).

5. Reverse osmosis recycled water discharge limits for groundwater reinjection were modified for ammonia, sulfate and TDS (Page 20, #III.1, Table 9).

6. PROVISIONS, added the following - The Discharger must evaluate and field validate the operating assumptions for the AWTP (quality of: water supply, membrane filter backwash discharge, membrane filtrate discharge, reverse osmosis product water re-injection, and lagoon condition) and compare the pre-project assumptions to documented operating data. The Discharger must submit a report detailing differences between documented operating values and assumed concentrations/conditions. The report must be submitted within 10 days following the first 30 days of AWTP operation (Page 22, #V.4).

7. DDW Requirements - The CCSD must operate the treatment facility in compliance with an OMMP approved by the DDW and the Water Board. The DDW or Water Board may require that the CCSD review and revise the OMMP following six months of operation of the facility. The OMMP must comply with Section 60320 (Page 26).

8. DDW Requirements - The final report for the tracer study was submitted to the DDW and the RWQCB on October 15, 2014. The tracer study, recalibrated model, and the operation of the CCSD wells did not show at least two months (61 days) of travel time between the injection well and the nearest potable extraction well being used. The CCSD shall be required to conduct additional tracer studies following operation of the AWTP (Page 27).

<u>Changes to the Monitoring and Reporting Program</u>

1. Reporting Requirements – a section on monthly reporting added as required by DDW (MRP-page 7).

2. Monitoring Programs – section on membrane filter backwash monitoring added (MRP-page 14).

3. Table M-18, General Physical and General Minerals, added (MRP-page 32).

4. Other Monitoring Requirements, "§60320.201. Advanced Treatment Criteria."

(i) Each month a project sponsor shall collect samples (grab or composite) representative of the effluent of the advanced treatment process and have the samples analyzed for contaminants having MCLs and notification levels (NLs). After 12 consecutive months with no results exceeding an MCL or NL, a project sponsor may apply for a reduced monitoring frequency. The reduced monitoring frequency shall be no less than quarterly. Monitoring conducted pursuant to this subsection may be used in lieu of the monitoring (for the same contaminants) required pursuant to sections 60320.212 and 60320.220. The first sample of the effluent needs to be collected in the first five days of operation of the AWTP (MRP-page 33).

RECOMMENDATION

Adopt Orders No. 01-100 and No. R3-2014-0050 as proposed.

ATTACHMENTS

1. Proposed Waste Discharge Requirements Order No. 01-100
2. Proposed Waste Discharge Requirements Order No. R3-2014-0050
3. Proposed Monitoring and Reporting Program Order No. R3-2014-0050
4. Comment Letters

FIGURES

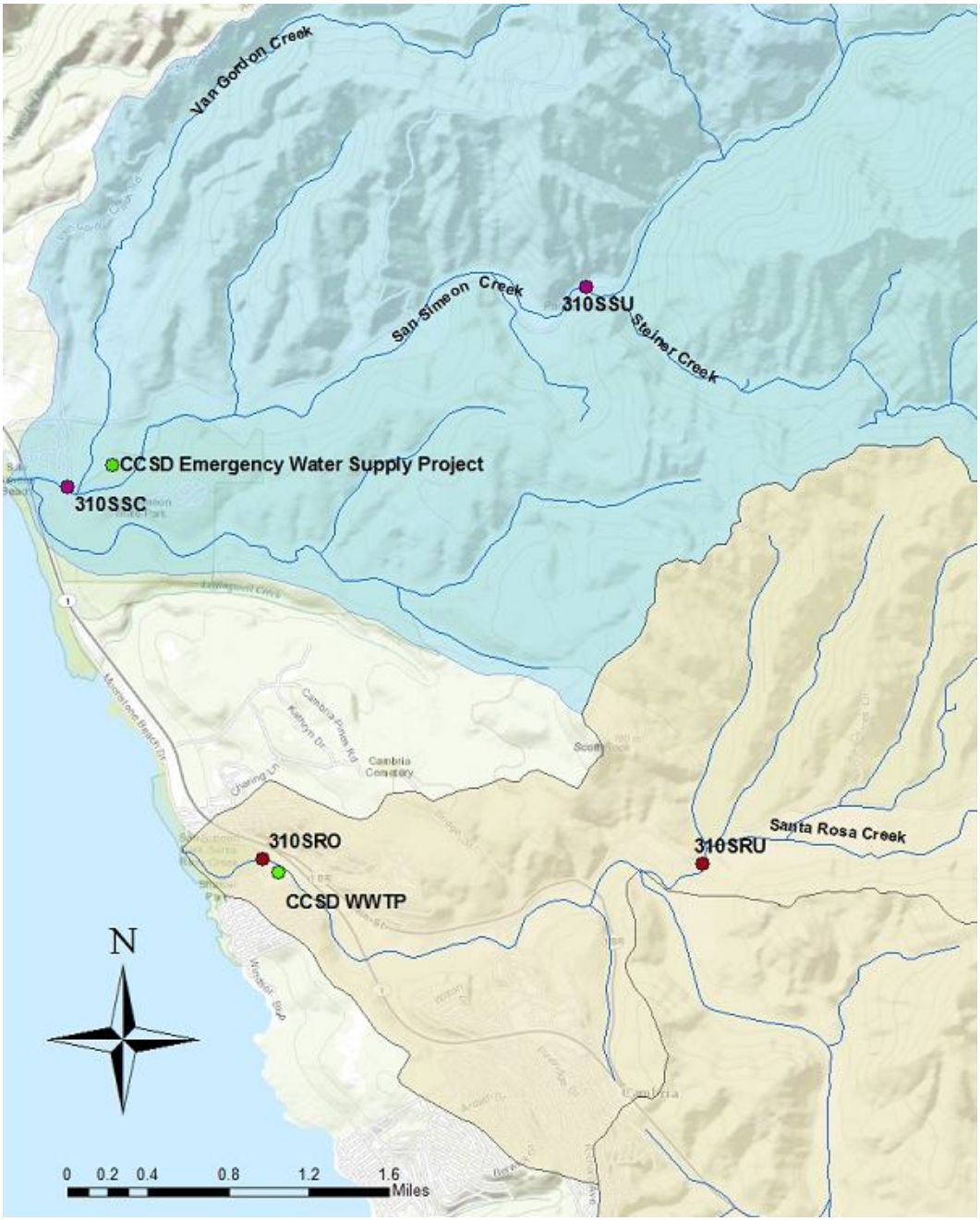

Figure 1 - Location of the Cambria Emergency Water Supply Project

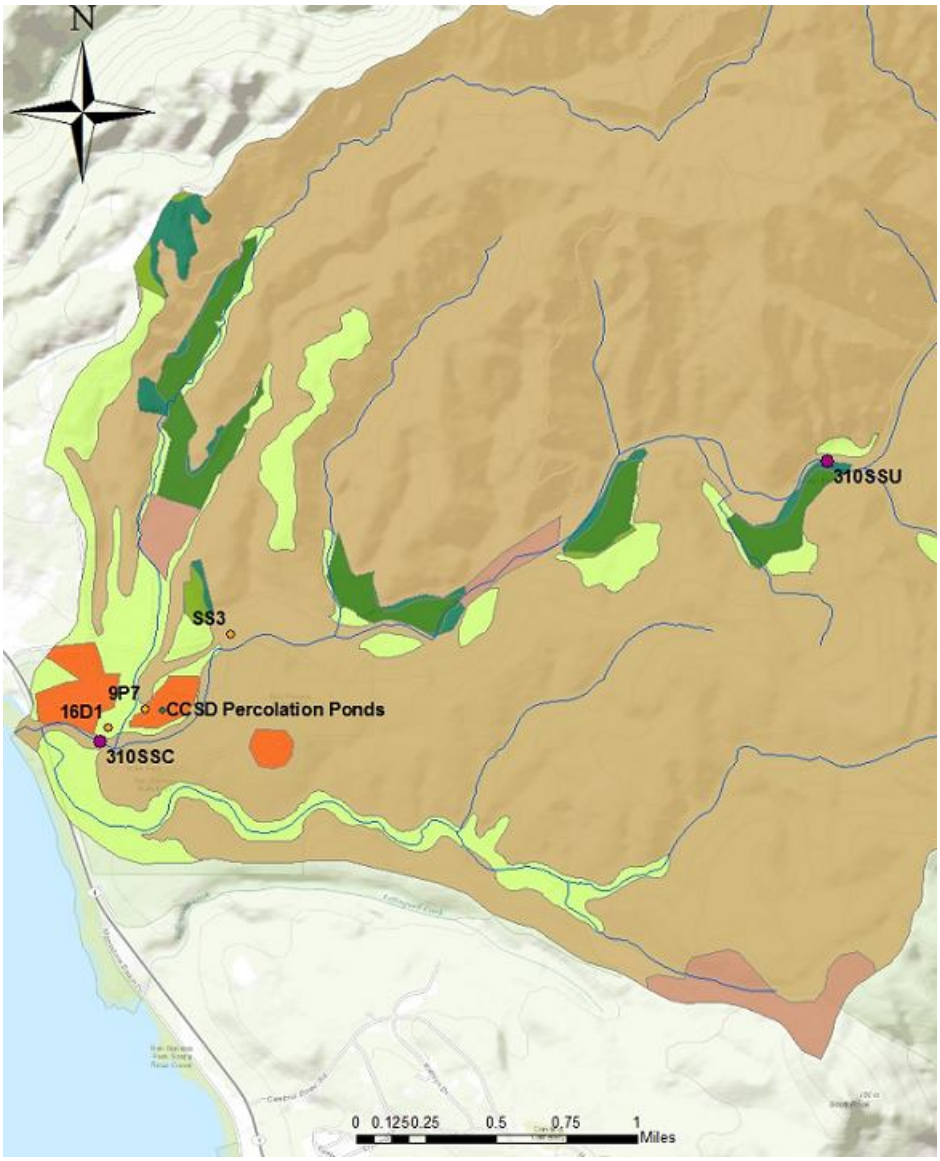

Figure 2 - CCSD Percolation Ponds and Water Supply/Monitoring Wells

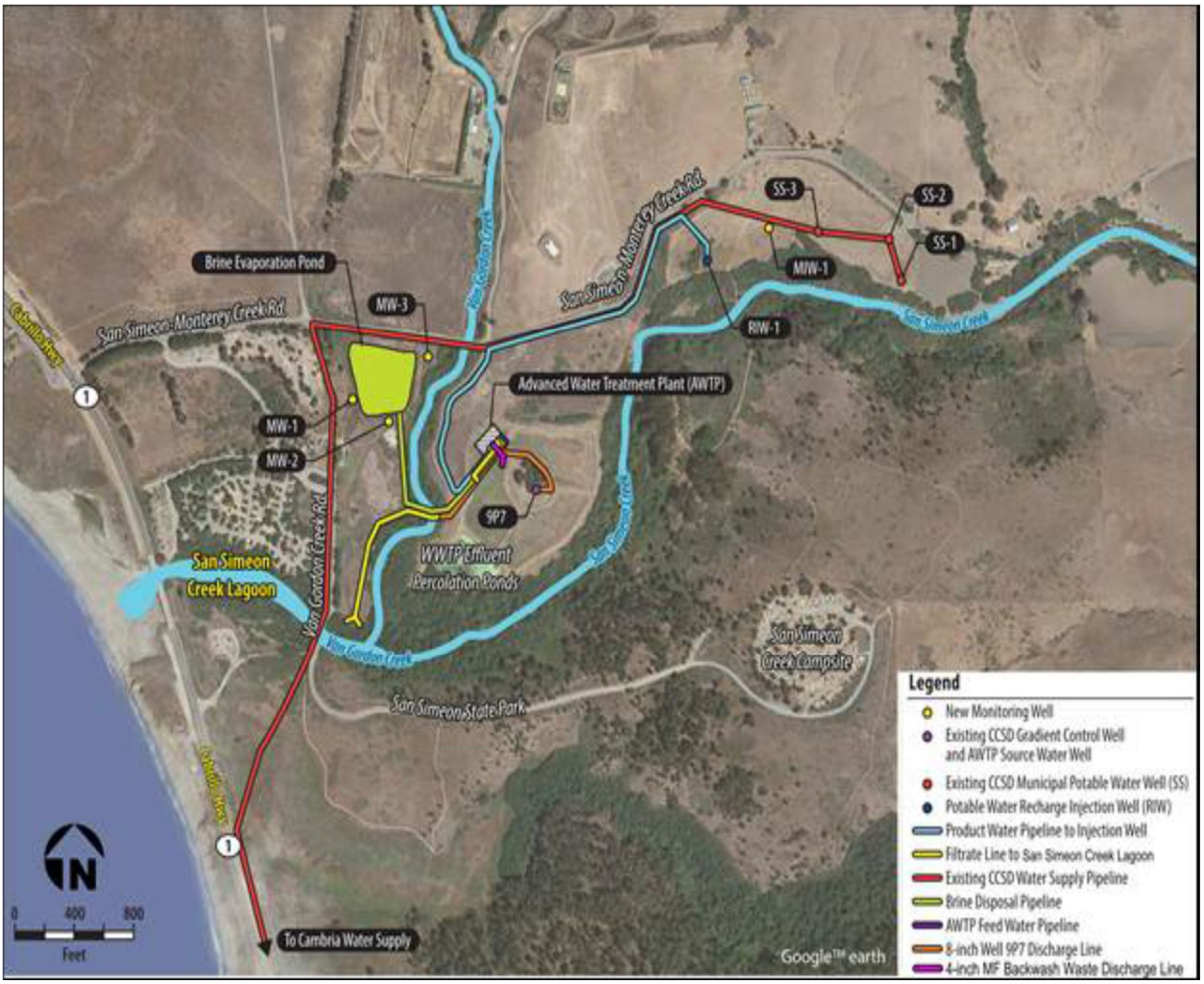

Figure 3 - Emergency Water Supply Project (Extraction Well, Treatment Plant, Percolation Ponds, Title 27 Impoundment, Groundwater Injection Site, Water Supply Wells)

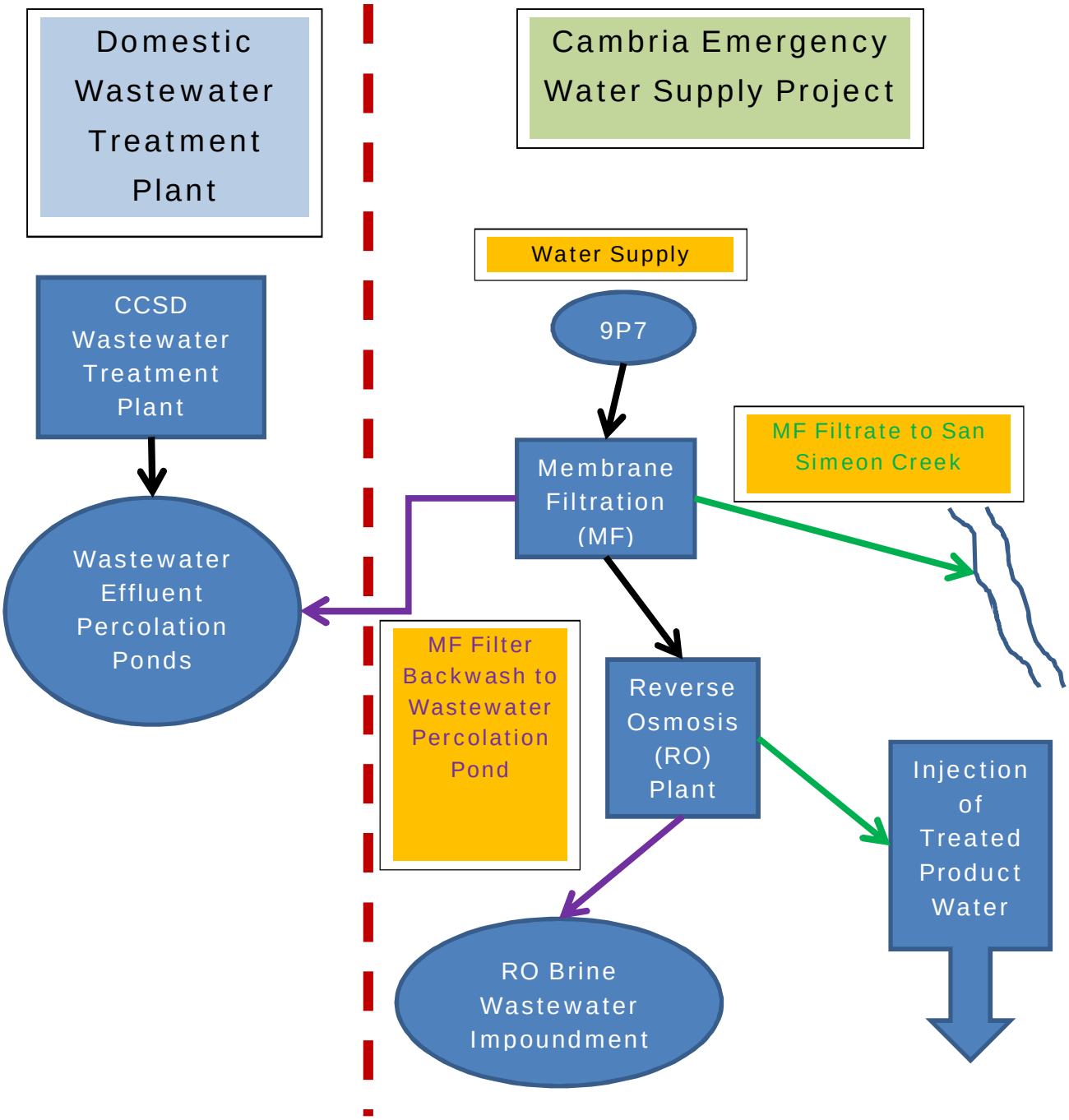

Figure 4 - Cambria Emergency Water Supply Project Water and Waste Streams