28 April 2023

Michael Fischer
Valley Springs Public Utility District
P.O Box 284
Valley Springs, CA 95252

CERTIFIED MAIL
7022-2410-0001-5093-9609

NOTICE OF APPLICABILITY

GENERAL WASTE DISCHARGE REQUIREMENTS FOR
SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS
ORDER WQ 2014-0153-DWQ
FOR
VALLEY SPRINGS PUBLIC UTILITY DISTRICT
VALLEY SPRINGS WASTEWATER TREATMENT PLANT
CALAVERAS COUNTY

On 19 February 2021, the Valley Springs Public Utility District (VSPUD, hereafter Discharger) submitted a request to obtain coverage under the State Water Resources Control Board General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems, Order WQ 2014-0153-DWQ (General Order) for Valley Springs Wastewater Treatment Plant (WWTP). In October and November 2022, the Discharger a Water Balance and a revised Water Balance, respectively. On 19 December 2022, the Discharger submitted an Infiltration & Inflow (I/I) Reduction Workplan. This Notice of Applicability (NOA) provides notice that the General Order is applicable to the WWTP as described below. You are hereby assigned Order WQ 2014-0153-DWQ-R5378 for the discharge. After Waste Discharge Requirements (WDRs) Order R5-2005-0066 has been rescinded, coverage under General Order 2014-0153-DWQ will become effective. A copy of the General Order is enclosed and also available at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2014/wqo2014_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) WQ 2014-0153-DWQ-R5378.
The Discharger is responsible for all the applicable requirements that exist in the General Order and this NOA.

EXISTING FACILITY AND DISCHARGE DESCRIPTION

The WWTP provides wastewater treatment and disposal service for the Valley Springs community. According to the Discharger's February *2005 Rate Holder Breakdown* information sheet, the WWTP serves approximately 326 residences and 90 commercial customers within the town of Valley Springs. The WWTP is located at 214 east Highway 12, Valley Springs in Section 24, T4N, R10E, MDB&M, as shown on Attachment A, which is incorporated herein. The WWTP is comprised of Assessor's Parcel Numbers 046-015-024,025 and 026, and 046-016-029 totaling approximately 7.55 acres. The WWTP is owned and operated by the Discharger.

The WWTP consists of an influent flow meter, headworks (comminutor), an activated sludge unit (aeration tank), two unlined aeration ponds (Pond 1 and 2), an unlined polishing pond (Pond 3), a chlorine disinfection system, a 80.3 acre-feet clay lined effluent storage reservoir, 35 acres of land application areas (LAAs), a tailwater collection system, and sludge drying beds, as shown on Attachment B, which is incorporated herein. The site plan and process schematic are shown on Attachments B and C, respectively, which are incorporated herein.

After influent entering the WWTP through the comminutor, wastewater is treated with the activated sludge unit, two aeration ponds, and the polishing pond in series. Once the wastewater level reaches two feet of freeboard in the polishing pond, it flows into the effluent storage reservoir. From the effluent reservoir, the wastewater is disinfected via the chlorine disinfection system and is then applied to the LAAs for disposal. Tailwater ditches were installed around the east and north LAA hillside to prevent tailwater runoff. The runoff collected in a ditch system is pumped back into the storage reservoir (or to be re-applied to the LAAs, based on the 2007 inspection report).

SITE-SPECIFIC REQUIREMENTS

The Discharger shall comply with all applicable sections in the General Order, including:

1. Requirements A. Prohibitions

2. Requirements B.1.a. Flow Limits

   The Discharger shall comply with the following flow limits:

   Influent entering the WWTP shall not exceed **78,500 gallons per day** (gpd) as an average of dry weather flow (ADWF).

The average dry weather flow is defined as the total flow for the months of July through September divided by 92 days.

Influent entering the WWTP shall not exceed **42 million gallons** as an annual total flow.

3. Requirements B.1.b. through B.1.l:
   Section B.1.b. through B.1.l of the General Order applies in its entirety.

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

Equipment or Activity	Domestic Well	Flowing Stream	Ephemeral Stream Drainage	Property Line	Lake or Reservoir
Septic Tank, Aerobic Treatment Unit, Treatment System, or Collection System	100 ft.	50 ft.	50 ft.	5 ft.	200 ft.
LAAs	100 ft	50 ft	50 ft	50 ft.	200 ft.
Impoundment	100 ft.	100 ft.	100 ft.	50 ft.	200 ft.

4. Requirements B.4 Activated Sludge Systems
   The WWTP utilizes an activated sludge system; therefore Section B.4 of the General Order applies in its entirety.

5. Requirements B.5 Pond Systems
   The WWTP utilizes a pond system; therefore Section B.5 of the General Order applies in its entirety.

6. Requirements B.7 Land Application and/or Recycled Water Systems
   The WWTP utilizes a land application system; therefore Section B.7 of the General Order applies in its entirety.

7. Requirements B.8 Sludge/Solids/Biosolids Disposal
   The WWTP generates sludge/solids/biosolids that must be disposed of; therefore Section B.8 of the General Order applies in its entirety.

8. Requirements C. Groundwater and Surface Water Limitations
   Section C of the General Order applies in its entirety.

9. Requirements D. Effluent Limitations

   Effluent discharged to the LAAs shall not exceed BOD5 of 30 mg/L as a monthly average and 80 mg/L as a daily maximum.

Effluent discharged to the LAAs shall not exceed 50% of total nitrogen of the influent. The nitrogen percent reduction value represents the minimum percent reduction compared to the untreated wastewater value. Nitrogen percent reduction shall be calculated on an annual basis. In no case shall the reduction require an effluent lower than 10 mg/L total nitrogen.

Effluent discharged to the LAAs shall not exceed a monthly average of 23 MPN/100ml or a daily maximum of 240 MPN/100ml for total coliform organisms (measured as a monthly median).

10. Provision E.2 and E.3
Section E.2 and E.3 of the General Order applies in its entirety.

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 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, with CV-SALTS ID 2597, has opted to participate in the Prioritization and Optimization (P&O) Study.

b. For the Nitrate Control Program, the Facility 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

WDRs Order R5-2005-0066 will be rescinded at an upcoming Central Valley Water Board meeting. Effective upon the first day of the month following rescission of Order R5-2005-0066, the Discharger shall comply with MRP WQ 2014-0153-DWQ-R5378, 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, generation rate, or to the method of waste disposal, you must contact the Central Valley Water Board to determine if submittal of a Report Waste Discharge is required.

The Discharger generates the waste subject to the terms and conditions of Water Quality Order WQ 2014-0153-DWQ-R5378 and maintains exclusive control over the discharge. As such, the Discharger 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 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: Valley Spring Wastewater Treatment Plant
Program: Non-15 Compliance
Order: WQ 2014-0153-DWQ-R5378
CIWQS Place ID: CW-270105

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

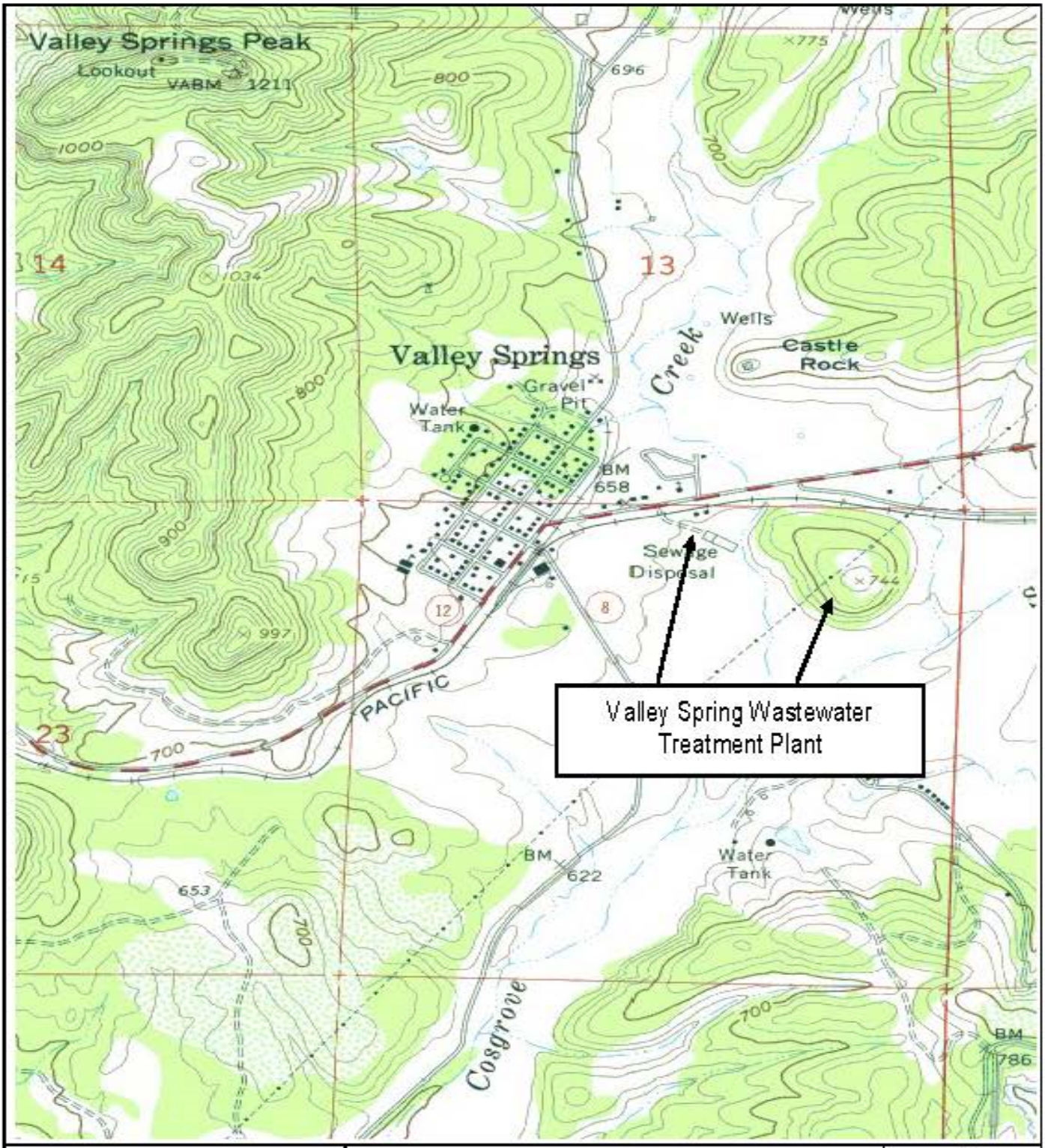
Now that the NOA has been issued, the Board's Compliance and Enforcement section will take over management of your case. Kenny Croyle is your new point of contact for any questions about the Waiver. If you find it necessary to make a change to your permitted operations, Kenny will direct you to the appropriate Permitting staff. You may contact Kenny at (916) 464-4676 or at kcroyle@waterboards.ca.gov.

Ordered by: Original Digitally Signed
by John J. Baum on Date: 2023.04.28 10:18:05-07'00'

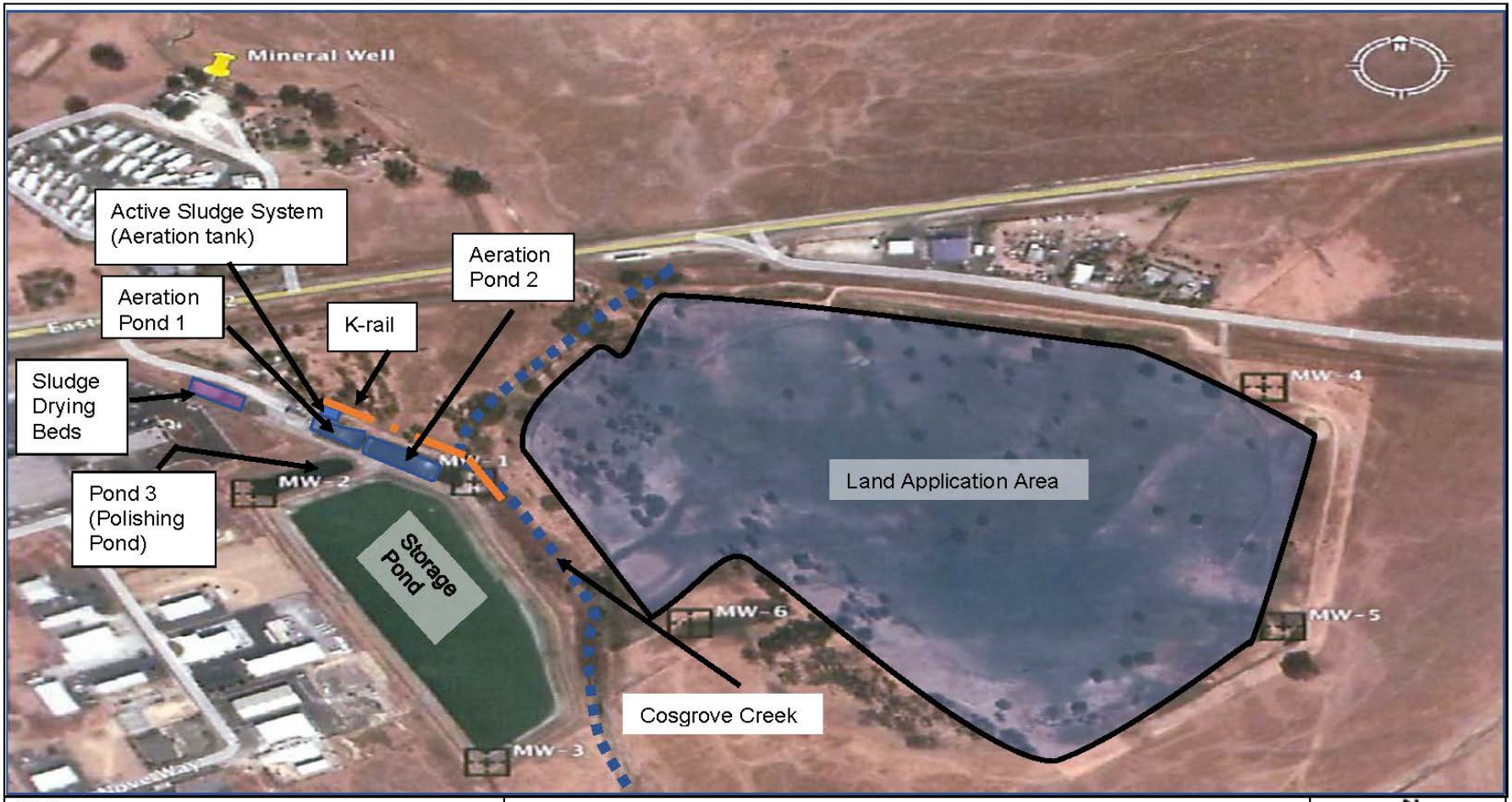
for Patrick Pulupa
Executive Officer

Enclosure: Water Quality Order WQ 2014-0153-DWQ
Monitoring and Reporting Program WQ 2014-0153-DWQ-R5378
Attachment A, Location Map
Attachment B, Site Plan
Attachment C, Process Schematic
Staff Review Memorandum for Valley Springs WWTP

cc w/out enc: Lisa Medina, Calaveras County Environmental Health Department
Howard Hold, Central Valley Water Board, Rancho Cordova



Drawing Reference:	**SITE LOCATION MAP**	N / W / E / S
U.S.G.S TOPOGRAPHIC MAP 7.5 MINUTE QUADRANGLE	VALLEY SPRINGS PUBLIC UTITLITY DISTRICT VALLEY SPRINGS WASTEWATER TREATMENT PLANT	No Scale



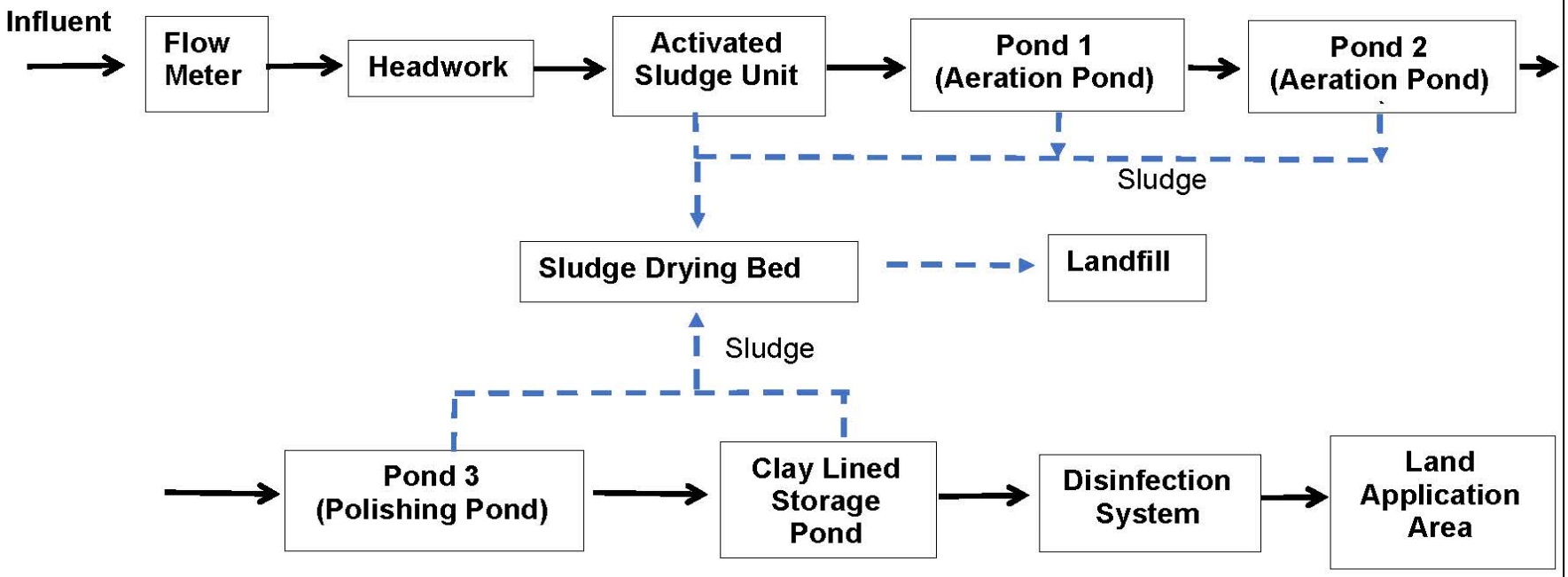
Reference:

Revised Water Balance,
Valley Springs Public Utility District,
November 2022

SITE PLAN

VALLEY SPRINGS PUBLIC UTILITY DISTRICT
VALLEY SPRINGS WASTEWATER TREATMENT PLANT

No Scale



Reference:

WDRs R5-2005-0066

PROCESS SCHEMATIC

VALLEY SPRINGS PUBLIC UTILITY DISTRICT
VALLEY SPRINGS WASTEWATER TREATMENT PLANT

TO: Robert Busby
Supervising Engineering Geologist

FROM: Scott Armstrong
Senior Engineering Geologist

DATE: 6 March 2023

APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; VALLEY SPRINGS PUBLIC UTILITY DISTRICT, VALLEY SPRINGS WASTEWATER TREATMENT PLANT; CALAVERAS COUNTY

On 19 February 2021, the Valley Springs Public Utility District submitted a request to obtain coverage under the State Water Resources Control Board General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems, Order WQ 2014-0153-DWQ for Valley Springs WWTP. This memorandum provides a summary of the applicability of this discharge for coverage under the General Order.

REGULATORY BACKGROUND

WDRs Order R5-2005-0066, adopted by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) on 29 April 2005, prescribes requirements for Valley Springs WWTP, and allows a flow limit of 78,500 gallons per day (gpd) as a monthly average dry weather influent flow. WDRs Order R5-2005-0066 will be rescinded at an upcoming Central Valley Water Board meeting. Effective upon rescission of Order R5-2005-0066, the discharge described in this NOA shall be regulated pursuant to the General Order.

EXISTING FACILITY AND DISCHARGE DESCRIPTION

The WWTP is located at 214 east Highway 12, Valley Springs in Calaveras County. The WWTP is at a location just east of the Valley Springs shopping center. Surface water drainage from the WWTP is to Cosgrove Creek, a tributary to the Calaveras River below New Hogan Dam. The potable water in Valley Springs is obtained from local groundwater supply wells with a TDS concentration of 250 mg/L based on the 2021 Annual Report.

The WWTP includes an influent flow meter, headworks (comminutor), an activated sludge unit (aeration tank), two unlined aeration ponds (Ponds No.1 and Pond No.2), an unlined polishing pond, a 80.3 acre-feet clay-lined effluent storage reservoir (at two-feet freeboard), a chlorine-based disinfection system, and 35 acres of LAAs. Secondary disinfected effluent is applied to the LAAs for disposal. Approximately 90 percent of the disposal at the LAAs is currently achieved by misters. The WWTP is monitored by a Supervisory Control and Data Acquisition system. The ponds are located adjacent to west of Cosgrove Creek and LAAs are on the eastside of Cosgrove Creek, as shown on Attachment B.

Based on the Discharger's 15 November 2022 Revised Water Balance, the capacities of the Ponds No.1, No.2, and No.3 are 0.51 ac-ft, 1.69 ac-ft, and 0.92 ac-ft (at two-feet free board), respectively. Ponds No.1 and No.2 are aeration ponds and Pond No. 3 is used as a polishing and settling pond.

Based on the 2021 Annual Report, the average dry weather flow is 57,000 gpd, which is less than flow limit of 78,500 gpd as an average dry weather influent flow in WDRs Order R5-2005-0066. The following is a summary of the influent flow rates in 2021:

Months	2021 Monthly Average Influent Flow Rate (gpd)
January	106,000
February	110,000
March	97,000
April	66,000
May	61,000
June	60,000
July	54,000
August	58,000
September	63,000
October	90,000
November	76,300
December	131,000
ADWF, see note below	57,000

Note: ADWF-an average dry weather flow defined as the total flow for the months of July through September divided by 92 days.

Based on the table above, the influent monthly average flow rate in the wet season (January, February, and December) was 115,700 gpd, which is approximately twice of the ADWF of 57,000 gpd, indicating significant of I/I during wet season. The Discharger submitted a I/I Reduction Workplan on 19 December 2022. The I/I Reduction Workplan indicates that "*While wet weather flows are not causing capacity issues and did not cause a significant impact to WWTP performance, reductions in I& I are important to reducing WWTP operating and maintenance (O&M) costs and to maintaining constant WWTP detention times.*"

I&I reduction measures were evaluated in 2015 by the Discharger. The collection system pipelines with infiltration were identified for repair or replacement during smoke and closed-circuit television tests. Since 2009, approximately 0.6 million dollars have been invested in wastewater collection system I&I reduction improvements, including replacement of some old pipes and manholes in 2009, 2015, and 2016. However, a significant part of the I&I still occurs from un-repaired sewer lines and manholes. The I/I Reduction Workplan states that "*The District will be continuing their I&I Reduction Program which includes annual field investigation of the collection system to identify structural and inflow/infiltration issues, by means of: manhole inspections, smoke testing, and CCTV inspections. The District is also going to be pursuing SRF (State Revolving Fund) or USDA funds or other suitable state or federal funding to repair or replace additional pipelines and reduce the increase from dry weather flows to wet*

weather flows which occur at the WWTP". This NOA requires the Discharger to complete the tasks proposed in the I/I Reduction Workplan and submit an I/I Analysis Report in the Annual Report as required in the MRP.

Based on the effluent monthly monitoring reports from January through December 2021, effluent annual averages for some selected constituents are summarized below:

Constituent	BOD (mg/L)	TDS (mg/L)	Nitrate as Nitrogen (mg/L)	Total Kjeldahl Nitrogen (mg/L)
Effluent	25	503	4.0	13

Although the effluent average nitrate as nitrogen of 4.0 mg/L is less than the Primary Maximum Contaminant Level (MCL) of 10 mg/L for nitrate as nitrogen, the total kjeldahl nitrogen concentration of 13 mg/L (total Kjeldahl nitrogen is a nitrate precursor) is greater than effluent nitrate as nitrogen concentration indicating inefficient nitrification in the wastewater treatment process. Currently, because no influent nitrate as nitrogen and total kjeldahl data are available (MRP R5-2005-0066 does not contains influent monitoring requirements for these constituents), the analysis for nitrification and denitrification at this WWTP could not be provided in this memorandum. The MRP WQ 2014-0153-DWQ-R5378 contains monitoring requirements for nitrate as nitrogen, nitrite as nitrogen, and total kjeldahl nitrogen in the influent, effluent and groundwater. In order to minimize potential groundwater degradation for nitrogen due to discharge, this NOA contains an effluent total nitrogen limit as required in the General Order WQ 2014-0153-DWQ: Effluent discharged to the LAAs shall not exceed 50% of total nitrogen of the influent.

Cyclone fence and barbed wire fencing were installed around the WWTP and the LAAs, respectively. In April 2006, a portion of north bank of Ponds No.1 and 2 was damaged by the high levels of water in Cosgrove Creek. The Discharger installed approximately 470 liner feet of portable concrete barrier (K-rail, three feet in height), which was subsequently wrapped with four layers of 6-mil plastic sheet (in November 2006), along the north bank of aeration Ponds No. 1 and 2 to repair the damaged levee berm. In 2008, the K-rail was backfilled with ten inches of soil as an earth levee. Based on the Discharge's Riverine Analysis-Portion of Cosgrove Creek dated in March 2007, the K-rail was designed as a flood barrier to protect the WWTP from 100-year storm.

Sludge produced by the wastewater treatment process is dried on-site in unlined sludge drying beds and disposed off-site in a permitted landfill facility.

GROUNDWATER CONDITIONS

The soils and geology underlying the WWTP are cemented clays, gravels, and sands of the Valley Springs formation. The LAAs are located across the flanks of a hill and soil consists of conglomerate, sandstone, and tuff with an average depth of 12 inches.

Six groundwater monitoring wells MW-1 through MW-6 were installed on July 31, 2007. Monitoring wells MW-1, MW-2, and MW-3 are located around the perimeter of the storage pond while monitoring wells MW-4, MW-5, and MW-6 are located around the base of the LAAs. The 2022 first quarter Groundwater Monitoring Report indicates that "*As anticipated from topography, the groundwater gradient on the west side of Cosgrove Creek flows*

southeast toward and southward down the thalweg of the creek. On the east side of Cosgrove Creek, groundwater flows south/south-west toward the creek on the western edge of the spray field hill. On the eastern edge of the spray field, groundwater flows south/south-east toward Spring Creek that intersects with Cosgrove Creek 1/2 mile downstream of the VSPUD properties. The topographic high upon which the spray field is located directs shallow groundwater radially away from this feature but is captured between the two arms of Spring and Cosgrove Creek".

Based on groundwater monitoring data collected from January 2012 through March 2022, the average groundwater monitoring data for select constituents are listed below. MW-5 and MW-6 have been historically dry throughout most of the year and are not consistent groundwater sampling points and are not listed in the following table.

Constituents	Unit	Potential Water Quality Objective	Well MW-1	Well MW-2	Well MW-3	Well MW-4
Groundwater Elevation	Feet	--	638	641	634	650
Depth to Water	Feet	--	7.2	5.9	10.8	7.1
Specific Conductance	µS/cm	900-2,200 (see note No.1)	976	1,301	1,186	716
Total Dissolved Solids	mg/L	500-1,500 (see note No.2)	774	1,227	997	596
Nitrate as Nitrogen	mg/L	10 (see note No.3)	3.9	8.8	1.1	11.8
Ammonia	mg/L	--	12.2	0.1	0.2	0.1
Total Kjeldahl Nitrogen	mg/L	--	10.7	1.1	0.9	0.6

1) Specific Conductance: Secondary Maximum Contaminant Level range, Recommended level = 900 µmhos/cm; Upper level = 1,600 µmhos/cm; Short-term level = 2,200 µmhos/cm.

2) TDS: Secondary Maximum Contaminant Level range, Recommended level = 500 mg/L; Upper level = 1,000 mg/L; Short-term level = 1,500 mg/L.

3) Primary Maximum Contaminant Level.

Groundwater flows to south/south-west/southeast positioning groundwater monitoring well MW-4 as a regional up-gradient well. The average depths to groundwater ranged from 5.9 to 10.8 feet indicating that the local groundwater is shallow. Monitoring well MW-4 has the lowest TDS concentration of 540 mg/L compared to TDS concentrations in the monitoring wells MW- 1, 2, and 3, which ranged from 940 to 1,100 mg/L. However, the effluent TDS concentration is 503 mg/L as an annual average in 2021 indicating that the elevated TDS concentrations in the groundwater wells may be caused by local mineralization of groundwater due to local geological conditions. Up-gradient monitoring well MW-4 contains an average nitrate as nitrogen concentration of 11.8 mg/L, which is greater than the Primary MCL of 10 mg/L for nitrate as nitrogen. In addition, down-gradient monitoring well MW-1 has an average concentration of 12.2 mg/L for ammonia. Monitoring well MW-1 is located adjacent to the unlined treatment ponds. The ammonia detected in this well is likely contributed by the discharge. MRP 2014-0153-DWQ-R5378 will contain monitoring requirements for salinity, total nitrogen concentrations in influent, effluent and groundwater.