

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2018-XXXX  
FOR  
CHEVRON USA, INCORPORATED  
MIDWAY SOLID WASTE DISPOSAL SITE  
CLASS III LANDFILL  
POST-CLOSURE MAINTENANCE

SAN LUIS OBISPO COUNTY

This monitoring and reporting program (MRP) is issued pursuant to California Water Code section 13267 and incorporates requirements for groundwater, surface water, and unsaturated zone monitoring and reporting; facility monitoring, maintenance, and reporting; and financial assurances reporting contained in California Code of Regulations, title 27, section 20005, et seq. (hereafter Title 27), Waste Discharge Requirements (WDRs) Order No. R5-2018-XXXX, and the Standard Provisions and Reporting Requirements (SPRRs) dated December 2015. Compliance with this MRP is ordered by the WDRs and the Discharger shall not implement any changes to this MRP unless a revised MRP is issued by the Central Valley Water Board or the Executive Officer.

**A. MONITORING**

The monitoring program of this MRP includes:

<u>Section</u>	<u>Monitoring Program</u>
A.1	Leachate Seep Monitoring
A.2	Final Cover Monitoring
A.3	Facility Monitoring

**1. Leachate Seep Monitoring**

**Seep Monitoring:** Leachate that seeps to the surface from a landfill unit shall be sampled and analyzed for the Field and Monitoring Parameters listed in Table I upon detection. The quantity of leachate shall be estimated and reported as Leachate Flow Rate (in gallons/day). Reporting for leachate seeps shall be conducted as required in Section B.2 of this MRP, below.

**2. Final Cover Monitoring**

The Discharger shall monitor the final cover in accordance with the provisions in the Post-Closure Maintenance Plan. The pan lysimeter(s) shall be checked for the presence of water on a quarterly basis. The volume of water discovered in the pan lysimeter(s) shall be reported in the Annual Monitoring Report.

Discharger shall determine if significant moisture infiltration has occurred in accordance with Monitoring Specifications F. 3. of the WDRs. The results shall be reported in the in the annual monitoring report due 1 February following each monitoring year.

### **3. Facility Monitoring**

#### **a. Annual Facility Inspection**

Annually, prior to the anticipated rainy season, but no later than **30 September**, the Discharger shall conduct an inspection of the facility. The inspection shall assess repair and maintenance needed for drainage control systems, cover systems, and groundwater monitoring wells; and shall assess preparedness for winter conditions (including but not limited to erosion and sedimentation control). The Discharger shall take photos of any problems areas before and after repairs. Any necessary construction, maintenance, or repairs shall be completed by **31 October**. Annual facility inspection reporting shall be submitted as required in Section B.3 of this MRP.

#### **b. Major Storm Events**

The Discharger shall inspect all precipitation, diversion, and drainage facilities and all landfill side slopes for damage **within 7 days** following major storm events capable of causing damage or significant erosion. The Discharger shall take photos of any problems areas before and after repairs. Necessary repairs shall be completed **within 30 days** of the inspection. Notification and reporting requirements for major storm events shall be conducted as required in Section B.4 of this MRP.

#### **c. Five-Year Iso-Settlement Survey for Closed Units**

For closed landfill units, the Discharger shall conduct a five-year iso-settlement survey and produce an iso-settlement map accurately depicting the estimated total change in elevation of each portion of the final cover's low-hydraulic-conductivity layer. For each portion of the landfill, this map shall show the total lowering of the surface elevation of the final cover, relative to the baseline topographic map [Title 27, section 21090(e)(1 & 2)]. Reporting shall be in accordance with Section B.5 of this MRP. The next iso-settlement survey shall be conducted in **2018** and shall be submitted on **1 February 2019**.

**d. Standard Observations**

The Discharger shall conduct Standard Observations at the landfill in accordance with this section of the MRP. Standard observations shall be conducted in accordance with the following schedule:

<u>Frequency</u>	<u>Season</u>
Monthly	Wet: 1 October to 30 April
Quarterly	Dry: 1 May to 30 September

The Standard Observations shall include:

- 1) For the landfill units:
  - a) Evidence of ponded water at any point on the landfill cover;
  - b) Evidence of erosion and/or of day-lighted refuse; and
  - c) Evidence of leachate seeps.
- 2) Along the perimeter of the landfill units:
  - a) Evidence of leachate seeps, estimated size of affected area, and flow rate (show affected area on map);
  - b) Evidence of erosion and/or of day-lighted refuse; and
  - c) Evidence of leachate seeps.

Results of Standard Observations shall be submitted in the annual monitoring reports required in Section B.1 of this MRP.

**B. REPORTING**

The Discharger shall submit the following reports in accordance with the required schedule:

**Reporting Schedule**

<u>Section</u>	<u>Report</u>	<u>End of Reporting Period</u>	<u>Due Date</u>
B.1	Annual Monitoring Report	31 December	<b>1 February</b>
B.2	Leachate Seep Reporting	Continuous	<b>Immediately &amp; 7 Days</b>
B.3	Annual Facility Inspection Report	31 October	<b>15 November</b>
B.4	Major Storm Event Reporting	Continuous	<b>Immediately &amp; 7 days from damage discovery</b>

<u>Section</u>	<u>Report</u>	<u>End of Reporting Period</u>	<u>Due Date</u>
B.5	Survey and Iso-Settlement Map for Closed Landfills	Every Five Years	<b>1 February 2019 &amp; Every Five Years Thereafter</b>
B.6	Pan Lysimeter	31 March	<b>1 February</b>
		30 June	
		30 September	
		31 December	
B.7	Financial Assurances Report	31 December	<b>1 June</b>

### REPORTING REQUIREMENTS

The Discharger shall submit monitoring reports **annually** with the data and information as required in this Monitoring and Reporting Program and as required in WDRs Order No. R5-2018-XXXX and the Standard Provisions and Reporting Requirements (particularly Section I: "Standard Monitoring Specifications" and Section J: "Response to a Release"). In reporting the monitoring data required by this program, the Discharger shall arrange the data in tabular form so that the date, the constituents, the concentrations, and the units are readily discernible. The data shall be summarized in such a manner so as to illustrate clearly the compliance with waste discharge requirements or the lack thereof.

The Dischargers shall submit all reports required under the MRP, including discharge location data, and pdf monitoring reports to the State Water Resources Control Board (State Water Board) GeoTracker database.

Field and laboratory tests shall be reported in each monitoring report. Annual Monitoring reports shall be submitted to the Central Valley Water Board in accordance with the above schedule for the calendar period in which samples were taken or observations made. In addition, the Discharger shall enter all monitoring data and monitoring reports into the online Geotracker database as required by Division 3 of Title 27 and Chapter 30, Division 3 of Title 23.

The results of **all monitoring** conducted at the site shall be reported to the Central Valley Water Board in accordance with the reporting schedule above for the calendar period in which samples were taken or observations made.

The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained throughout the life of the facility including the post-closure period. Such records shall be legible and shall show the following for each sample:

- a) Sample identification and the monitoring point or background monitoring point from which it was taken, along with the identity of the individual who obtained the sample;
- b) Date, time, and manner of sampling;
- c) Date and time that analyses were started and completed, and the name of the personnel and laboratory performing each analysis;
- d) Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used;
- e) Calculation of results; and
- f) Results of analyses, and the MDL and PQL for each analysis. All peaks shall be reported.

### REQUIRED REPORTS

1. **Annual Monitoring Report:** The Discharger shall submit an Annual Monitoring Report to the Central Valley Water Board by **1 February** covering the reporting period of the previous monitoring year. Each Annual Monitoring Report shall contain the following information:
  - a) All historical pan lysimeter monitoring data for which there are detectable results, including data for the previous year, shall be submitted in tabular form in a digital file format such as a computer disk. The Central Valley Water Board regards the submittal of data in hard copy and in digital format as "...the form necessary for..." statistical analysis [Title 27, section 20420(h)], that facilitates periodic review by the Central Valley Water Board.
  - b) A comprehensive discussion of the compliance record, and the result of any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the waste discharge requirements.
  - c) A written summary of the monitoring results, indicating any changes made or observed since the previous Annual Monitoring Report.
2. **Leachate Seep Reporting:** The Discharger shall report by telephone any seepage from the disposal area **immediately** after it is discovered. A written report shall be filed with the Central Valley Water Board **within seven days**, containing at least the following information:
  - a) A map showing the location(s) of seepage;
  - b) An estimate of the flow rate;
  - c) A description of the nature of the discharge (e.g., all pertinent observations and analyses);

- d) Verification that samples have been submitted for analyses of the Field Parameters and Monitoring Parameters listed in Table I of this MRP, and an estimated date that the results will be submitted to the Central Valley Water Board; and
  - e) Corrective measures underway or proposed, and corresponding time schedule.
3. **Annual Facility Inspection Reporting:** By **15 November** of each year, the Discharger shall submit a report describing the results of the inspection and the repair measures implemented, preparations for winter, and include photographs of any problem areas and the repairs. Refer to Section A.3.a of this MRP, above.
  4. **Major Storm Event Reporting:** Following major storm events capable of causing damage or significant erosion, the Discharger **immediately** shall notify Central Valley Water Board staff of any damage or significant erosion upon discovery and report subsequent repairs within **14 days** of completion of the repairs, including photographs of the problem and the repairs. Refer to Section A.3.b of this MRP, above.
  5. **Survey and Iso-Settlement Map for Closed Landfills:** The Discharger shall conduct a survey and submit an iso-settlement map for each closed area of the landfill every five years pursuant to Title 27, section 21090(e). Refer to Section A.3.c of this MRP, above. The next report is due by **1 February 2019**.
  6. **Pan Lysimeter:** The Discharger shall inspect and record the volume of moisture collected by the pan lysimeter quarterly. The results shall be included in the Annual Monitoring Report and a discussion of the performance of the evapo-transpirative (ET) cover relative to the moisture limits established in the Final Closure and Post-Closure Maintenance Plan. Refer to Section A.2. in this MRP above.
  7. **Financial Assurances Report:** By **1 June** of each year, the Discharger shall submit a copy of the annual financial assurances report due to CalRecycle that updates the financial assurances for closure, post-closure maintenance, and corrective action. Refer to Financial Assurances Specifications E.1 through E.3 of the WDRs.

### C. COMPLIANCE PERIOD

The compliance period for each waste management unit shall be the number of years equal to the active life of the unit plus the closure period. The compliance period is the minimum period during which the Discharger shall conduct a water quality monitoring program subsequent to a release from the waste management unit. The compliance period shall begin anew each time the Discharger initiates an evaluation monitoring program [Title 27, section 20410].

**D. TRANSMITTAL LETTER FOR ALL REPORTS**

A transmittal letter explaining the essential points shall accompany each report. At a minimum, the transmittal letter shall identify any violations found since the last report was submitted, and if the violations were corrected. If no violations have occurred since the last submittal, this shall be stated in the transmittal letter. The transmittal letter shall also state that a discussion of any violations found since the last report was submitted, and a description of the actions taken or planned for correcting those violations, including any references to previously submitted time schedules, is contained in the accompanying report. The transmittal letter shall contain a statement by the discharger, or the discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate, and complete.

The Discharger shall implement the above monitoring program on the effective date of this Program.

Ordered by: \_\_\_\_\_  
PAMELA C. CREEDON, Executive Officer

\_\_\_\_\_  
(Date)

TENTATIVE

**TABLE I**  
**LEACHATE SEEP MONITORING**

<u>Parameter</u>	<u>Units</u>	<u>Sampling/Reporting Frequency</u>
<b>Field Parameters</b>		
Total Flow	Gallons	Upon Occurrence
Flow Rate	Gallons/Day	“
Electrical Conductivity	µmhos/cm	“
pH	pH units	“
<b>Monitoring Parameters</b>		
Total Dissolved Solids (TDS)	mg/L <sup>1</sup>	Upon Occurrence
Chloride	mg/L	“
Carbonate	mg/L	“
Bicarbonate	mg/L	“
Nitrate-Nitrogen	mg/L	“
Sulfate	mg/L	“
Calcium <sup>2</sup>	mg/L	“
Magnesium <sup>2</sup>	mg/L	“
Potassium <sup>2</sup>	mg/L	“
Sodium <sup>2</sup>	mg/L	“
Volatile Organic Compounds (USEPA Method 8260B, short list, see Table II)	µg/L <sup>3</sup>	“

<sup>1</sup> milligrams per liter

<sup>2</sup> Dissolved concentration

<sup>3</sup> micrograms per liter



**TABLE II**  
**MONITORING PARAMETERS FOR DETECTION MONITORING**

**Volatile Organic Compounds, short list:**

**USEPA Method 8260B**

Acetone  
Acetonitrile (Methyl cyanide)  
Acrolein  
Acrylonitrile  
Allyl chloride (3-Chloropropene)  
Benzene  
Bromochloromethane  
Bromodichloromethane  
Bromoform (Tribromomethane)  
Carbon disulfide  
Carbon tetrachloride  
Chlorobenzene  
Chloroethane (Ethyl chloride)  
Chloroform (Trichloromethane)  
Chloroprene  
Dibromochloromethane (Chlorodibromomethane)  
1,2-Dibromo-3-chloropropane (DBCP)  
1,2-Dibromoethane (Ethylene dibromide; EDB)  
o-Dichlorobenzene (1,2-Dichlorobenzene)  
m-Dichlorobenzene (1,3-Dichlorobenzene)  
p-Dichlorobenzene (1,4-Dichlorobenzene)  
trans-1,4-Dichloro-2-butene  
Dichlorodifluoromethane (CFC-12)  
1,1-Dichloroethane (Ethylidene chloride)  
1,2-Dichloroethane (Ethylene dichloride)  
1,1-Dichloroethylene (1,1 -Dichloroethene; Vinylidene chloride)  
cis-1,2-Dichloroethylene (cis- 1,2-Dichloroethene)  
trans-1,2-Dichloroethylene (trans-1,2-Dichloroethene)  
1,2-Dichloropropane (Propylene dichloride)  
cis-1,3-Dichloropropene  
trans-1,3-Dichloropropene Di-isopropylether (DIPE)  
Ethanol  
Ethyltertiary butyl ether  
Ethylbenzene  
2-Hexanone (Methyl butyl ketone)  
Hexachlorobutadiene  
Isobutyl alcohol  
Methacrylonitrile  
Methyl bromide (Bromomethane)  
Methyl chloride (Chloromethane)

**TABLE II**  
**MONITORING PARAMETERS FOR DETECTION MONITORING**  
**Continued**

Methylene bromide (Dibromomethane)  
Methylene chloride (Dichloromethane)  
Methyl ethyl ketone (MEK: 2-Butanone)  
Methyl iodide (Iodomethane)  
Methyl t-butyl ether  
4-Methyl-2-pentanone (Methyl isobutylketone)  
Naphthalene  
Styrene  
Tertiary amyl methyl ether  
Tertiary butyl alcohol  
1,1,1,2-Tetrachloroethane  
1,1,2,2-Tetrachloroethane  
Tetrachloroethylene (Tetrachloroethene; Perchloroethylene)  
Toluene  
1,2,4-Trichlorobenzene  
1,1,1-Trichloroethane (Methylchloroform)  
1,1,2-Trichloroethane  
Trichloroethylene (Trichloroethene)  
Trichlorofluoromethane (CFC- 11)  
1,2,3-Trichloropropane  
Vinyl acetate  
Vinyl chloride  
Xylene (total)

TENTATIVE