



Central Valley Regional Water Quality Control Board

21 April 2023

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Weimar Institute WWTF
20601 W. Paoli Lane
Weimar, CA 95736

CERTIFIED MAIL
7017-2620-0001-1359-3209

NOTICE OF APPLICABILITY

GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS ORDER WQ 2014-0153-DWQ FOR WEIMAR INSTITUTE INC., WEIMAR INSTITUTE WWTF PLACER COUNTY

Weimar Institute Inc. submitted a Report of Waste Discharge (RWD) dated 07 May 2021 describing the Weimar Institute Wastewater Treatment Facility (WWTF) in Placer County. The WWTF provides treatment and disposal service for domestic wastewater generated from the Weimar Institute. The WWTF discharge has been regulated by Waste Discharge Requirements (WDR) Order R5-2005-0099 which was adopted by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) on 24 June 2005. 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 upon rescission of Order R5-2005-0099 at an upcoming Central Valley Water Board meeting, the discharge shall be regulated pursuant to the General Order and this NOA. You are hereby assigned Order WQ 2014-0153-DWQ-R5366 for the discharge. A copy of the Waiver is enclosed and also available at the [State Water Boards Adopted Orders webpage, General Order 2014-0153-DWQ](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/2014-0153-dwq_noas/) (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/2014-0153-dwq_noas/).

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-R5366. The Discharger is responsible for all the applicable requirements that exist in the General Order and this NOA.

MARK BRADFORD, CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

EXISTING FACILITY

Facility and Location

The WWTF is owned and operated by Weimar Institute Inc. (hereafter “Discharger”) and is located at 20601 West Paoli Lane, Weimar, in Placer County. The facility and discharge areas are located on assessor’s parcel numbers as listed in Table 1.

Table 1. Parcel Numbers, M.D.B. & M.

APN		Section, Township, Range
072-100-012	072-130-002	Section 28, Township 14N, Range 9E
072-110-001	072-130-015	
072-120-028		
072-170-002	072-180-010	Section 33, Township 14N, Range 9E

The Discharger is fully responsible for the operation and maintenance of the physical plant and the WWTF. The Discharger’s location is shown on Attachment A, which is attached hereto and is made part of this NOA by reference. Weimar Institute is located approximately 10 miles from the nearest regional wastewater collection and treatment system, therefore, wastewater is collected and treated on site.

Surrounding land uses include rural residential parcels. Surface water drainage is to Coyote Creek, which is tributary to Wooley Creek and Lake Combie.

Soil series beneath the WWTF and the leach fields are the Mariposa-Josephine Complex Series on the lower ridges and hillside slopes, and the Xerofluent Series in the lowest areas adjacent to Coyote Creek.

Weimar Institute Inc., constructed in 1978, is a senior college and university and consists of campus buildings and residences to serve both students and employees. The site receives potable water from Placer County Water Authority and has its own wastewater collection system which consists of two gravity collection systems (Campus Collection System Branch, and the Academy Center and Residential Duplexes Collection System Branch). Maintenance of the collection system is done by on-site staff or local service contractors as necessary. Storm water is routed around the waste pond system via ditches and culverts. Infiltration and inflow result in only negligible additional loading to the wastewater system during the wet months of November through March.

Wastewater is generated on the Weimar Institute grounds by residential homes, dormitory facilities with temporary residences, a vegetarian cafeteria, and maintenance and employee offices. The WWTF has an average dry weather flow rate of 20,000 gallons per day (gpd) based on water balance data submitted in the RWD, with total treatment capacity of 32,000 gpd.

Treatment and Discharge Description

The main WWTF consists of two 20,000 gallons septic tanks, a natural rock trickling filter, three wastewater evaporation and percolation ponds, and two subsurface disposal leach field areas as shown on Attachment B, with the process schematic shown on Attachment C. Wastewater from the dormitory facility is collected and treated in two 3,000-gallon septic tanks, one for each dormitory building. The effluent from those small septic tanks is sent to the 20,000-gallon septic tanks and combined there with wastewater collected from the rest of the Weimar Institute facilities. Treated septic effluent flows to the natural rock trickling filter for biological treatment and then to the three unlined treatment ponds, which are used in series. Undisinfected secondary treated wastewater is pumped from Pond 3 to one of two leach fields which are located up a hillside to the south-southwest of the ponds.

Effluent quality data from grab samples taken from the pond discharge to leach fields in the period from January 2018 through October 2022 are summarized in Table 2. Monthly effluent samples are analyzed for BOD, TDS, nitrate nitrogen, and TKN. Annually one of the effluent samples is analyzed for metals, per the sampling requirements in WDRs R5-2005-0099. The metals data here, therefore, represent 8 annual sampling events from 2014 through 2021. ND indicates none detected.

Table 2. Pond Effluent Quality

Parameter	Units	Average	Range
Biological oxygen demand (BOD)	mg/L	17.0	4 – 45
Total Dissolved Solids (TDS)	mg/L	82	ND - 208
Nitrate as Nitrogen	mg/L	1.7	ND – 3.1
Total Kjeldahl Nitrogen (TKN)	mg/L	7.8	ND –18
Iron, total recoverable	µg/L	5080	810 – 8960
Manganese, total recoverable	µg/L	340	80 - 560

The metals concentrations were reported as total recoverable, rather than as the more biologically relevant dissolved quantity. Elevated total recoverable iron and manganese concentrations are not atypical for water that has been in contact with soils in this area, which are generally silty clays to a maximum depth of 11 ft. bgs, underlain by weathered meta-volcanics (schist) with clay.

Pond dimensions are listed in Table 3, where pond depth is the total structural depth, including freeboard, and both surface area and volume are values at maximum allowable fill level, with 2 feet (ft) of freeboard available.

Table 3. Pond Dimensions and Capacities

Pond Name	Depth (ft)	Surface Area, maximum fill (acres)	Volume, maximum fill (gallons)
Pond No. 1	7	0.93	1,360,500
Pond No. 2	12	0.74	1,941,300
Pond No. 3	10	1.29	3,108,600

The lower leach field is approximately 4,500 square ft and consists of 1,500 lineal ft of leach lines. The lower leach field's design capacity is 20,000 gpd. The upper leach field is approximately 5,850 square ft and consists of 1,950 lineal ft of leach lines. The upper leach field's design capacity is 12,285 gpd. All leach lines are 4-inch diameter perforated pipe laid in 3 ft. wide by 3 ft. deep trenches with 1.5 ft of gravel underlying the pipe. Both leach fields are equipped with observation risers for trench water level monitoring.

Groundwater Monitoring

There are eight groundwater monitoring wells at this site, as shown on Attachment B. Recent groundwater monitoring data, averaged from quarterly sampling events from August 2014 through February 2022, are summarized in Tables 3a and 3b. Standard minerals are analyzed annually. Depth to groundwater is reported as feet below ground surface (ft bgs).

MW-3 is the sole upgradient well. MW-4, MW-7, and MW-8 are in close proximity to the ponds. MW-7 often had no data reported because the monitoring well was said to be inaccessible due to overgrowth. ND indicates none detected.

Table 4a. Groundwater Monitoring Data: upgradient and ponds

Parameter	Units	MW-3 (upgradient)	MW-4 (ponds)	MW-7 (ponds)	MW-8 (ponds)
Depth to groundwater	ft bgs	3.6	5.7	8.9	15.4
Total Dissolved Solids (TDS)	mg/L	76	166	150	270
Electrical conductivity (EC)	µS/cm	170	277	285	288
Nitrate as N	mg/L	0.32	ND	0.13	0.19
Total Kjeldahl Nitrogen (TKN)	mg/L	0.25	0.56	0.31	0.42
Iron, total recoverable	µg/L	529	2,324	289	21,008
Manganese, total recoverable	µg/L	8.7	110	24	546

MW-1, MW-2, MW-5R, and MW-6R are wells in the leach field areas, with MW-1 and MW-2 located near the lower leach field and MW-5R and MW-6R near the upper leach field. MW-6R, drilled to bedrock, often had no data reported because following purging, recovery time was too slow to get a sample, so the data presented here for MW-6R are from just two sampling events.

Table 3b. Groundwater Monitoring Data: leach field area

Parameter	Units	MW-1	MW-2	MW-5R	MW-6R
Depth to groundwater	ft bgs	11.2	13.7	40.3	41.0
TDS	mg/L	162	135	242	130
EC	µS/cm	267	278	405	2,952
Nitrate as N	mg/L	0.97	2.8	11.5	0.82
TKN	mg/L	1.2	0.54	0.80	1.4
Iron, total recoverable	µg/L	4,667	940	3,862	617
Manganese, total recoverable	µg/L	113	32	83	53

Due to several monitoring reports showing exceedances of total coliform in several monitoring wells (MW-1, MW-2, MW-7, and MW-8), from summer 2018 through early 2020, on 15 January 2020 the Discharger was issued a Staff Enforcement Letter which required the submittal of a technical report describing corrective measures to be taken to address the total coliform organism exceedances in MWs 1, 2, 7 and 8. A *Well Disinfection and Re-Development Workplan* was required to be submitted if the Discharger's chosen corrective measures were to include well disinfection and re-development. On 30 March 2020 the Discharger submitted its *Well Disinfection and Re-Development Workplan*. After completing the well disinfection, on 25 August 2021 the Discharger submitted a *Monitoring Well Post Disinfection Report*. In subsequent monitoring the total coliform organism results have appropriately improved.

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 Weimar Institute WWTF with the following site-specific requirements.

B.1 All Wastewater Systems

- a. Per Section B.1.a of General Order, the treated wastewater entering the leach field system shall not exceed **32,000 gallons per day**.
- b. Wastewater system setbacks (Section B.1.I, Table 3 of General Order), measured from the nearest high-water limit (bottom of freeboard) in the ponds must be at least as described in Table 5, below.

Table 5. Wastewater system setback requirements

Equipment or Activity	Domestic Well	Flowing Stream	Ephemeral Stream Drainage	Property Line	Lake or Reservoir
Septic Tank, Treatment System, and Collection Systems	50 ft	50 ft	50 ft	5 ft	200 ft
Treatment ponds (note 1)	150 ft	150 ft	150 ft	50 ft	200 ft
Leach Field	100 ft	100 ft	50 ft	5 ft	100 ft

Table 6 note 1: Requirement for wastewater treatment and impoundment of undisinfected secondary recycled water.

B.2 Septic Systems

The WWTF utilizes septic tanks; therefore Section B.2 of General Order applies in its entirety.

B.5 Pond Systems

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

B.6 Subsurface Disposal Systems

The WWTF utilizes a subsurface disposal system; therefore Section B.6 of General Order applies in its entirety.

B.8 Sludge/Solids Disposal

The WWTF includes septic tanks and ponds that may accumulate sludge; therefore Section B.8 of the General Order applies in its entirety.

General Order Sections B.3, B.4, and B.7 are not applicable because the WWTF does not use an aerobic treatment unit, an activated sludge system, nor land application.

Effluent Limitations, Section D of General Order

This section applies in its entirety to the Weimar Institute WWTF and shall include the following site-specific limitations.

- a. The following limit applies to effluent from Pond 3.

Table 6. Oxidation Pond Effluent Limitations

Constituent	Limit
Biochemical Oxygen Demand (BOD)	90 mg/L
Nitrate Nitrogen	10 mg/L

- b. Effluent Limit Rationale:

The pond 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 required because the monthly average flow will be greater than 20,000 gpd.

Technical Report Preparation Requirements, Section E.1 of General Order

The following technical reports shall be submitted as described below:

1. By **1 July 2023**, the Discharger shall submit a *Spill Prevention and Emergency Response Plan* (Response Plan) consistent with the requirements of General Order Provision E.1.a.
2. By **1 July 2023**, the Discharger shall submit a *Sampling and Analysis Plan* consistent with the requirements of General Order Provision E.1.b.
3. **At least 90 days prior** to any removal, drying, treatment, or disposal of sludge for pond maintenance, the Discharger shall submit a *Sludge Management Plan* consistent with the requirements of General Order Provision E.1.c.

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).

- a. 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 outside of any prioritized Groundwater Basin.
- b. 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 2617**, 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. 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) (https://www.waterboards.ca.gov/centralvalley/water_issues/salinity).

MONITORING AND REPORTING

Upon rescission of WDRs R5-2005-0099, the Discharger shall comply with Monitoring and Reporting Program (MRP) 2014-0153-DWQ-R5366, 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, you must contact the Central Valley Regional Water Board to determine if submittal of a Report of Waste Discharge is required.

Weimar Institute Inc. will generate the waste subject to the terms and conditions of WQ 2014-0153-DWQ-R5366 and will maintain exclusive control over the discharge. As such, Weimar Institute Inc. 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.

ANNUAL FEES

The annual fee is based on the discharge's threat to water quality and treatment system complexity rating. 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: Weimar Institute Inc. WWTF, Placer County
Program: Non-15 Compliance
Order: 2014-0153-DWQ-R5366
CIWQS Place ID: 271953

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

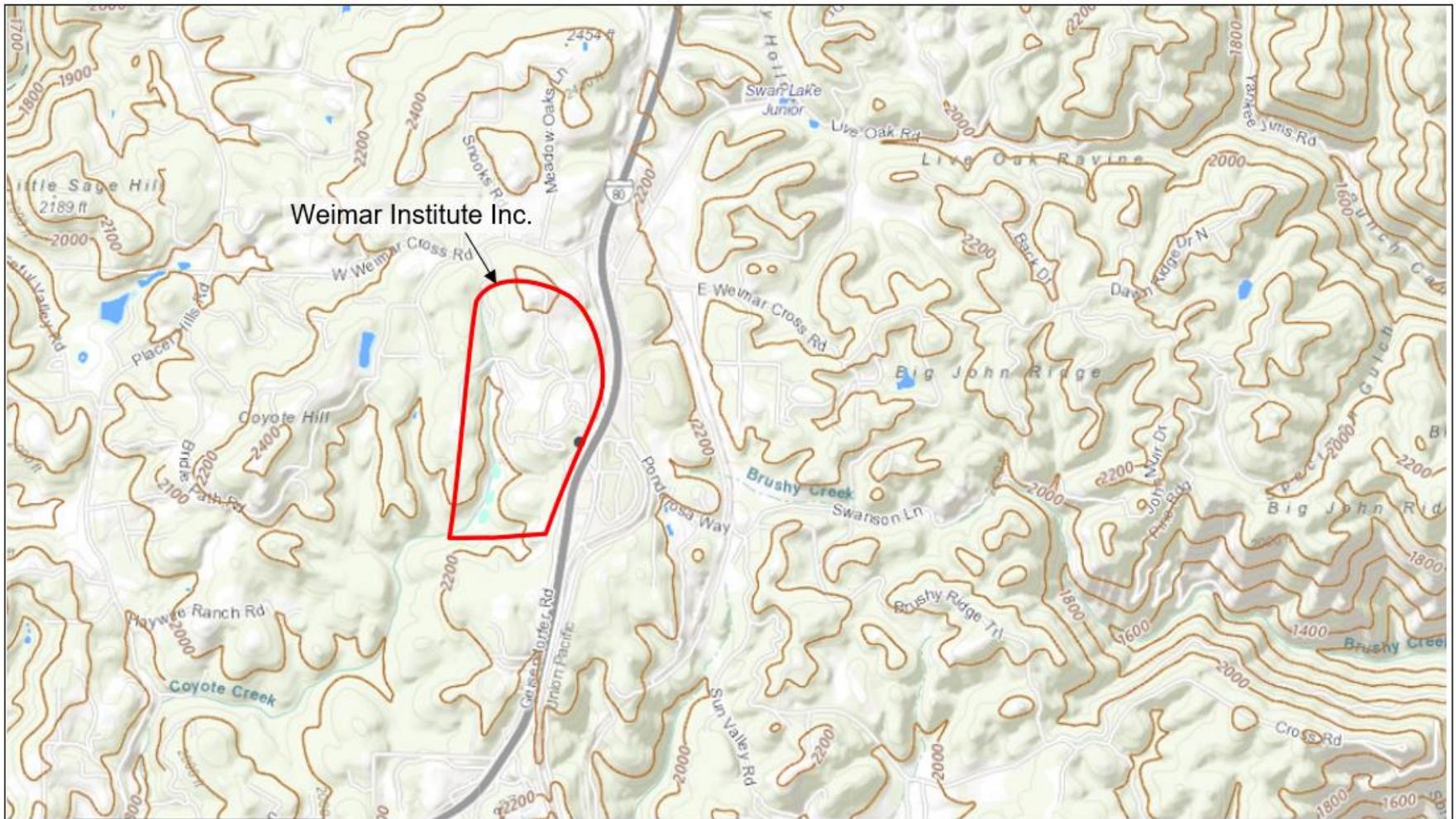
Now that the Notice of Applicability has been issued, the Board's Compliance and Enforcement section will take over management of your case. Guy Childs is your point of contact for any questions about the Waiver. If you find it necessary to make a change to your permitted operations, he will direct you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

for Patrick Pulupa
Executive Officer

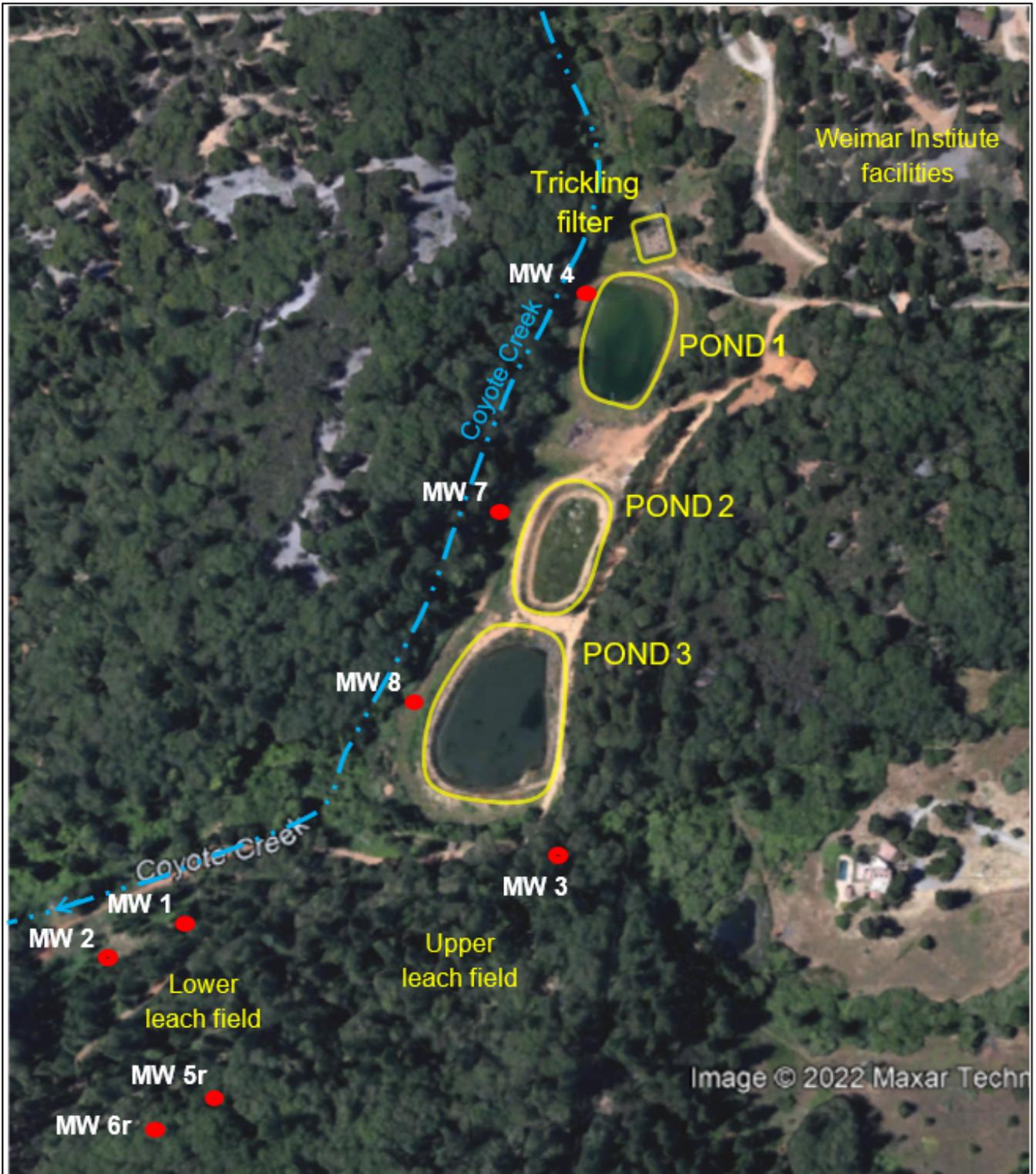
Attachments: Attachment A, Site Location Map
Attachment B, Site Plan with Monitoring Wells
Attachment C, Wastewater Treatment System Schematic

Enclosures: Monitoring and Reporting Program 2014-0153-DWQ-R5366
Water Quality Order WQ 2014-0153-DWQ
MRP Transmittal Form

cc w/out enc: Dale O'Bryan, Cranmer Engineering, Inc., Grass Valley
Laurel Warddrip, State Water Resources Control Board, Sacramento
Mohan Ganapathy, Placer County Environmental Health Dept., Auburn
Guy Childs, Central Valley Water Board, Rancho Cordova



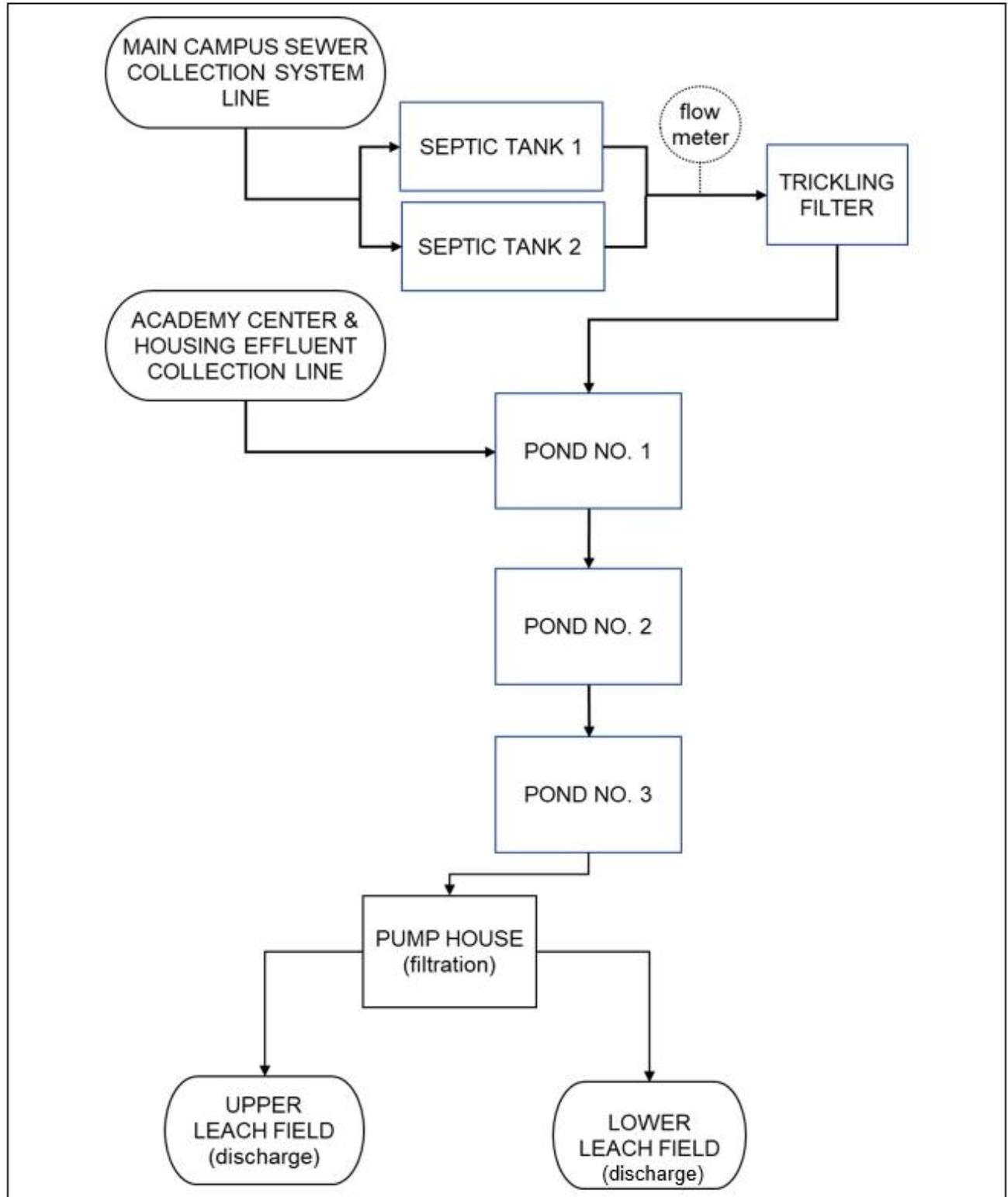
<p>Source: USGS National Map</p>	<p>SITE LOCATION Weimar Institute Inc. Placer County</p>	<p>N ↑</p> <p>SCALE: 1 in ≈ 2,500 ft</p>
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Source:
Report of Waste Discharge
and Google Earth

SITE PLAN
Weimar Institute WWTF
Placer County

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Scale:
—●—●—
250 ft.
(approximate)



Source:
Report of Waste Discharge

BLOCK FLOW PROCESS DIAGRAM

Weimar Institute WWTF
Placer County