

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 94-360, REVISION NO. 1

FOR
STANISLAUS COUNTY PARKS DEPARTMENT
MODESTO RESERVOIR REGIONAL PARK
STANISLAUS COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring the influent, effluent, pond, groundwater, and sludge. Stanislaus County Parks Department (Discharger) shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

This MRP is issued pursuant to California Water Code (CWC) Section 13267 and all monitoring reports are to be submitted pursuant to CWC Section 13267.

The Discharger owns and operates the facility that is subject to Waste Discharge Requirements (WDRs) Order No. 94-360, and the required reports are necessary to ensure that the Discharger complies with the WDRs.

Central Valley Water Board staff shall approve specific sampling locations prior to any sampling activities. All samples shall be representative of the volume and nature of the discharge. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form.

Field test instruments (such as those used to test pH, specific conductivity, turbidity and dissolved oxygen) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are calibrated prior to each monitoring event;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

Analytical procedures shall comply with the methods and holding times specified in the following: *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); *Standard Methods for the Examination of Water and Wastewater* (APHA/AWWA/WEF); and *Soil, Plant and Water Reference Methods for the Western Region* (WREP 125). Approved editions shall be those that are approved for use by the United States Environmental Protection Agency or the

State Water Resources Control Board's Environmental Laboratory Accreditation Program. The Discharger may propose alternative methods for approval by the Executive Officer. Where technically feasible, laboratory reporting limits shall be lower than the applicable water quality objectives.

INFLUENT MONITORING

Influent monitoring shall be performed at the location where influent is discharged into the aeration pond. Influent monitoring shall include the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow	gpd	Meter	Daily	Monthly
BOD ₅ ¹	mg/L	Grab	Monthly	Monthly

¹ 5-day, 20°C Biochemical Oxygen Demand

EFFLUENT MONITORING

Effluent samples shall be collected from an established sampling station located in an area that will provide a sample representative of the water in the aeration pond, and the two evaporation/percolation ponds. Effluent monitoring shall include at least the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly
BOD ₅ ¹	mg/L	Grab	Monthly	Monthly
Nitrate as Nitrogen	mg/L	Grab	Monthly	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Monthly	Monthly
Total Nitrogen	mg/L	Grab	Monthly	Monthly
Phenols ²	mg/L	Grab	Annually	Annually
Formaldehyde ²	mg/L	Grab	Annually	Annually
Zinc ²	mg/L	Grab	Annually	Annually
Standard Minerals ³	mg/L	Grab	Annually	Annually

¹ 5-day Biochemical Oxygen Demand

² Constituents associated with the Recreational Vehicle Dump Station to be collected on an annual basis.

³ Standard Minerals shall include, at a minimum, the following elements and compounds: Boron, Calcium, Iron, Magnesium, Manganese, Sodium, Potassium, Chloride, Sulfate, Total Alkalinity (including alkalinity series), and Hardness.

POND MONITORING

Samples shall be collected from an established sampling station located in an area that will provide a sample representative of the water in the two evaporation/percolation

ponds. Freeboard shall be measured vertically from the surface of the pond water to the lowest elevation of the surrounding berm and shall be measured to the nearest 0.1 feet. Monitoring of each of the ponds shall include, at a minimum, the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Dissolved Oxygen ^{1,3}	mg/L	Grab	Weekly	Monthly
pH ³	pH Units	Grab	Weekly	Monthly
Freeboard	0.1 feet	Measurement	Weekly	Monthly
Berm Seepage ²	NA	Observation	Weekly	Monthly
Odors ⁴	--	Observation	Weekly	Monthly

¹ Samples shall be collected at a depth of one foot, opposite the inlet. Samples shall be collected between 0700 and 0900 hours.

² Containment levees shall be observed for signs of seepage or surfacing water along the exterior toe of the levee. If surfacing water is found, then a sample shall be collected and tested for total coliform organisms and total dissolved solids.

³ Handheld meter may be used.

⁴ The presence of strong or unusual odors shall be reported.

GROUNDWATER MONITORING

The groundwater monitoring program shall begin in the **second quarter of 2017**. Samples shall be collected from groundwater monitoring wells (MWs) 1, 2, 3, and 4. Prior to construction and/or sampling of any additional groundwater monitoring wells, the Discharger shall submit plans and specifications to the Board for review and approval. Once installed, all new wells shall be added to the MRP and shall be sampled and analyzed according to the schedule below.

Prior to sampling, depth to groundwater measurements shall be measured in each monitoring well to the nearest 0.01 feet. Groundwater elevations shall then be calculated to determine groundwater gradient and flow direction. Monitoring wells to be sampled shall be purged of at least three well volumes until temperature, pH, and specific conductivity have stabilized. Low or no-purge sampling methods are acceptable, if described in an approved Sampling and Analysis Plan. Samples shall be collected and analyzed using standard EPA methods. Groundwater monitoring shall include, at a minimum, the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Depth to Groundwater	0.01 Feet	Measured	Quarterly	Semi-Annual
Groundwater Elevation ¹	0.01 Feet	Calculated	Quarterly	Semi-Annual
Gradient	Feet/Feet	Calculated	Quarterly	Semi-Annual
Gradient Direction	Degrees	Calculated	Quarterly	Semi-Annual
pH ²	pH Units	Grab	Quarterly	Semi-Annual
Turbidity ²	NTU	Grab	Quarterly	Semi-Annual

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Specific Conductivity ²	µmhos/cm	Grab	Quarterly	Semi-Annual
Total Dissolved Solids	mg/L	Grab	Quarterly	Semi-Annual
Total Coliform Organisms ³	MPN/100ml ⁴	Grab	Quarterly	Semi-Annual
Nitrate as Nitrogen	mg/L	Grab	Quarterly	Semi-Annual
Total Kjeldahl Nitrogen	mg/L	Grab	Quarterly	Semi-Annual
Total Nitrogen	mg/L	Grab	Quarterly	Semi-Annual
Standard Minerals ⁵	mg/L	Grab	Annually	Annually

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

²Hand held field meter may be used.

³Using a minimum of 15 tubes or three dilutions

⁴Most probable number per 100 ml.

⁵Standard Minerals shall include, at a minimum, the following elements and compounds: Boron, Calcium, Iron, Magnesium, Manganese, Sodium, Potassium, Chloride, Sulfate, Total Alkalinity (including alkalinity series), and Hardness.

SLUDGE MONITORING

When removed from the evaporation/percolation ponds, a composite sample of sludge shall be collected in accordance with EPA's POTW Sludge Sampling and Analysis Guidance Document, August 1989, and tested for the following metals:

Arsenic	Mercury
Cadmium	Molybdenum
Chromium	Nickel
Copper	Selenium
Lead	Zinc

Sampling records shall be retained for a minimum of five years. A log shall be kept of sludge quantities generated and of handling and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the annual report.

REPORTING

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:

Stanislaus County Parks Department, Modesto Reservoir Regional Park, Stanislaus County		
Program: Non-15 Compliance	MRP: 94-360, Revision 1	CIWQS Place ID: 272989

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type, and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with the requirements of the Monitoring and Reporting Program, and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported to the Central Valley Water Board.

A signed letter transmitting the monitoring reports shall accompany each report. The transmittal letter shall contain the penalty of perjury statement by the Discharger, or the Discharger's authorized agent, as described in the Standard Provisions General Reporting Requirements Section B.3, which states any person signing a document under this Section shall make the following certification:

"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."

As required by the California Business and Professions Code sections 6735, 7835, and 7835.1, all Groundwater Monitoring Reports shall be prepared under the direct supervision of a Registered Professional Engineer or Geologist and signed by the registered professional.

A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Water Board on the **1st day of the second month following sampling** (i.e. the January Report is due by 1 March). At a minimum, the reports shall include:

1. Results of the influent, effluent, and pond monitoring;
2. A calibration log verifying calibration of all hand-held monitoring instruments and devices used to comply with the prescribed monitoring program; and
3. If requested by staff, copies of laboratory analytical report(s).

B. Semi-Annual Monitoring Report

The Discharger shall establish a sampling schedule for groundwater monitoring such that samples are obtained during the first, second, third, and fourth quarter of each calendar year and obtained approximately every three months. Semi-Annual Groundwater Monitoring Reports which include the quarterly sampling results shall be submitted to the Central Valley Water Board by the **1st day of the second month after the reporting period** (i.e., the January-June semi-annual report is due by 1 August of each year). The monitoring report shall include the following:

1. Results of the quarterly monitoring of the groundwater in tabular format. The analytical result tables shall include the laboratory PQL for each analyte for each sampling event. A result of "0.0" is not acceptable and shall instead be replaced with "ND <" and the PQL. Any "J" flagged values shall be reported. Results shall be reported exactly as presented on laboratory reports; values shall not be rounded;
2. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the groundwater monitoring. The narrative shall be sufficiently detailed to verify compliance with the WDR, this MRP, and the Standard Provisions and Reporting Requirements. The narrative shall be supported by field logs for each well documenting depth to groundwater; parameters measured before, during, and after purging; method of purging; calculation of casing volume; and total volume of water purged;
3. Calculation of groundwater elevations, determination of groundwater flow direction and gradient on the date of measurement, comparison of previous flow direction and gradient data, and discussion of seasonal trends if any;
4. Summary of data tables of historical and current groundwater elevations;
5. A scaled map showing relevant structures and features of the facility, land application areas, locations of monitoring wells and any other sampling stations, and groundwater elevation contours referenced to mean sea level datum;
6. A narrative discussion of the analytical results for all groundwater locations monitored including spatial and temporal trends, with reference to summary data tables, graphs, and appended analytical reports (as applicable);
7. Copies of laboratory analytical report(s) for groundwater monitoring.

C. Annual Monitoring Report

An Annual Report shall be prepared and submitted by **1 February** each year. The Annual Report shall include the following:

1. Concentration vs time series graphs for each monitored constituent using all historic groundwater monitoring data;
2. Summary of information on the disposal of sludge and/or solid waste;
3. The results from any sludge monitoring required by the disposal facility;
4. A statement regarding whether the flow meter was calibrated during the year;
5. A discussion of compliance and the corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements; and
6. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.

A letter transmitting the self-monitoring reports shall accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. 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 by the Discharger, or the Discharger's authorized agent, as described in the Standard Provisions General Reporting Requirements Section B.3.

The Discharger shall implement the above monitoring program as of the date of signature.

Ordered by: _____
Original signed by
PAMELA C. CREEDON, Executive Officer
20 April 2017

(Date)

gjc: 20 Apr-17