

Los Angeles Regional Water Quality Control Board

April 15, 2014

Ms. Rosie Castillo  
Property Manager  
1141 Cummings Road  
Santa Paula, CA 93060

CERTIFIED MAIL  
RETURN RECEIPT REQUIRED  
CLAIM NO. 7010 3090 0002 1022 1530

**WASTE DISCHARGE REQUIREMENTS / WATER RECYCLING REQUIREMENTS (WDRs/WRRs) AND MONITORING AND REPORTING PROGRAM FOR LIMONEIRA COMPANY – LIMONEIRA WASTEWATER TREATMENT PLANT, 1141 CUMMINGS ROAD, SANTA PAULA, CALIFORNIA (ORDER NO. R4-2014-0040, FILE NO. 66-066, CI NO. 5322, GLOBAL ID WDR100001131)**

Dear Ms. Castillo:

Our letter of February 21, 2014, transmitted tentative Waste Discharge Requirements/Water Recycling Requirements (WDRs/WRRs), tentative revised Monitoring and Reporting Program (MRP) and tentative Standard Provisions for the Limoneira Company – Limoneira wastewater treatment plant (Limoneira WWTP).

Pursuant to Division 7 of the California Water Code, this Regional Water Quality Control Board (Regional Board) at a public meeting held on April 10, 2014, reviewed the tentative WDRs/WRRs, the tentative revised MRP, and the tentative Standard Provisions, considered all factors in the case, and adopted WDRs/WRRs Order No. R4-2014-0040 and revised MRP CI No. 5322 (copies enclosed) relative to this discharge. Standard Provisions, which are a part of the WDRs, are also enclosed. The adopted WDRs/WRRs will be posted on the Regional Board's website at:

[http://www.waterboards.ca.gov/losangeles/board decisions/adopted orders/](http://www.waterboards.ca.gov/losangeles/board%20decisions/adopted%20orders/)

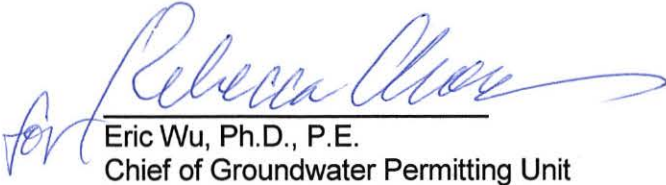
You are required to implement the revised Monitoring and Reporting Program CI No. 5322 on the effective date of Order No. R4-2014-0040. Your first monitoring report under these requirements is due to this Regional Board by July 15, 2014.

The Discharger (Limoneira Company) shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including groundwater monitoring data, discharge location data, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID **WDR100001131**. ESI training video is available at:

<https://waterboards.webex.com/waterboards/ldr.php?AT=pb&SP=MC&rID=44145287&rKey=7dad4352c990334b>

If you have any additional questions, please contact the Project Manager, Ms. Mercedes Merino at (213) 620-6156 or via email at [mmerino@waterboards.ca.gov](mailto:mmerino@waterboards.ca.gov), or Dr. Eric Wu at (213) 576-6683 or via email at [ewu@waterboards.ca.gov](mailto:ewu@waterboards.ca.gov).

Sincerely,

  
Eric Wu, Ph.D., P.E.  
Chief of Groundwater Permitting Unit

Enclosures:

1. WDRs/WRRs Order No. R4-2014-0040
2. Monitoring and Reporting Program No. 5322
3. Standard Provisions Applicable to WDRs.

cc (via email): Ms. Melinda Talent, Environmental Health Division, County of Ventura  
Mr. Chuck Anthony, Ventura County Planning Division  
Mr. Neil Barnsdale, Jensen Design & Survey  
Mr. Doug Hawkins, Limoneira Company

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD**

**LOS ANGELES REGION**

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**ORDER NO. R4-2014-0040**

**(FILE NO. 66-066)**

**CI NO. 5322**

**WASTE DISCHARGE REQUIREMENTS AND WATER RECYCLING REQUIREMENTS  
FOR  
LIMONEIRA COMPANY**

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

**PURPOSE OF ORDER**

1. The Limoneira Company (hereinafter Discharger) is subject to Waste Discharge Requirements (WDRs) and Water Recycling Requirements (WRRs) contained in Regional Board Order No. R4-2002-0139 and monitoring and reporting program CI No. 5322, adopted by the Regional Board on August 29, 2002.
2. California Water Code section 13263 (e) provides that all waste discharge requirements shall be reviewed periodically and, upon such review, may be revised by the Regional Board. Following a review of requirements in Regional Board Order No. R4-2002-0139 and an inspection of the subject site on February 3, 2012, these requirements have been revised to include additional findings, effluent limitations, recycled water limitations, updated standard provisions, and revised monitoring and reporting program which includes groundwater monitoring.

**BACKGROUND**

3. The Limoneira Company (hereinafter Discharger) owns and operates the Limoneira Ranch, Oliveland Ranch, and Orchard Farm Ranch located at 1141 Cummings Road, Santa Paula, California (Site) (Figure 1. Limoneira Company and Figure 2. Site Location Map).
4. The Discharger offers low-cost housing for its farm workers. There are approximately 152 homes in the Limoneira Ranch and the Oliveland Ranch.
5. The Discharger currently discharges treated domestic wastewater and commercial wash wastewater from the Limoneira Ranch and Oliveland Ranch under WDRs/WRRs contained in Regional Board Order No. R4-2002-0139.
6. The Limoneira Ranch (Figure 3) and Oliveland Ranch (Figure 4) encompass approximately 1,744 acres. There are approximately 1,189 acres of agricultural plantings on this property which consist of approximately 544 acres of lemons, 643 acres of avocados and 2 acres of specialty citrus and other crops.
7. The Orchard Farm Ranch (Figure 5) encompasses approximately 1,119 acres. There are approximately 795 acres of agricultural plantings on this property which consist of

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approximately 417 acres of lemons, 29 acres of avocados and 7 acres of specialty citrus and other crops planted by the company and approximately 352 acres leased to third party agricultural tenants who grow a variety of row crops.

8. The Limoneira Ranch sits between the Todd Barranca and Cummings Road, with a small portion extending north of Foothill Road. Most of the Olivelihoods Ranch is situated to the west, north of Telegraph Road between the Todd Barranca and Aliso Canyon Road. Several existing residential (farm-workers) housing are located throughout the ranches. At the Limoneira Ranch Main Campus, there are an administration building, a 62,000 square-foot cold storage facility and a nearly 244,000 square-foot packing house.

#### Limoneira Ranch

9. The Limoneira Ranch is located about 1,900 feet east of Todd Barranca Creek and 9,900 feet northwest of Santa Clara River in Section 19, Township 3N, and Range 21W, based on the San Bernardino Base & Meridian (See Figure 6. Limoneira wastewater treatment plant and Collection System Layout Map). Limoneira Ranch's approximate latitude is 34° 19' 50.6" N; and the longitude is 119° 06' 53.1" W.
10. At the Limoneira Ranch, the Discharger operates a wastewater collection, treatment, and disposal system consisting of two Imhoff tanks (Imhoff No. 1 and Imhoff No. 2), the Limoneira Main Campus wastewater treatment plant (Limoneira WWTP), and six evaporation/percolation ponds.
11. The wastewater collection, treatment, and disposal system serve approximately 122 residential homes.

#### Olivelihoods Ranch

12. Olivelihoods Ranch is located about 2 miles west of the Limoneira Farm and approximately 59 feet from Ellsworth Barranca Creek in Section 25, Township 3N, Range 22 W, based on the San Bernardino Base & Meridian. It has an approximate latitude of 34° 19' 35.1" N and an approximate longitude of 119° 07' 17.7" W (Figure 7. Olivelihoods Ranch wastewater treatment system). The Ellsworth Barranca Creek directs intermittent surface water flow to the Santa Clara River approximately 9,000 feet southeast of Olivelihoods Ranch.
13. At the Olivelihoods Ranch, the Discharger operated a wastewater collection treatment and disposal system. The wastewater collection treatment and disposal system consisted of Imhoff No. 3 with a design capacity of 50,000 gpd. The wastewater was discharged to another series of six unlined ponds. Pond No. 1 was a separation pond, Pond No. 2 was an aeration pond, and Ponds No. 3, 4, 5, and 6 were all evaporation/percolation ponds. Treated wastewater was not reclaimed at Olivelihoods Ranch for any purpose (Figure 6).
14. The Olivelihoods Ranch wastewater treatment system treated approximately 7,265 gallons per day (gpd) of domestic wastewater from 30 homes.



Orchard Farm Ranch

15. The Orchard Farm, also owned by the Discharger, is located approximately 2.5 miles southwest of Limoneira Ranch and occupies a total of approximately 1,119 acres. It has an approximate latitude of 34° 56' 59.4" N and an approximate longitude of 119° 06' 15.1" W (Figure 8. Orchard Farm Ranch irrigation fields). There are no residences or packing house that would generate wastewater in the Orchard Farm Ranch.
16. Lemons, avocados, and row crops (cilantro, celery, lettuce, cabbage, and strawberries) are being grown in Orchard Farm Ranch. However, approximately 6 acres of the farm is used for growing alfalfa and hay crops. Treated wastewater from Pond No. 5 at the Limoneira Ranch is chlorinated, filtered, and then pumped to this area for surface irrigation of the alfalfa and hay crops. The average monthly volume of treated wastewater used for irrigation during 2013 was approximately 49,891 gpd.
17. Domestic water used at the Limoneira Ranch and the Oliveland Ranch is furnished by the City of Santa Paula. Domestic water used at the Orchard Farm is furnished not only by the City of Santa Paula but also by a small domestic water well located approximately 3,000 feet northeast of the alfalfa field. Irrigation water is provided by the Farmers Irrigation and Thermalbelt Company and is used for irrigation at the Limoneira Ranch, Oliveland Ranch, and Orchard Farm.
18. The Discharger has plans for expansion that will add additional wastewater flows to the Limoneira wastewater treatment system currently in place. The first expansion project includes 71 new residential farm worker housing units. The majority of these units will be in a newly created Aliso Village East neighborhood located northeast of Oliveland Ranch. The remaining units will be added to existing Oliveland Ranch farm worker residential neighborhood in different phases throughout the next 10 years. The total wastewater from the first expansion project (8 housing units) is anticipated to be 10,000 gpd.
19. The first phase of the expansion project includes construction of eight out of the 71 housing units for the Aliso Village area. The discharge of wastewater from these eight units have already been approved by the Regional Water Quality Control Board in a letter dated August 25, 2011 and have been given clearance through the Ventura County Planning Division. The second expansion project is an additional 60,000 square-foot packing house at the main campus area of Limoneira Ranch. The new packing house will be located adjacent to the existing cold storage facility at the main campus area and will be tied into the same wastewater collection line. There will be no additional wastewater generated from the packing house expansion due to no additional restrooms will be added to the expansion.

COMPLIANCE HISTORY

20. The compliance history of Limoneira Company is summarized as follows:
  - a. On September 4, 2008, the Regional Board issued a Notice of Violation (NOV) for failing to monitor the effluent, groundwater and for violations of effluent limitations for biochemical oxygen demand (BOD), pH, total coliform, and glyphosate. The NOV required the Discharger to submit a report detailing corrective and preventive

measures taken or proposed, to bring the discharge into compliance with the effluent limitations. On September 18, 2008, the Discharger responded to the September 4, 2008 NOV and explained that the high BOD results were due to inconsistent sampling locations and most of the treated wastewater samples were taken prior to the aeration ponds. The Discharger stated that all personnel were informed of the proper testing locations and the old aeration pumps were replaced with new higher volume pumps.

- b. On February 10, 2012, the Regional Board issued an NOV for late submittal of monitoring reports, violations of effluent limitations for BOD, total nitrogen, suspended solids, and violations of groundwater limitations for sulfate. The NOV required the Discharger to submit a report detailing corrective actions taken or proposed to bring the discharge into compliance with effluent and groundwater limitations. On March 2, 2012, the Discharger responded to the February 10, 2012 NOV and explained that the high BOD concentrations were due to personnel sampling at the incorrect sampling locations; the samples were taken prior to the aeration ponds. In response to the high sulfate levels, the Discharger stated that the high sulfates levels were high because of the regional groundwater sulfate concentrations in that area and they consulted United Water Conservation District (UWCD) to confirm that their groundwater wells as well as other groundwater wells in the area have high sulfate concentrations. Furthermore, the Discharger submitted groundwater data collected by UWCD showing high sulfate concentrations for several state wells located in the vicinity of the Limoneira Company.
21. The site has an ongoing history of exceeding effluent limits and groundwater limits. Monitoring reports submitted to the Regional Board from 2003 through 2013 have shown repeated violations of effluent limits for several constituents including BOD, suspended solids, pH, and total coliform. Also, monitoring reports submitted from 2004 through 2013 have shown repeated violations of groundwater quality objective for sulfate. However, the groundwater data from Lower 2 Well and Orchard Well submitted by the Discharger were not representative of the groundwater (first aquifer) encountered at the site.
22. On December 10, 2012, the Discharger submitted an amendment to the response to NOV. In the amendment, the Discharger proposed to abandon the Oliveland Ranch wastewater treatment system consisting of Imhoff No. 3 and its six evaporation/percolation ponds in place. The Discharger plans to intercept all wastewater flows, which will be directed through a proposed 4-inch sewer force main that will run 6,500 feet east and connect to the existing 8-inch wastewater collection line located at Todd Barranca. The wastewater will ultimately flow to the Limoneira WWTP. The total inflow to Limoneira WWTP from the existing 30 units and 71 planned housing units from Aliso Village located in the Oliveland Ranch will be 28,000 gpd.
23. On May 30, 2013, Regional Board staff met with representatives of the Limoneira Company, and representatives of Jensen Design & Survey, Incorporated to discuss the proposed improvements. Furthermore, Regional Board staff informed the Limoneira Company representatives that the Discharger had failed to submit a groundwater monitoring workplan as required by Regional Board Order No. R4-2002-0139.



24. On June 27, 2013, Jensen Design & Survey Incorporated submitted "Action Plan for Limoneira Company" (Plan) on behalf of the Limoneira Company. The Plan contained a detail timeline for the decommission and abandonment of the Oliveland's wastewater treatment system and its six unlined ponds, the lining of the six evaporation/percolation ponds serving the treatment systems located in the Limoneira Ranch, the expansion and improvement of Limoneira WWTP and a groundwater monitoring network. In the Plan, the Discharger stated that the capacity of the Limoneira WWTP will increase to the current existing permit capacity of 180,000 gpd. The expanded Limoneira WWTP will accommodate the flows diverted from the decommissioned Oliveland's wastewater treatment system as well as additional flows from the new housing units in the Oliveland's Ranch.
25. On September 6, 2013, the Regional Board issued the Discharger a groundwater workplan approval letter, which approved the installation of groundwater monitoring wells at the Site.
26. On November 6, 2013, the Discharger submitted "Action Plan Progress Report for Limoneira Company" (Progress Report). In the Progress Report, the Discharger provided details regarding the monitoring well installation, groundwater quality data, the lining of the six unlined settling ponds, aeration ponds and evaporation ponds serving the two treatment systems located in the Limoneira Ranch, and construction updates for the wastewater collection lift station, wastewater collection forcemain, and the connection of the new forcemain to the Limoneira WWTP. The updates are as follows:
  - a. In July 2013, four (4) monitoring wells were constructed in the vicinity of the Limoneira Wastewater Treatment Plant and another four (4) monitoring wells were constructed in the Orchard Farm Alfalfa Field. In addition, three (3) monitoring wells, two downgradient and one upgradient from the existing Oliveland's Ranch wastewater treatment, were attempted and did not encounter groundwater to the depth of 75 feet below ground surface (bgs). Groundwater samples were collected from the eight (8) completed wells and the laboratory analysis results were submitted to the Regional Board on November 6, 2013.
  - b. In August 2013, three of the six evaporation/percolation ponds adjacent to the Limoneira WWTP were drained and then lined with a high density polyethylene (HDPE) impermeable liner. The lining of the remaining three ponds was completed in November 2013.
27. In September 2013, a 4-foot diameter by 10-feet deep wastewater collection lift station and 6,200-linear feet of 4-inch wastewater forcemain were constructed in the Oliveland's Ranch. The Oliveland's Ranch's wastewater forcemain was connected to the Limoneira Ranch forcemain, which carries all wastewater to the Limoneira Ranch WWTP.
28. In January 2014, a forcemain was constructed in the Limoneira Ranch connecting Imhoff No. 1 and Imhoff No 2 to the Limoneira WWTP.
29. The lift station was completed in February 2014, as such the Oliveland's Ranch treatment system was decommissioned and the ponds were backfilled at the end of February 2014.

**FACILITY AND TREATMENT PROCESS DESCRIPTION**

30. The Limoneira WWTP and lined evaporation and storage ponds are located about 1,900 feet east of Todd Barranca Creek and 9,900 feet northwest of Santa Clara River in Section 19, Township 3N, and Range 21W, based on the San Bernardino Base & Meridian (Figure 9. Limoneira wastewater treatment plant flow chart). Limoneira WWTP approximate latitude is 34° 19' 42.6" N; and the longitude is 119° 06' 40.5" W.
31. The site is located in an unsewered area of Ventura County. To date no public sewers have been scheduled for construction in the vicinity of the project.
32. The wastewater generated from the citrus fruit washing that stems from the packing houses operations, and domestic wastewater generated from the restrooms located in the packing house, administration building, and residential housing units located in the Limoneira Ranch Main Campus area are treated at the Limoneira WWTP.
33. The domestic wastewater generated from the Limoneira Ranch residential houses is collected through underground piping utilizing gravity flow. The raw wastewater flows by gravity from the source to the existing Imhoff No. 1 and Imhoff No. 2, where it gets partially treated. The partially treated wastewater from the Imhoff tanks is then pumped into the Limoneira wastewater treatment plant for further treatment.
34. Furthermore, the domestic wastewater generated from the Oliveland Ranch residential houses is collected through underground piping utilizing gravity flow. The raw wastewater flows from the source to the Limoneira WWTP for treatment.
35. The Limoneira WWTP treats up to 15,000 gpd of domestic wastewater from the restrooms located in the packing house, administration building, and residential housing units, and 75,000 gpd of rinse wastewater from the citrus fruit washing at the packing house. The system uses extended aeration for treatment and consists of a concrete tank with a capacity of 180,000 gallons. The tank is divided into three stages. The first stage consists of two solid and liquid separation chambers, the second stage consists of two aeration chambers, and the third stage consists of two settling chambers. Rinse water is municipal water supplied by the City of Santa Paula to rinse the fruit as it is taken out of storage.
36. The treated wastewater is discharged to lined Pond No. 1, then to Pond No. 2, follow by Pond No. 3, and subsequently to Pond No. 4, and Pond No. 5 for evaporation and storage. There is no more percolation because all six ponds were lined.
37. Then treated wastewater (effluent) from Pond No. 5 flows though the sand filters and then a chlorination chamber for chlorine disinfection. After disinfection, the effluent is pumped to the alfalfa and hay field in the Orchard Farm for irrigation.
38. Pond No. 6 is also lined and serves as backup/overflow pond, which provides sufficient capacity for treated wastewater storage during rainfall and/or in the event of plant upsets or outages.
39. The Limoneira wastewater treatment plant uses extended aeration for treatment and consists of a concrete tank with a capacity of 180,000 gallons. It was design to produce



secondary wastewater for discharge to groundwater via spray irrigation. The total capacity of the wastewater treatment plant has not changed as they are discharging under designed capacity.

40. The current Limoneira WWTP has sufficient capacity for the expansion projects and the existing flow never reach the capacity limit of 180,000 gpd. Therefore, there will be no flow change at the Limoneira WWTP.
41. The Limoneira WWTP serves an approximate population of 733 including administrative staff, employees, and residents.
42. Currently, the treatment system is treating approximately 71,257 gpd of domestic wastewater and commercial wash wastewater generated from the Limoneira Ranch administration building, packing house, residential housing units and from the citrus fruit washing at the packing house, and approximately 7,265 gpd of domestic wastewater generated from the Olivelihoods Ranch residential units.
43. The Discharger discharges approximately an average of 80,000 gpd of treated wastewater, which will meet Title 22 recycled water requirements and will 100% recycled for irrigation.

#### **WASTE DISCHARGE DESCRIPTION**

44. Based on the estimated flow from the expansion projects and the current flow, the sources of wastewater discharged at Limoneira Ranch and Olivelihoods Ranch are summarized as follows:

Source	Limoneira Farm	Olivelihoods Farm
Rinse water from packinghouses	75,000 gpd	--
Domestic wastewater	15,000 gpd	28,000 gpd

45. At Limoneira Ranch, the principal constituents of concern in domestic wastewater are total suspended solids, biodegradable organics, dissolved inorganics, and pathogenic organisms. Rinse water from the packinghouses may include chlorine, herbicides, pesticides, and fungicides. Specifically, solvent-refined light paraffinic distillate, abamectin, norflurazon, chlorpyrifos, metaldehyde, glyphosate, and simazine, are used during the growing of lemons, avocados, and row crops. No Maximum Contaminant Levels exist for these constituents, except for glyphosate and simazine. Based on the Maximum Contaminant Levels provided in the California Code of Regulations, the monthly average limits for glyphosate and simazine are 0.7 and 0.004 milligrams per liter, respectively.
46. At Olivelihoods Ranch, the principle constituents of concern in domestic wastewater are total suspended solids, biodegradable organics, dissolved inorganics, and quarterly pathogenic organisms.

#### **SITE-SPECIFIC CONDITIONS**

47. The Limoneira Ranch, Olivelihoods Ranch and Orchard Farms are centrally located along the southern boundary of the Santa Paula Ground Water Basin. The southern boundary

of the basin is defined by the Oakridge Fault which roughly lies beneath the present Santa Clara River channel and Todd Barranca. The channelized Todd Barranca forms the western boundary of the site.

48. Shallow groundwater within the basin is primarily contained in alluvial fan and river deposits, of Quaternary geologic age, that extend to depths up to several hundred feet. These sediments unconformably overlie the Tertiary age San Pedro Formation where groundwater conditions are generally semi-confined to confined.
49. Groundwater beneath the Limoneira Company is contained in alluvial flood plain and fan deposits. Groundwater levels and flow directions beneath the site are controlled by these deposits. The shallow aquifer beneath the northern portion of the site is comprised of predominantly fine-grained fan deposits. The shallow aquifer in the southern portion of the site consists of coarse-grained fluvial sediments deposited by the Santa Clara River.
50. The soils consist of interbedded clay and silty clay; clayey silt and silt; and silty sand, sand, gravelly sand and minor amounts of cobbles. In general, the earth materials contain more coarse interbeds toward the Santa Clara River. The predominantly fine-grained soils (clay and silt) encountered in the northwestern portion of the subject site appear to extend into the southern portion of the site where they contain interbedded lenses and continuous beds of silt, sand, and gravel.
51. Land use in the Limoneira Company vicinity is primarily agricultural covered with lemon trees and avocado orchards.
52. Depth to groundwater at the Limoneira Company site ranges from a depth of 75 feet near the Ellsworth Barranca and Foothill Road in the west to 17 feet below ground surface (bgs) west of the Cummings Road, between Foothill Road and Telegraph Road. Groundwater flows in a southwesterly direction towards the Santa Clara River.
53. Self-monitoring data collected from February 2012 to May 2013 characterize the recent effluent water quality as follows:

Constituents	Units <sup>1</sup>	Treated Effluent <sup>2</sup>	Effluent Limits <sup>3</sup>
pH	mg/L	8.0	6.5 – 8.5
Total suspended solids	mg/L	7.5	30 – 45
BOD <sub>5</sub> 20°C	mg/L	2.45	30 – 45
Total coliform	MPN/100mL	1,737*	--
Fecal coliform	MPN/100mL	1,534*	--
Enterococcus	MPN/100mL	2,233*	--
Nitrate as N	mg/L	5	--
Nitrite as N	mg/L	<0.1	--
Total dissolved solids	mg/L	1,363	2,000
Sulfate	mg/L	500	800
Chloride	mg/L	81	110
Boron	mg/L	0.6	1.0

<sup>1</sup>mg/L=milligrams per liter; MPN/100mL = most probable number (MPN) per 100 milliliters

<sup>2</sup>Based on analyses performed from February 15, 2012 to May 3, 2013. Water samples were collected prior

to chlorination.

<sup>3</sup>Effluent limits prescribed in Order No. R4-2002-0139

\*samples results before chlorination.

54. The Limoneira Company installed four (4) monitoring wells in the vicinity of the Limoneira WWTP on July 11 and 12, 2013. Groundwater was encountered at approximately 17 feet to 22 feet below ground surface (bgs). The completed well depths are 25 feet and 30 feet bgs and initial water samples were collected and submitted to a laboratory for analysis on July 22, 2013. The groundwater quality for the monitoring wells installed is as follows:

Constituents	Units <sup>1</sup>	MW-M1	MW-M2	MW-M3	MW-M4	Groundwater Quality Objectives (Basin Plan)
TDS <sup>2</sup>	mg/L	1,820	1,910	1,570	1,540	2,000
Sulfate	mg/L	760	820	540	580	800
Chloride	mg/L	67	106	120	120	110
Boron	mg/L	1	0.9	1.2	0.9	1.0
Total Nitrogen	mg/L	39	27.3	11.5	24	10
Glyphosate	mg/L	0.7	0.7	0.7	0.7	--
Simazine	mg/L	0.004	0.004	0.004	0.004	--
Total coliform	MPN/100mL	>23	>23	>23	>23	<1.1
Fecal coliform	MPN/100mL	>23	>23	>23	>23	<1.1
Enterococcus	MPN/100mL	>2,420	>2,420	>2,420	>2,420	<1.1

<sup>1</sup>mg/L=milligrams per liter; MPN/100mL = most probable number (MPN) per 100 milliliters

<sup>2</sup>TDS= Total dissolved solids

MW-M1: Upgradient Well to the Limoneira Ranch wastewater treatment systems

MW-M2: Cross-gradient Wells to the Limoneira Ranch wastewater treatment systems

MW-M3 and MW-M4: Downgradient Well to the Limoneira Ranch wastewater treatment systems

55. The Limoneira Company also installed four (4) monitoring wells in the vicinity of the alfalfa field in the Orchard Farm Ranch on July 15 and 16, 2013. Groundwater was encountered at approximately 19 feet to 22 feet below ground surface (bgs). The completed well depths are 30 feet bgs and initial water samples were collected and submitted to a laboratory for analysis on July 22, 2013. The groundwater quality for the monitoring wells installed is as follows:

Constituents	Units <sup>1</sup>	MW-A1	MW-A2	MW-A3	MW-A4	Groundwater Quality Objectives (Basin Plan)
TDS <sup>2</sup>	mg/L	3,210	2,200	3,010	2,570	2,000
Sulfate	mg/L	1,710	1,100	1,520	1,400	800
Chloride	mg/L	160	150	180	180	110
Boron	mg/L	1.1	1.1	1.2	1.0	1.0
Total Nitrogen	mg/L	50	14	47	6	10
Glyphosate	mg/L	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	--
Simazine	mg/L	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	--
Total coliform	MPN/100mL	5.1	>23	>23	>23	<1.1
Fecal coliform	MPN/100mL	>23	>23	>23	>23	<1.1

Constituents	Units <sup>1</sup>	MW-A1	MW-A2	MW-A3	MW-A4	Groundwater Quality Objectives (Basin Plan)
Enterococcus	MPN/100mL	>2,420	>2,420	>2,420	>2,420	<1.1

<sup>1</sup>mg/L=milligrams per liter; MPN/100mL = most probable number (MPN) per 100 milliliters

<sup>2</sup>TDS=Total dissolved solids

<sup>3</sup>ND: Not Detected

MW-A1: Upgradient well to the alfalfa fields in Orchard Farm Ranch

MW-A2 and MW-A3: Cross-gradient wells to the alfalfa fields in Orchard Farm Ranch

MW-A4: Downgradient well to the alfalfa fields in Orchard Farm Ranch

## **STORM WATER MANAGEMENT**

56. The facility was inspected by Regional Board storm water staff on May 17, 2002. Storm water staff determined that the Limoneira/Olivelands Ranch establishment primarily engages in the production of citrus fruit [Standard Industrial Code (SIC) 0174/0179] and therefore is not required to be covered under Water Quality Order No. 97-03 DWQ NPDES General Permit.

## **APPLICABLE PLANS, POLICIES AND REGULATIONS**

57. ***Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan)*** – On June 13, 1994, the Regional Board adopted a revised Basin Plan. The Basin Plan (i) designates beneficial uses for surface and groundwater, (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 Board Resolution 68-16 (see finding No. 23 below for detail). In addition, the Basin Plan incorporates by reference applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. The Regional Board prepared the 1994 update of the Basin Plan to be consistent with previously adopted State and Regional Board plans and policies. This Order implements the plans, policies and provisions of the Regional Board's Basin Plan.
58. Limoneira Ranch, Olivelands Ranch and the Orchard Farm area are located west of Peck Road in the Santa Clara—Santa Paula Hydrologic area and overlies the Ventura Central Groundwater Basin. The Basin Plan has the following beneficial use designations:

### **Surface water (Santa Paula Creek - Santa Clara River Watershed)**

Potential: Municipal and domestic supply

Existing: Industrial process and service supply; agricultural supply; groundwater recharge; freshwater replenishment; water-contact recreation (REC-1); non-water contact recreation (REC-2); warm and cold freshwater habitat; spawning rare, threatened, or endangered species; wildlife habitat; migration of aquatic organisms; and spawning, reproduction, and/or early development of fish



Groundwater (Santa Clara—Santa Paula Hydrologic area--West of Peck Road):

Existing: Municipal and Domestic Supply, Industrial Service Supply, Industrial Process Supply, and Agricultural Supply.

59. The California Department of Public Health (CDPH) established primary and secondary MCLs for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are codified in Title 22, CCR. The Basin Plan (Chapter 3) incorporates Title 22 primary maximum contaminant levels (MCLs) by reference. This incorporation by reference is prospective, including future changes to the incorporated provisions as the changes take effect. Title 22 primary MCLs are applicable limitations for a receiving water to protect beneficial uses when that receiving water is designated as municipal and domestic supply. Also, the Basin Plan specifies that "Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses." Therefore the secondary MCLs, which are limits based on aesthetic, organoleptic standards, are also incorporated into this permit to protect groundwater quality.

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 designed to protect human health and ensure that water is safe for domestic use.

60. **State Board Resolution No. 68-16** ("Statement of Policy with Respect to Maintaining High Quality Waters in California", also called the "Antidegradation Policy") requires the Regional 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 Board's policies (e.g., quality that exceeds water quality objectives). The Regional Board finds that the discharge, as allowed in these WDRs, is consistent with Resolution No. 68-16 since this Order (1) requires compliance with the requirements sets forth in this Order, including the use of best practicable treatment and control of the discharges, (2) requires implementation of Monitoring Reporting Program (MRP); and (3) requires discharges to be treated to comply with water quality objectives and WRRs.
61. The requirements contained in this Order are in conformance with the goals and objectives of the Basin Plan and implement the requirements of the California Water Code and Water Recycling Criteria and Policy.
62. **Recycled Water Policy** – On February 9, 2009, the State Board adopted Resolution No. 2009-0011, the State Board Recycled Water Policy. The Policy was approved by the Office of Administrative Law on May 14, 2012. This Recycled Water Policy is intended to support the State Board's Strategic Plan to promote sustainable local water supplies. Increasing the acceptance and promoting the use of recycled water is a means towards achieving sustainable local water supplies and can result in reduction in greenhouse gases, a significant driver of climate change. The Recycled Water Policy is also intended to encourage beneficial use of, rather than solely disposal of, recycled water generated from municipal wastewater sources in a manner that fully implements state and federal

water quality laws.

63. CWC section 13523.5 on water recycling requirements states that a Regional Board may not deny issuance of water recycling requirements to a project that violates only a salinity standard in a basin plan. In 1985, soon after this provision was added to the Water Code, the State Board Office of Chief Counsel issued a legal opinion concluding that this provision does not apply to waste discharge requirements. Hence, waste discharge requirements for recycled water projects may contain effluent and other limitations on discharges of salts as necessary to meet water quality objectives, comply with the Antidegradation Policy, or otherwise protect beneficial uses.
64. These WRRs are proposed pursuant to CWC section 13523. The WRRs prescribe the limits for recycled water and the Discharger's responsibilities for the production and monitoring of recycled water. The Discharger is also responsible for inspecting point-of-use facilities, and ensuring compliance with the WRRs contained in this Order. The distribution and irrigation systems will be maintained by the Discharger.
65. This Order establishes limitations that will not unreasonably threaten present and anticipated beneficial uses or result in receiving quality that exceeds water quality objectives set forth in the Basin Plan. This means that where the stringency of the limitations for the same waste constituent differs according to beneficial use, the most stringent applies as the governing limitation for that waste constituent. This Order contains tasks for assuring that best practicable treatment or control (BPTC) and the highest water quality consistent with the maximum benefit to the people of the State will be achieved. Accordingly, the discharge is consistent with the antidegradation provisions of Resolution 68-16. Based on the results of the scheduled tasks, the Regional Board may reopen this Order to reconsider groundwater limitations and other requirements to comply with Resolution 68-16.
66. The use of recycled wastewater for the irrigation of crops could affect the public health, safety, or welfare; requirements for such use are therefore necessary in accordance with section 13523 of the California Water Code.
67. The Discharger shall be able to achieve compliance with all the effluent limitations listed in this Order and is prohibited from discharging any wastewater to surface water from the treatment plant.
68. Pursuant to California Code Section 13263(g), discharges is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.
69. The Regional Water Board will review this Order periodically and will revise requirements when necessary.
70. Section 13267(b) of the California Water Code (CWC) states, in part, that "In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging or who proposes to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste outside of its region that could affect the quality of waters of the state within its region shall furnish

under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs of these reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports." The reports required by the MRP CI No. 5322 are necessary to assure compliance with these waste discharge requirements. The Discharger operates facilities that discharge wastes subject to this Order.

#### **CALIFORNIA ENVIRONMENTAL QUALITY ACT AND NOTIFICATION**

71. This project involves the issuance of WDRs/WRRs for an existing facility and the Limoneira WWTP has sufficient capacity for the expansion projects; as such the action to adopt WDRs/WRRs is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, section 15301.
72. On February 21, 2014, the Regional Board has notified the Discharger and interested agencies and persons of the intent to revise WDRs/WRRs for this discharge, and has provided them with an opportunity to submit written comments for the requirements by March 24, 2014.
73. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the tentative requirements.
74. Pursuant to CWC section 13320, any person affected by this action of the Regional Board may petition the State Board to review the action in accordance with section 13320 of the California Water Code and Title 23, California Code of Regulations, 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 [http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality/index.shtml](http://www.waterboards.ca.gov/public_notices/petitions/water_quality/index.shtml)

**IT IS HEREBY ORDERED** that the Discharger, Limoneira Company, shall be responsible for and shall comply with the following requirements in all operations and activities at the Limoneira wastewater treatment plant:

#### **A. EFFLUENT LIMITATIONS**

1. The discharge flow shall not exceed a maximum flow of 180,000 gpd.
2. The pH in the effluent shall at all times be from 6.5 to 8.5 pH units.
3. Waste discharged through spray irrigation shall not contain constituents in excess of the following limits:

Constituent	Units <sup>1</sup>	Daily Maximum	Monthly Average
BOD <sub>5</sub> 20°C	mg/L	45	30
Total suspended solids	mg/L	45	30
Total nitrogen <sup>2</sup>	mg/L	10	--
Nitrate as N	mg/L	10	--
Nitrite as N	mg/L	1	--
Oil and grease	mg/L	15	10
Total dissolved solids	mg/L	2,000	--
Sulfate	mg/L	800	--
Chloride	mg/L	110	--
Boron	mg/L	1.0	--
MBAS (Surfactants)	mg/L	0.5	--
Total residual chlorine	mg/L	0.01	--
Glyphosate	mg/L	--	0.7
Simazine	mg/L	--	0.004
Fecal coliform	MPN/100mL	2.2	--
E. coli	MPN/100mL	2.2	--

<sup>1</sup>mg/L=milligrams per liter; MPN/100mL = most probable number (MPN) per 100 milliliters

<sup>2</sup>Total nitrogen= nitrate-N + nitrite-N + ammonia-N + Organic Nitrogen

4. Turbidity Limits: The turbidity of the recycled water used for surface irrigation shall not exceed any of the following:
  - a) A daily average of 2 Nephelometric turbidity units (NTUs),
  - b) 5 NTUs more than 5 percent of the time (72 minutes) during any 24 hour period, and
  - c) 10 NTU at any time.
5. Total coliform Limits: The total coliform (median number of coliform organisms in the effluent) shall not exceed 23 MPN per 100 ml, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of total coliform bacteria shall not exceed 240 MPN/100 mL in more than one sample in any 30 days period.
6. Effluent (wastewater discharged from Limoneira Company wastewater treatment system) shall not contain heavy metals, arsenic, or cyanide, or other pollutants designated Priority Pollutants (Appendix A to 40 CFR, Part 423--126 Priority Pollutants) by the USEPA in concentrations exceeding the limits contained in the California Drinking Water Standards, CCR title 22, section 64431 (Attachment A-1).
7. Radioactivity shall not exceed the limits specified in the California Code of Regulations (CCR) title 22, chapter 15, section 64441 et seq., or subsequent revisions (Attachment A-2).



8. Effluent shall not contain organic chemicals in concentrations exceeding the limits contained in the current California Drinking Water Standards, CCR title 22, section 64444 or subsequent revisions (Attachment A-3).
9. Effluent shall not contain disinfectant byproducts in concentrations exceeding the limits contained in the current California Drinking Water Standards, CCR title 22, section 64533, Chapter 15.5 or subsequent revisions (Attachment A-4).

**B. GROUNDWATER LIMITATIONS**

1. "Receiving water" is defined as groundwater underlying the wastewater treatment plant, and the discharge areas described in Finding 58.
2. The groundwater collected from the monitoring wells shall not exceed the following limits:

Constituent	Units <sup>a</sup>	Maximum Limitation
Total dissolved solids (TDS)	mg/L	2,000
Sulfate	mg/L	800
Chloride	mg/L	110
Boron	mg/L	1.0
Total Nitrogen <sup>b</sup>	mg/L	10
Nitrate as N	mg/L	10
Nitrite as N	mg/L	1
Glyphosate	mg/L	0.7
Simazine	mg/L	0.004
Total coliform	MPN/100mL	1.1
Fecal coliform	MPN/100mL	1.1
Enterococcus	MPN/100mL	1.1

<sup>a</sup>mg/L= milligrams per liter; MPN/100mL= most probable number (MPN) per 100 milliliters

<sup>b</sup>Total nitrogen = nitrate-N + nitrite-N + ammonia-N + Organic Nitrogen

3. The Discharger shall demonstrate that the discharge from the wastewater treatment plant does not contribute to the degradation of groundwater quality.

**C. RECYCLED WATER SPECIFICATIONS FOR IRRIGATION**

1. Recycled water used for surface irrigation of alfalfa crops shall be at all times an adequately disinfected and oxidized wastewater. The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed a most probable number (MPN) of 23 per 100 milliliters (ml), as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed an MPN of 240 per 100 ml in any two consecutive samples. An adequately oxidized wastewater means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen. In addition,

a geometric mean enterococcus density shall not exceed 24 organisms per 100 ml for a 30-day period.

2. Recycled water used for irrigation shall be retained on the areas of use and shall not be allowed to escape as surface flow.
3. Recycled water shall be applied at such a rate and volume as not to exceed vegetation demand and soil moisture conditions. Special precautions shall be taken to prevent clogging of drip tubes, to prevent over-watering and to exclude the production of runoff. Pipelines shall be maintained so as to prevent leaks.
4. Recycled water shall not be applied within 100 feet of any well used for domestic purposes.
5. The use of the recycled water shall not cause the concentration of organic and inorganic chemicals (i.e., heavy metals, arsenic, or cyanide) in the receiving water to exceed the limits contained in title 22 of the California Code of Regulations, sections 64431 (Inorganic chemical) and 64444 (Organic chemical).
6. Recycled water shall not be used for irrigation during periods of rainfall and/or runoff.
7. Recycled water reuse shall not result in breeding of mosquitoes, gnats, or other pests.
8. Recycled water used as spray disposal shall not result in earth movement in geologically unstable areas.
9. No physical connection shall be made or allowed to exist between any recycled water piping and any piping conveying potable water, except as allowed under Section 7604 of Title 17, CCR.
10. Public contact with wastewater shall be precluded or controlled through such means as fences and signs, or acceptable alternatives.
11. All disposal areas with public access and landscape impoundments should be posted to warn the public that recycled water is being stored or used.
12. Recycled water systems shall be inspected on at least monthly to assure proper operation, absence of leaks, and absence of illegal connections.
13. All areas where recycled water is used shall be posted with conspicuous signs that include the following wording in a size no less than 4 inches high by 8 inches wide: "ATTENTION: NON-POTABLE WATER - DO NOT DRINK" or "RECYCLED WATER USED FOR IRRIGATION – DO NOT DRINK." Perimeter warning signs indicating that the treated water is in use shall be posted at least every 500 feet, with a minimum of at least one sign on each corner of each irrigation area at access road entrances.

14. The portions of the water piping system that are in areas subject to access by the general public shall not include any hose bibs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the water piping system in areas subject to public access.

D. GENERAL REQUIREMENTS

1. Standby or emergency power facilities and/or sufficient capacity shall be provided for treated wastewater storage during rainfall or in the event of plant upsets or outages.
2. Adequate facilities shall be provided to protect the Limoneira Company wastewater treatment, treatment system devices, and wastewater collection system from damage by storm flows and runoff or runoff generated by a 100-year storm.
3. The Discharger's wastewater treatment system and land application system shall be operated and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
4. The Discharger shall operate all systems and equipment to maximize treatment of wastewater and optimize the quality of the discharge.
5. 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 wastewater from surfacing or overflowing at any location.
6. Sludge and other solids shall be removed from wastewater shall be disposed of in a manner that is consistent with Title 27, Division 2, Subdivision 1 of the CCR and approved by the Executive Officer.
7. Sludge and other solids shall be removed from wastewater treatment equipment, sumps, ponds, etc. as needed to ensure optimal plant operation and adequate hydraulic capacity. Drying operations shall take place such that leachate does not impact the quality of groundwater or surface water.
8. Storage and disposal of domestic wastewater shall comply with existing Federal, State, and local laws and regulations, including permitting requirements and technical standards.
9. Any proposed change in solids use or disposal practice from a previously approved practice shall be reported to the Executive Officer at least 60 days in advance of the change.
10. Dischargers are directed to submit all reports required under the waste Discharger requirements (WDRs) adopted by the Regional Board including groundwater monitoring analytical data and discharge location data, to the State Water Resources Control Board GeoTracker database under Global ID WDR100001131. The GeoTracker training video is available at:

<https://waterboards.webex.com/waterboards/ldr.php?AT=pb&SP=MC&rID=44145287&rKey=7dad4352c990334b>

E. PROHIBITIONS

1. The direct or indirect of any waste and/or wastewater to surface waters or surface water drainage courses is prohibited.
2. Bypass, discharger or overflow of untreated wastes, except as allowed by Section F. 13 of this Order, is prohibited.
3. Discharge of waste classified as 'hazardous', as defined in Section 2521(a) of Title 23, California Code of Regulations, Section 2510 et seq., is prohibited. Discharge of waste classified as 'designated,' as defined in California Water Code Section 13173, in a manner that causes violation of groundwater limitations, is prohibited.
4. Wastes shall not be disposed of in geologically unstable areas or so as to cause earth movement.
5. Wastes discharged shall not impart tastes, odors, color, foaming or other objectionable characteristics to the receiving water.
6. There shall be no onsite permanent disposal of sludge. Sludge-drying activities are allowed, but only as an intermediate treatment prior to off-site disposal. Any offsite disposal of wastewater or sludge shall be made only to a legal point of disposal. For purposes of this Order, a legal disposal site is one for which requirements have been established by a California Regional Water Quality Control Board or comparable regulatory entity, and which is in full compliance therewith. Any wastewater or sludge handling shall be in such a manner as to prevent its reaching surface waters or watercourses.
7. Odors originating at this facility shall not be perceivable beyond the limits of the property owned by the Discharger.
8. Wastes discharged from the wastewater treatment plant shall at no time contain any substances in concentrations toxic to human, animal, plant, or aquatic life.
9. The discharge of waste shall not create a condition of pollution, contamination, or nuisance. No new connections may be made without notification to the Regional Board.
10. Nutrient materials in the waste discharged to the holding ponds shall not cause objectionable aquatic growth or degrade indigenous biota.
11. The discharge of any wastewater to surface waters or surface water drainage courses is prohibited without a NPDES permit.



12. The holding 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.
13. Bypass (the intentional diversion of waste stream from any portion of a treatment facility) is prohibited. The Regional 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 down time. This condition is not satisfied if adequate back-up 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 Regional Board.
14. 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.

#### F. PROVISIONS

1. A copy of this Order shall be maintained at the wastewater treatment plant so as to be available at all times to operating personnel.
2. The Discharger shall file with the Regional Board technical reports on self-monitoring work performed according to the detailed specifications contained in Monitoring and Reporting Program CI No. 5322 attached hereto and incorporated herein by reference, as directed by the Executive Officer. The results of any monitoring done more frequently than required at the location and/or times specified in the Monitoring and Reporting Program shall be reported to the Regional Board. The Discharger shall comply with all of the provisions and requirements of the Monitoring and Reporting Program.
3. The Discharger shall comply with all applicable requirements of chapter 4.5 (commencing with section 13290) of division 7 of the California Water Code.
4. Monitoring and Reporting Program CI No. 5322 contains requirements, among others, a groundwater monitoring program for the Limoneira Company wastewater treatment system so that the groundwater downgradient and upgradient from the discharge/disposal area can be measured, sampled, and

analyzed to determine if discharges from the disposal system are impacting water quality.

5. The Discharger shall monitor the background of the receiving groundwater quality as it relates to its effluent discharges. Should the constituent concentrations in any downgradient monitoring well exceed the receiving water quality objectives in the Basin Plan and the increase in constituents is attributable to the Discharge's Limoneira Company effluent disposal practices, the Discharger must develop a source control plan including a detailed source identification and pollution minimization plan, together with the time schedule of implementation, and must be submitted within 90 days of recording the exceedance.
6. Should effluent monitoring data indicate possible degradation of groundwater attributable to Discharger's effluent, the Discharger shall submit, within 90 days after discovery of the problem, plans for measures that will be taken, or have been taken, to mitigate any long-term effects that may result from the discharge(s).
7. Should the nitrate and nitrite-nitrogen concentration in effluent of Limoneira Company recycled water exceed 15 mg/L in three (monthly sampling plus two additional sampling events for result verification) consecutive samples taken within one month, the Discharger must submit an investigation plan (Plan) to the Executive Officer for approval within 90 days from the occurrence. The Plan must contain a detailed description of pollutant minimization strategies and prevention measures proposed, together with the time schedule of implementation.
8. Wastewater treatment and discharge at the discharge/disposal area shall not cause pollution or nuisance as defined in CWC section 13050.
9. 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.
10. 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 wastewater from both existing and planned future wastewater sources under the Discharger's responsibilities. Anyone employed in the operation of the wastewater treatment plant must be certified pursuant to CWC sections 13625-13633.
11. By **July 1, 2014**, the Discharger shall submit to the Executive Office for approval of an Operations and Maintenance Manual (O & M Manual) for the entire updated Limoneira wastewater treatment system and disposal facilities for the Limoneira Company facility. The Discharger shall maintain the O & M Manual in useable 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(s) 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 Regional Board by July 1 of each year.

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. For any violation of requirements in this Order, the Discharger shall notify the Regional 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.
14. 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 imposition of additional standards, requirements, or conditions by any other regulatory agency.
15. 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.
16. The Discharger shall furnish, within a reasonable time, any information the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
17. This Order includes the attached *Standard Provisions Applicable to Waste Discharge Requirements* which are incorporated herein by reference. If there is any conflict between provisions stated herein and the *Standard Provisions Applicable to Waste Discharge Requirements*, the provisions stated herein will prevail.
18. The Discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:



- a) Enter 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 CWC, any substances or parameters at any locations.
19. The WDRs contained in this Order will remain in effect and will be reviewed after five (5) years. Should the Discharger wish to continue discharging to groundwater for a period of time in excess of 5 years, the Discharger must file an updated Report of Waste Discharge with the Regional Board no later than 120 days in advance of the fifth-year anniversary date of the Order for consideration of issuance of new or revised waste discharge requirements. Any discharge of waste ten years after the date of adoption of this Order, without filing an updated Report of Waste Discharge with the Regional Board, is a violation of CWC section 13264. The Regional Board is authorized to take appropriate enforcement action for any noncompliance with this provision including assessment of penalties.
20. All discharges of waste into the waters of the State are privileges, not rights. In accordance with CWC section 13263(g), these requirements shall not create a vested right to continue to discharge and are subject to rescission or modification.
21. Failure to comply with this Order and MRP No. 5322, could subject the Discharger to monetary civil liability pursuant to California Water Code, including sections 13268 and 13350. Person's failing to furnish monitoring reports or falsifying any information provided therein is guilty of a misdemeanor.

#### G. TERMINATION

Regional Board Order No. R4-2002-0139, adopted by the Regional Board on August 29, 2002, is hereby terminated, except for enforcement purposes.

#### H. REOPENER

1. The Regional Board may modify, or revoke and reissue this Order if present or future investigations demonstrate that the discharge(s) governed by this Order will cause, have the potential to cause, or will contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.

2. This Order may be reopened to include additional or modified requirements to address Discharger's expansion or mitigation plans, TMDL or Basin Plan mandates, or groundwater limitation compliance with Resolution 68-16.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on April 10, 2014.



Samuel Unger, P. E.  
Executive Officer

## Attachment A-1

Table 64431-A: Inorganic Chemicals <sup>1</sup>	
Constituent	Maximum Contamination Levels (mg/L)
Aluminum	1
Antimony	0.006
Arsenic	0.05
Asbestos	7 MFL <sup>2</sup>
Barium	1
Beryllium	0.004
Cadmium	0.005
Chromium	0.05
Cyanide	0.2
Fluoride	2
Mercury	0.002
Nickel	0.1
Selenium	0.05
Thallium	0.002

1. California Code of Regulation (CCR) Title 22, Section 64431
2. MFL= million fibers per liter; MCL for fibers exceeding 10µm in length



## Attachment A-2

Table 4 – Radioactivity <sup>3</sup>	
Constituent	Maximum Contamination Levels (pCi/L)
Combined Radium-226 and Radium-228	5
Gross Alpha Particle Activity (Including Radium-226 but Excluding Radon and Uranium)	15
Tritium	20,000
Strontium-90	8
Gross Beta Particle Activity	50
Uranium	20

3. CCR Title 22, Section 64443

### Attachment A-3

<b>Table 64444-A – Organic/Regulated Chemicals<sup>4</sup></b>	
<b>Constituent</b>	<b>Maximum Contamination Levels (mg/L)</b>
<b>Volatile Organic Chemicals</b>	
Benzene	0.001
Carbon Tetrachloride (CTC)	0.0005
1,2-Dichlorobenzene	0.6
1,4-Dichlorobenzene	0.005
1,1-Dichloroethane	0.005
1,2-Dichloroethane (1,2-DCA)	0.0005
1,1-Dichloroethene (1,1-DCE)	0.006
Cis-1,2-Dichloroethylene	0.006
Trans-1,2-Dichloroethylene	0.01
Dichloromethane	0.005
1,2-Dichloropropane	0.005
1,3-Dichloropropene	0.0005
Ethylbenzene	0.7
Methyl-tert-butyl-ether	0.013
Monochlorobenzene	0.07
Styrene	0.1
1,1,2,2-Tetrachloroethane	0.001
Tetrachloroethylene (PCE)	0.005
Toluene	0.15
1,2,4-Trichlorobenzene	0.07
1,1,1-Trichloroethane	0.2
1,1,2-Trichloroethane	0.005
Trichloroethylene (TCE)	0.005
Trichlorofluoromethane	0.15
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.2
Vinyl Chloride	0.0005
Xylenes (m,p)	1.75
<b>Non-Volatile synthetic Organic Chemicals</b>	
Alachlor	0.002
Atrazine	0.003
Bentazon	0.018
Benzo(a)pyrene	0.0002
Carbofuran	0.018
Chloradane	0.0001
2,4-D	0.07
Dalapon	0.2
1,2-Dibromo-3-chloropropane	0.0002

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<b>Table 64444-A – Organic/Regulated Chemicals<sup>4</sup></b>	
<b>Constituent</b>	<b>Maximum Contamination Levels (mg/L)</b>
<b>Non-Volatile synthetic Organic Chemicals</b>	
Di(2-ethylhexyl)adipate	0.4
Di(2-ethylhexyl)phthalate	0.004
Dinoseb	0.007
Diquat	0.02
Endothall	0.1
Endrin	0.002
Ethylene Dibromide (EDB)	0.00005
Glyphosate	0.7
Heptachlor	0.00001
Heptachlor Epoxide	0.00001
Hexachlorobenzene	0.001
Hexachlorocyclopentadiene	0.05
Lindane	0.0002
Methoxychlor	0.04
Molinate	0.02
Oxamyl	0.2
Pentachlorophenol	0.001
Picloram	0.5
Polychlorinated Biphenyls	0.0005
Simazine	0.004
Thiobencarb	0.07
Toxaphene	0.003
2,3,7,8-TCDD (Dioxin)	$3 \times 10^{-8}$
2,4,5-TP (Silvex)	0.05

4. CCR Title 22, Section 64444



## Attachment A-4

Table 64533-A – Primary MCLs for Disinfection Byproducts <sup>5</sup>	
Constituent	Maximum Contamination Levels (mg/L)
Total Trihalomethanes (TTHM)	0.08
Bromodichloromethane	
Bromoform	
Chloroform	
Dibromochloromethane	
Haloacetic acid (five) (HAA5)	0.06
Monochloroacetic acid	
Dichloroacetic acid	
Trichloroacetic acid	
Monobromoacetic acid	
Dibromoacetic acid	
Bromate	0.01
Chlorite	1.0

5. CCR Title 22, Section 64533, Chapter 15.5





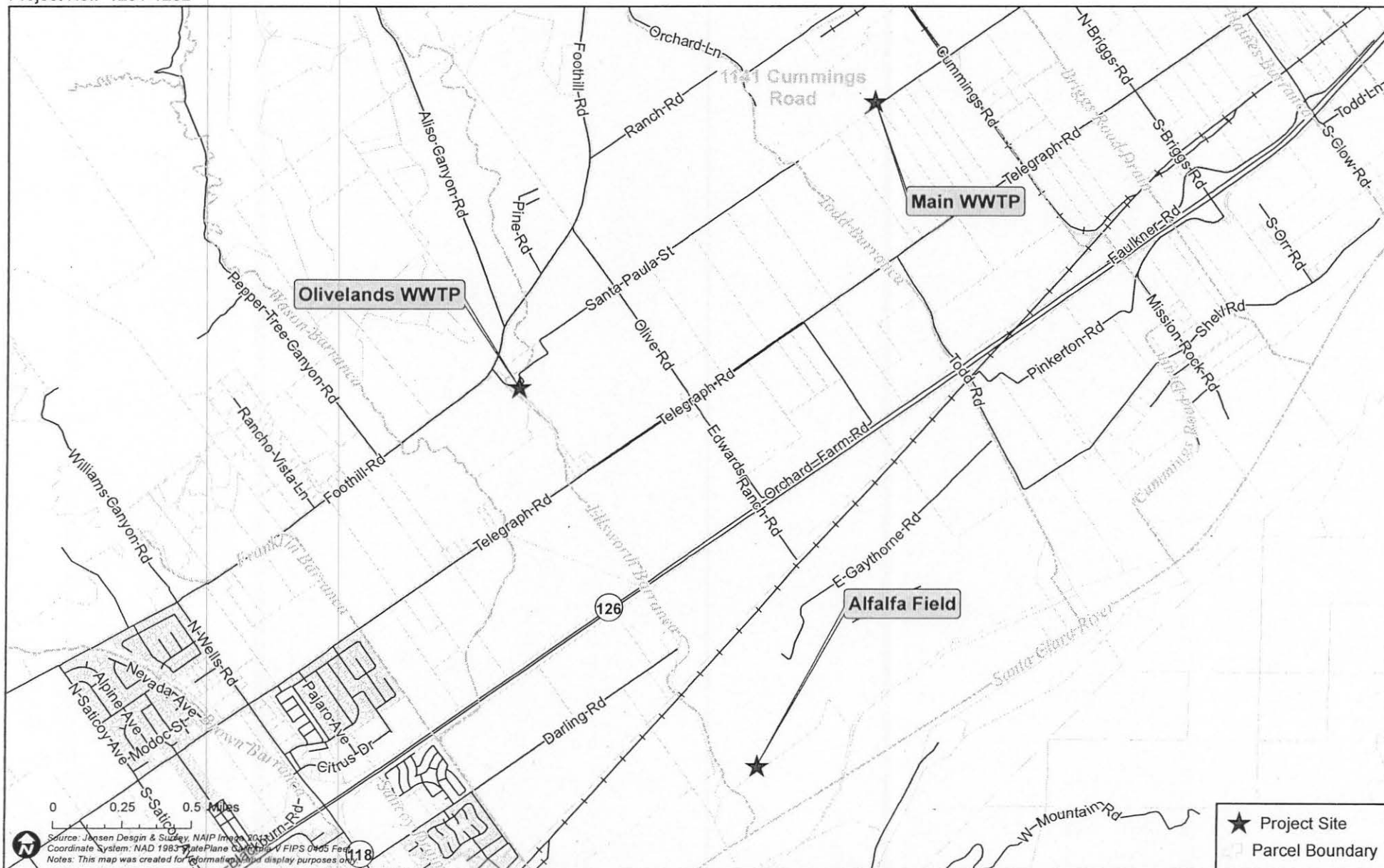


Figure 2. Site Location Map



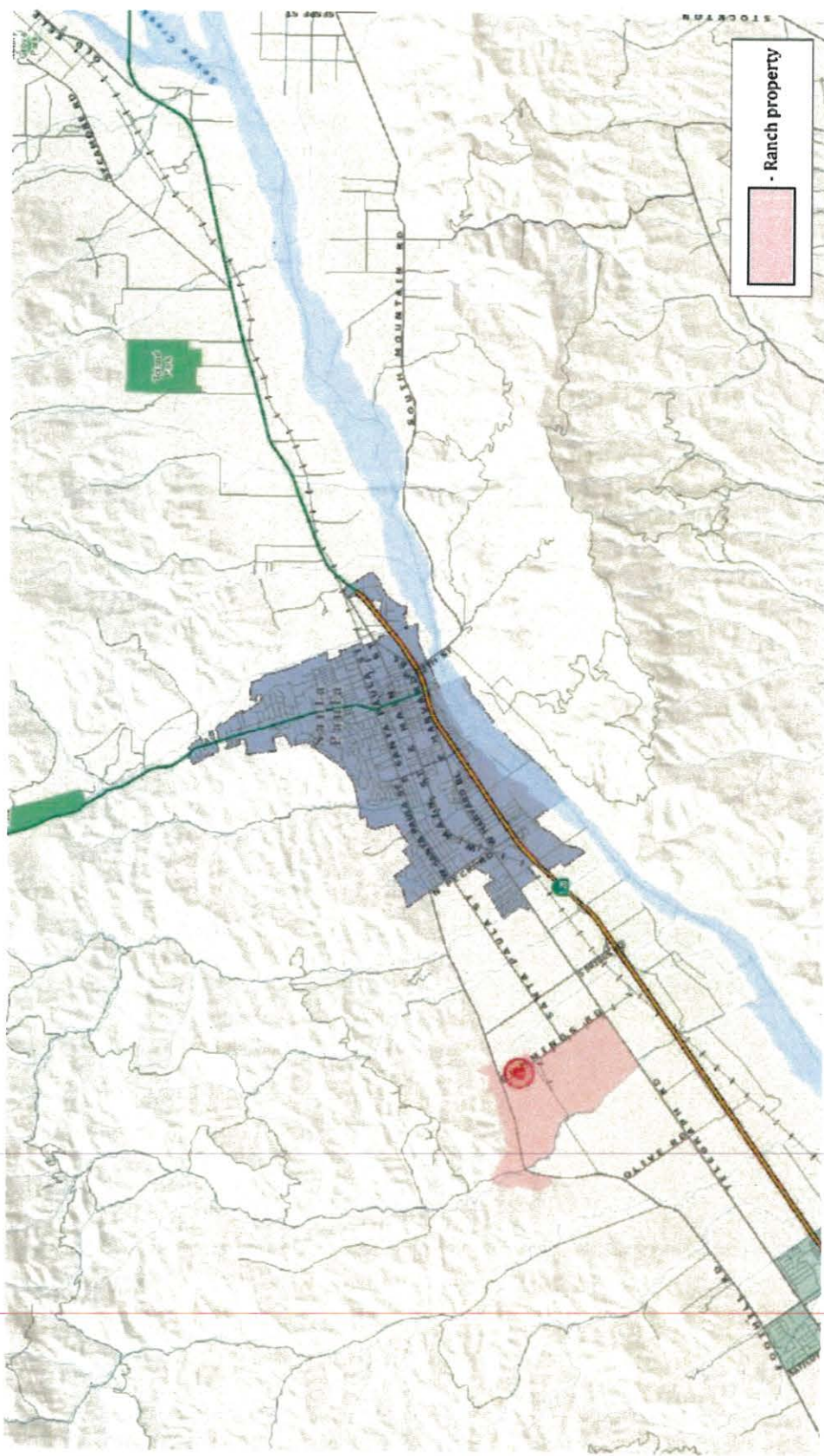


Figure 3. Location of Limoneira Ranch

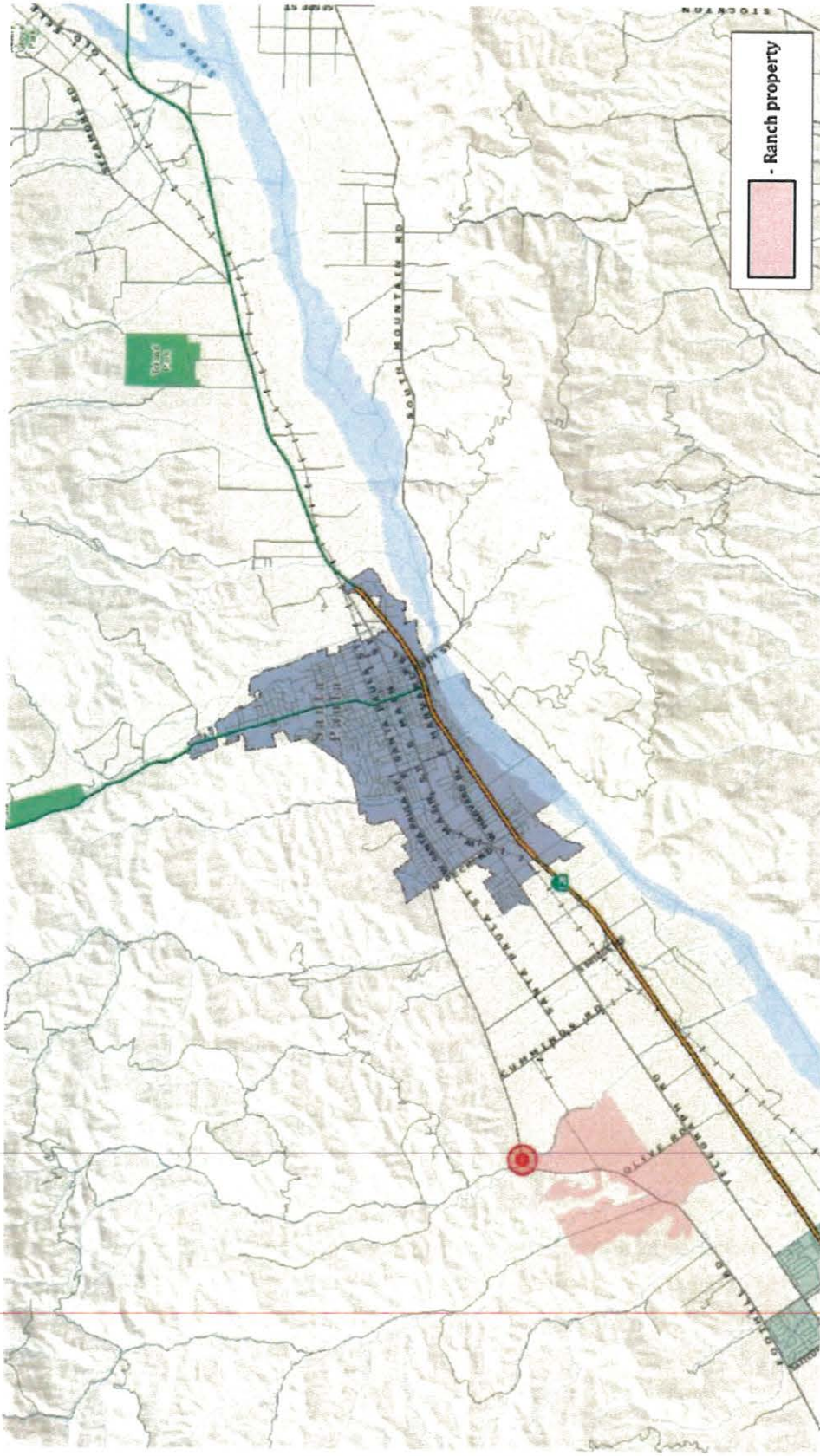


Figure 4. Location of Oliveland Ranch



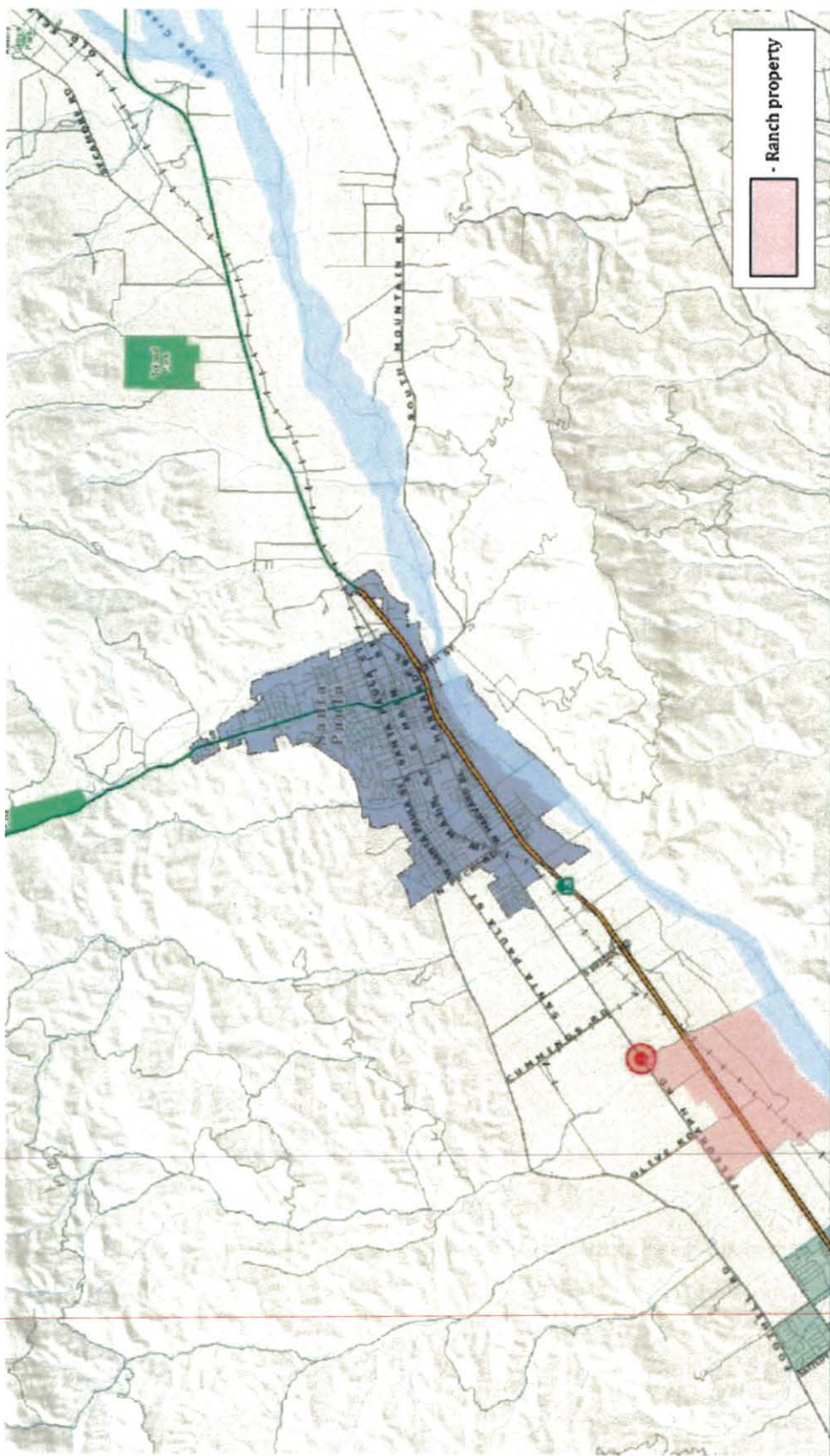


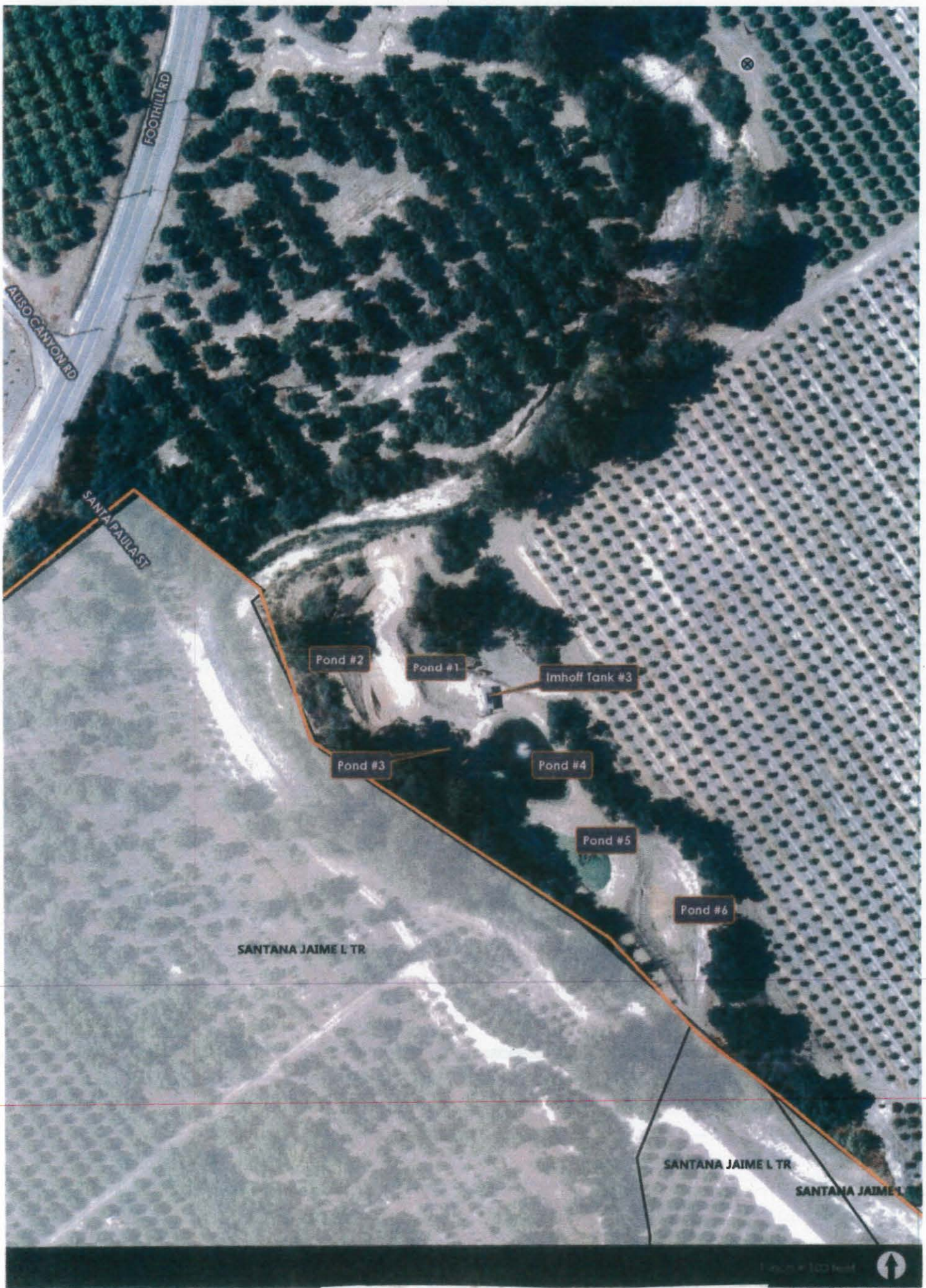
Figure 5. Location of Orchard Farm Ranch





**Figure 6. Limoneira WWTP Site Plan and Groundwater Gradient Plan**





**Figure 7. Oliveland Ranch Wastewater Treatment System**





**Figure 8.** Orchard Farm Ranch Alfalfa Irrigation Fields Site Map and Groundwater Gradient Map

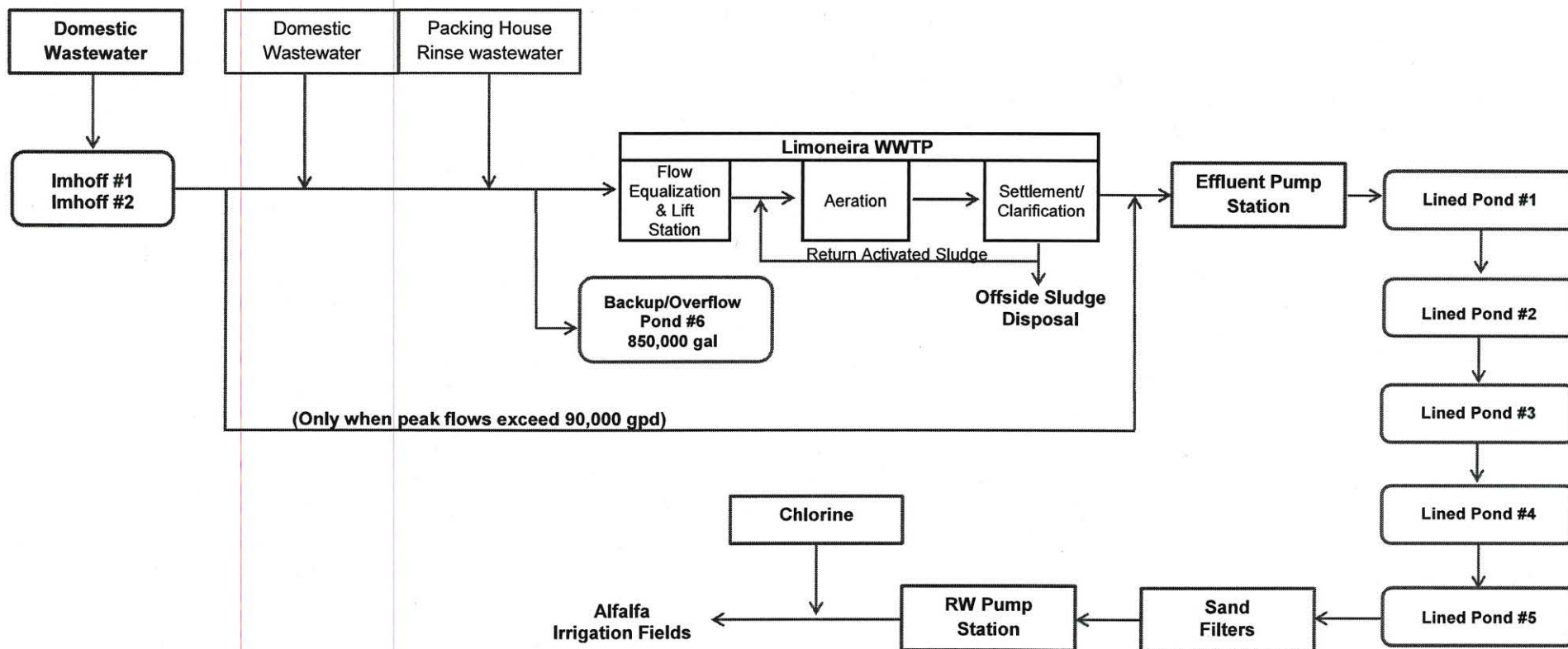


Figure 9. Limoneira Wastewater Treatment Plant Flow Chart



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

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(213) 576-6660 • Fax (213) 576-6640  
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**MONITORING AND REPORTING PROGRAM CI NO. 5322  
FOR  
LIMONEIRA COMPANY  
(FILE NO. 66-066)**

This Monitoring and Reporting Program (MRP) CI No. 5322 is issued pursuant to California Water Code Section 13267, which authorizes the Regional Water Quality Control Board, Los Angeles Region (Regional Board) to require the Limoneira Company (hereinafter, Discharger) to submit technical and monitoring reports. The reports required herein are necessary to assure compliance with Waste Discharge Requirements (WDRs) and Water Recycling Requirements (WRRs) Order No. R4-2014-0040 and to protect the waters of the state and their beneficial uses. The evidence that supports the need for the reports is set forth in the WDRs/WRRs and the Regional Board Record.

**I. SUBMITTAL OF REPORTS**

1. The Dischargers shall submit the required reports, outlined in the following paragraphs to the Regional Board. The reports shall be received at the Regional Board via GeoTracker database under Global ID WDR100001131 on the dates indicated as follows:
  - A. **Quarterly Monitoring Reports** shall be received at the Regional Board by the 15<sup>th</sup> day of the second month following the end of each quarterly monitoring period according to Table 1. The first monitoring report under this program shall be received at the Regional Board by July 15, 2014.

**Table 1. Reporting Period and Due Dates**

Reporting Period	Report Due
January - March	April 15
April - June	July 15
July - September	October 15
October – December	January 15

- B. **Annual Summary Report** shall be received at the Regional Board March 1 of each year. The first Annual Summary Report under this program shall be received at the Regional Board on March 1, 2015.

If there is no discharge during any reporting period, the report shall so state.

2. The Dischargers shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including electronic data format (EDF) groundwater monitoring data, discharge location data, and pdf monitoring to the State Water Resources Control Board (State Board) GeoTracker database under Global ID WDR100001131.



## II. MONITORING REQUIREMENTS

1. Monitoring shall be used to determine compliance with the requirements of this Order and shall include, but not limited to, the following:
  - A. Locations of each groundwater monitoring station where representative samples can be obtained and the rationale for the selection. The Discharger must include a map, at a scale of 1 inch equals 1,200 feet or less, that clearly identifies the locations of all monitoring wells, and production wells.
  - B. Sampling protocols (specified in 40 CFR Part 136 or AWWA standards where appropriate) and chain of custody procedures.
  - C. For groundwater monitoring, outline the methods and procedures to be used for measuring water levels; purging wells; collecting samples; decontaminating equipment; containing, preserving, and shipping samples, and maintaining appropriate documentation. Also include the procedures for handling, storing, testing, and disposing of purge and decontamination waters generated from the sampling events.
  - D. Laboratory or laboratories, which conducted the analyses. Include copy or copies of laboratory certifications by the California Department of Public Health (CDPH) Environmental Laboratory Accreditation Program (ELAP) every year or when the Discharger changes their contract laboratory.
  - E. Analytical test methods used and the corresponding detection limits for reporting purposes (DLRs) unregulated and regulated chemicals. For regulated chemicals, please see the CDPH's website at:  
<http://www.cdph.ca.gov/certlic/drinkingwater/Pages/EDT.aspx>
  - F. Quality assurance and control measures.
2. The samples shall be analyzed using analytical methods described in 40 CFR Part 136; or where no methods are specified for a given pollutant, by commercially available methods approved by the CDPH, Regional Board and/or State Board. The Discharger shall select the analytical methods that provide reporting detection limits (DLRs) lower than the limits prescribed in this Order.
3. The Discharger shall instruct its laboratories to establish calibration standards so that the DLRs (or its equivalent if there is a different treatment of samples relative to calibration standards) are the lowest calibration standard. At no time shall the Discharger use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
4. Upon request by the Discharger, the Regional Board, in consultation with the CDPH and the State Board Quality Assurance Program, may establish DLRs, in any of the following situations:

- A. When the pollutant has no established method under 40 CFR 136 (revised May14, 1999, or subsequent revision);
  - B. When the method under 40 CFR 136 for the pollutant has a DLR higher than the limit specified in this Order; or,
  - C. When the Discharger agrees to use a test method that is more sensitive than those specified in 40 CFR Part 136 and is commercially available.
5. Samples of disinfected effluent must be analyzed within allowable holding time limits as specified in 40 CFR Part 136.3. All QA/QC analyses must be run on the same dates when samples were actually analyzed. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff. Proper chain of custody procedures must be followed and a copy of that documentation shall be submitted with the quarterly report.
6. For unregulated chemical analyses, the Discharger shall select methods according to the following approach:
- A. Use drinking water methods, if available;
  - B. Use CDPH-recommended methods for unregulated chemicals, if available;
  - C. If there is no CDPH-recommended drinking water method for a chemical, and more than a single EPA-approved method is available, use the most sensitive of the EPA-approved methods;
  - D. If there is no EPA-approved method for a chemical, and more than one method is available from the scientific literature and commercial laboratory, after consultation with CDPH, use the most sensitive method;
  - E. If no approved method is available for a specific chemical, the Discharger's laboratory may develop or use its own methods and should provide the analytical methods to CDPH for review. Those methods may be used until CDPH recommended or EPA-approved methods are available.
  - F. If the only method available for a chemical is for wastewater analysis (e.g., a chemical listed as a priority pollutant only), sample and analyze for that chemical in the treated and disinfected effluent immediately increase the likelihood of detection. Use this approach until the Discharger's laboratory develops a method for the chemical in drinking water, or until a CDPH-recommended or EPA-approved drinking water method is available.
  - G. The Discharger is required to inform the Regional Board, in event that D, E, F is occurring.

### III. REPORTING REQUIREMENTS

The Discharger shall submit all reports, shown on Section I SUBMITTAL OF REPORTS to the Regional Board by the dates indicated. All quarterly, and annual monitoring reports should contain a separate section titled "Summary of Non-Compliance", which discusses the compliance records and corrective actions taken or planned that may be needed to bring the reuse into full compliance with water recycling requirements. This section shall clearly list all non-compliance with WDRs and WRRs, as well as all excursions of effluent limitations.

#### 1. Quarterly reports

- A. These reports shall include, at a minimum, the following information:
  - a. The volume of the final effluent and the final effluent used for recycled water. If no recycled water is used during the quarter, the report shall so state.
  - b. The date and time of sampling and analyses.
  - c. All analytical results of samples collected during the monitoring period of the final effluent and groundwater.
  - d. Records of any operational problems, plant upset and equipment breakdowns or malfunctions, and any discharge(s) of the final effluent and the final effluent used for recycled water.
  - e. Discussion of compliance, noncompliance, or violation of requirements.
  - f. All corrective or preventive action(s) taken or planned with schedule of implementation, if any.
- B. For the purpose of reporting compliance with numerical limitations, analytical data shall be reported using the following reporting protocols:
  - a. Sample results greater than or equal to the DLR must be reported "as measured" by the laboratory (i.e., the measured chemical concentration in the sample); or
  - b. Sample results less than the DLR, but greater than or equal to the laboratory's method detection limit (MDL), must be reported as "Detected, but Not Quantified", or DNQ. The laboratory must write the estimated chemical concentration of the sample next to DNQ as well as the words "Estimated Concentration" (may be shortened to Est. Conc.); or
  - c. Sample results less than the laboratory's MDL must be reported as "Not-Detected", or ND.



- C. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any sample more frequently than required in this MRP using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with average effluent, receiving groundwater water, etc., limitations.
- D. The Regional Board may request supporting documentation, such as daily logs of operations.

## **2. Annual Reports**

- A. Tabular and graphical summaries of the monitoring data obtained during the previous calendar year.
- B. Discussion of the compliance record and corrective or preventive action(s) taken or planned that may be needed to bring the treated effluent, including the treated effluent used for recycled water, into full compliance with the requirements in this Order.
- C. An in-depth discussion of the results of the groundwater monitoring and final effluent monitoring programs conducted during the previous year.
- D. The description of any changes and anticipated changes including any impacts in operation of any unit processes or facilities shall be provided.
- E. A list of the analytical methods employed for each test and associated laboratory quality assurance/quality control procedures shall be included. The report shall restate, for the record, the laboratories used by the Discharger to monitor compliance with this Order, their status of certification, and provide a summary of performance.
- F. The report shall confirm operator certification and provide a list of current operating personnel, their responsibilities, and their corresponding grade of certification.
- H. The report shall also include the date of the Limoneira Wastewater Treatment Plant (Plant)'s Operation and Maintenance Management Plan, the date the plan was last reviewed, and whether the plan is complete and valid for the current Plant.
- I. The groundwater monitoring portion of the annual report shall be prepared under the direction of an engineer registered in the State of California, or a certified hydrogeologist in California, and experienced in the field of recycled water practices. All groundwater monitoring reports must include, at minimum, the following:



- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification; and,
- c. Quarterly observation of groundwater levels, recorded to .01 feet mean sea level, flow direction.

If there is no discharge or water recycled during any reporting period, the report shall so state.

#### IV. WATER QUALITY MONITORING REQUIREMENTS

##### 1. EFFLUENT MONITORING REQUIREMENTS FOR RECYCLED WATER

A sampling station shall be established where representative samples of recycled water can be obtained prior to discharge by spray irrigation to the alfalfa field. Recycled water samples may be obtained at a single station provided that station is representative of the quality at all discharge points. Each sampling station shall be identified.

The following shall constitute the effluent monitoring program for recycled water, specified in Table 2:

**Table 2. Effluent Monitoring**

Constituent	Units <sup>2</sup>	Type of Sample	Minimum Frequency <sup>3</sup> of Analysis
Total Flow <sup>1</sup>	gallon/day	recorder	continuous
pH	pH units	grab	monthly
BOD <sub>5</sub> 20°C	mg/L	grab	quarterly
Total suspended solids	mg/L	grab	quarterly
Oil & grease	mg/L	grab	quarterly
MBAS (Surfactants)	mg/L	grab	quarterly
Total phosphorus as P	mg/L	grab	quarterly
Nitrite as Nitrogen	mg/L	grab	monthly
Nitrate as Nitrogen	mg/L	grab	monthly
Ammonia as Nitrogen	mg/L	grab	monthly
Organic Nitrogen	mg/L	grab	monthly
Total Kjeldahl Nitrogen	mg/L	grab	monthly
Total nitrogen <sup>4</sup>	mg/L	grab	monthly
Turbidity	NTU	grab	monthly
Total coliform	MPN/100mL	grab	monthly
Fecal coliform	MPN/100mL	grab	monthly
E. coli	MPN/100mL	grab	monthly
Enterococcus	MPN/100mL	grab	monthly

Constituent	Units <sup>2</sup>	Type of Sample	Minimum Frequency <sup>3</sup> of Analysis
Total dissolved solids	mg/L	grab	quarterly
Sulfate	mg/L	grab	quarterly
Chloride	mg/L	grab	quarterly
Boron	mg/L	grab	quarterly
Total residual chlorine	mg/L	grab	quarterly
Glyphosate	mg/L	grab	quarterly
Simazine	mg/L	grab	quarterly
Abamectin	mg/L	grab	quarterly
Norflurazon	mg/L	grab	quarterly
Chlorpyrifos	mg/L	grab	quarterly
Metalddehyde	mg/L	grab	quarterly
Total trihalomethanes (TTHMs)	mg/L	grab	semiannually
Priority pollutants <sup>5</sup>	µg/L	grab	annually
CECs <sup>6</sup>	µg/L	grab	annually <sup>7</sup>

<sup>1</sup>For those constituents that are continuously monitored the Discharger shall report the minimum, maximum, and daily average values

<sup>2</sup>mg/L=milligrams per liter; µg/L= micrograms per liter; MPN/100mL=most probable number per 100 milliliters; NTU= Nephelometric turbidity units

<sup>3</sup>If any constituent exceeds the baseline water quality data, then the frequency of analysis shall increase to monthly until at least three consecutive test results have been obtained. After which if no constituents exceed the baseline, the frequency of analysis shall revert back to quarterly.

<sup>4</sup>Total nitrogen = nitrate-N + nitrite-N + ammonia-N + Organic Nitrogen

<sup>5</sup>See Appendix A to 40 CFR, Part 423 for list of priority pollutants

<sup>6</sup>See Attachment B for the list of California Constituents of Emerging Concern (CECs)

<sup>7</sup>Effluent monitoring for Constituents of Emerging Concern (CECs) shall be performed during the first year of the WDRs adoption, and every five (5) years thereof.

## 2. GROUNDWATER MONITORING PROGRAM

The following shall constitute the groundwater monitoring program for the Limoneira Company, specified in Table 3:

**Table 3. Groundwater monitoring**

Constituent	Units <sup>1</sup>	Type of Sample	Minimum Frequency <sup>2</sup> of Analysis
pH	pH units	grab	quarterly
BOD <sub>5</sub> 20°C	mg/L	grab	Quarterly
Nitrite as Nitrogen	mg/L	grab	Quarterly
Nitrate as Nitrogen	mg/L	grab	Quarterly
Ammonia as Nitrogen	mg/L	grab	Quarterly
Organic Nitrogen	mg/L	grab	Quarterly
Total phosphorus as P	mg/L	grab	Quarterly

Constituent	Units <sup>1</sup>	Type of Sample	Minimum Frequency <sup>2</sup> of Analysis
MBAS (surfactants)	mg/L	grab	Quarterly
Total Nitrogen <sup>3</sup>	mg/L	grab	Quarterly
Total dissolved solids	mg/L	grab	Quarterly
Sulfate	mg/L	grab	Quarterly
Chloride	mg/L	grab	Quarterly
Boron	mg/L	grab	Quarterly
Total coliform	MPN/100mL	grab	Quarterly
Fecal coliform	MPN/100mL	grab	Quarterly
Enterococcus	MPN/100mL	grab	Quarterly
E. coli	MPN/100mL	grab	Quarterly
Glyphosate	mg/L	grab	Quarterly
Simazine	mg/L	grab	Quarterly
Abamectin	mg/L	grab	Quarterly
Norflurazon	mg/L	grab	Quarterly
Chlorpyrifos	mg/L	grab	Quarterly
Metaldehyde	mg/L	grab	Quarterly
Priority pollutants <sup>4</sup>	µg/L	grab	Annually

<sup>1</sup>mg/L=milligrams per liter; µg/L=micrograms per liter; MPN/100mL = most probable number (MPN) per 100 milliliters.

<sup>2</sup>If any constituent exceeds the baseline water quality data, then the frequency of analysis shall increase to monthly until at least three consecutive test results have been obtained. After which if no constituents exceed the baseline, the frequency of analysis shall revert back to quarterly.

<sup>3</sup>Total nitrogen = nitrate-N + nitrite-N + ammonia-N + Organic Nitrogen

<sup>4</sup>See Appendix A to 40 CFR, Part 423 for list of priority pollutants

All groundwater monitoring reports must include, at minimum, the following:

- Well identification, date and time of sampling;
- Sampler identification, and laboratory identification; and
- Quarterly observation of groundwater levels, recorded to .01 feet mean sea level, flow direction.
- Vertical separation of the water table from the bottom of the seepage pits.

## V. GENERAL MONITORING AND REPORTING REQUIREMENTS

- The Discharger shall comply with all Standard Provisions related to monitoring, reporting, and recordkeeping.
- For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the treated effluent and/or treated effluent used for the recycled water program into full compliance with requirements at the earliest possible time, and submit a timetable for implementation of the corrective measures.



3. Monitoring reports shall be signed by either the principal Executive Officer or ranking elected official. A duly authorized representative of the aforementioned signatories may sign documents if:
  - A. The authorization is made in writing by the signatory;
  - B. The authorization specifies the representative as either an individual or position having responsibility for the overall operation of the regulated facility or activity; and,

The written authorization is submitted to the Executive Officer of this Regional Board.

4. The monitoring report shall contain the following completed declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the \_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_(Signature)

\_\_\_\_\_(Title)"

5. The Discharger shall retain records of all monitoring information, including all calibration and maintenance, monitoring instrumentation, and copies of all reports required by this Order, for a period of at least three (3) years from the date of sampling measurement, or report. This period may be extended by request of the Regional Board at any time and shall be extended during the course of any unresolved litigation regarding the regulated activity.
6. Records of monitoring information shall include:
  - A. The date, exact place, and time of sampling or measurements;
  - B. The individual(s) who performed the sampling or measurements;
  - C. The date(s) analyses were performed;
  - D. The individual(s) who performed the analysis;
  - E. The analytical techniques or methods used; and

F. The results of such analyses.

7. The Discharger shall submit to the Regional Board, together with the first monitoring report required by this Order, a list of all chemicals and proprietary additives which could affect the quality of the treated effluent and the treated effluent used for recycled water, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly. An annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used in the treatment process shall be included in the annual report.

#### **VI. WASTE HAULING REPORTING**

In the event that waste oil and grease, sludge, or other wastes are hauled offsite, the name and address of the hauler shall be reported, along with types and quantities hauled during the reporting period and the location of final point of disposal. In the event that no wastes are hauled during the reporting period, a statement to that effect shall be submitted.

#### **VII. MONITORING FREQUENCIES**

Monitoring frequencies may be adjusted to a less frequent basis or parameters dropped by the Executive Officer if the Discharger makes a request and the Executive Officer determines that the request is adequately supported by statistical trends of monitoring data submitted.

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by: Samuel Unger  
Samuel Unger, P.E.  
Executive Officer

Date: April 10, 2014



## Appendix A to 40 CFR, Part 423--126 Priority Pollutants

001 Acenaphthene	047 Bromoform (tribromomethane)	090 Dieldrin
002 Acrolein	048 Dichlorobromomethane	091 Chlordane (technical mixture and metabolites)
003 Acrylonitrile	051 Chlorodibromomethane	092 4,4-DDT
004 Benzene	052 Hexachlorobutadiene	093 4,4-DDE (p,p-DDX)
005 Benzidine	053 Hexachloromyclopentadiene	094 4,4-DDD (p,p-TDE)
006 Carbon tetrachloride (tetrachloromethane)	054 Isophorone	095 Alpha-endosulfan
007 Chlorobenzene	055 Naphthalene	096 Beta-endosulfan
008 1,2,4-trichlorobenzene	056 Nitrobenzene	097 Endosulfan sulfate
009 Hexachlorobenzene	057 2-nitrophenol	098 Endrin
010 1,2-dichloroethane	058 4-nitrophenol	099 Endrin aldehyde
011 1,1,1-trichloroethane	059 2,4-dinitrophenol	100 Heptachlor
012 Hexachloroethane	060 4,6-dinitro-o-cresol	101 Heptachlor epoxide (BHC-hexachlorocyclohexane)
013 1,1-dichloroethane	061 N-nitrosodimethylamine	102 Alpha-BHC
014 1,1,2-trichloroethane	062 N-nitrosodiphenylamine	103 Beta-BHC
015 1,1,2,2-tetrachloroethane	063 N-nitrosodi-n-propylamin	104 Gamma-BHC (lindane)
016 Chloroethane	064 Pentachlorophenol	105 Delta-BHC (PCB-polychlorinated biphenyls)
018 Bis(2-chloroethyl) ether	065 Phenol	106 PCB-1242 (Arochlor 1242)
019 2-chloroethyl vinyl ether (mixed)	066 Bis(2-ethylhexyl) phthalate	107 PCB-1254 (Arochlor 1254)
020 2-chloronaphthalene	067 Butyl benzyl phthalate	108 PCB-1221 (Arochlor 1221)
021 2,4, 6-trichlorophenol	068 Di-N-Butyl Phthalate	109 PCB-1232 (Arochlor 1232)
022 Parachlorometa cresol	069 Di-n-octyl phthalate	110 PCB-1248 (Arochlor 1248)
023 Chloroform (trichloromethane)	070 Diethyl Phthalate	111 PCB-1260 (Arochlor 1260)
024 2-chlorophenol	071 Dimethyl phthalate	112 PCB-1016 (Arochlor 1016)
025 1,2-dichlorobenzene	072 1,2-benzanthracene (benzo(a)anthracene)	113 Toxaphene
026 1,3-dichlorobenzene	073 Benzo(a)pyrene (3,4-benzo-pyrene)	114 Antimony
027 1,4-dichlorobenzene	074 3,4-Benzofluoranthene (benzo(b)fluoranthene)	115 Arsenic
028 3,3-dichlorobenzidine	075 11,12-benzofluoranthene (benzo(b)fluoranthene)	116 Asbestos
029 1,1-dichloroethylene	076 Chrysene	117 Beryllium
030 1,2-trans-dichloroethylene	077 Acenaphthylene	118 Cadmium
031 2,4-dichlorophenol	078 Anthracene	119 Chromium
032 1,2-dichloropropane	079 1,12-benzoperylene (benzo(ghi)perylene)	120 Copper
033 1,2-dichloropropylene (1,3-dichloropropene)	080 Fluorene	121 Cyanide, Total
034 2,4-dimethylphenol	081 Phenanthrene	122 Lead
035 2,4-dinitrotoluene	082 1,2,5,6-dibenzanthracene (dibenzo(h)anthracene)	123 Mercury
036 2,6-dinitrotoluene	083 Indeno (1,2,3-cd) pyrene (2,3-o-pheynylene pyrene)	124 Nickel
037 1,2-diphenylhydrazine	084 Pyrene	125 Selenium
038 Ethylbenzene	085 Tetrachloroethylene	126 Silver
039 Fluoranthene	086 Toluene	127 Thallium
040 4-chlorophenyl phenyl ether	087 Trichloroethylene	126 Silver
041 4-bromophenyl phenyl ether	088 Vinyl chloride (chloroethylene)	128 Zinc
042 Bis(2-chloroisopropyl) ether	089 Aldrin	129 2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD)
043 Bis(2-chloroethoxy) methane		
044 Methylene chloride (dichloromethane)		
045 Methyl chloride (dichloromethane)		
046 Methyl bromide (bromomethane)		



## ATTACHMENT B

Parameter	Units
17 $\alpha$ -Ethinyl Estradiol	ng/L
17 $\beta$ -Estradiol	ng/L
Estrone	ng/L
Bisphenol A	ng/L
Nonylphenol and nonylphenol polyethoxylates	ng/L
Octylphenol and octylphenol polyethoxylates	ng/L
Polybrominated diphenyl ethers	ng/L
Acetaminophen	ng/L
Amoxicillin	ng/L
Azithromycin	ng/L
Carbamazepine	ng/L
Caffeine	ng/L
Ciprofloxacin	ng/L
DEET	ng/L
Dilantin	ng/L
Gemfibrozil	ng/L
Ibuprofen	ng/L
Lipitor	ng/L
Primidone	ng/L
Sulfamethoxazole	ng/L
Trimethoprim	ng/L
Salicylic acid	ng/L
TCEP	ng/L
Triclosan	ng/L

STANDARD PROVISIONS  
APPLICABLE TO WASTE DISCHARGE REQUIREMENTS

1. DUTY TO COMPLY

The discharger must comply with all conditions of these waste discharge requirements. A responsible party has been designated in the Order for this project, and is legally bound to maintain the monitoring program and permit. Violations may result in enforcement actions, including Regional Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Regional Board. [CWC Section 13261, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350]

2. GENERAL PROHIBITION

Neither the treatment nor the discharge of waste shall create a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code (CWC). [H&SC Section 5411, CWC Section 13263]

3. AVAILABILITY

A copy of these waste discharge requirements shall be maintained at the discharge facility and be available at all times to operating personnel. [CWC Section 13263]

4. CHANGE IN OWNERSHIP

The discharger must notify the Executive Officer, in writing at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. [CWC Sections 13267 and 13263]

5. CHANGE IN DISCHARGE

In the event of a material change in the character, location, or volume of a discharge, the discharger shall file with this Regional Board a new Report of Waste Discharge. [CWC Section 13260(c)]. A material change includes, but is not limited to, the following:

- (a) Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the Waste.
- (b) Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.

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- (c) Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed from the original area potentially causing different water quality or nuisance problems.
- (d) Increase in flow beyond that specified in the waste discharge requirements.
- (e) Increase in the area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements. [CCR Title 23 Section 2210]

6. REVISION

These waste discharge requirements are subject to review and revision by the Regional Board. [CCR Section 13263]

7. TERMINATION

Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information. [CWC Sections 13260 and 13267]

8. VESTED RIGHTS

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the discharger from his liability under Federal, State or local laws, nor do they create a vested right for the discharger to continue the waste discharge. [CWC Section 13263(g)]

9. SEVERABILITY

Provisions of these waste discharge requirements are severable. If any provisions of these requirements are found invalid, the remainder of the requirements shall not be affected. [CWC Section 921]

10. OPERATION AND MAINTENANCE

The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order. [CWC Section 13263(f)]



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11. HAZARDOUS RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the discharger is in violation of a prohibition in the applicable Water Quality Control plan. [CWC Section 1327(a)]

12. PETROLEUM RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with Section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. This provision does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan. [CWC Section 13272]

13. ENTRY AND INSPECTION

The discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the discharger's 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;

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- (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 location. [CWC Section 13267]

14. MONITORING PROGRAM AND DEVICES

The discharger shall furnish, under penalty of perjury, technical monitoring program reports; such reports shall be submitted in accordance with specifications prepared by the Executive Officer, which specifications are subject to periodic revisions as may be warranted. [CWC Section 13267]

All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year, or more frequently, to ensure continued accuracy of the devices. Annually, the discharger shall submit to the Executive Office a written statement, signed by a registered professional engineer, certifying that all flow measurement devices have been calibrated and will reliably achieve the accuracy required.

Unless otherwise permitted by the Regional Board Executive officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. The Regional Board Executive Officer may allow use of an uncertified laboratory under exceptional circumstances, such as when the closest laboratory to the monitoring location is outside the State boundaries and therefore not subject to certification. All analyses shall be required to be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" [40CFR Part 136] promulgated by the U.S. Environmental Protection Agency. [CCR Title 23, Section 2230]

TREATMENT FAILURE

In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or to reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost. [CWC Section 13263(f)]

15. DISCHARGE TO NAVIGABLE WATERS

Any person discharging or proposing to discharge to navigable waters from a point source (except for discharge of dredged or fill material subject to Section 404 of the

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Clean Water Act and discharge subject to a general NPDES permit) must file an NPDES permit application with the Regional Board. [CCR Title 2 Section 22357]

16. ENDANGERMENT TO HEALTH AND ENVIRONMENT

The discharger shall report any noncompliance which may endanger health or the environment. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The following occurrence(s) must be reported to the Executive Office within 24 hours:

- (a) Any bypass from any portion of the treatment facility.
- (b) Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge or any other circumstances.
- (c) Any treatment plant upset which causes the effluent limitation of this Order to be exceeded. [CWC Sections 13263 and 13267]

17. MAINTENANCE OF RECORDS

The discharger shall retain records of all monitoring information including all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies off all reports required by this Order, and record of all data used to complete the application for this Order. Records shall be maintained for a minimum of three years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.

Records of monitoring information shall include:

- (a) The date, exact place, and time of sampling or measurement;
- (b) The individual(s) who performed the sampling or measurement;
- (c) The date(s) analyses were performed;
- (d) The individual(s) who performed the analyses;
- (e) The analytical techniques or method used; and



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- (f) The results of such analyses.
18. (a) All application reports or information to be submitted to the Executive Office shall be signed and certified as follows:
- (1) For a corporation – by a principal executive officer or at least the level of vice president.
  - (2) For a partnership or sole proprietorship – by a general partner or the proprietor, respectively.
  - (3) For a municipality, state, federal, or other public agency – by either a principal executive officer or ranking elected official.
- (b) A duly authorized representative of a person designated in paragraph (a) of this provision may sign documents if:
- (1) The authorization is made in writing by a person described in paragraph (a) of this provision.
  - (2) The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
  - (3) The written authorization is submitted to the Executive Officer.

Any person signing a document under this Section shall make the following certification:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. [CWC Sections 13263, 13267, and 13268]”

19. OPERATOR CERTIFICATION

Supervisors and operators of municipal wastewater treatment plants and privately owned facilities regulated by the PUC, used in the treatment or reclamation of sewage and industrial waste shall possess a certificate of appropriate grade in accordance with Title 23, California Code of Regulations Section 3680. State Boards may accept experience in lieu of qualification training. In lieu of a properly certified wastewater treatment plant operator, the State Board may approve use of a water treatment plant operator of appropriate grade certified by the State Department of Health Services where reclamation is involved.

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Each plant shall be operated and maintained in accordance with the operation and maintenance manual prepared by the municipality through the Clean Water Grant Program [CWC Title 23, Section 2233(d)]

ADDITIONAL PROVISIONS APPLICABLE TO  
PUBLICLY OWNED TREATMENT WORKS' ADEQUATE CAPACITY

20. Whenever a publicly owned wastewater treatment plant will reach capacity within four years the discharger shall notify the Regional Board. A copy of such notification shall be sent to appropriate local elected officials, local permitting agencies and the press. The discharger must demonstrate that adequate steps are being taken to address the capacity problem. The discharger shall submit a technical report to the Regional Board showing flow volumes will be prevented from exceeding capacity, or how capacity will be increased, within 120 days after providing notification to the Regional Board, or within 120 days after receipt of notification from the Regional Board, of a finding that the treatment plant will reach capacity within four years. The time for filing the required technical report may be extended by the Regional Board. An extension of 30 days may be granted by the Executive Officer, and longer extensions may be granted by the Regional Board itself. [CCR Title 23, Section 2232]