Central Valley Regional Water Quality Control Board

25 November 2025

Thomas Miller
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NOTICE OF APPLICABILITY

GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS ORDER WQ 2014-0153-DWQ-R5432 FOR CIRCLE OAKS WASTEWATER TREATMENT FACILITY CIRCLE OAKS COUNTY WATER DISTRICT NAPA COUNTY

On 8 July 2021, SHN Engineers and Geologists, Inc., on behalf of the Circle Oaks County Water District (COCWD), submitted a Report of Waste Discharge (RWD) describing the Circle Oaks Wastewater Treatment Facility (WWTF) located in Napa County. Based on information provided in the RWD, the wastewater treatment system and discharge are consistent with the requirements of the State Water Resources Control Board (State Water Board) General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems, Order WQ 2014-0153-DWQ (General Order). This Notice of Applicability (NOA) serves as formal notice that the discharge shall be regulated pursuant to the General Order and this NOA. You are hereby assigned Order WQ 2014-0153-DWQ-R5432 for the discharge. A copy of the General Order is enclosed and also available at:

https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/wq-2014-0153-dwq.pdf

You should familiarize yourself with the entire General Order and its attachments, which describe mandatory discharge and monitoring requirements. The General Order contains operational and reporting requirements by wastewater system type. Sampling, monitoring, and reporting requirements applicable to your treatment and disposal methods must be completed in accordance with the appropriate treatment system sections of the General Order and the attached Monitoring and Reporting Program

(MRP) 2014-0153-DWQ-R5432. The Discharger is responsible for all the applicable requirements that exist in the General Order and this NOA.

REGULATORY BACKGROUND

Waste Discharge Requirements (WDRs) Order 94-097, adopted by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) on 22 April 1994, prescribes requirements for wastewater treatment and disposal at the Circle Oaks WWTF. Upon issuance of this NOA, WDRs Order 94-097 will be rescinded at an upcoming Central Valley Water Board meeting. Effective upon recission of Order 94-097, the discharge as described in this NOA shall be regulated pursuant to the General Order.

EXISTING FACILITY AND DISCHARGE DESCRIPTION

Circle Oaks County Water District (hereafter “Discharger”) owns and operates the Circle Oaks WWTF located approximately 13 miles northeast of Napa, near the intersection of Highway 121 and Longhorn Ridge Road (Section 33, T7N, R3W, MDB&M), as shown on Attachment A, which is attached hereto and is made part of this NOA by reference. The WWTF services the Circle Oaks subdivision, which consists of approximately 187 single-family residences. The collection system consists of pipelines and manholes. Wastewater gravity flows to a series of three stabilization ponds. Flows are measured using a Parshall flume and digital flow recorder. The ponds are operated in series. Pumps located in Ponds 1 and 2 allow wastewater to be pumped from Pond 1 to Pond 2 and from Pond 2 to Pond 3. Overflow pipes are located between Ponds 1 and 2 and between Ponds 2 and 3. Aerators are in Ponds 1 and 2 and a sprinkler evaporation system is located along the south berm of Pond 3. The site plan is shown on Attachment B, which is attached hereto and is made part of this NOA by reference. Pond capacities at 2-foot of freeboard are summarized below.

Table 1. Pond Summary

Pond Name	Capacity at 2-feet of freeboard
Pond 1	62,500 gallons
Pond 2	72,500 gallons
Pond 3	112,000 gallons

GROUNDWATER AND SITE CONDITIONS

In 2006, five (5) groundwater monitoring wells (MW-1 through MW-5) were installed to monitor first-encountered groundwater near the wastewater ponds. The horizontal direction of groundwater flow is primarily to the west and generally towards Capell Creek. Groundwater is shallow within 10 feet from top of well casing, with the exception of well MW-2 based on 2022 data. Monitoring well information is summarized below.

Table 2. Monitoring Well Summary

Well Name	Depth to Water, feet below ground surface (range based on available data up to 2024)	Function
MW-1	0.0 – 20.7	Background Well
MW-2	6.1 – 21.6	Down-gradient Well
MW-3	3.2 - 15.8	Down-gradient Well
MW-4	2.3 – 12.7	Down-gradient Well
MW-5	0.0 – 17.8	Down-gradient Well

SITE-SPECIFIC REQUIREMENTS

The General Order contains prohibitions and specifications that apply to all wastewater treatment systems as well as those that only apply to specific treatment and/or disposal systems. The specific requirements and effluent limits for your treatment system are summarized below.

1. Prohibitions Section A.

   This section applies in its entirety.

2. Requirements by Wastewater System Type Section B.1.a.

   This section applies in its entirety.

2. Requirements by Wastewater System Type Sections B.1.b through B.1.l

   For Section B.1.l., the Discharger shall comply with the following setback requirements in accordance with Table 3 of the General Order.

Table 3 - Wastewater System Setback

Equipment or Activity	Domestic Well	Flowing Stream	Ephemeral Stream Drainage	Property Line	Lake or Reservoir
Treatment System, or Collection System	150 ft	50 ft	50 ft	5 ft	200 ft
Ponds	150 ft	150 ft	150 ft	50 ft	200 ft

This is an existing facility, constructed prior to the issuance of the General Order. Wastewater system setbacks for existing operations may not be in compliance with those in the table above. The WWTF is permitted under this General Order provided that nuisance conditions do not result from noncompliance. Expansion of a noncomplying wastewater treatment system shall trigger further evaluation of the setbacks, as described in Section B.1.I of the General Order.

3. Requirements by Pond Systems Section B.5.

   The WWTF utilizes a pond system; therefore Section B.5 of the General Order applies in its entirety.

4. Requirements by Sludge/Solids/Biosolids Disposal Section B.8.

   The WWTF utilizes a pond system that will accumulate solids; therefore Section B.8 of the General Order applies in its entirety.

5. Effluent Limitations Section D.

   The pond system is not subject to technology performance effluent limits for biochemical oxygen demand (BOD) as specified in the General Order. Wastewater disposal is by means of evaporation and percolation. Treatment is performed through the soil column.

   Staff evaluated the need for a total nitrogen effluent limit using the method contained in the General Order. Based on historical data, the annual average wastewater flow exceeds 20,000 gpd, therefore a total nitrogen effluent limit is required.

Table 4 - Effluent Limitations

Constituent	Units	Limit
Nitrate as Nitrogen	mg/L	10

6. Provisions Section E

   Section E.1.a, E.1.b, E.1.c, E.2, and E.3 of the General Order applies. Provisions E.1 requires Dischargers enrolled under the General Order to prepare and implement the following reports within 90 days of the issuance of the NOA:

   - Spill Prevention and Emergency Response Plan (Provision E.1.a)
   - Sampling and Analysis Plan (Provision E.1.b)
   - Sludge Management Plan (Provision E.1.c)

The General Order requires that the Sludge Management Plan be submitted to the Central Valley Water Board within **90 days of the issuance of the NOA**. A copy of the Spill Prevention and Emergency Response Plan and the Sampling and Analysis Plan shall be maintained at the treatment facility and shall be presented to the Central Valley Water Board staff upon request.

SALT AND NITRATE CONTROL PROGRAM

The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. The Basin Plan amendments were conditionally approved by the State Water Resources Control Board on 16 October 2019 (Resolution 2019-0057) and by the Office of Administrative Law on 15 January 2020 (OAL Matter No. 2019-1203-03).

a. For salinity, dischargers that are unable to comply with stringent salinity requirements will instead need to meet performance-based requirements and participate in a basin-wide effort to develop a long-term salinity strategy for the Central Valley. The Discharger enrolled in the Salt Control Program and participates in the Prioritization and Optimization Study (**CV-SALTS ID: 1899**).

b. For the Nitrate Control Program, the Facility currently falls outside of any prioritized Groundwater Basin, so no action is required at this time.

As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of this NOA to ensure the goals of the Salt and Nitrate Control Programs are met. More information regarding this regulatory planning process can be found on the Central Valley Water Board CV-SALTS website

(https://www.waterboards.ca.gov/centralvalley/water_issues/salinity).

MONITORING AND REPORTING PROGRAM

The Discharger shall comply with MRP WQ 2014-0153-DWQ-R5432, which is incorporated herein.

ENFORCEMENT

Please review this NOA carefully to ensure that it completely and accurately reflects the discharge. Discharge of wastes other than those described in this NOA is prohibited. Prior to allowing changes to the wastewater strength or generation rate, or to the method of waste disposal, you must contact the Central Valley Water Board to determine if submittal of a RWD is required.

COCWD generates waste subject to the terms and conditions of WQ 2014-0153-DWQ and will maintain exclusive control over the discharge. As such, COCWD is primarily responsible for compliance with this NOA, MRP, and General Order, with all attachments. Failure to comply with the requirements in the General Order or this NOA could result in an enforcement action as authorized by provisions of the California Water Code.

DOCUMENT SUBMITTALS

The Discharger must submit all monitoring reports and analytical monitoring results to the State Water Resources Control Board's (State Water Board's) GeoTracker database. GeoTracker is an Internet-accessible database system used by the State Water Board, regional boards, and local agencies to track and archive compliance data from authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from underground storage tanks. This system consists of a relational database, online compliance reporting features, a geographical information system (GIS) interface, and other features that are utilized by regulatory agencies, regulated industries, and the public to input, manage, or access compliance and regulatory tracking data.

GeoTracker Electronic Reporting Requirements. All monitoring reports and monitoring results shall be submitted to GeoTracker in accordance with the timeframes specified in this MRP and in searchable Portable Document Format (PDF). The Discharger shall follow the applicable Electronic Submittal of Information (ESI) requirements under the Facility-specific **Global Identification Number WDR100029468** at the GeoTracker database.

(https://geotracker.waterboards.ca.gov/esi/login.asp)

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Resources Control Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Resources Control Board must receive the petition by 5:00 p.m., 30 days after the date of this NOA, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Resources Control Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions are available to the public on the internet at the Water Boards Water Quality Petitions webpage (https://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

Now that the Notice of Applicability has been issued, the Central Valley Water Board's Compliance and Enforcement section will take over management of your case. Howard Hold is your new point of contact for any questions about the NOA or General Order. If

you find it necessary to make a change to your permitted operations, Howard will direct you to the appropriate Permitting staff. You may contact Howard at (916) 464-4679 or at howard.hold@waterboards.ca.gov.

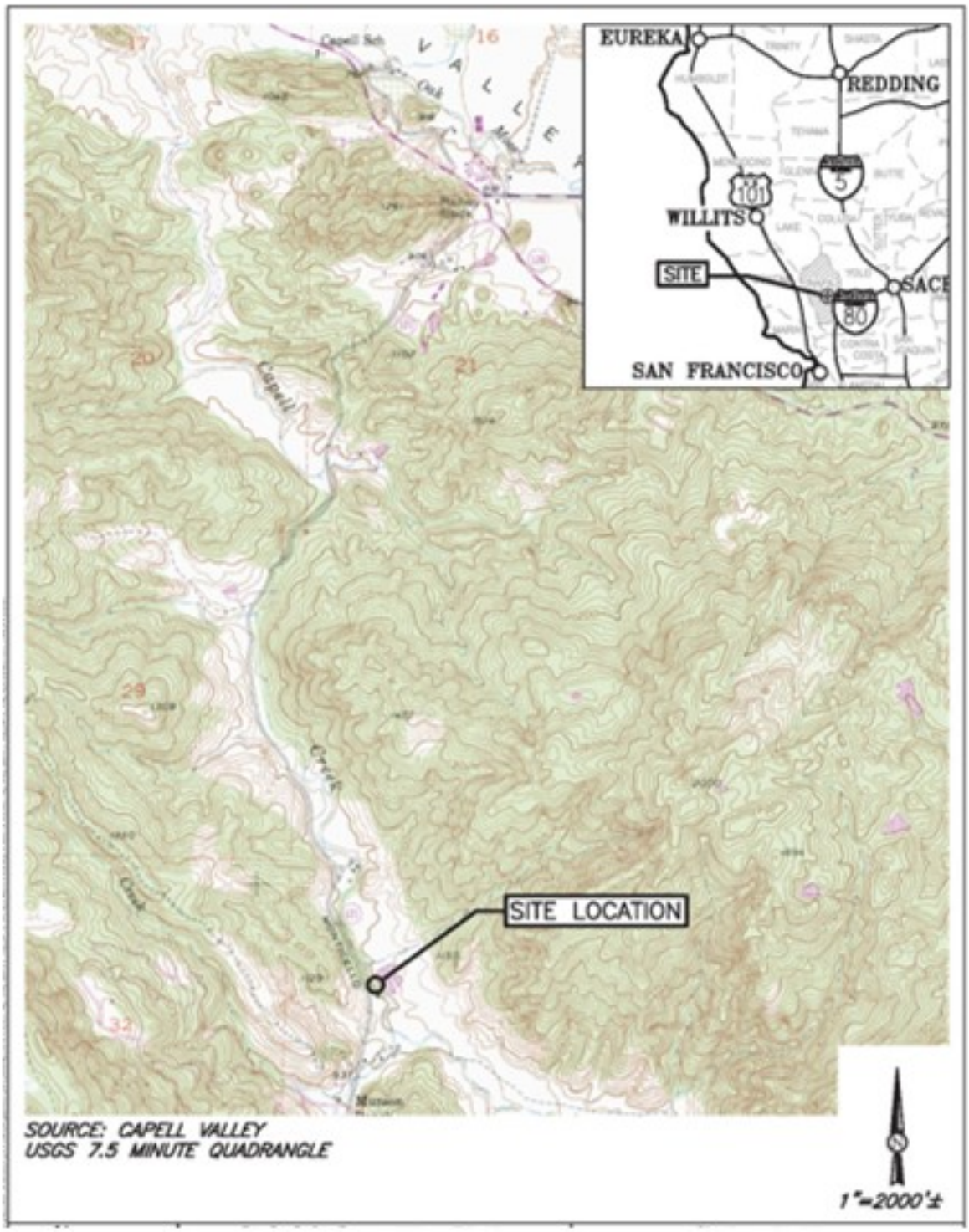
for Patrick Pulupa
Executive Officer

Attachments: Attachment A, Site Location Map
Attachment B, Site Map
Monitoring and Reporting Program No. 2014-0153-DWQ-R5432
Staff Memorandum

Enclosure: Water Quality Order WQ 2014-0153-DWQ (Discharger only)

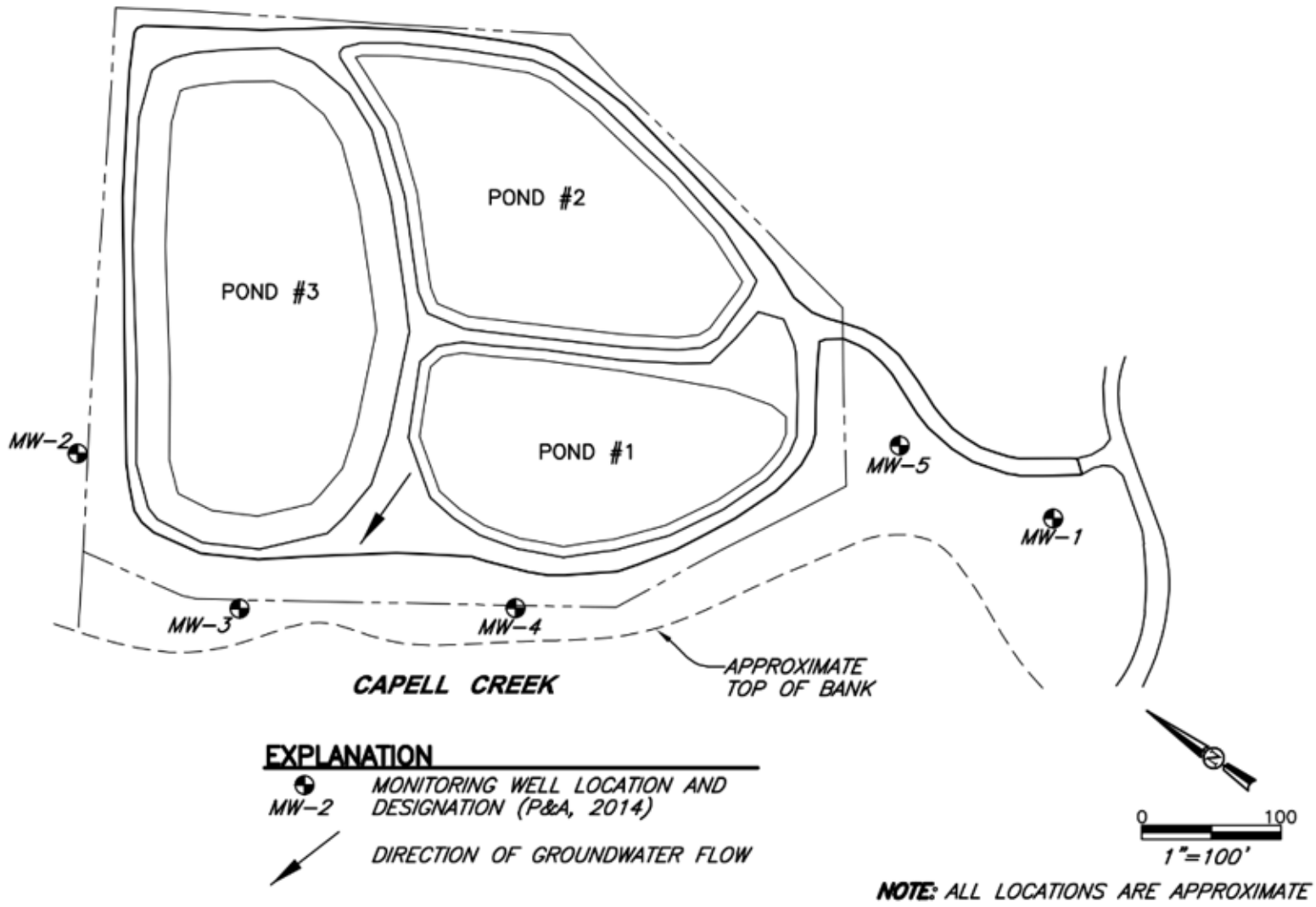
Cc via email: Napa County Environmental Health
Laurel Warddrip, SWRCB, Division of Water Quality
Guy Childs, CVWQCB, Compliance and Enforcement
Howard Hold, CVWQCB, Compliance and Enforcement
Debbie Webster, CVCWA
Anders Rasmussen, SHN

ATTACHMENT A



Source:	**SITE LOCATION MAP**	Approximate Scale:
RWD, 8 July 2021	Circle Oaks Wastewater Treatment Facility Napa County	As Noted

ATTACHMENT B



Approximate Scale:	Drawing Reference:	**SITE PLAN**
As Noted Above	12 November 2021	Circle Oaks Wastewater Treatment Facility Napa County

FROM: Scott Armstrong
Senior Engineering Geologist
P.G. #6787, C.H.G. #620

DATE: 21 November 2025

APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; CIRCLE OAKS COUNTY WATER DISTRICT, CIRCLE OAKS WASTEWATER TREATMENT FACILITY; NAPA COUNTY

Central Valley Water Board staff received a Report of Waste Discharge (RWD) dated 8 July 2021 consisting of a Form 200 and technical report for the Circle Oaks Wastewater Treatment Facility in Napa County. The RWD was prepared by SHN Engineers & Geologist, Inc. and was signed and stamped by Andres Rasmussen, a California registered professional engineer (No. 58184). The Discharger is requesting coverage under State Water Resources Control Board Order WQ 2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order). This memorandum provides a summary of Central Valley Water Board staff's review of the RWD and the applicability that the existing discharge is eligible for enrollment under the General Order.

REGULATORY BACKGROUND

Waste Discharge Requirements (WDRs) Order 94-097 adopted by the Central Valley Water Board on 22 April 1994, prescribes requirements for the Circle Oaks Wastewater Treatment Facility (WWTF), and allows a monthly average dry weather flow not to exceed 72,000 gallons per day (gpd) of domestic wastewater into three (3) unlined ponds for treatment and disposal. This limit has been removed to align with the General Order's maximum flow limit of 100,000 gpd as flows have increased year-over-year to meet increasing demand as well as to accommodate increasing infiltration due to recent climate events.

EXISTING FACILITY AND DISCHARGE DESCRIPTION

The Circle Oaks WWTF is located on approximately 4.5 acres on Assessor's Parcel Number (APN) 032-170-043-000 and services the Circle Oaks subdivision. Wastewater flows via gravity through a pipeline into a collection system and into three percolation/evaporation ponds operated in series. Wastewater normally enters Pond 1 via pumps, but a manually operated valve allows routing wastewater to Pond 2, if necessary. There are five groundwater monitoring wells located near the ponds to monitoring groundwater quality.

The Discharger submitted a RWD in response to a 17 December 2020 Water Board letter, *Notice of Adoption of the New General Order and Request for Report of Waste Discharge*. Review of the pond monitoring data between January 2018 through December 2022, show no violations of the 2-foot freeboard. Influent flows are below

100,000 gpd and there are no plans to expand the WWTF. Therefore, the WWTF is eligible for regulatory coverage under the General Order.

The pond system is not subject to technology performance effluent limits for BOD. Wastewater disposal is by means of evaporation and percolation. Diffuser aerators in Ponds 1 and 2, and a sprayer system in Ponds 3 is used to aid in evaporation. Treatment is performed through the soil column.

Effluent monitoring based on available data obtained between January 2019 through December 2024 is summarized below. Effluent samples are representative of the wastewater in Pond 3. Constituents shown are those that have a water quality objective (WQO). BOD_5, total dissolved solids, nitrate as nitrogen, total kjeldahl nitrogen, and specific conductivity are monitored monthly. Standard minerals are monitored annually. Boron, chloride, iron, sodium, and sulfate concentrations are based on three locations sampled in 2019, 2021, 2022, 2023, and 2024 due to the 2020 Napa wildfires, annual effluent data for standard minerals was not performed. Data reported as non-detect (ND), one half of the reporting limit was used to calculate the average concentration. Units are in mg/L unless otherwise noted. MCL denotes maximum contaminant level. WQO denotes water quality objective.

Constituents	**Effluent Concentration, Average**	**Effluent Concentration, Range**	**Potential WQO (Reference)**
BOD_5	33	3 - 128	none
Electrical Conductivity, µs/cm	580	310 – 1,700	900 (secondary MCL)
Total Dissolved Solids	399	170 – 1,100	500 – 1,000 (secondary MCL)
Sodium	69	60 - 87	69 (agricultural WQG)
Sulfate	39	20 - 57	250 (secondary MCL)
Chloride	69	47 - 100	250 (secondary MCL)
Nitrate as Nitrogen	0.17	ND/0.1 – 1.4	10 (primary MCL)
Total Kjeldahl Nitrogen	13	4 - 47	none
Boron	0.29	0.23 – 0.35	0.7 (agricultural WQG)
Iron	0.67	0.16 – 1.6	0.3 secondary MCL)

The General Order includes five-site specific conditions to be considered when evaluating a discharge and the need for nitrogen control. These five conditions include: flow, depth to groundwater, percolation rate, wastewater strength, and if nitrogen is of concern in the area. Flow data from 2018 through 2024, show an annual average influent flow over 20,000 gpd. Groundwater data from 2018 through 2024 show depth to shallow groundwater varying from 0 to 22 feet below ground surface. Wastewater data from 2018 through 2024, show total nitrogen in the wastewater is primarily TKN. Nitrate as nitrogen concentrations in the wastewater have historically been below 1.0 mg/L. Elevated TKN concentrations were observed in September 2020 at 47 mg/L, in October 2020 at 43 mg/L, and in November 2020 at 39 mg/L. Based on flow, depth to groundwater, and wastewater strength, a nitrogen effluent limit evaluation is required for this facility.

GROUNDWATER CONDITIONS

The Discharger's current groundwater monitoring network consists of five monitoring wells. MW-1 is considered the background well and MW-2 through MW-5 represent down-gradient wells. Groundwater is shallow within 22 feet from top of well casing. The horizontal direction of groundwater flow is primarily to the west and generally towards Capell Creek.

The horizontal groundwater gradient calculated from depth to water measurements collected on 8 December 2020 was 0.17 feet/foot east to west. Staff reviewed the groundwater data in the 4th Quarter 2024 and Annual Report, which included data from 2014 through 2024 and observed stable trends. Groundwater quality is summarized in the table below. Average concentrations shown, maximum value shown in parenthesis. Data reported as non-detect, one half of the reporting limit was used to calculate the average concentration. Units are in mg/L unless otherwise noted. MCL denotes maximum contaminant level. WQO denotes water quality objective. WQG denotes water quality goal.

Constituents	**MW-1***	**MW-2**	**MW-3**	**MW-4**	**MW-5**	**Potential WQO (Reference)**
Electrical Conductivity, µS/cm	1,296 (5,040)	626 (1,448)	578 (1,950)	1,270 (3,492)	706 (3,056)	900 (secondary MCL)
Total Dissolved Solids	1,161 (10,000)	390 (1,600)	425 (4,100)	480 (2,100)	602 (3,500)	500 – 1,000 (secondary MCL)
Nitrate as Nitrogen	0.6 (7.1)	4.7 (62)	1.5 (6.9)	4.0 (31)	2.3 (17)	10 (primary MCL)
Total Kjeldahl Nitrogen	8.3 (158)	4.2 (97)	6.7 (95)	5 (89)	2.7 (67)	none
Boron	0.9 (1.6)	0.2 (0.2)	20 (159)	0.4 (1.5)	0.4 (1.5)	0.7 (agricultural MCL)

Constituents	MW-1*	MW-2	MW-3	MW-4	MW-5	Potential WQO (Reference)
Iron	4.3 (15)	1.5 (5.3)	4.2 (11)	1.6 (4.6)	6.4 (26)	0.3 (secondary MCL)
Manganese	0.4 (1.2)	1 (4.0)	1.6 (4.7)	1.1 (2.6)	0.2 (0.4)	0.05 (secondary MCL)

*Note: MW-1 is considered the background well.

Sporadic detections of total coliform were observed, but do not appear to correspond to a specific well. The Discharger prepared a Well Disinfection Workplan (submitted on 7 July 2016), and any well disinfection will be performed in accordance with the plan when needed.

The Federal Emergency Management Agency (FEMA) has designated portions of the Circle Oaks WWTF a Flood Zone A and a special flood hazard area subject to inundation by the 1 percent annual change flood. However, the facilities emergency response plan states there is no risk to flooding due to geography and layout of the WWTF.

MONITORING REQUIREMENTS

Monitoring requirements included in the following section from Attachment C of the General Order are appropriate for this discharge:

- Pond System Monitoring (influent and wastewater monitoring),
- Solids Disposal Monitoring, and
- Groundwater Monitoring.

To establish a realistic estimate of statewide recycled water use and potential for increased recycled water use statewide, the Recycled Water Policy requires dischargers to report the volume of treated wastewater and recycled water. Based on current influent flows, the Discharger is required to submit volumetric annual reporting.

SALT AND NITRATE CONTROL PROGRAMS

The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. The Basin Plan amendments were conditionally approved by the State Water Board on 16 October 2019 (Resolution 2019-0057) and by the Office of Administrative Law on 15 January 2020 (OAL Matter No. 2019-1203-03).

For nitrate, dischargers that are unable to comply with stringent nitrate requirements will be required to take on alternate compliance approaches that involve providing replacement drinking water to persons whose drinking water is affected by nitrates.

Dischargers may comply with the new nitrate program either individually or collectively with other dischargers. For the Nitrate Control Program, the facility falls within Non-Prioritized Groundwater Basins. Notices to Comply for Non-Prioritized Basins will be issued after the effective date of the Nitrate Control Program.

For salinity, dischargers that are unable to comply with stringent salinity requirements will instead need to meet performance-based requirements and participate in a basin-wide effort to develop a long-term salinity strategy for the Central Valley. The Discharger, with CV-SALTS ID 1899, has opted to participate in the Prioritization and Optimization (P&O) Study.

As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of this NOA to ensure the goals of the Salt and Nitrate Control Programs are met. This order may be amended or modified to incorporate newly applicable requirements. More information regarding this regulatory planning process can be found on the Central Valley Water Board CV-SALTS website (https://www.waterboards.ca.gov/centralvalley/water_issues/salinity).