18 June 2025

Ron Uskali
Esther Formula USA
4615 Work Right Circle
Lakeport, CA 95453

**CERTIFIED MAIL**
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# NOTICE OF APPLICABILITY

## GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS ORDER WQ 2014-0153-DWQ FOR ESTHER FORMULA USA CORPORATION, ESTHER FORMULA FACILITY LAKE COUNTY

Esther Formula USA Corporation (Discharger) submitted a Report of Waste Discharge (RWD) in April 2024 to the Central Valley Regional Water Quality Control Board (Central Valley Water Board) describing the Esther Formula Facility's onsite wastewater treatment system, which provides treatment and disposal of their domestic and process wastewater. 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) Order WQ 2014-0153-DWQ, General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order). The Discharger is hereby enrolled under the General Order and assigned **Order WQ 2014-0153-DWQ-R5416** for the discharge. A copy of the General Order is enclosed and also available at the State Water Boards Adopted Orders webpage. (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/2014-0153-dwq_noas/).

The Discharger should familiarize itself 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 the Discharger's 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-R5416**. The Discharger is responsible for all the applicable requirements that exist in the General Order and this NOA.

## FACILITY AND DISCHARGE DESCRIPTION

The Esther Formula Facility is a dietary supplement manufacturing facility, owned and operated by Esther Formula USA Corporation. The Facility is located at 4615 Work Right Circle in Lakeport, Lake County, as shown on **Attachment A**, which is incorporated as part of this NOA by reference. There is no regional wastewater collection system; therefore, wastewater is collected and treated on-site.

The Facility produces a variety of dietary supplements, with a small portion of the products containing a medical grade quantity of cannabidiol (CBD) oil. Wastewater is generated from two waste sources: (1) domestic wastewater and (2) process wastewater from equipment cleaning. Based on wastewater data provided in the RWD, the quality of the process waste is similar to that of untreated domestic waste.

- Domestic Wastewater. The Facility will employ approximately 25 employees and produce approximately 400 gallons per day (gpd) of domestic waste. Domestic wastewater is collected in an existing septic tank for solids settling and anerobic digestion, which then gravity flows to a blending tank to be commingled with process wastewater.
- Process Wastewater. Hot water is used for equipment cleaning after each batch of supplement is produced. No cleaning agents are used. Equipment cleaning produces approximately 1,400 gpd of process wastewater. Process wastewater undergoes pretreatment through a series of aerated tanks, then gravity flows to a blending tank to be commingled with domestic wastewater.

The commingled waste steam is pumped into an advanced media wastewater treatment system. After treatment, effluent is pumped to a 3,700 square-foot leach field. A 100 percent replacement leach field system is available on the property. A process flow diagram is shown in **Attachment B**, which is incorporated as part of this NOA by reference.

The Facility is located in the Big Valley Groundwater Basin. Clear Lake is located to the north, approximately 2.5 miles from the Facility. There is no known historical groundwater monitoring data for the Facility and no groundwater monitoring network. However, current groundwater level data available through the California Department of Water Resources California's Sustainable Groundwater Management Act (SGMA) Portal, show depth to first encountered groundwater between 14 and 25 feet below ground surface within the surrounding area. (https://sgma.water.ca.gov/CalGWLive/)

## SITE-SPECIFIC REQUIREMENTS AND EFFLUENT LIMITS

Note that 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.

The wastewater treatment operator must be certified and familiar with the requirements contained in the General Order, this NOA, and the MRP.

**Requirements by Wastewater System Type, Section B of General Order**

This section applies in its entirety to the Esther Formula Facility's wastewater treatment system with the following site-specific requirements.

B.1. All Wastewater Systems

a. Influent flow limits (Section B.1.a of General Order):

In accordance with Section B.1.a of the General Order, the total combined discharge (domestic and process wastewater) shall not exceed 2,000 gpd as a monthly average.

b. Wastewater system setbacks (Section B.1.l, Table 3 of General Order), measured from the nearest high-water limit (bottom of freeboard) in the ponds, or from high water levels in other bodies of water, must be at least as described in table below.

**Table 1. Wastewater System Setback Requirements**

| Equipment or Activity | Domestic Well | Flowing Stream | Ephemeral Stream Drainage | Property Line | Lake or Reservoir |
|---|---|---|---|---|---|
| Septic Tank, Treatment System, & Collection System | 150 ft | 50 ft | 50 ft | 5 ft | 200 ft |
| Leach Field | 100 ft | 100 ft | 50 ft | 5 ft | 200 ft |

B.2. Septic Systems

The Facility utilizes a septic tank; therefore Section B.2 of the General Order applies in its entirety.

B.3. Aerobic Treatment Units

The Facility utilizes an aerobic treatment unit; therefore Section B.3 of the General Order does not apply.

B.4. Activated Sludge Systems

The Facility does not utilize an activated sludge system; therefore Section B.4 of the General Order does not apply.

B.5. Pond Systems

The Facility does not utilize a pond system; therefore Section B.5 of the General Order does not apply.

B.6. Subsurface Disposal Systems

The Facility utilizes a subsurface disposal system (leach field); therefore Section B.6 of General Order applies in its entirety.

B.7. Land Application and/or Recycled Water Systems

The Facility does not utilize a land application system; therefore Section B.7 of General Order does not apply.

**Effluent Limitations, Section D of General Order**

This section applies in its entirety, subject to the following additional site-specific limitations.

a. Effluent Limitations:

The following limits apply to effluent from the advanced media treatment system. Compliance with the effluent limitations shall be determined at a point after the advanced media treatment system prior to discharge to the leach field.

**Table 2. Effluent Limitations**

| Constituent | Monthly Average Limit |
|---|---|
| Biochemical Oxygen Demand (BOD) | 30 mg/L |

b. Effluent Limit Rationale:

The advanced media treatment system is subject to technology performance effluent limits for BOD as specified in the General Order.

Staff evaluated the need for a total nitrogen effluent limit using the method contained in the General Order and determined that a nitrogen effluent limit is not required because the monthly average flow will be less than 20,000 gpd.

**Technical Report Preparation Requirements, Section E of General Order**

Provision E.1 of the General Order requires dischargers to prepare and implement the following reports **within 90 days** of issuance of the NOA:

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

A copy of the *Spill Prevention and Emergency Response Plan* and the *Sampling and Analysis Plan*, and *Sludge Management Plan* shall be maintained at the treatment facility and shall be presented to the Central Valley Water Board upon request.

Provisions E.2 and E.3 of the General Order apply in their entirety.

## SALT AND NITRATE CONTROL PROGRAMS

On 31 May 2018, the Central Valley Water Board adopted amendments to its Basin Plans incorporating the Salt Control Program (SCP) and the Nitrate Control Program (NCP). (Resolution R5-2018-0034.) On 10 December 2020, the Board adopted revisions to the Basin Plan amendments (Resolution R5-2020-0057), which became effective 10 November 2021 (OAL Matter No. 2021-0929-05S).

a. For the SCP, the Discharger has opted to participate in the Prioritization and Optimization (P&O) Study and has been assigned **CV-SALTS ID 3676**.

b. For the NCP, the Facility falls outside of any prioritized Groundwater Basin. The Discharger submitted a Notice of Intent and has elected Pathway A. Discharge quality and impact to groundwater was categorized as Category 2, De Minimis Impacts. Based on the information submitted, nitrates and nitrogen constituents are not a concern and therefore the Facility is not subject to the Nitrate Control Program. However, if at such time nitrates or nitrogen constituents become a concern, the Central Valley Water Board may find it necessary for the Discharger to comply with the Nitrate Control Program.

As the SCP and NCP are implemented, the Central Valley Water Board may find it necessary to modify this NOA to ensure the goals and requirements 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

The Discharger shall comply with **MRP 2014-0153-DWQ-R5416**, which is attached hereto and made part of this NOA by reference.

## 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, the Discharger must contact the Central Valley Water Board to determine if submittal of an RWD is required.

The Discharger shall comply with the terms and conditions of the General Order, this NOA, and its attachments, including the MRP, and shall maintain exclusive control over its discharge. Failure to comply with these requirements could result in an enforcement action as authorized by provisions of the Water Code.

## ANNUAL FEES

The annual fee is based on the discharge's threat to water quality and treatment system complexity rating of 3-C. Based on flow, the discharge is subject to a 50 percent fee discount. The fee is due and payable on an annual basis until coverage under the

General Order is formally rescinded. Please note that the annual fees are reviewed each year and may change. You must provide written notice if and when the wastewater discharge ceases, so that we can terminate coverage under the General Order and no longer bill you.

**DOCUMENT SUBMITTAL**

All monitoring reports and other correspondence should be converted to searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50 MB should be emailed to: centralvalleysacramento@waterboards.ca.gov.

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in the body of the email or any documentation submitted to the mailing address for this office:

**Facility Name:** Esther Formula USA, Lake County
**Program:** Non-15 Compliance
**Order:** R5-2015-0005-R5416
**CIWQS Place ID:** 894553

Documents that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to:

Central Valley Regional Water Quality Control Board
ECM Mailroom
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

Now that the Notice of Applicability has been issued, the Board's Compliance and Enforcement section will take over management of your case. Guy Childs is your new point of contact for any questions about the Waiver. If you find it necessary to make a change to your permitted operations, Guy will direct you to the appropriate Permitting staff. You may contact him at (916) 464-4648 or at guy.childs@waterboards.ca.gov.

Digitally signed by John J. Baum
Date: 2025.06.18 22:50:20 -07'00'

r Boards

for Patrick Pulupa
Executive Officer

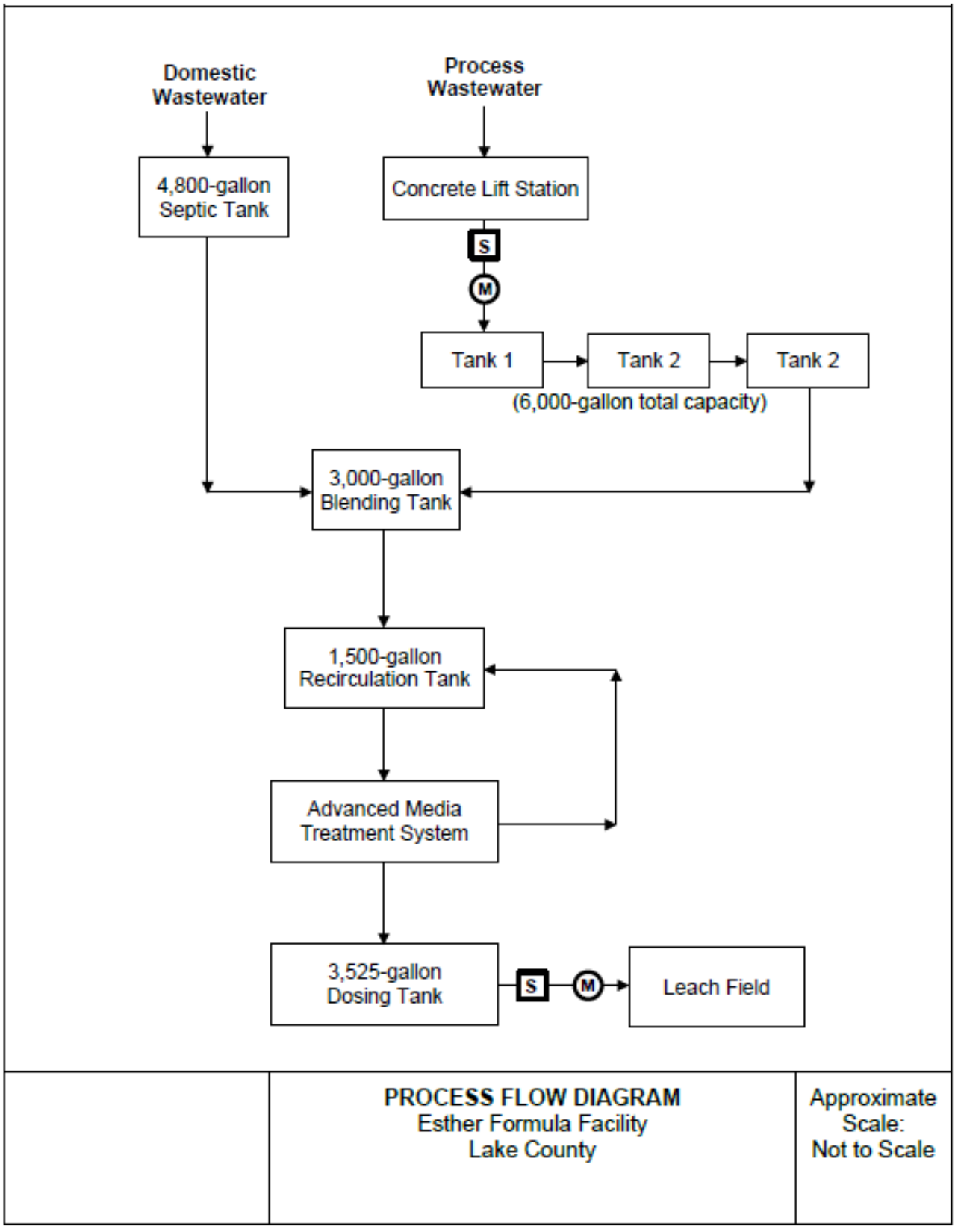
Enclosure: Attachment A, Vicinity Map
Attachment B, Process Flow Diagram
Staff Review Memorandum
Monitoring and Reporting Program 2014-0153-DWQ-R5416
Water Quality Order WQ 2014-0153-DWQ

cc via email: Lake County Environmental Health Department
Howard Hold, Central Valley Water Board
Guy Childs, Central Valley Water Board
Craig Wetherbee, Lake County Environmental Health
YooJung (Gina) Kim, Esther Formula
Thomas Hunt, Thomas Hunt Civil Engineering

## ATTACHMENT A. VICINITY MAP


| | | |
|---|---|---|
| Approximate Scale:<br>As Noted Above<br>N W E S | Drawing Reference:<br>Google Earth | **VICINITY MAP**<br>Esther Formula Facility<br>Lake County |

## ATTACHMENT B. PROCESS FLOW DIAGRAM



**TO:** John Murphy
Supervising Geologist

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

Lani Andam
Water Resource Control Engineer

**DATE:** 8 May 2025

**APPLICABILITY OF COVERAGE UNDER ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; ESTHER FORMULA, USA CORPORATION; ESTHER FORMULA FACILITY; LAKE COUNTY**

Central Valley Water Board staff received a Report of Waste Discharge (RWD) consisting of a Form 200 and technical report in April 2024 for the Esther Formula Facility. The RWD was prepared by Thomas Hunt Civil Engineering on behalf of the Esther Formula USA Corporation (hereafter, "Discharger"). The RWD was signed and stamped by Thomas Hunt (No. 53327), a California registered professional engineer. 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 staff's review of the RWD and the applicability that the existing discharge is eligible for enrollment under the General Order.

## BACKGROUND INFORMATION

The Esther Formula Facility (Facility) is a new dietary supplement manufacturing facility, that is owned and operated by Esther Formula USA Corporation (hereafter referred to as "Discharger"). The Facility is located in an area where there is no regional wastewater collection system; therefore, wastewater is collected and treated on-site.

The Facility produces a variety of dietary supplements with a small portion of the products containing a medical grade quantity of Cannabidiol (CBD) oil. CBD oil is not processed on-site but outsourced from a certified producer. The Facility will employ approximately 25 employees and generate approximately 400 gallons per day (gpd) of domestic wastewater. Approximately 1,400 gpd of process wastewater is estimated from equipment cleanup activities. Hot water will be used for cleaning purposes and no cleaning agents will be used. Each waste stream will be collected separately. Domestic waste initially goes through a septic tank for solids settling and anerobic digestion. Process waste discharges to a concrete lift station then undergoes pretreatment via a series of aerated tanks. The two waste streams will then be commingled in a blending

tank then pumped to an advanced media filtration system for treatment. Final disposal is to a 3,700 square foot leach field.

Process wastewater (with and without CBD oil) and facility source water were sampled and analyzed for the parameters shown in Table 1 below. Units are in mg/L unless otherwise shown. ND denotes non-detect. NA denotes not available. Typical domestic waste as presented in the General Order and published values of untreated domestic wastewater characteristics (medium to high strength concentrations) are also provided for comparison in Table 1. Based on available data, process wastewater resembles that of untreated domestic wastewater, except for BOD. However, process wastewater will undergo pretreatment via aerated tanks that will help reduce BOD concentrations prior to blending with domestic wastewater and additional treatment via the advanced media filtration system.

**Table 3. Summary of Wastewater Characteristics**

| Constituent | Process Waste (w/ CBD) | Process Waste (w/o CBD) | Source Water | Typical Domestic Wastewater (see Note 1 below) | Untreated Domestic Wastewater (see Note 2 below) |
|---|---|---|---|---|---|
| EC, µmhos/cm | 230 | 250 | NA | NA | NA |
| TSS | 220 | 45 | ND, <1.0 | 200-290 | 210-400 |
| TDS | 490 | 480 | NA | NA | 500-860 |
| FDS | 140 | 80 | 120 | NA | 300-520 |
| Chloride | 50 | 7.1 | NA | NA | NA |
| Sodium | 34 | 23 | NA | NA | 50-90 |
| Sulfate as $SO_4$ | 0.51 | 0.88 | NA | NA | 30-50 |
| BOD | 470 | 530 | NA | 200-290 | 190-350 |
| Total Nitrogen | | | NA | 35-100 | 40-70 |
| Nitrates as N | 0.56 | ND, <0.2 | NA | <1 | 0-0 |
| Ammonia as N | 0.27 | 0.37 | ND, <0.2 | 6-18 | 25-45 |
| TKN | 2.4 | 3.6 | ND, <1.0 | NA | NA |

| Constituent | Process Waste (w/ CBD) | Process Waste (w/o CBD) | Source Water | Typical Domestic Wastewater (see Note 1 below) | Untreated Domestic Wastewater (see Note 2 below) |
|---|---|---|---|---|---|
| Arsenic, µg/L | 1.4 | 11 | NA | NA | NA |
| Iron, µg/L | 240 | 130 | NA | NA | NA |
| Manganese, µg/L | 6.1 | 5 | NA | NA | NA |

Table 1 Notes:

1. WQO 2014-0153-DWQ, Table 1: Summary of Domestic Wastewater Characteristics.
2. Metcalf & Eddy, (2014), *Wastewater Engineering Treatment and Resource Recovery*, (5th Ed), McGraw Hill.

Although not shown in the table above, the Discharger estimates BOD for sanitary waste to be 200 mg/L because of the low dilution rate for restrooms only.

## POTENTIAL THREAT TO WATER QUALITY

The property has an existing septic and leach field system that was previously under the jurisdiction of the local regulatory agency (Lake County). Based on the proposed system and discharge of commingled waste, the local agency will no longer regulate the onsite wastewater treatment system and discharge.

Currently, Lake County does not have a Local Agency Management Program (LAMP) regulating on-site wastewater treatment system discharges in accordance with the *Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment System* (OWTS Policy). Based on this and concerns with the wastewater containing traces of CBD, the Central Valley Water Board will assume jurisdiction over treatment and discharge at the Facility. Based on anticipated combined wastewater character, the discharge meets the conditions of the Small Domestic Wastewater Treatment System General Order WQ 2014-0153-DWQ.

The surrounding land use is primarily agriculture or unimproved, except to the north where there is a local airstrip. Clear Lake is located to the north approximately 2.5 miles from the Facility. Manning Creek is to the north and Thompson Creek to the east which are tributaries of Clear Lake. There is no known historical groundwater monitoring data for the Facility.

The Facility is located in the Big Valley Groundwater Basin. Groundwater elevation data collected by the Lake County Watershed Protection District is available through the

California Department of Water Resources' (DWR) Water Data Library and DWR's Sustainable Groundwater Management Act (SGMA) Portal, which show current depth to first encountered groundwater between 14 and 25 feet below ground surface within the surrounding area.

Anticipated combined wastewater flow is approximately 2,000 gpd. Process wastewater will make up about 75 percent of the combined total flow. As part of the monitoring and reporting program, the Discharger is required to monitor influent flows for both domestic and process wastewater and conduct effluent monitoring to verify treatment and impacts to groundwater quality. A BOD effluent limit of 30 mg/L as a monthly average is based on technology performance per the General Order. The Discharger anticipates BOD concentrations after treatment to be much lower at 10 to 15 mg/L. A nitrogen effluent limit is not required based on flow.

## MONITORING REQUIREMENTS

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

- Septic Tank Flow and Inspection Monitoring
- Process Wastewater Monitoring
- Aerobic Tank Monitoring
- Effluent Monitoring
- Subsurface Monitoring
- Sludge/Solids Monitoring

## SALT AND NITRATE CONTROL PROGRAMS

For the Salt Control Program, the Discharger, with CV-SALTS ID 3676, has opted to participate in the Prioritization and Optimization (P&O) Study. For the Nitrate Control Program, the Discharger submitted a Notice of Intent and has elected Pathway A. Discharge quality and impact to groundwater was categorized as Category 2, De Minimis Impacts. The Facility and disposal area falls outside of any prioritized groundwater basin. Based on discharge location, waste characterization, and low flows, nitrate and nitrogen constituents are not a concern and therefore, the Facility is not subject to the Nitrate Control Program at this time.

## REFERENCE LIST

Metcalf and Eddy, Inc. (2002). *Wastewater Engineering Treatment, Disposal, and Reuse*; Fourth Edition. Mcgraw-Hill, Inc.