

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

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**ORDER NO. R4-2023-0292
FILE NO. 08-164
CI-5714**

**WASTE DISCHARGE REQUIREMENTS
ISSUED TO
VENTURA COUNTY WATERWORKS DISTRICT NO. 16
(PIRU WASTEWATER TREATMENT PLANT)**

The California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board) finds:

BACKGROUND

1. Ventura County Waterworks District No. 16 (hereafter Discharger) provides domestic and some commercial wastewater collection, treatment, and disposal services for the town of Piru in an unincorporated area of Ventura County. The Discharger owns and operates the Piru Wastewater Treatment Plant (Piru WWTP) which is located at 2815 East Telegraph Road in Piru, California (Figure 1). The Discharger owns and operates a separately regulated sewer collection system.
2. Prior to February 2010, the Discharger owned the old Piru WWTP built in 1974 and discharged the treated wastewater into two onsite percolation ponds. Due to the age and design capacity limitation of the treatment system, the Discharger could not consistently comply with the effluent limitations for biological oxygen demand (BOD), total suspended solids (TSS), and total nitrogen, as set forth in its Waste Discharge Requirements (WDRs) Order No. R4-2004-0032. A new Piru WWTP was therefore constructed and began operation in February 2010. The old Piru WWTP located in the vicinity of the current influent pump station was thereafter decommissioned. On May 5, 2011, the Los Angeles Water Board adopted Order No. R4-2011-0088 rescinding Order No. R4-2004-0032.
3. The effluent discharge from the current Piru WWTP was previously regulated under the following requirements.
 - A. Time Schedule Order (TSO) No. R4-2007-0044, adopted by the Los Angeles Water Board on September 6, 2007, required the Discharger to complete construction and startup of the Piru WWTP and achieve full compliance with effluent limitations prescribed in a future Order by February 28, 2009. Additionally, this TSO allowed the Executive Officer to extend the time schedule by two time periods, not to exceed six months each, if necessary.

- B. WDRs contained in Order No. R4-2009-0027, adopted by this Los Angeles Water Board on February 5, 2009, which established the effluent and groundwater limitations for the current Piru WWTP.
 - C. Order No. R4-2009-0027-A01, adopted by the Los Angeles Water Board on September 13, 2018, extended the expiration date by 24.75 months to provide additional time to thoroughly review reports and data to determine if additional requirements were necessary to adequately protect waters of the State because of a number of violations of the discharge limits for total dissolved solids (TDS) and chloride.
 - D. Order No. R4-2009-0027-A02, adopted by the Los Angeles Water Board on February 11, 2021, extended the expiration date for an additional 24 months for the Discharger to explore a regional solution or alternative treatment options to achieve its discharge limits. The extension will expire on February 28, 2024, or upon issuance of new or revised WDRs.
4. On November 25, 2015, the Discharger filed a Report of Waste Discharge (ROWD) for renewal of WDRs to continue to discharge treated wastewater to onsite percolation ponds. In its 2015 ROWD, the Discharger acknowledged the continued challenge to comply with the TDS and chloride discharge limits.
 5. On January 11, 2022, the Discharger verbally notified the Los Angeles Water Board about the Desalter Project that they were planning to address the TDS and chloride exceedance issues. The Desalter Project includes the construction of an electrochemical nano diffusion (END) desalination treatment and two evaporation tanks for concentrating the brine generated from the END system. END is a water treatment technology that combines elements of electrochemical cells, ion exchange membranes, and Electrodialysis Reversal (EDR) treatment. Approximately 130 tons per year of brine waste or salts will be produced and periodically trucked to an authorized landfill.
 6. The Discharger will also upgrade the Piru WWTP, including ozone disinfection and belt press dewatering processes. The disinfected, tertiary-treated wastewater will be discharged to the subsurface through two existing percolation ponds.
 7. The Discharger anticipates that the upgrade of the Piru WWTP and the startup of the END desalination process will be completed by June 2023 and that the Piru WWTP with END/EDR system will provide an effluent that complies with all requirements in Title 22 of the California Code of Regulations (CCR) and all the effluent limitations set forth in this Order.
 8. On February 9, 2023, April 6, 2023, and June 1, 2023, Los Angeles Water Board staff conducted a site inspection to verify the information provided in the ROWD and observed the construction progress of the desalination treatment system and evaporation tanks. During the site visit on June 1, 2023, the Discharger requested onsite discharge of disinfected tertiary-treated wastewater for landscape irrigation

by subsurface application to approximately 18,000 square feet, as shown in Figure 8. The estimated discharge flowrate is 1,000 gallons per day (gpd). The Discharger also informed staff that due to equipment delivery delays, the Piru WWTP will not be fully operational until August 31, 2023 at the latest.

9. The source of potable water for the residents in the town of Piru is groundwater. The potable water provider is California American Water, which acquired Warring Water Service, Inc. in September 2022.
10. The State Water Resources Control Board (State Water Board) adopted Statewide General WDRs for Sanitary Sewer Systems (General WDRs for SSS), Order No. 2006-0003 on May 2, 2006, and amended the WDRs by Order No. WQ 2008-0002-EXEC and Order No. WQ 2013-0058-EXEC. The General WDRs for SSS, as amended, provides a consistent, statewide regulatory approach to address sanitary sewer collection systems. The General WDRs for SSS require public agencies that own or operate sanitary sewer systems to develop and implement sewer system management plans and report all sanitary sewer overflows (SSOs) to the State Water Board's online SSO database. On October 11, 2006, the Discharger enrolled under the General WDRs for SSS.

The State Water Board adopted Statewide WDRs General Order for SSS, WQ 2022-0103-DWQ on December 6, 2022, which becomes effective on June 5, 2023. On April 13, 2023, the State Water Board issued a Notice of Applicability for Continuation of Regulatory Coverage under the 2022 General WDRs for SSS to the Discharger.

REGULATORY AGENCIES

11. The Los Angeles Water Board is the permitting agency for the discharge of disinfected, tertiary-treated wastewater from the Piru WWTP to the percolation ponds and onsite landscape subsurface application areas. The Los Angeles Water Board issues WDRs to ensure that discharges of effluent from the Piru WWTP do not adversely affect the quality of groundwater and its beneficial uses.
12. The Los Angeles Water Board is required pursuant to California Water Code (CWC) section 13523 to consult with and receive recommendations from the State Water Resources Control Board Division of Drinking Water (DDW) regarding public health, safety, or welfare. Based on consultation with DDW staff, a Title 22 engineering report for onsite landscape irrigation by subsurface application is not required and is not subject to DDW's review and approval.

PURPOSE OF ORDER

13. The purpose of this Order is to renew the WDRs for the Piru WWTP. This Order includes effluent and groundwater limitations to ensure that the discharge of waste complies with groundwater quality objectives and requirements set forth in the *Water Quality Control Plan for the Los Angeles Region: Basin Plan for the Coastal*

Watersheds of Los Angeles and Ventura Counties (Basin Plan) for the protection of beneficial uses.

14. In order to renew the WDRs, the Discharger submitted the following to the Los Angeles Water Board.
 - A. A design report of the evaporation tanks on January 17, 2023, and January 23, 2023.
 - B. A revised Form 200/ROWD on February 13, 2023, in response to a directive to submit a ROWD for the Piru WWTP issued on January 13, 2023.
 - C. Supplemental information on March 27, 2023, in response to an incomplete application letter dated February 28, 2023.
15. The WDRs are issued pursuant to Chapter 9, Division 3, Title 23, California Code of Regulations (CCR) and, therefore, eligible for a section 20090(a) exemption from CCR, Title 27, except for brine discharged to the evaporation tanks onsite. The discharge authorized herein and the treatment and storage facilities associated with the discharge, except for discharges of residual sludge, brine, and solid waste, are exempt from the requirements of CCR, Title 27, section 20005 et seq. The exemption, pursuant to section 20090(a) of Title 27, is based on the following factors: the waste consists primarily of domestic sewage and treated effluent; the WDRs are consistent with water quality objectives; and the treatment and storage facilities described herein are associated with a municipal wastewater treatment facility.
16. The evaporation tanks for brine disposal, as described in Finding No. 21.D. of this Order, are designed to contain liquid wastes or wastes containing free liquids. The evaporation tanks function as surface impoundments as defined in section 20164 of CCR, Title 27, and are regulated herein as engineered alternatives that are allowed under section 20080 (b) of CCR, Title 27. Specific requirements for the evaporation tanks are included in Section D of this Order.
17. California Water Code (CWC) section 13260 requires any person "proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than to a community sewer system," to file a report of waste discharge. The term "waste" is defined in CWC section 13050(d) to include "sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, ... prior to, and for purposes of, disposal." The Discharger proposes to discharge tertiary-treated domestic and some commercial wastewater to land where it could affect the quality of the waters of the state.
18. CWC section 13267 authorizes the Los Angeles Water Board to require that any person who proposes to discharge waste submit, under penalty of perjury, technical or monitoring program reports to the Los Angeles Water Board. The estimated costs of these reports are approximately between \$25,000 and \$39,000. The burden,

including costs of these reports, bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports, which include protection of public health and the environment. This Order incorporates Monitoring and Reporting Program (MRP) No. CI-5714 for the Discharger (File No. 08-164), which is also necessary to ensure that the discharge of waste complies with this Order and is protective of human health and the environment.

19. This Order is adopted pursuant to CWC sections 13263 and 13267. It sets forth requirements, prohibitions, and other conditions to comply with the Basin Plan and the MRP. The Discharger is also responsible for inspecting the treatment facilities and ensuring compliance with the WDRs in this Order.

FACILITY AND TREATMENT PROCESS DESCRIPTION

20. Piru WWTP and Vicinity

- A. The Piru WWTP (34°24'05.0 "N, 118°49'30.9 "W) is located at 2815 East Telegraph Road in Piru in an unincorporated area of Ventura County (Assessor's Parcel Numbers (APN) are 055-0-170-375 and 055-0-170-415).
- B. The two percolation ponds (34°23'26.1 "N, 118°49'58.9"W) are located approximately 4,000 feet southwest of the Piru WWTP and approximately 500 feet away from the Santa Clara River. The APNs are 055-0-160-295 and 055-0-270-275.
- C. The two evaporation tanks are located within the area of the Piru WWTP.
- D. The Piru WWTP and its percolation ponds overlie the Piru Groundwater Basin (Department of Water Resource Basin No. 4-4.06), as shown in Figure 2. The Basin Plan defines the subject subbasin as Piru Groundwater Basin-Lower Area West of Piru Creek Subbasin.

21. Piru WWTP Processes

- A. The Piru WWTP has a tertiary treatment capacity of an average daily dry weather flow of 500,000 gpd. Tertiary Treatment at the Piru Treatment Plant consists of treating the secondary treated effluent to reduce the levels of chlorides and TDS present for meeting the discharge requirements. As shown in Figures 3 and 4, the secondary treated effluent from the Clarifiers flows via gravity to the Equalization Basin. From the Equalization Basin, the secondary treated effluent is then pumped via the Tertiary Pump Station to the tertiary treatment system. Tertiary treatment reduces the levels of chlorides and TDS through a desalination treatment known as Electrochemical Nano Diffusion (END). END is a water treatment technology that combines elements of electrochemical cells, ion exchange membranes, and Electrodialysis Reversal (EDR) treatment. Prior to entering the END for desalination, the secondary

treated effluent undergoes pre-treatment consisting of disinfection and filtration to reduce potential bio-loading of the END system.

- B. The Piru WWTP consists of an influent pump station, two vertical bar screens, two extended oxidation ditches, and two secondary clarifiers. In addition, an ozone disinfection unit, two multimedia filters, an END desalination unit, and two evaporation tanks for brine disposal will be constructed. The following is a brief description of each unit process component, as shown in Figures 3 and 4.
- i. The influent pump station consists of a wet well and three submersible pumps and lifts the influent from the sewer collection system to downstream processes by gravity flow.
 - ii. Two vertical bar screens are operated in parallel to remove large materials that could interfere with wastewater treatment.
 - iii. The two extended oxidation ditches have a total volume of 570,000 gallons. Each oxidation ditch is divided into two zones: anoxic and aerobic zones, which are designed to facilitate biochemical oxygen demand (BOD) removal and nitrogen removal by nitrification and denitrification processes.
 - iv. Each of the two circular-shaped secondary clarifiers has a dimension of 45 feet in diameter and 12 feet in depth.
 - v. The ozone disinfection system consists of an air compressor unit, an oxygen concentrator unit, an ozone generator unit, and an ozone contact tank. To remove viruses and pathogens in the effluent, an appropriate concentration-time (CT) or oxidation and reduction potential (ORP) value will be maintained based on the demand by seasonal variations, temperature, pH, turbidity, dissolved organics and inorganics.
 - vi. Each of the two multimedia filters consists of three layers of media: anthracite, sand, and gravel and will be operated in parallel. The empty bed contact time for each filter will be approximately 5.9 minutes.
 - vii. The modular END desalination system consists of electrochemical cells, ion exchange membranes, and electro dialysis reversal (EDR) unit. The EDR desalination system can treat up to 140,000 gpd of wastewater and produce up to 5,600 gpd of brine.
- C. Waste activated sludge from the secondary treatment is sent to two onsite aerobic digesters for digestion. Residual sludge from the digesters is dewatered by a belt press. Dewatered sludge is hauled off offsite to Toland Road Landfill, an authorized waste management facility.

- D. Evaporation tanks – Produced brine from the END desalination treatment is discharged into nearby evaporation tanks. The tanks consist of above ground galvanized steel tanks fitted with multiple non-woven membrane polyethylene liners and a leak detection system, as shown in Figures 5 and 6. Each tank has a rated storage capacity of 156,000 gallons. Each pond contains an operational volume of 70,000 gallons, which accounts for the 6 inches of minimum level and 2 feet of freeboard required. Level-detecting instrumentation is mounted to each tank and wired to the local Programmable Local Controller (PLC) which communicates to the Supervisory Control and Data Acquisition (SCADA) system. In the event an instrument detects a high level, an alarm is transmitted to notify the Operators to assess the system. In the event an instrument detects a high-high level, the Desalination Treatment system is automatically commanded to shut down.
- i. The dimensions of each evaporation tank will be 83 feet by 56.34 feet and 4.75 feet.
 - ii. The liner system consists of two 36-mil geomembranes, and each liner is supported by an 8-ounce geotextile liner. The bottom of the tank, consisting of wire cables on earthen ground, will be covered with another layer of geotextile and geomembrane of 30 mils or thicker, as shown in Figure 6.
 - iii. Each tank is equipped with a downdraft floating evaporating blower that produces boundary layer evaporation.

For operation, there is a weather station for monitoring local weather conditions. The blowers are equipped with controls to ramp their speed (capacities) up and down based on production, target brine concentration, and weather conditions. During an Operator's weekly routine maintenance reviews, each pond is inspected to verify production efficacy, brine composition, level, and the system's integrity; particularly the liner assembly and its leak detection system.

HYDROGEOLOGY AND GROUNDWATER

22. According to the *Lower Santa Clara River Salt and Nutrient Management Plan* dated June 2015, the Piru basin is confined to the north by the Topatopa Mountains and to the south by the Oak Ridge and Santa Susana Mountains. The majority of the Piru basin is covered by recent and older alluvium consisting of 60 to 80 feet of permeable sands and gravels of the San Pedro formation. The impermeable Pico formation underlies the older alluvium in the eastern portion of the Piru basin. The basin is bound by the San Cayetano Fault to the north and Oak Ridge Fault to the south.

Groundwater in the alluvium flows mostly parallel to the Santa Clara River channel. In the San Pedro formation, the predominant flow direction is also parallel to the river

channel but also includes some north to south flow perpendicular to the axis of the Ventura syncline.

23. There are four groundwater monitoring wells (MW-1, MW-2, MW-3, and MW-4) located in the vicinity of the percolation ponds, as shown in Figure 7. The total depth of MW-1, MW-2, MW-3, and MW-4 is 73 feet, 79 feet, 48 feet, and 48 feet, respectively. According to the groundwater elevation contour in Figure 7, the upgradient monitoring well is MW-1, the downgradient monitoring well is MW-2, and the cross-gradient monitoring wells are MW-3 and MW-4.

The depth to groundwater in the vicinity of the percolation ponds ranges from approximately 34 feet below ground surface (bgs) to 64 feet bgs measured at MW-1 and MW-2 in 2022.

The median groundwater quality at each monitoring well from 2012 through 2022 is summarized in Table 1 below.

Table 1. Median Groundwater Quality

Well	TDS (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Boron (mg/L)	Nitrate as nitrogen (mg/L)	Coliform (MPN/100mL)
MW-1	1,570	559	128	0.7	19.95	<1.1
MW-2	770	297	53	0.4	2.4	<1.1
MW-3	1,325	478	130	0.6	8.3	<1.1
MW-4	680	233	52	0.4	4.2	<1.1

Table 1 notes:

- Coliform refers to either total coliform or fecal coliform.
- The unit of mg/L denotes milligrams per liter.
- A bolded text indicates a value that is greater than groundwater quality objectives in the Basin Plan for the Lower Area West of Piru Creek.

COMPLIANCE HISTORY

24. The analytical data from 2002 to 2008 for the effluent produced from the old Piru WWTP indicated that concentrations of chloride and total nitrogen were greater than the groundwater quality objectives, as shown in Table 4. Non-compliance with the total nitrogen was addressed by upgrading the Piru WWTP, as shown in Table 2.
25. Order No. R4-2009-0027, Provision F.4, requires the Discharger to identify, assess, quantify, and document possible sources of chloride in its effluent and submit a Chloride Work Plan by March 15, 2009 for the Executive Officer's review and approval. Additionally, the Discharger is required to submit a Chloride Report containing the identification, assessment, and quantification of sources of chloride and a mitigation plan to achieve compliance with the chloride limit by November 12, 2009, for the Executive Officer's review and approval.

26. On November 12, 2009, the Discharger submitted a report titled *Chloride Source Identification Study for the Piru Wastewater Treatment Plant* to the Los Angeles Water Board. The study concluded that a majority of chloride sources to the Piru WWTP are not controllable because of high chloride concentrations in the supply water and residential use of self-regenerating water softeners.
27. On March 18, 2010, the Los Angeles Water Board provided six mitigation approaches to solving the chloride issues. The six approaches included 1) obtaining potable water supply with a lower chloride level, 2) using different disinfection methods for potable water, 3) prohibiting the discharge of water softeners to the sewer collection system, 4) discharging effluent when meeting the chloride limit, 5) using a centralized water softener for potable water supply, and 6) treating portions of the effluent to meet the chloride limit.
28. In response to the Los Angeles Water Board's above-mentioned approaches, on May 5, 2010, the Discharger sent a letter to the Los Angeles Water Board stating that most of the approaches were considered but found infeasible due to its inability to control the source of potable water, economic viability, enforcement authority limitations, and high chloride level in the effluent. Instead, the Discharger proposed to implement a groundwater monitoring program to see if they can meet groundwater quality objectives for chloride and TDS.
29. On February 7, 2023, Ventura County Waterworks Districts Rules and Regulations for Districts Nos. 1, 16, 17, 19, and 38 were approved by the Board of Supervisors of the County of Ventura, which prohibit the discharge of wastewater resulting from the regeneration of water softener larger than 1.2 cubic feet capacity into a public sewer main. However, the discharge of wastewater into a public sewer system resulting from the regeneration of any residential water softener unit smaller than 1.2 cubic feet capacity may still be allowed under certain conditions.
30. The average annual effluent flowrate and quality for selected constituents collected and analyzed from the Piru WWTP from 2012 through 2022 are summarized in Table 2 below.

Table 2. Average Annual Effluent Flowrate and Water Quality

Year	Flow (gpd)	TDS (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Boron (mg/L)	Total nitrogen (mg/L)
2012	180,230	1,218.9	439.8	160.9	0.85	1.6
2013	146,782	1,171.4	381.3	142.5	0.88	2.6
2014	122,907	1,109.4	330.3	165.8	0.89	4.6
2015	119,177	1,256.8	437.5	152.1	0.91	2.0
2016	119,875	1,330.0	544.0	159.8	0.86	2.2
2017	119,700	1,318.2	473.5	182.1	0.73	3.4

Year	Flow (gpd)	TDS (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Boron (mg/L)	Total nitrogen (mg/L)
2018	124,124	1,345.8	492.5	164.4	0.87	3.5
2019	126,895	1,358.5	503.0	150.4	0.83	3.6
2020	133,223	1,399.4	539.3	151.6	0.87	4.2
2021	134,733	1,242.5	448.8	138.2	0.94	1.7
2022	123,719	1,207.7	417	153.4	0.84	2.0

Table notes:

- A bolded text indicates a value that is greater than groundwater quality objectives in the Basin Plan for the Lower Area West of Piru Creek.
31. On October 28, 2011, December 17, 2013, December 16, 2016, and February 22, 2018, the Los Angeles Water Board issued several Notices of Violation (NOVs) to the Discharger because of exceedances of TDS and chloride in the effluent and groundwater.
 32. The Discharger responded to the NOVs on January 16, 2014, February 16, 2017, and April 23, 2018, respectively, and stated that the sources of TDS and chloride in the influent of the Piru WWTP were not controllable. Approximately 20% of the chloride loadings to the Piru WWTP was controllable by limiting discharges from commercial and industrial entities and brine discharges from residential water softeners. However, the source-control strategy alone could not achieve the effluent limits.
 33. Therefore, as stated in Findings 5, 6, and 7 above, the Piru WWTP will be upgraded to produce disinfected tertiary-treated wastewater to be less than or equal to the groundwater quality objectives. The estimated salt concentrations for selected constituents in the secondary-treated and tertiary-treated wastewater are summarized in Table 3 below.

Table 3. Estimated Salt Concentrations in the Secondary- and Tertiary-Treated Wastewater

Constituents	Secondary-treated Wastewater	Tertiary-treated Wastewater
TDS (mg/L)	1,411	587
Sulfate (mg/L)	473.5	190.8
Chloride (mg/L)	165	66.5
Boron (mg/L)	0.8	0.8
Sodium (mg/L)	183	73.8

Constituents	Secondary-treated Wastewater	Tertiary-treated Wastewater
Potassium (mg/L)	19	7.7
Calcium (mg/L)	140	56.5
Magnesium (mg/L)	54	21.8

APPLICABLE PLANS, POLICIES, AND REGULATIONS

34. **Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan)** – The Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan (i) designates beneficial uses for surface and ground waters, (ii) establishes narrative and numeric water quality objectives that must be attained or maintained to protect the designated beneficial uses, and (iii) sets forth implementation programs to protect the beneficial uses of the waters of the state. The Basin Plan also incorporates State Water Board Resolution 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (also called the "Antidegradation Policy"). In addition, the Basin Plan incorporates by reference applicable State and Los Angeles Water Board plans and policies and other pertinent water quality policies and regulations. Since 1994, numerous Basin Plan amendments have been adopted, and more current background, program, and geographical information have become available. This Order implements the plans, policies, and provisions of the Los Angeles Water Board's Basin Plan.

35. The Basin Plan (Chapter 3) incorporates as water quality objectives primary and secondary maximum contaminants levels (MCLs) for inorganic, organic, and radioactive contaminants in drinking water that are codified in CCR, Title 22, Division 1 (CCR Title 22). This incorporation by reference is prospective, including future changes to the incorporated provisions as the changes take effect. The CCR Title 22 primary MCLs are applicable water quality objectives for receiving water to protect beneficial uses when that receiving water is designated as municipal and domestic supply. Also, the Basin Plan specifies that "Groundwaters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses." Therefore, the CCR Title 22 secondary MCLs, which are limits based on aesthetic, organoleptic standards, are applicable water quality objectives for receiving water to protect beneficial uses when that receiving water is designated as municipal and domestic supply. These water quality objectives are implemented in this Order to protect groundwater quality.

36. The Piru WWTP and percolation ponds overlie the Piru Groundwater Basin-Lower Area West of Piru Creek Subbasin (Subbasin). The groundwater quality objectives for the Subbasin are shown in Table 4 as follows:

Table 4. Water Quality Objectives for the Piru Groundwater Basin-Lower Area West of Piru Creek Subbasin

TDS (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Boron (mg/L)	Nitrogen (mg/L)	Coliform (MPN/100mL)
1,200	600	100	1.5	10	1.1

Table notes:

- Nitrogen includes nitrate as nitrogen plus nitrite as nitrogen.
- Coliform refers to either total coliform or fecal coliform.

37. In addition, the Basin Plan incorporates State Water Board Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to the groundwater are shown in Table 5 below.

Table 5. Basin Plan Beneficial Uses of Groundwater

Receiving Water	Beneficial Uses
Piru Groundwater Basin-Lower Area West of Piru Creek Subbasin (DWR Basin No. 4-4.06)	Municipal and domestic supply (MUN), industrial service supply (IND), industrial process supply (PROC), and agricultural supply (AGR).

38. **Publicly Owned Treatment Works (POTW)** – The term POTW means a treatment works as defined by section 212 of the federal Clean Water Act, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW treatment facility. The term also means the municipality, as defined in section 502(4) of the Clean Water Act, which has jurisdiction over the indirect discharges to and the discharges from such treatment works. (40 Code of Federal Regulations [CFR] 403.3(q)). Piru WWTP meets all above criteria and therefore is considered a POTW.

39. **Pretreatment Program** – CCR, Title 23, section 2233(a) requires the POTW with a design capacity of 5 million gallons per day (mgd) or more must have and enforce an adequate pretreatment program approved by the Los Angeles Water Board.

The Piru WWTP receives industrial wastewater generated from Fillmore-Piru Citrus Association. This Order does not require a pretreatment program because the design capacity of the Piru WWTP is less than 5 mgd.

40. **Assembly Bill No. 685 (AB 685) – CWC section 106.3** – It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant

levels (MCLs) developed to protect human health and ensure that water is safe for domestic use.

ANTIDegradation POLICY

41. State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (also called the "Antidegradation Policy") requires the Los Angeles Water Board, in regulating the discharge of waste, to maintain high-quality waters of the state until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the State Water Board's policies (e.g., quality that exceeds water quality objectives).
42. **Antidegradation Analysis** – The Los Angeles Water Board finds that the discharge, as allowed in these WDRs, is consistent with Resolution No. 68-16 since this Order requires (1) compliance with the requirements set forth in this Order, including the use of best practicable treatment and control (BPTC) technology, (2) implementation of the revised MRP; and (3) regular monitoring of the discharge to comply with water quality objectives. As stated in Finding No. 21, the Piru WWTP has produced secondary-treated wastewater and will implement the desalination technology to produce tertiary-treated wastewater to prevent groundwater quality degradation. Since this Order contains tasks for assuring that the best BPTC and the highest water quality are consistent with the maximum benefit to the people of the State, and since the Piru WWTP will produce effluent quality that is better than or equivalent to the groundwater quality objectives, the discharge is consistent with the Antidegradation Policy and Basin Plan. However, the Los Angeles Water Board will review this Order periodically and may revise requirements when necessary.
43. CWC section 13263 authorizes the Los Angeles Water Board, after any necessary hearing, to prescribe requirements as to the nature of any proposed discharge with relation to the conditions existing in the disposal area or receiving waters upon or into which the discharge is made or proposed. The requirements must 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 CWC section 13241¹. Analysis of the CWC 13241 factors is set forth below.

¹ California Water Code section 13241 requires the Los Angeles Water Board to consider certain factors when establishing water quality objectives, including: (a) Past, present, and probable future beneficial uses of water. (b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto. (c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area. (d) Economic considerations.

A. Past, present, and probable future beneficial uses of water;

The receiving water for discharges from the Piru WWTP is the Piru Groundwater Basin- Lower Area West of Piru Creek Subbasin. The receiving water limitations in this Order are specified to maintain the beneficial uses of this basin: municipal and domestic water supply (MUN), industrial service supply (IND), industrial process supply (PROC), and agricultural supply (AGR).

As stated in Finding No. 4 and the Compliance History section above, the Discharger acknowledged the challenge to comply with the TDS and chloride effluent limits to maintain the beneficial uses. As stated in Finding No. 5, the Discharger proposed to address the TDS and chloride issues in the effluent by implementing desalination technology, such as END or EDR. Since the Piru WWTP can produce tertiary-treated recycled water, this recycled water will be available to the community in the town of Piru for agricultural supply and landscape irrigation in the future.

This Order specifies effluent limitations protective of the beneficial uses and includes effluent and receiving water monitoring and reporting requirements to verify that discharges will not adversely affect the beneficial uses of groundwater now or in the future. Therefore, this Order protects and maintains past, present, and probable future beneficial uses of water.

B. Environmental characteristics of the hydrographic unit under consideration, including the quality of the water available thereto;

This Order incorporates the site-specific water quality objectives for groundwater in the Basin Plan considering geology, hydrogeology, and hydrology. Based on recent and historical data, the regional groundwater basin currently has high-quality water but is experiencing increases in salt and nitrogen loading from natural and anthropogenic sources. The Piru WWTP will produce effluent quality that is better than or equivalent to the groundwater quality objectives and will comply with the state's Antidegradation Policy (Resolution No. 68-16). The project will therefore limit further groundwater degradation.

C. Water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality in the area;

The water quality conditions that can be reasonably achieved are those consistent with the site-specific water quality objectives necessary to protect the beneficial uses of the groundwater basin identified in 41.A, above, through the coordinated control of all factors that affect water quality in the area. The Discharger's plans to upgrade the Piru WWTP with an advanced treatment

(e) The need for developing housing within the region. (f) The need to develop and use recycled water.

system, including EDR and ozone disinfection, is part of the coordinated control of all factors that affect water quality in the area, including, for example, a local agency's ordinances to prohibit water softener installation and excess fertilizer application. These water quality objectives incorporated in this Order are reasonably achievable through implementation of the upgrades to the Piru WWTP described herein.

D. Economic considerations;

The Legislature did not define "economic considerations" in California Water Code section 13241. In *City of Duarte v State Water Resources Control Board et al.*, the Court of Appeal held that "...the Water Control Boards are charged with taking into account economic considerations, not merely costs of compliance with a permit ... economic considerations also include, among other things, the costs of not addressing the problems of contaminated water." (*City of Duarte*, 60 Cal.App.5th at 276 (considering 13241 factors in context of municipal separate storm sewer system or MS4 permit).) Indeed, the "manner in which the Water Control Boards consider and comply with Water Code section 13241 is within their discretion." (*Id.*, at p. 273, citing *City of Arcadia v. State Water Resources Control Board* (2006) 135 Cal.App.4th 1392, 1415.) Since the Los Angeles Water Board has broad discretion in how it considers this factor, the Board interprets this factor as not only requiring a consideration of the costs of compliance, but also other relevant economic factors such as the societal and environmental costs of not adequately controlling discharges.

The town of Piru is identified as a disadvantaged community as defined in CWC section 79505.5. A "disadvantaged community means a community with an annual median household income that is less than 80 percent of the statewide annual median household income." The United States Census reported that the 2021 California median household income is \$81,575, and the town of Piru median household income is \$64,342.

The Discharger's schedule of sewer rate indicates the monthly wastewater user rate is \$104.33 per unit in the fiscal year 2022-2023. Therefore, the implementation of the advanced treatment system may cause a significant economic impact on the community.

The costs associated with continued facility operation will increase due to the upgrade of the Piru WWTP and additional monitoring requirements for the evaporation tanks and brine to comply with CCR, Title 27. These costs will significantly affect ratepayers. However, these costs are necessary to ensure that the discharge of waste complies with this Order and is protective of human health and the environment. The development of the recycled water program will provide benefits to the community of the town of Piru.

E. The need for developing housing within the region;

The United States Census reported that the population of the town of Piru was 2,587 in 2020. The Piru WWTP is designed to treat up to 500,000 gpd of wastewater and currently discharges approximately 124,000 gpd in 2022. Therefore, the Piru WWTP has sufficient capacity to treat additional wastewater generated from newly developed residential, commercial, and industrial districts.

F. The need to develop and use recycled water;

The State Water Board adopted the *Water Quality Control Policy for Recycled Water* (Recycled Water Policy) in 2018 and encourages the increased use of recycled water in California: 714,000 acre-feet per year (AFY) in 2015 to 1.5 million AFY by 2020 and to 2.5 million AFY by 2030. The Recycled Water Policy categorizes recycled water use as agricultural irrigation, landscape irrigation, golf course irrigation, commercial application, industrial application, geothermal energy production, non-potable uses, groundwater recharge, seawater intrusion barrier, reservoir water augmentation, raw water augmentation, and potable uses.

The Piru WWTP will be upgraded to a tertiary-level treatment system with ozone disinfection. When the Discharger pursues offsite landscape irrigation and agricultural use, a Title 22 engineering report will be provided to the DDW for approval prior to the implementation of the recycled water applications. Therefore, the requirements of the Order promote the need to develop and use recycled water.

44. In accordance with CWC section 13263(g), no discharge of waste into the waters of the state, whether or not the discharge is made pursuant to waste discharge requirements, shall create a vested right to continue the discharge. All discharges of waste into the waters of the state are privileges, not rights.

GLOBAL WARMING AND CLIMATE CHANGE

45. In Southern California, the predicted impacts of climate change are numerous, including the following.

Annual average temperatures are expected to increase, coupled with a higher frequency of extreme heat days. A likely consequence of this warmer climate will be more severe drought periods, leading to an increase in the amount and intensity of fires and a longer fire season. In addition, precipitation patterns are likely to be modified.

A decrease in snowfall, combined with warmer temperatures, will induce a decrease in the amount and duration of snowpack, an essential source of freshwater to the region. Although changes to mean precipitation are expected to be small, the increasing occurrence of extreme precipitation events will amplify the risk of flooding. These impacts may affect water quality in multiple ways, including decreases in

stream flow, reductions in, and changes to, aquatic habitats, increases in surface water temperature, increases in pollutant levels, sedimentation, algal growth, and changes in salinity levels and acidification in coastal areas.

For permitted facilities such as POTWs, specific impacts could include, but are not limited to, an increase in the concentration of pollutants entering the facility, an increase in the temperature of effluents and receiving waters, an increase in stormwater inflow and infiltration, increase in flooding inundation of facilities, sewer overflows, power outages, pump maintenance issues, and onsite or nearby hillside destabilization.

46. On March 7, 2017, the State Water Board adopted Resolution No. 2017-0012, *Comprehensive Response to Climate Change*, recognizing the challenges posed by climate change, directed state agencies to take climate change into account in their planning decisions, guided by the following principles: Priority should be given to actions that both build climate preparedness and reduce greenhouse gas emissions; where possible, flexible and adaptive approaches should be taken to prepare for uncertain climate impacts; actions should protect the state's most vulnerable populations; and natural infrastructure solutions should be prioritized.
47. On May 10, 2018, the Los Angeles Water Board adopted Resolution No. R18-004, *A Resolution to Prioritize Actions to Adapt to Mitigate the Impacts of Climate Change on the Los Angeles Region's Water Resources and Associated Beneficial Uses*, which encourages mitigating direct and indirect impacts of climate change on water quality and beneficial uses.
48. The Piru WWTP is located outside of the 100-year floodplain and hence no flooding issues are expected. Although the percolation ponds are located within the 100-year floodplain, they have not been significantly impacted by flood events since the Piru WWTP was constructed.
49. This Order contains provisions to require planning and taking actions to address climate-related impacts that can cause or contribute to violations of permit requirements and/or degradation of waters of the state (see, Section E.11, *infra*).

CALIFORNIA ENVIRONMENTAL QUALITY ACT AND PUBLIC NOTIFICATION

50. In accordance with the provisions of the California Environmental Quality Act (Public Resources Code section 21000 et seq.), the Discharger prepared a Mitigated Negative Declaration (MND) for the Piru WWTP Upgrade/Expansion Project.
 - A. On September 28, 2004, the Ventura County Board of Supervisors certified the MND for the Piru WWTP upgrade and expansion project to meet water quality standards.

- B. On September 23, 2004, the Ventura County Board of Supervisors certified the Addendum to MND for the Piru WWTP to address modifications of the upgrade and expansion project.
 - C. On April 7, 2020, the Ventura County Board of Supervisors certified the Second Addendum to MND to add a tertiary treatment facility to the Piru WWTP to address chloride exceedances in the effluent. The *Piru WWTP Upgrade/Expansion Project Initial Study for the Proposed Phase II Tertiary Treatment Facility* dated March 2020 supports findings that new significant effects or a substantial increase in the severity of previously identified significant effects are not expected to occur.
 - D. The Los Angeles Water Board, a responsible agency for the purpose of CEQA, reviewed and considered the information contained in the Second Addendum to the MND in drafting this Order, and finds that the Second Addendum to the MND sufficiently addresses and mitigates any environmental impacts.
51. On May 2, 2023, the Los Angeles Water Board notified the Discharger, interested agencies, and parties of the intent to revise WDRs for this facility and has provided an opportunity to submit written comments by June 1, 2023.
52. The Los Angeles Water Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the tentative requirements.
53. Pursuant to CWC section 13320, any person affected by this action of the Los Angeles Water Board may petition the State Water Board to review the action in accordance with section 13320 of the CWC and CCR, Title 23, section 2050. The State Water Board (P.O. Box 100, Sacramento, California 95812) must receive the petition within 30 days of the date this Order is adopted. The regulations regarding petitions may be found at [Water Quality Petitions | California State Water Resources Control Board](https://www.waterboards.ca.gov/public_notices/petitions/water_quality/index.html) (https://www.waterboards.ca.gov/public_notices/petitions/water_quality/index.html)

IT IS HEREBY ORDERED that the Discharger, Ventura County Waterworks District No. 16, shall be responsible for and shall comply with the following requirements in all operations and activities at the Piru WWTP.

A. INFLUENT LIMITATIONS

Influent to the Piru WWTP shall be limited to domestic and some commercial wastewater from fruit washing within the town of Piru.

B. EFFLUENT LIMITATIONS

- 1. Discharges from the Piru WWTP to the percolation ponds and onsite landscape subsurface application areas shall not exceed the maximum effluent flowrate of 500,000 gpd.

2. The pH of the effluent shall, at all times, be between 6.5 and 8.5 standard units.
3. Effluent shall not exceed the effluent limits in Table 6 below.

Table 6. Effluent Limitations

Constituents	Units	Daily Maximum	Monthly Average
BOD ₅ @20	mg/L	45	30
Total suspended solids	mg/L	45	30
Oil and grease	mg/L	15	10
Turbidity	NTU	10	None
Total dissolved solids	mg/L	1,200	None
Sulfate	mg/L	600	None
Chloride	mg/L	100	None
Boron	mg/L	1.5	None
Total nitrogen	mg/L	10	None
Nitrate as nitrogen	mg/L	10	None
Nitrite as nitrogen	mg/L	1	None
Methylene blue active substances (MBAS)	mg/L	1	None
Total coliform	MPN/100mL	None	1.1
Fecal coliform	MPN/100mL	None	1.1
Enterococcus	MPN/100mL	None	1.1

Table notes:

- Total nitrogen consists of ammonia as nitrogen, nitrite as nitrogen, nitrate as nitrogen, and organic nitrogen.
- The unit of NTU denotes Nephelometric Turbidity Unit.
- The unit of MPN/100mL denotes the most probable number per 100 milliliters.

4. Effluent shall not contain trace, toxic, and other constituents in concentrations exceeding the applicable MCLs for drinking water established by the DDW in sections 64431, 64442, 64443, 64444, 64449, and 64533 of CCR, Title 22, Division 4, or subsequent revisions, or at levels that adversely affect the beneficial uses of receiving groundwater. The effluent shall, at all times, not exceed the following MCLs (Attachment A).

- a. Primary MCLs specified in CCR, Title 22, Division 4, Chapter 15 (Domestic Water Quality and Monitoring Regulations):

- i. Inorganic chemicals in CCR, Title 22, Division, Chapter 15, Section 64431, Table 64431-A (Attachment A-1);
 - ii. Radionuclides in CCR, Title 22, Division 4, Chapter 15, Section 64442, Table 64442 (Attachment A-2) and Section 64443, Table 64443 (Attachment A-2); and
 - iii. Organic chemicals in CCR, Title 22, Division 4, Chapter 15, Section 64444, Table 64444-A (Attachment A-3).
- b. Secondary MCLs specified in CCR, Title 22, Division 4, Chapter 15, Section 64449, Table 64449-A (Attachment A-4).
 - c. MCLs for disinfection byproducts specified in CCR, Title 22, Division 4, Chapter 15.5 (Disinfectant Residuals, Disinfection Byproducts, and Disinfection Byproduct Precursors), Section 64533, Table 64533-A (Attachment A-5).

C. GROUNDWATER LIMITATIONS

- 1. The discharge of treated wastewater from the Piru WWTP shall not cause any exceedance of the following groundwater limitations in Table 7 below.

Table 7. Groundwater Limitations

Constituents	Units	Maximum
Total dissolved solids	mg/L	1,200
Sulfate	mg/L	600
Chloride	mg/L	100
Boron	mg/L	1.5
Nitrate as nitrogen	mg/L	10
Nitrite as nitrogen	mg/L	1
Nitrate as nitrogen plus nitrite as nitrogen	mg/L	10
Total coliform	MPN/100mL	1.1
Fecal coliform	MPN/100mL	1.1

- 2. Groundwater designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents and radionuclides in excess of the limits specified in Attachment A.

3. Groundwater shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
4. Groundwater shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.

D. EVAPORATION TANK AND DISPOSAL REQUIREMENTS

1. The evaporation tanks shall be equipped with a composite liner and leak detection systems that prevent or minimize releases of wastes from the tanks. The leak detection system shall be installed between the liners for the evaporation tanks.
2. The evaporation tanks shall be maintained such that waste is a minimum of five feet above the highest anticipated elevation of underlying groundwater.
3. The evaporation tanks shall have sufficient freeboard to accommodate seasonal precipitation and the design storm, but in no case less than 2 feet (measured vertically, from the water surface up to the point on the tank walls having the lowest elevation), and shall prevent overtopping as a result of wind conditions likely to accompany such precipitation conditions.
4. Brine discharge to the evaporation tanks shall be either equipped with devices or shall have fail-safe operating procedures to prevent overfilling. Discharges shall be stopped in the event of any containment system failure which causes a threat to water quality.
5. There shall be no discharge from the evaporation tanks except as authorized by this Order.
6. The evaporation tanks shall prevent the scouring of containment structures at points of discharge into the tanks and by wave action at the waterline.
7. If wastes are removed and the bottom of the tank is cleaned down to the liner, a thorough inspection of the liner and leak detection system shall be performed prior to the refilling of the tank. Notify the Los Angeles Water Board at least 7 days of the scheduled liner inspection and refilling of the tanks.
8. Residual sludge removed from the evaporation tanks shall be disposed of at a legal facility that is permitted to accept such wastes.
9. Residual sludge removed from the bottom of the evaporation tank shall be determined whether or not the sludge is classified as a hazardous waste.
10. Reporting and corrective actions shall be taken when a leak in the liner system and/or the evaporation tank is detected.

E. GENERAL REQUIREMENTS

1. Standby or emergency power generation facilities with a sufficient capacity shall be provided for treated wastewater storage during rainfall or in the event of plant upsets or outages and at times when irrigation cannot be practiced.
2. Adequate facilities shall be provided to protect the Piru WWTP, treatment system devices, sewer collection system, and disposal facilities from damage by storm flows and run-off or run-on generated by a 100-year return storm per 24-hour duration.
3. The treatment system, including the collection system that is a part of the treatment system and the disposal system, shall be maintained in such a manner that prevents sewage from surfacing or overflowing at any location.
4. A minimum of two feet of freeboard shall be maintained in the percolation ponds to ensure that direct rainfall will not cause overtopping.
5. No disposal areas with treated wastewater shall be located within 600 feet of any domestic water supply well unless all of the following conditions have been met:
 - a. A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from and the ground surface;
 - b. The well contains an annular seal that extends from the surface into the aquitard;
 - c. The well is housed to prevent any treated wastewater spray from coming into contact with the wellhead facilities;
 - d. The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well; and
 - e. The owner of the well approves of the elimination of the buffer zone requirement.
6. There shall be no storage or impoundment of treated wastewater within 600 feet of any domestic water supply well.
7. No disposal of sludge, waste, and treated wastewater shall take place within 600 feet of any reservoir or stream used as a source of domestic water.
8. Any wastes that do not meet the requirements in this Order shall be held in impervious containers and discharged at a legal point of disposal.
9. Percolation ponds shall be maintained to ensure that the percolation rate at the pond bottom shall not decrease over time.

10. The Discharger shall notify well owners within a 500 feet radius from the boundary of percolation ponds when there is any exceedance on the effluent limitations and/or groundwater limitations.
11. The Discharger shall submit a Climate Change Effects Vulnerability Assessment and Management Plan (Climate Change Plan) no later than 12 months after the adoption of this permit or by **June 22, 2024**. Submittal of the Climate Change Plan is required pursuant to CWC section 13267. As required by this provision, a regional water board may require a person to submit technical or monitoring program reports which the regional water board requires. The Climate Change Plan is needed in order to assess and manage climate change related effects associated with the Discharger operations that may affect water quality.

The Climate Change Plan shall include an assessment of short- and long-term vulnerabilities of the facility(ies) and operations, as well as plans to vulnerabilities of collection systems, facilities, treatment systems, and discharge locations for predicted impacts in order to ensure that facility operations are not disrupted, compliance with permit conditions is achieved, and receiving waters, are not adversely impacted by discharges. Control measures shall include, but are not limited to, emergency procedures, contingency plans, alarm/notification systems, training, backup power and equipment, and the need for planned mitigations to ameliorate climate-induced impacts including, but not limited to, changing influent and receiving water quality and conditions, as well as the impact of rising sea level (where applicable) storm surges and back-to-back severe storms that are expected to become more frequent.

F. PROHIBITIONS

1. There shall be no waste overflows or discharge of partially treated wastes from the treatment, storage, or disposal facilities to adjacent drainage ways, adjacent properties, or waters of the State at any time.
2. Wastes discharged shall not impact adverse tastes, odors, color, foaming or other objectionable characteristics to the receiving water.
3. There shall be no permanent onsite disposal of sludge. Sludge-drying activities are allowed, but only as an intermediate treatment prior to offsite disposal. Any offsite disposal of sewage or sludge shall be made only to a legal point of disposal. For the purposes of this Order, a legal disposal site is one for which requirements have been established by a regional water quality control board or comparable regulatory entity and which is in full compliance therewith. Any sewage or sludge handling shall be in such a manner as to prevent its reaching surface waters or watercourses.
4. No part of the disposal system shall be closer than 100 feet to any water well.

5. Sewage odors from wastewater treatment shall not be detected beyond the property line.
6. Wastes discharged from the wastewater treatment plant shall at no time contain any substances in concentrations toxic to the human, animal, plant, or aquatic life.
7. The discharge of waste shall not create a condition of pollution, contamination, or nuisance.
8. Nutrient materials in the waste discharged to the percolation ponds shall not cause objectionable aquatic growth or degrade indigenous biota.
9. The direct or indirect discharge of any wastewater to surface waters or surface water drainage courses is prohibited without a National Pollutant Discharge Elimination System (NPDES) permit.
10. The percolation ponds shall not contain floating materials, including solids, foams, or scum in concentrations that cause nuisance, adversely affect beneficial uses, or serve as a substrate for undesirable bacterial or algae growth or insect vectors.
11. The percolation ponds, drying beds, and the berms surrounding the ponds shall not contain plants, shrubs, or bushes that may damage the berms and the ponds.
12. Bypass (the intentional diversion of the waste stream from any portion of a treatment facility) is prohibited. The Los Angeles Water Board may take enforcement action against the Discharger for bypass unless:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that cause them to become inoperable, or substantial and permanent loss in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production);
 - b. There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance; and
 - c. The Discharger submitted a notice at least 48 hours in advance of the need for a bypass to the Los Angeles Water Board.

13. Any discharge of wastewater from the treatment system (including the wastewater collection system) at any point other than specifically described in this Order is prohibited and constitutes a violation of this Order.
14. No part of the treatment system and the percolation ponds shall extend to a depth below ground where wastes may deleteriously affect an aquifer that is usable for domestic purposes. At all times, a minimum of 10 feet of vertical separation between the disposal system and the highest historical groundwater elevation or the water table must be maintained.
15. Wastes shall not be disposed of in geologically unstable areas or so as to cause earth movement.
16. Adequate facilities shall be provided to divert surface and stormwater away from the treatment plant and disposal system and from areas where any potential pollutants are stored.
17. Discharge of waste classified as "hazardous," as defined in section 2521(a) of Title 23, CCR, section 2510 et seq., is prohibited. Discharge of waste classified as "designated," as defined in CWC section 13173, in a manner that causes a violation of groundwater limitations is prohibited.

G. PROVISIONS

1. The Discharger shall comply with all applicable requirements set forth in Chapter 4.5 (commencing with section 13290) of Division 7 of the California Water Code.
2. A copy of this Order shall be maintained at the wastewater treatment plant so as to be available at all times to operating personnel.
3. The Discharger shall file with the Los Angeles Water Board self-monitoring reports on work performed according to the detailed specifications contained in the revised MRP No. CI-5714 attached hereto and incorporated herein by reference, as directed by the Executive Office. The results of any monitoring done more frequently than required at the location and/or times specified in the MRP shall be reported to the Los Angeles Water Board. The Discharger shall comply with all of the provisions and requirements of the MRP.
4. Should effluent monitoring data or indicate possible contamination of groundwater attributable to the Discharger's effluent, the Discharger shall submit, within 90 days after discovery of the problem, mitigation measures that will be taken, or have been taken, to prevent degradation that may result from the discharge(s).
5. Should evaporation tank leak detection monitoring or tank maintenance indicate containment breach, indicative of possible contamination of groundwater, the Discharger shall submit, within 90 days after discovery of the

problem, a workplan that identifies mitigation measures that have been taken to immediately cease discharge from the containment system and additional measures that will be taken, or have been taken, to prevent degradation that may result from the discharge(s), including but not limited to soil removal and assessment of the extent of discharge and groundwater monitoring to determine impact to groundwater quality.

6. The Discharger shall participate in the implementation of the Watershed-wide Monitoring Program if the Executive Officer determines that a surface water monitoring program for the Santa Clara River is needed to fully evaluate the impact from Discharger's effluent discharge on groundwater. The Los Angeles Water Board may require the Discharger to participate with the Los Angeles Water Board, Santa Clara River Enhancement and Management Plan Steering Committee, and other stakeholders in the development and implementation of a watershed-wide monitoring program.
7. In accordance with CWC section 13260(c), the Discharger shall file a report of any material change or proposed change in the character, location, or volume of the discharge.
8. The Discharger shall operate and maintain its wastewater collection, treatment, and disposal facilities in a manner to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary to provide adequate and reliable transport, treatment, and disposal of all wastewaters from both existing and planned future wastewater sources under the Discharger's responsibilities. Anyone employed in the operations of the wastewater treatment plant must be certified pursuant to CWC sections 13625 through 13633 and in accordance with CCR Title 23, section 3680.
9. Collection System Requirements

The Discharger must properly enroll under the applicable statewide general Order for sanitary sewer collection systems and comply with the requirements specified in the statewide general Order.

The Discharger's collection system is part of the system that is subject to Order WQ 2022-0103-DWQ. As such, the Discharger must properly operate and maintain its collection system (40 CFR part 122.41(e)). The Discharger must report any non-compliance (40 CFR part 122.41(l)(6) and (7)) and mitigate any discharge from the collection system in violation of this Order (40 CFR part 122.41(d)).

10. Spill Reporting Requirements
 - a. **Initial Notification** – Although State and Los Angeles Water Board staff do not have duties as first responders, this requirement is an appropriate

mechanism to ensure that the agencies that do have first responder duties are notified in a timely manner in order to protect public health and beneficial uses. For certain spills, overflows, and bypasses, the Discharger shall make notifications as required below:

- i. In accordance with the requirements of Health and Safety Code section 5411.5, the Discharger shall provide notification to the local health officer or the director of environmental health with jurisdiction over the affected water body of any unauthorized release of sewage or other waste that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but no later than two (2) hours after becoming aware of the release.
- ii. In accordance with the requirements of CWC section 13271, the Discharger shall provide notification to the California Office of Emergency Services (Cal OES) of the release of reportable quantities of hazardous substances or sewage that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but not later than two (2) hours after becoming aware of the release. CCR, Title 23, section 2250, established 1,000 gallons or more as a reportable quantity of sewage. The phone number for reporting these releases to the Cal OES is (800) 852-7550. The Discharger shall also include public outreach in their emergency communications protocols, which may include media updates, social media postings, and community notices.
- iii. The Discharger shall notify the Los Angeles Water Board of any unauthorized release of sewage from the Piru WWTP that causes, or probably will cause, a discharge to a water of the state as soon as possible, but not later than two (2) hours after becoming aware of the release. This initial notification does not need to be made if the Discharger has notified Cal OES and the local health officer or the director of environmental health with jurisdiction over the affected waterbody. The phone number for reporting these releases of sewage to the Los Angeles Water Board is (213) 576-6683. The phone numbers for after-hours and weekend reporting of releases of sewage to the Los Angeles Water Board are (213) 305-2284 and (213) 305-2253.

At a minimum, the following information shall be provided to the Los Angeles Water Board:

- The location, date, and time of the release;
- The water body that may be impacted by the discharge;

- An estimate of the amount of sewage or other waste released and the amount that reached the receiving water at the time of notification;
- If ongoing, the estimated flowrate of the release at the time of the notification;
- The name, organization, phone number, and email address of the reporting representative; and
- A certification that Cal OES and the local health officer or directors of environmental health with jurisdiction over the possibly affected water bodies have been notified of the discharge.

- b. **Monitoring** – For spills, overflows, and bypasses reported under Section E of this Order, the Discharger shall monitor as required below:

To define the geographical extent of the spill's impact, the Discharger shall obtain grab samples (if feasible, accessible, and safe) for all spills, overflows, or bypasses of any volume that reach any waters of the State (including surface and ground waters). The Discharger shall analyze the samples for total and fecal coliform, *Escherichia coli* (*[E. coli]*, if a fecal coliform test shows positive), enterococcus, and relevant pollutants of concern, upstream and downstream of the point of entry of the spill (if feasible, accessible and safe). This monitoring shall be done on a daily basis from time the spill is known until the results of two (2) consecutive sets of bacteriological monitoring indicate the return to the background level or the County Department of Public Health authorizes cessation of monitoring.

- c. **Reporting** – The initial notification required under section F.13 above shall be followed by:

- i. As soon as possible, but not later than twenty-four (24) hours after becoming aware of an unauthorized discharge of sewage or other waste from its wastewater treatment plant to a water of the state, the Discharger shall submit a statement to Los Angeles Water Board staff via email. If the discharge is 1,000 gallons or more, this statement shall certify that Cal OES has been notified of the discharge in accordance with CWC section 13271. The statement shall also certify that the local health officer or director of environmental health with jurisdiction over the affected water bodies has been notified of the discharge in accordance with Health and Safety Code section 5411.5. The statement shall also include, at a minimum, the following information:

- Agency, Order No., and MRP No.;

- The location, date, and time of the discharge;
 - The water body that received the discharge;
 - A description of the level of treatment of the sewage or other waste discharged;
 - An initial estimate of the amount of sewage or other waste released and the amount that reached the impacted water body;
 - The Cal OES control number and the date and time that notification of the incident was provided to Cal OES; and
 - The name of the local health officer or director of an environmental health representative notified (if contacted directly); the date and time of notification; and the method of notification (e.g., phone, fax, email).
- ii. A written preliminary report shall be submitted to the Los Angeles Water Board within five (5) working days after disclosure of the incident via the State Water Board GeoTracker database under Global ID WDR100000084. The final written report shall be included in the next quarterly monitoring report submitted to the GeoTracker database above. The written report shall document the information required in paragraph Section G.10.d below, monitoring results, and any other information required in provisions of the Standard Provisions document, including corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences.
- iii. The Discharger shall include a certification in the annual summary report (due according to the schedule in the accompanying MRP) that states that the sewer system emergency equipment, including alarm systems, backup pumps, standby power generators, and other critical emergency pump station components were maintained and tested in accordance with the Discharger's preventive maintenance plan. Any deviations from or modifications to the Plan shall be discussed.
- d. **Records** – The Discharger shall prepare and maintain a record of all spills, overflows, or bypasses of raw or partially treated sewage from its collection system or the Piru WWTP. This record shall be made available to the Los Angeles Water Board upon request, and a spill summary shall be included in the annual report, as required by MRP No. CI-5714. The record shall contain:
- i. The date and time of each spill, overflow, or bypass;

- ii. The location of each spill, overflow, or bypass;
 - iii. The estimated volume of each spill, overflow, or bypass, including gross volume, amount recovered, and amount not recovered, monitoring results as required by Section G.10.b above;
 - iv. The cause of each spill, overflow, or bypass;
 - v. Whether each spill, overflow, or bypass entered receiving water and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances;
 - vi. Any corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences; and
 - vii. The mandatory information included in SSO online reporting for finalizing and certifying the SSO report for each spill, overflow, or bypass under the General WDRs for SSS.
 - viii. Emergency communications, such as media updates, social media postings, and community notices for purposes of public outreach as required by Section G.10.a.ii.
- e. **Activities Coordination** – The Regional Water expects that the Discharger will coordinate their compliance activities for consistency and efficiency with other entities that have responsibilities to implement: (1) this WDRs permit and (2) the General WDRs for SSS.
- f. **Consistency with the General WDRs for SSS** – The Los Angeles Water Board recognizes that there may be some overlap between the provisions in this WDRs permit and requirements in the General WDRs for SSS. To encourage efficiency, the Los Angeles Water Board will accept the documentation prepared by the Discharger under the General WDRs for SSS for compliance purposes.
11. The Discharger shall submit an updated Operations and Maintenance Manual (O & M Manual) for the Piru WWTP and its disposal facilities to the Los Angeles Water Board prior to the startup of the Piru WWTP. The Discharger shall maintain the O & M Manual in a usable condition and available for reference and use by all applicable personnel. The Discharger shall regularly review and revise or update, as necessary, the O & M Manual in order for the document(s) to remain useful and relevant to current equipment and operation practices. Reviews shall be conducted annually, and revisions or updates shall be completed as necessary and submitted to the Los Angeles Water Board.
12. The Discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

13. The Discharger shall ensure that the capacity of the disposal area is adequate for the discharge and that adequate steps are taken to accommodate system failures and/or to deal with the loss of the soil assimilative capacity.
14. The Discharger shall cause the treatment and disposal systems to be inspected annually during the life of this Order by an inspector to be retained by the Discharger. The inspector shall specify the condition of the treatment system and the disposal system. The inspector should also assess the capacity of the percolation ponds system and waste sludge drying beds system.
15. The Discharger shall file a written report with the Los Angeles Water Board within 90 days after the average dry-weather flow for any month equals or exceeds 90 percent of the design capacity of the waste treatment and/or disposal facilities. The report shall detail provisions to cope with flows in excess of 90 percent of the design capacity.
16. For any violation of requirements in this Order, the Discharger shall notify the Los Angeles Water Board within 24 hours of knowledge of the violation either by telephone or electronic mail. The notification shall be followed by a written report within one week. The Discharger in the next monitoring report shall also confirm this information. In addition, the report shall include the reasons for the violations or adverse conditions, the steps being taken to correct the problem (including dates thereof), and the steps being taken to prevent a recurrence.
17. This Order does not relieve the Discharger from the responsibility to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent the imposition of additional standards, requirements, or conditions by any other regulatory agency.
18. After notice and opportunity for a hearing, this Order may be terminated or modified for causes including, but not limited to:
 - a. Violation of any term or condition contained in this Order;
 - b. Obtaining this Order by misrepresentation or failure to disclose all relevant facts; or
 - c. A change in any condition or the discovery of any information that requires either a temporary or permanent reduction or elimination of the authorized discharge.
19. The Discharger shall furnish, within a reasonable time, any information the Los Angeles Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish to the Los Angeles Water Board, upon request, copies of records required to be kept by this Order.

20. This Order includes the attached *Standard Provisions Applicable to Waste Discharge Requirements* (Attachment B), which are incorporated wherein by reference. If there is any conflict between the provisions stated herein and the *Standard Provisions Applicable to Waste Discharge Requirements*, the provisions stated herein will prevail.
21. The Discharger shall allow the Los Angeles Water Board or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:
 - a. Entry upon the Discharger premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order, or as otherwise authorized by the California Water Code, any substances or parameters at any locations.

H. COMPLIANCE DETERMINATION

1. Compliance with the effluent limitations contained in Section B of this Order will be determined as specified below:
 - a. General:

Compliance determinations shall be based on available analyses for the time interval associated with the effluent limitation. Where only one sample analysis is available in a specified time interval (e.g., monthly or weekly average), that sample shall serve to characterize the discharge for the entire interval. If quarterly sample results show non-compliance with the average monthly limit and that sample result is used for compliance determinations for each month of the quarter, then three separate violations of the average monthly limit shall be deemed to have occurred.
 - b. Monthly Average Effluent Limitation:

If the average of daily discharges over a calendar month exceeds the monthly average effluent limitation for a given parameter in Table 6, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single

sample is taken during the calendar month and the analytical result for that sample exceeds the monthly average effluent limitation, the Discharger will be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no effluent compliance determination can be made for that calendar month.

c. Daily Maximum Effluent Limitation:

If a daily discharge exceeds the daily maximum effluent limitation for a given parameter in Table 6, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no effluent compliance determination can be made for that day.

I. REOPENER

The Los Angeles Water Board will review this Order periodically and will revise requirements when necessary. This Order was developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans and intended to assure compliance with them. If applicable laws and regulations change, including but not limited to, establishment of total maximum daily loads, or once new information is obtained that will change the overall discharge and its potential to impact waters of the state, it may be appropriate to reopen this Order.

J. TERMINATION

Except for enforcement purposes, Time Schedule Order No. R4-2007-0044, adopted by this Los Angeles Water Board on September 6, 2007, and Waste Discharge Requirements Order No. R4-2009-0027, adopted on February 5, 2009, and amended on September 13, 2018, and February 11, 2021, are hereby terminated on the effective date of this WDRs Order.

The Los Angeles Water Board's termination of prior waste discharge requirements and/or monitoring and reporting requirements do not extinguish any violations that may have occurred during the time those requirements were in effect. The Los Angeles Water Board reserves the right to take enforcement actions to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of rescinded requirements as allowed by law.

K. EFFECTIVE DATE

This Order becomes effective on August 31, 2023.

Ventura County Waterworks District No. 16
Piru Wastewater Treatment Plant

Order No. R4-2023-0292
File No. 08-164

I, Susana Arredondo, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on June 22, 2023.

for Susana Arredondo
Executive Officer

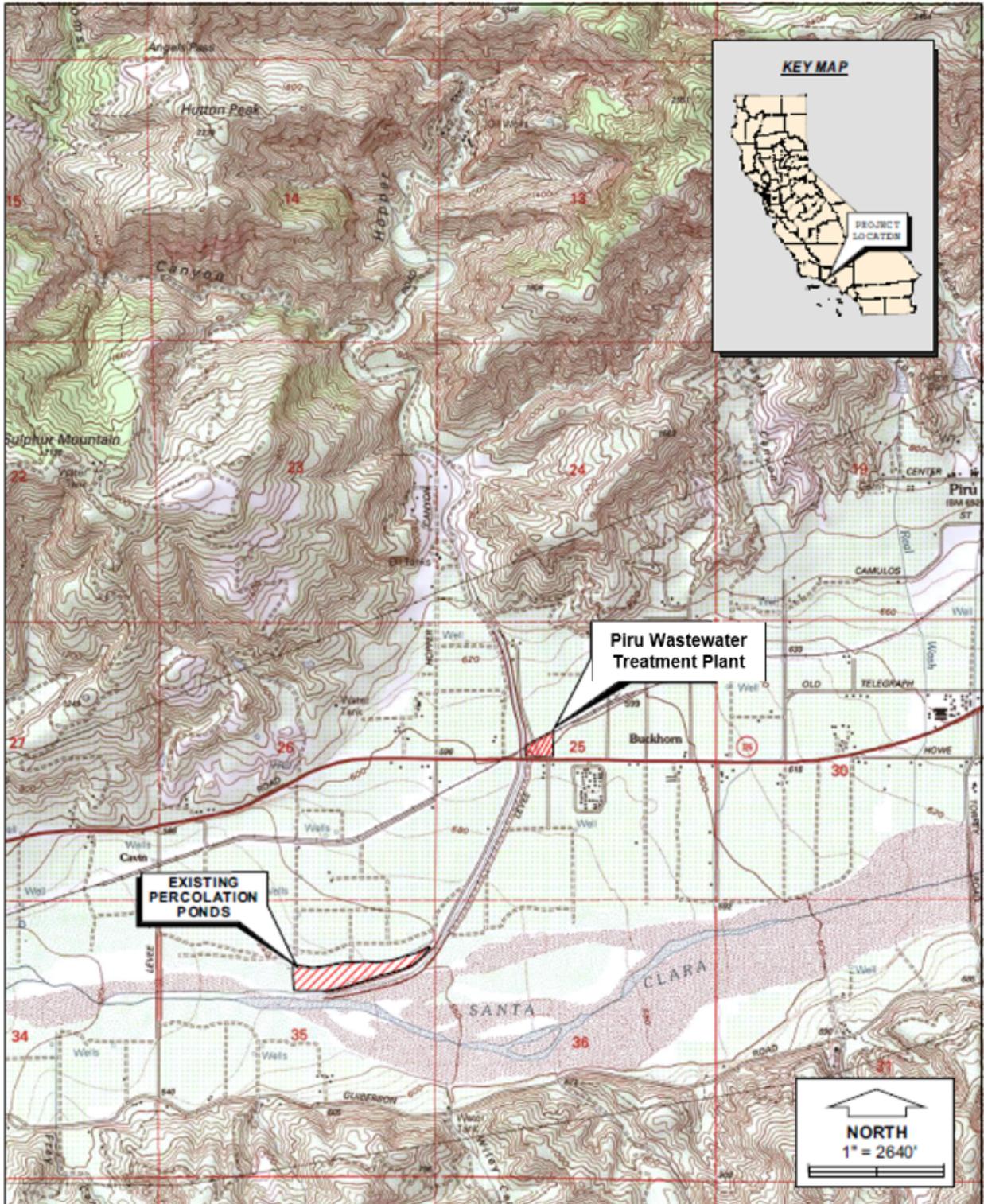


Figure 1. Piru Wastewater Treatment Plant Site Map

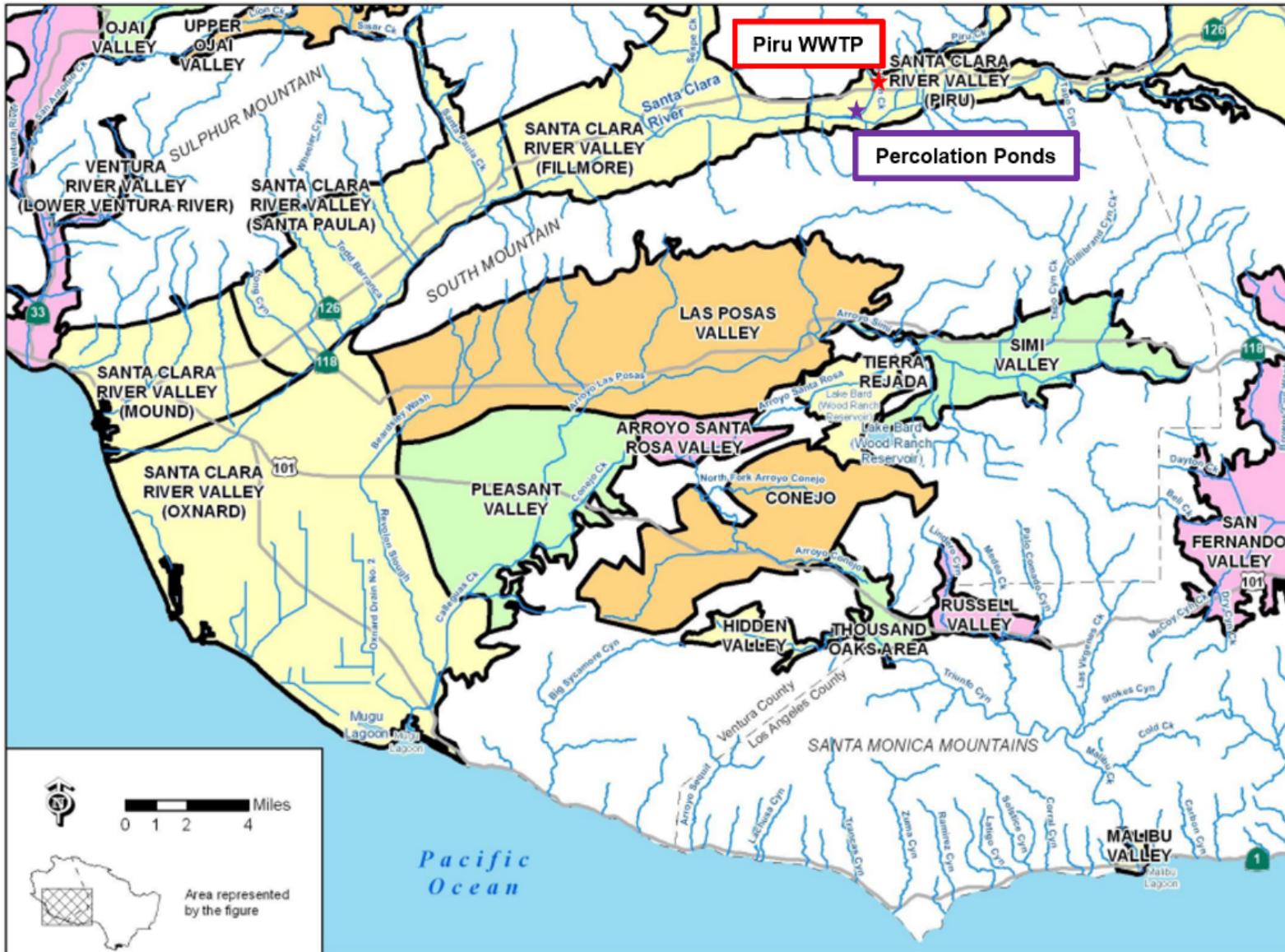


Figure 2. Piru Groundwater Basin

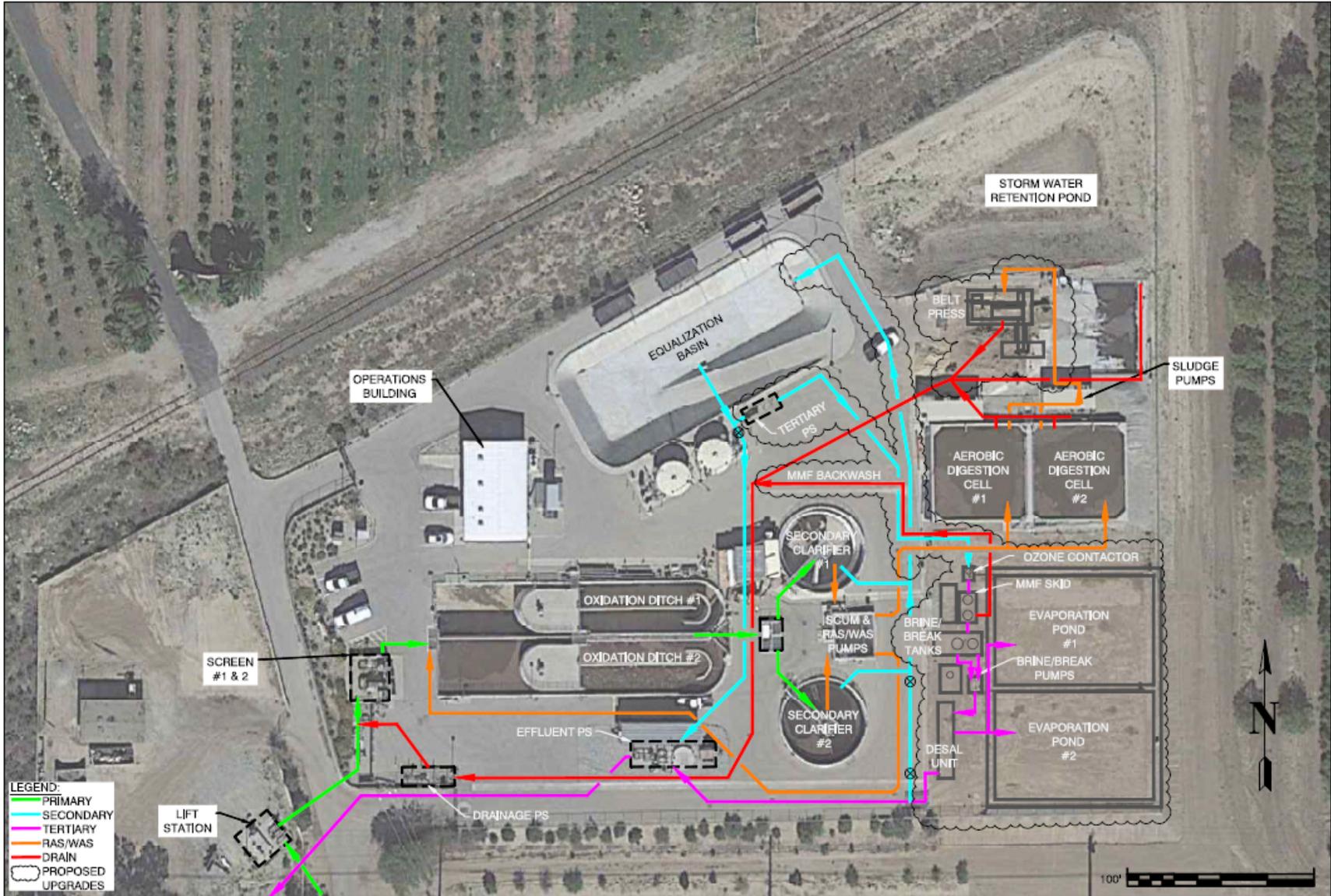


Figure 3. Piru Wastewater Treatment Plant Overview

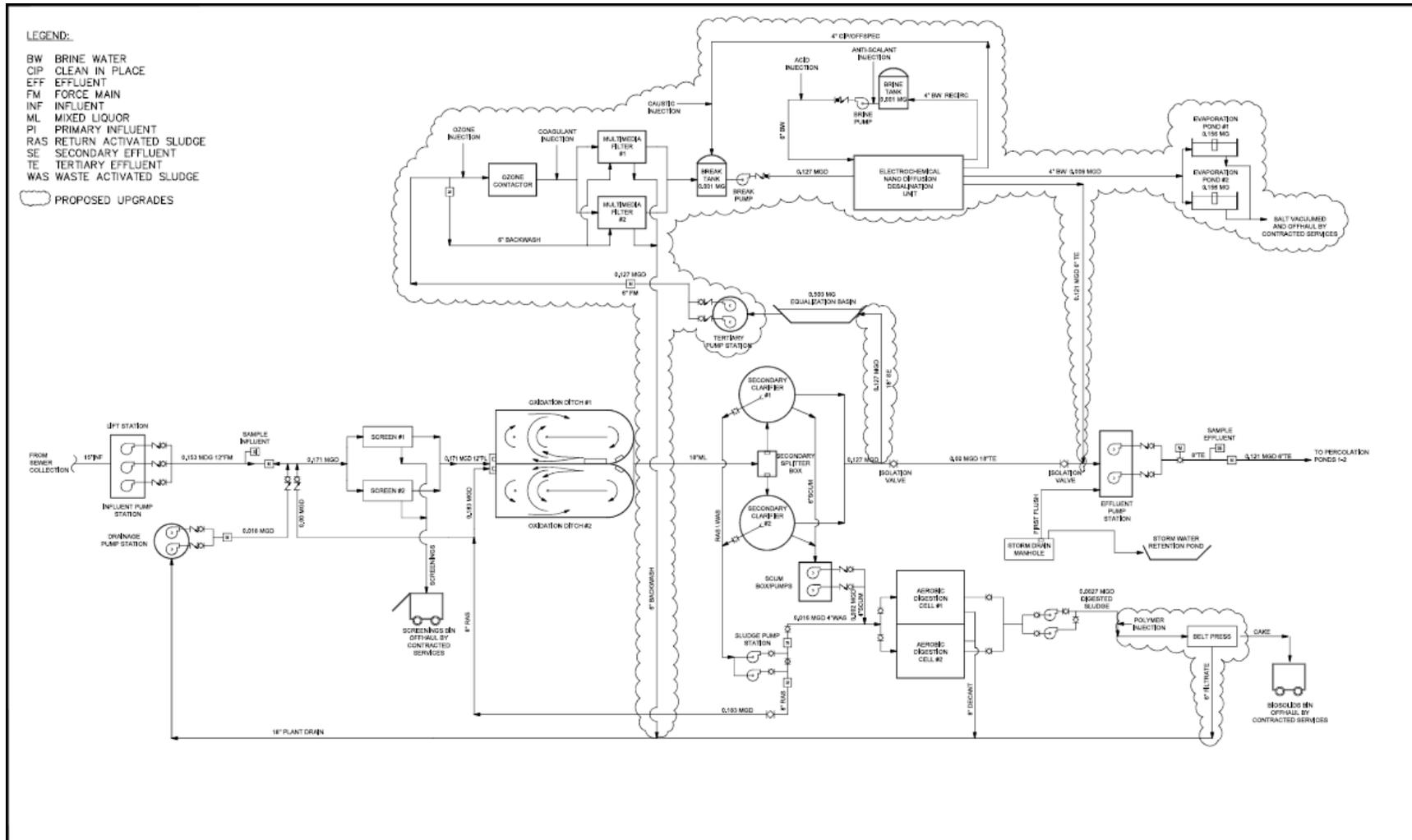


Figure 4. Piru Wastewater Treatment Plant Process Flow Diagram

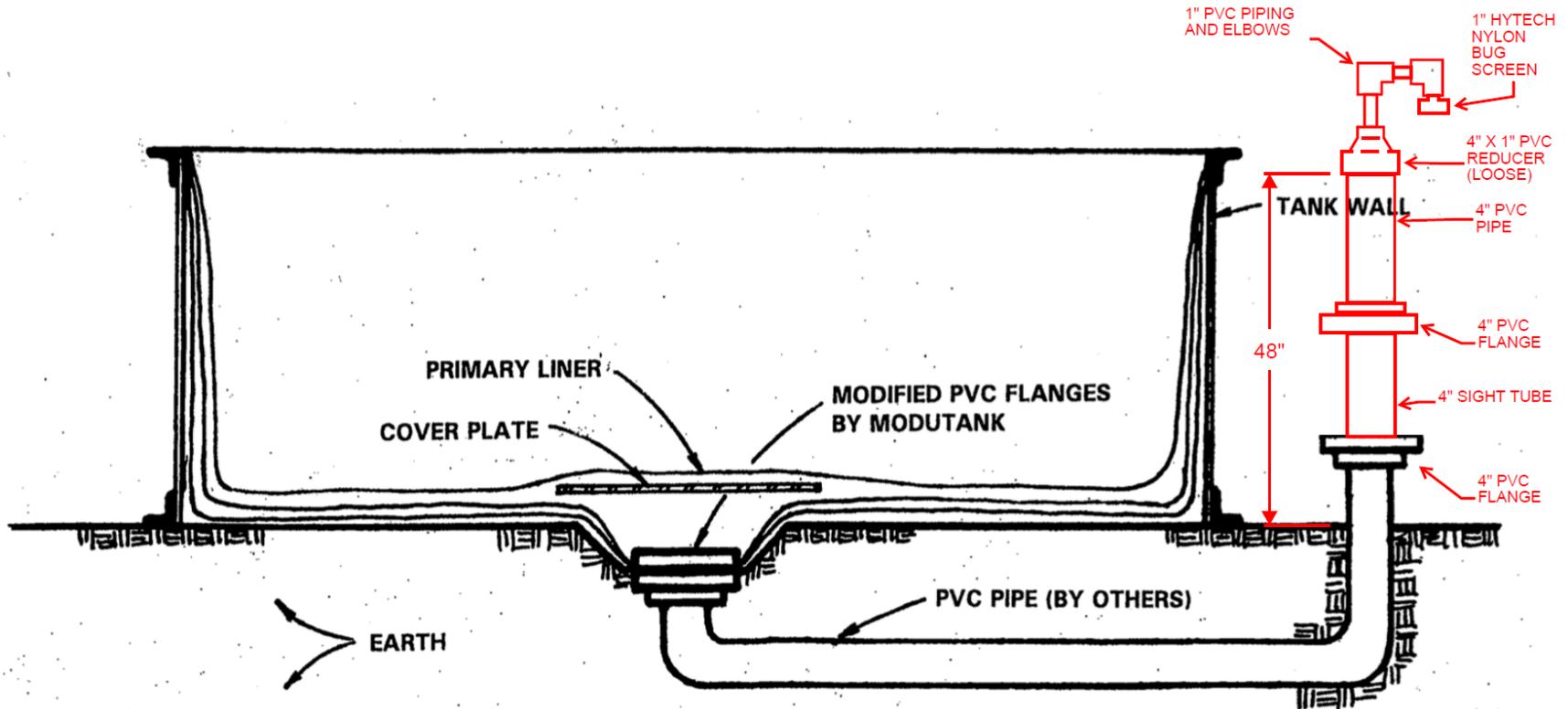


Figure 5. Leak Detection System in the Evaporation Tank

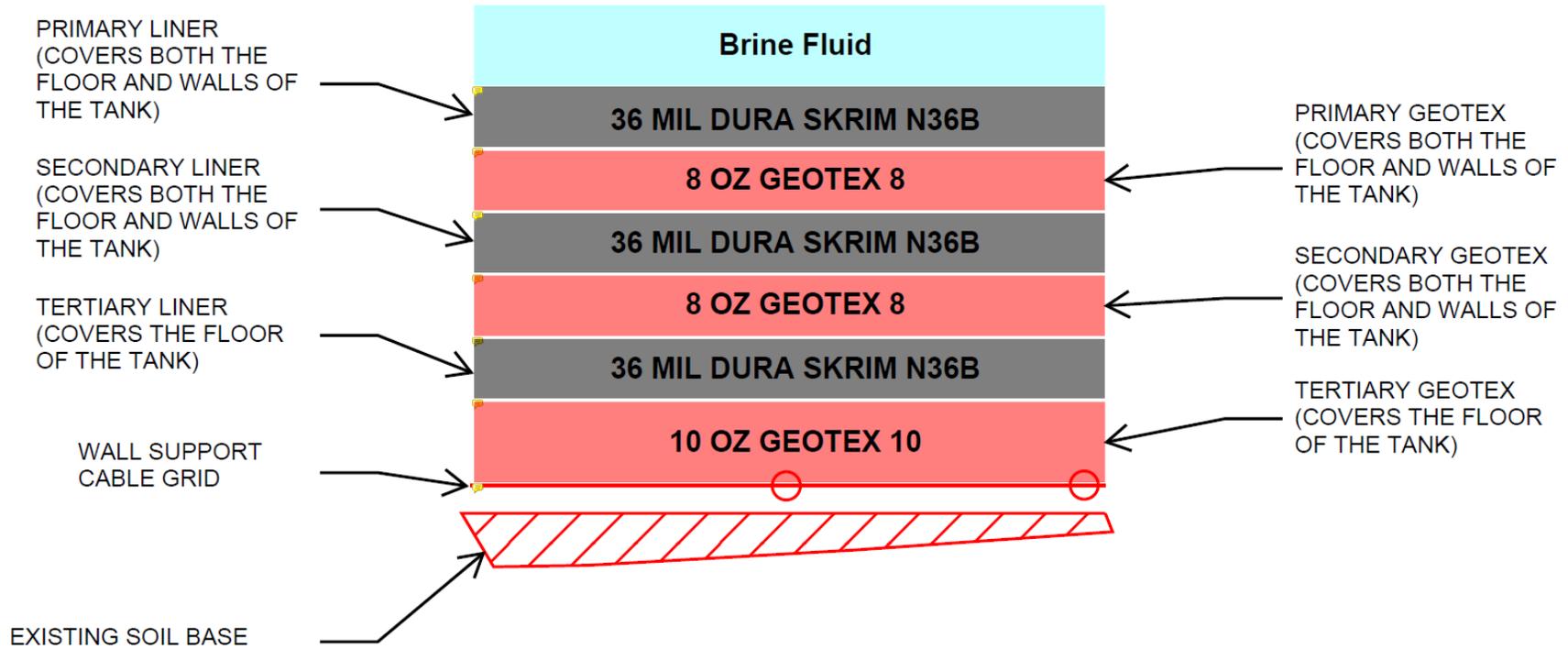


Figure 6. Liner System of the Evaporation Tank

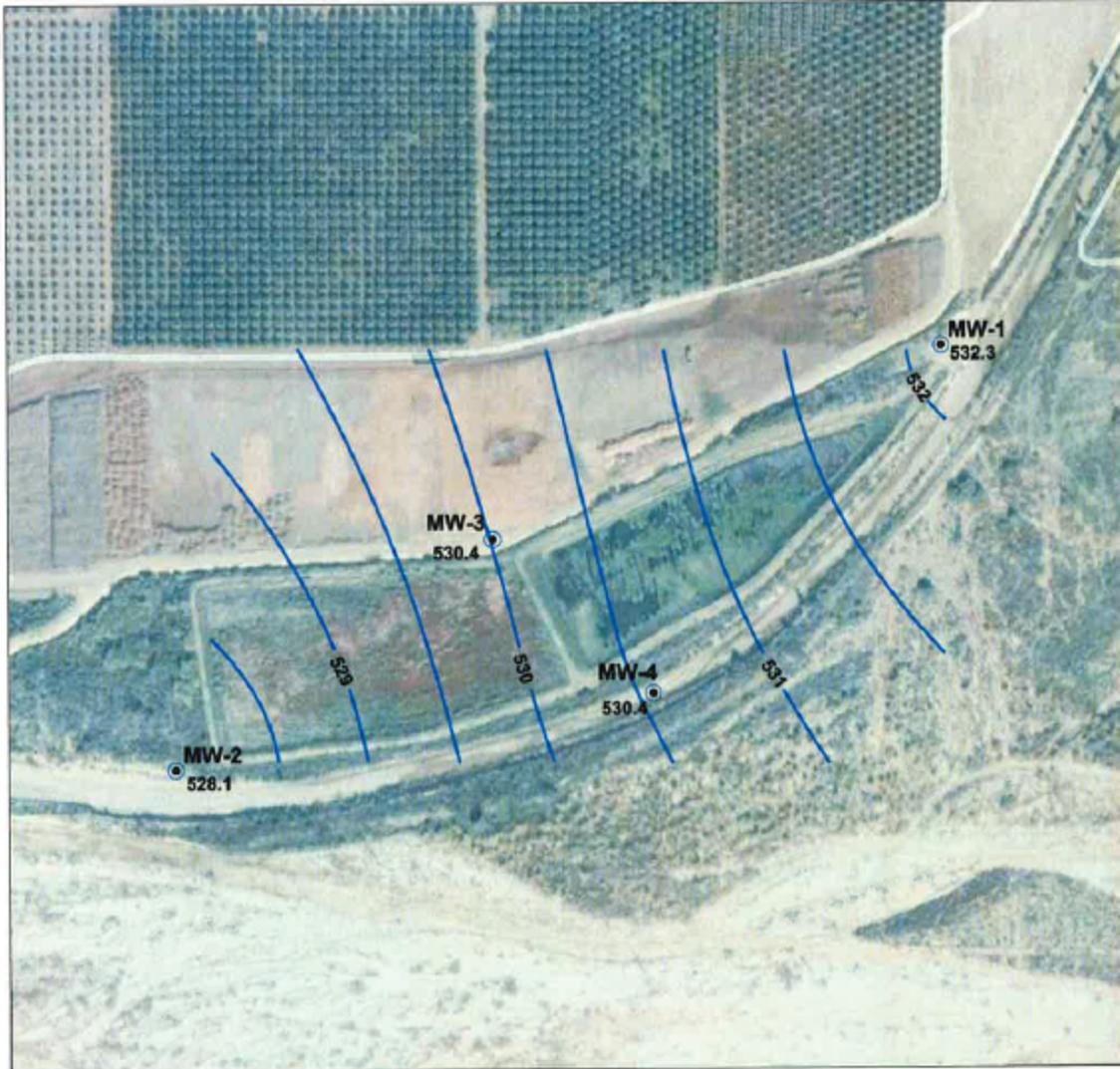


Figure 7. Groundwater Monitoring Wells and Elevations



Figure 8. Onsite Landscape Subsurface Application Areas