CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM WQO 2014-0153-DWQ-R5366
FOR
WEIMAR INSTITUTE INC.
WEIMAR INSTITUTE WWTF
PLACER COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring the Weimar Institute Wastewater Treatment Facility (WWTF). This MRP is issued pursuant to Water Code section 13267. Weimar Institute Inc. (Discharger) shall not implement any changes to this MRP unless and until a revised MRP is issued by the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) or Executive Officer.

Water Code section 13267 states, in part:

> "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 waste 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 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 report 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."

Water Code section 13268 states, in part:

> "(a) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).
>
> (b)(1) Civil liability may be administratively imposed by a regional board in accordance with article 2.5 (commencing with section 13323) of chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars ($1,000) for each day in which the violation occurs."

The Weimar Institute Inc. owns and operates the Weimar Institute WWTF that is subject to the Notice of Applicability (NOA) of Water Quality Order 2014-0153-DWQ-R5366, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order). The reports are necessary to ensure that the Discharger complies with the NOA and General Order. Pursuant to Water Code section 13267, the

Discharger shall implement this MRP and shall submit the monitoring reports described herein.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The name of the sampler, sample type (grab or composite), time, data, location, bottle type, and any preservative used for each sample shall be recorded on the sample chain of custody form. The chain of custody form must also contain all custody information including data, time, and to whom samples were relinquished. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Central Valley Water Board staff.

Field test instruments (such as those used to measure pH, dissolved oxygen, electrical conductivity, wind speed, and precipitation) may be used provided that they are used by a State Water Board California Environmental Laboratory Accreditation Program (ELAP) certified laboratory, or:

1. The operator is trained in proper use and maintenance of the instruments;

2. The instruments are field calibrated at the frequency recommended by the manufacturer;

3. The instruments are serviced and/or calibrated at the manufacturer's recommended frequency; and

4. Field calibration reports are maintained and available for at least three years.

Laboratory analytical procedures shall comply with the methods and holding times specified in the following (as applicable to the medium to be analyzed):

- *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA);
- *Test Methods for Evaluating Solid Waste* (EPA);
- *Methods for Chemical Analysis of Water and Wastes* (EPA);
- *Methods for Determination of Inorganic Substances in Environmental Samples* (EPA); and
- *Standard Methods for the Examination of Water and Wastewater* (APHA/AWWA/WEF).

Approved editions shall be those that are approved for use by the U.S. Environmental Protection Agency or the State Water Resources Control Board's Environmental Laboratory Accreditation Program (ELAP). The Discharger may propose alternative methods for approval by the Executive Officer. Where technically feasible, laboratory reporting limits shall be lower than concentrations that implement applicable water quality objectives/limits for the constituents to be analyzed.

If monitoring consistently shows no significant variation in a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request this MRP

be revised to reduce monitoring frequency. The proposal must include adequate technical justification for a reduction in monitoring frequency. This monitoring program shall remain in effect unless and until a revised MRP is issued.

SEPTIC TANK SYSTEM MONITORING

Monitoring of septic tanks shall include the following as shown in the table below. Flow rate may be metered or estimated based on potable water supply meter reading or other approved method.

Table 1. Septic Influent Flow Rate

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow Rate	gallons per day (gpd)	Metered	Continuous	Annually

Septic tanks shall be inspected and/or pumped at least as frequently as described below. Inspections of sludge and scum depth are not required if the tanks are pumped at least annually. "NA" indicates "not applicable."

Table 2. Septic System Monitoring

Parameter	Units	Measurement Type	Inspection and Reporting Frequency
Sludge depth and scum thickness in each compartment of each tank	feet (ft)	Staff gauge	Annually
Distance between bottom of scum layer and bottom of outlet device	inches (in.)	Staff gauge	Annually
Distance between top of sludge layer and bottom of outlet device	in.	Staff gauge	Annually
Effluent filter condition (if equipped, clean as needed)	NA	NA	Annually

Septic tanks shall be pumped when any one of the following conditions exists:

1. The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment.
2. The scum layer is within 3 inches of the outlet device.
3. The sludge layer is within 8 inches of the outlet device.

If a septic tank is pumped during the year, the pumping report shall be submitted within the annual report. All pumping reports shall be submitted with the next regularly scheduled monitoring report. At a minimum, the record shall include the date, nature of service, service company name, and service company license number.

POND SYSTEM MONITORING

Pond System Influent Monitoring

Influent samples shall be collected from a location that provides representative samples of the wastewater and flow rate. At a minimum, influent shall be monitored as specified in the table below. The total flow shall be measured monthly to calculate the average daily flow rate for the month. Milligrams per liter is abbreviated as mg/L; micro Siemens per centimeter is abbreviated as µS/cm.

Table 3. Pond System Influent Monitoring

Constituent or Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Influent Flow Rate	gpd	Meter	Continuous	Semi-annually
Biochemical oxygen demand (BOD)	mg/L	Grab	Monthly	Semi-annually
Electrical Conductivity (EC)	µS/cm	Grab	Monthly	Semi-annually
Total Nitrogen	mg/L	Grab	Monthly	Semi-annually

Treatment Pond Monitoring

All ponds used for treatment, storage, or disposal of wastewater shall be monitored as specified in Table 4. Sampling and monitoring shall be conducted from permanent locations that will provide reasonable samples and observations of the ponds. Freeboard shall be measured vertically from the water surface to the lowest elevation of pond berms (or spillway/overflow pipe invert) and shall be measured to the nearest 0.10 feet. Samples shall be collected at a depth of one foot, opposite the inlet. If any pond is dry, the monitoring report shall so state.

Dissolved oxygen (DO) samples shall be taken opposite the pond inlet at a depth of approximately one foot. If the DO is below 1.0 mg/L during a regular sampling event and objectionable odors are observed offsite, the discharger shall take all reasonable steps to correct the problem and will commence daily DO monitoring before 10:00 a.m. in the affected pond(s) until the problem has been resolved.

Table 4. Treatment Pond Monitoring

Constituent or Parameter	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Presence or Absence of Water	--	Observation	Monthly	Quarterly
Freeboard, to the nearest 0.1 ft	ft	Measurement	Monthly	Quarterly

Constituent or Parameter	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Odors	--	Observation	Monthly	Quarterly
Berm Condition	--	Observation	Monthly	Quarterly
Dissolved Oxygen (DO)	mg/L	Grab	Monthly	Quarterly

Pond Effluent Monitoring

Effluent samples shall be taken from a location in Pond 3 or equivalent that provides representative samples of the wastewater. At a minimum, effluent monitoring shall consist of the following as provided below in Table 5.

Table 5. Pond Effluent Monitoring

Constituent	Units	SampleType	Sample Frequency	ReportingFrequency
BOD	mg/L	Grab	Monthly	Quarterly
EC	µS/cm	Grab	Monthly	Quarterly
Total Nitrogen	mg/L	Grab	Monthly	Quarterly

SUBSURFACE DISPOSAL AREA MONITORING

Subsurface disposal areas may be configured many different ways (e.g., traditional leach field, pressure-dosed, drip system, mound/at grade, gravel less, etc.). In general, monitoring shall be sufficient to determine if wastewater is evenly applied, the disposal area is not saturated, burrowing animals and/or deep-rooted plants are not present, and objectionable odors are not present. Inspection of dosing pump controllers, automatic distribution valves, etc. is required to maintain optimum treatment in the disposal area (and any sand or media filter if present). Monitoring shall include, at a minimum, the parameters specified in Table 6 and meet the testing requirements 1 - 4 listed here:

1. All pump controllers and automatic distribution valves shall be inspected for proper operation as recommended by the manufacturer.
2. Inspect disposal areas for saturated conditions.
3. Shallow-rooted plants are generally desirable, deep-rooted plants such as trees shall be removed, as necessary.
4. Evidence of animals burrowing shall be immediately investigated, and burrowing animal populations controlled, as necessary.

Table 6. Subsurface Disposal Monitoring

Parameters	Inspection Frequency	Reporting Frequency
Pump Controllers, Valves, etc. (see requirement 1 above)	Quarterly	Quarterly
Nuisance Odor Condition	Quarterly	Quarterly
Saturated Soil Conditions (see requirement 2 above)	Quarterly	Quarterly
Plant Growth (see requirement 3 above)	Quarterly	Quarterly
Vectors or Animal Burrowing (see requirement 4. above)	Quarterly	Quarterly

SLUDGE/SOLIDS DISPOSAL MONITORING

The Discharger shall report the handling and disposal of all solids (e.g., screenings, grit, sludge, biosolids, etc.) generated at the wastewater system. Records shall include the name/contact information for the hauling company, the type and amount of waste transported, the date removed from the wastewater system, the disposal facility name and address, and copies of analytical data required by the entity accepting the waste. These records shall be submitted as part of the annual monitoring report.

GROUNDWATER MONITORING

The Discharger shall monitor groundwater quality as required by the NOA. Consistent with the Business and Professions Code, groundwater monitoring reports, well construction workplans, etc. shall be prepared under the supervision of a California licensed civil engineeror geologist. Prior to construction of any groundwater monitoring wells, the Discharger shall submit plans and specifications to the Regional Water Board's staff for review and approval. Once installed, all monitoring wells designated as part of the monitoring network shall be sampled and analyzed according to the schedule below.

Prior to sampling, groundwater elevations shall be measured, and the wells shall be purged of at least three well volumes and until pH and electrical conductivity have stabilized. No-purge, low-flow, or other sampling techniques are acceptable if they are described in an approved *Sampling and Analysis Plan*.

Depth to groundwater shall be measured to the nearest 0.01 feet. Groundwater elevations shall be calculated. Samples shall be collected using approved USEPA methods. Groundwater monitoring shall be monitored as specified in the following table and meet the testing requirements 1 – 3 below:

1. Groundwater elevation shall be based on depth to water using a surveyed measuring point elevation on the well and a surveyed reference elevation.

2. Metals shall be reported as “dissolved”, with the samples filtered as required by the appropriate dissolved metals analytical method(s).
3. Analysis of data by a California licensed professional is required at least annually.

Table 7. Groundwater Monitoring

Parameter or Constituent	Units	SampleType	Sampling Frequency	Reporting Frequency
Groundwater Elevation, to the nearest 0.01 ft (see requirement 1 above)	ft	Calculation	Semi-annually	Annually
Depth to Groundwater, to the nearest 0.01 ft	ft	Measurement	Semi-annually	Annually
pH	s.u.	Grab	Annually	Annually
Total Dissolved Solids (TDS)	mg/L	Grab	Semi-annually	Annually
Electrical Conductivity (EC)	µS/cm	Grab	Semi-annually	Annually
Nitrate as Nitrogen	mg/L	Grab	Semi-annually	Annually
Iron, dissolved	µg/L	Grab	Semi-annually	Annually
Manganese, dissolved	µg/L	Grab	Semi-annually	Annually

Data from routine groundwater monitoring events shall be submitted annually. Analysis of the data and groundwater flow directions shall be performed at least annually and shall beperformed under the supervision of a California licensed professional (e.g., a California licensed professional geologist or California registered environmental health specialist). The Discharger may request a reduced monitoring and reporting schedule once adequate data has been collected to characterize the site.

REPORTING REQUIREMENTS

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

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

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

To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any correspondence used to transmit documents to this office:

Facility:	Weimar Institute WWTF
Program:	Non-15 Compliance
Order Number:	WQ 2014-0153-DWQ-R5366
CIWQS Place ID:	CW-271953

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, pond, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner as to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported in the next regularly scheduled monitoring report and shall be included in calculations as appropriate.

Monitoring information shall include the method detection limit (MDL) and the Reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated. For a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

As required by the Business and Professions Code sections 6735, 7835, and 7835.1, all monitoring reports that involve planning, investigation, evaluation or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared under the direct supervision of a Registered Professional Engineer or Professional Geologist and signed by the registered professional.

If the Discharger does not comply, or will be unable to comply, with a limit related to effluent quality, pond freeboard, flow rate, or overflow issues, the Discharger shall notify Regional Water Board staff by telephone. Notification shall occur as soon as the Discharger or its agents have knowledge of such noncompliance or potential for noncompliance, and the discharger shall confirm this notification in writing **within 10 days**. The written notification shall state the date, time, nature, cause of noncompliance, immediate response action, and a schedule for corrective actions.

A. Monitoring Report Due Dates

Quarterly and annual monitoring reports are due as described in the table below.

Table 8. Monitoring Report Due Dates

Monitoring Report	Monitoring Period	Report Due Date
First Quarter (1Q)	1 January to 31 March	1 May
Second Quarter (2Q)	1 April to 30 June	1 August
Third Quarter (3Q)	1 July to 30 September	1 November
Fourth Quarter (4Q)	1 October to 31 December	1 February
Annual Report	1 January to 31 December	1 February
State Water Board Volumetric Annual Reporting	1 January to 31 December	30 April

B. Quarterly Monitoring Reports

Quarterly reports shall be submitted to the Regional Water Board on the **first day of the second month after the quarter ends** (e.g., the January - March Quarterly Report is due by May 1st) as shown in Table 8, above. The reports shall bear the certification and signature of the Discharger's authorized representative. Continuous, daily, weekly, monthly, and quarterly monitoring data shall be reported in the quarterly monitoring report. At a minimum, the quarterly report shall include:

1. Results of all required monitoring

2. A comparison of monitoring data to the flow limitations and discharge specifications and an explanation of any violation of those requirements.

3. Copies of the laboratory analytical data reports shall be maintained by the Discharger and submitted to the Central Valley Water Board.

C. Annual Report

In addition to the fourth quarter monitoring report, an Annual Report shall be prepared. The Annual Report shall include the following:

1. Tabular and graphical summaries of all monitoring data collected during the year.

2. An evaluation of the performance of the wastewater treatment facility, including discussion of capacity issues, nuisance conditions, system problems, and a forecast of the flows anticipated in the next year. A flow rate evaluation as described in the General Order (Provision E.2.c) shall also be submitted.

3. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the NOA and/or General Order.

4. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.

5. The name and contact information for the wastewater operator responsible for operation, maintenance, and system monitoring.

6. A groundwater monitoring report prepared by a California licensed professional if groundwater monitoring is performed. This report may be prepared separately from the rest of the Annual Report. The report shall contain an analysis of groundwater data collected during the year. The analysis shall include a description of the sample events, copies of the field logs, purge method and volume, groundwater elevation and trend, a groundwater elevation map for each sample event, summary tables showing results for parameters measured, comparison of groundwater quality parameters to standards in the NOA, chain-of-custody forms, calibration logs for field equipment used, and a general evaluation of any impacts the wastewater discharge is having on groundwater quality.

D. State Water Board Volumetric Annual Reporting

Per the State Water Board's Water Quality Control Policy (https://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy), amended in December 2018, dischargers of treated wastewater and recycled water with permitted influent flow rates of 20,000 gpd or greater are required to report annually monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type. The Discharger shall submit an annual report to the State Water Board by April 30 of each calendar year, including the information detailed below. The Discharger must submit this annual report containing monthly data in electronic format via the State Water Board GeoTracker database (http://geotracker.waterboards.ca.gov/). Required data shall be submitted to the GeoTracker database under your site-specific global identification number: **WDR100036528**. Data will be made publicly accessible as machine-readable datasets. The Discharger must report all applicable items listed below:

1. Influent - Monthly volume of wastewater collected and treated by the wastewater treatment plant.
2. Production - Monthly volume of wastewater treated, specifying level of treatment.
3. Discharge - Monthly volume of treated wastewater discharged to land, where beneficial use is not taking place, including evaporation or percolation ponds, overland flow, or spray irrigation disposal, excluding pasture of fields with harvested grounds.
4. Reuse - Monthly volume of recycled water distributed.
5. Reuse Categories - Annual volume of treated wastewater distributed for beneficial use in compliance with California Code of Regulations, Title 22 in each of the use categories listed below:

a. Agricultural irrigation: pasture or crop irrigation.

b. Landscape irrigation: irrigation of parks, greenbelts, and playgrounds; school yards; athletic fields; cemeteries; residential landscaping, common areas; commercial landscaping; industrial landscaping; and freeway, highway, and street landscaping.

c. Golf course irrigation: irrigation of golf courses, including water used to maintain aesthetic impoundments within golf courses.

d. Commercial application: commercial facilities, business use (such as laundries and office buildings), car washes, retail nurseries, and appurtenant landscaping that is not separately metered.

e. Industrial application: manufacturing facilities, cooling towers, process water, and appurtenant landscaping that is not separately metered.

f. Geothermal energy production: augmentation of geothermal fields.

g. Other non-potable uses: including but not limited to dust control, flushing sewers, fire protection, fill stations, snow making, and recreational impoundments.

h. Groundwater recharge: the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system. Includes surface or subsurface application, except for seawater intrusion barrier use.

i. Reservoir water augmentation: the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system, as defined in § 116275 of the Health and Safety Code, or into a constructed system conveying water to such a reservoir (Water Code § 13561).

j. Raw water augmentation: the planned placement of recycled water into a system of pipelines or aqueducts that deliver raw water to a drinking water treatment plant that provides water to a public water system as defined in § 116275 of the Health and Safety Code (Water Code § 13561).

k. Other potable uses: both indirect and direct potable reuse other than for groundwater recharge, seawater intrusion barrier, reservoir water augmentation, or raw water augmentation.

E. Report Certification

A letter transmitting the self-monitoring reports shall accompany each report. The letter shall report violations found during the reporting period, and actions taken or planned for correcting noted violations and prevent future violations. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be

satisfactory. The transmittal letter shall contain the penalty of perjury statement and be signed by the Discharger or the Discharger's authorized agent.

> "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."

The Discharger shall implement the above monitoring program on **the first day of the month** following rescission of WDRs Order R5-2005-0099.

This Order is issued under authority delegated to the Executive Officer by the Central Valley Water Board pursuant to Resolution R5-2018-0057 and is effective upon signature.

Ordered by:

for PATRICK PULUPA, Executive Officer