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**[TENTATIVE] MONITORING & REPORTING PROGRAM (MRP)**  
**R5-20XX-XXXX**

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**ORDER INFORMATION**

<b>Order Type(s):</b>	Monitoring & Reporting Program (MRP)
<b>Status:</b>	TENTATIVE
<b>Program:</b>	Title 27
<b>Region 5 Office:</b>	Fresno
<b>Discharger(s):</b>	Browning-Ferris Industries of California, Inc.
<b>Facility:</b>	Chateau Fresno Municipal Solid Waste Landfill
<b>Address:</b>	8662 W. Muscat Ave, Fresno, CA 93732
<b>County:</b>	Fresno County
<b>Parcel Nos.:</b>	327-040-002
<b>Geotracker ID:</b>	L10007990218
<b>Prior Order(s):</b>	R5-2018-0082, 5-00-0154, 92-100, 89-151, 71-149

## **CERTIFICATION**

I, PATRICK PULUPA, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Central Valley Region, on XX June 2026.

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PATRICK PULUPA,  
Executive Officer

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## GLOSSARY

AMR .....	Annual Monitoring Report
CalRecycle .....	California Department of Resources Recycling and Recovery
CAMP .....	Corrective Action Monitoring Program
C.F.R.....	Code of Federal Regulations
CIWQS .....	California Integrated Water Quality System Project
COCs .....	Constituents of Concern
DMP .....	Detection Monitoring Program
EC .....	Electrical Conductivity
ELAP.....	State Water Board's Environmental Laboratory Accreditation Program (formerly administered by California Department of Public Health)
Five-Year COCs .....	Five-Year Constituents of Concern
GeoTracker .....	State Water Board's Data Management System for Sites with Potential Groundwater Impact
LF .....	Landfill
LFG .....	Landfill Gas
MDL.....	Method Detection Limit
Method TO-15 VOCs.....	Volatile Organic Compounds associated with USEPA Method TO-15
MGD .....	Million gallons per day
MRP .....	Monitoring and Reporting Program
POC .....	Point of Compliance for Water Quality Protection Standard

QA/QC.....	Quality Assurance/Quality Control
Qualified Professional .....	Professional Civil Engineer or Geologist licensed by the State of California
RCRA.....	Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq.
RL.....	Reporting Limit
RWTF.....	Fresno-Clovis Regional Wastewater Treatment Facility
SCAP .....	Sample Collection and Analysis Plan
SMR .....	Semiannual Monitoring Report
SPRRs / Standard Provisions .....	Standard Provisions and Reporting Requirements for Nonhazardous Solid Waste Discharges Regulated by Subtitle D and/or Title 27 Municipal Solid Waste Facilities, December 2015 Edition
TDS.....	Total Dissolved Solids
Title 27 .....	California Code of Regulations, Title 27
USEPA.....	United States Environmental Protection Agency
VOCs.....	Volatile Organic Compounds
WDRs.....	Waste Discharge Requirements
WMU .....	Waste Management Unit
WQPS .....	Water Quality Protection Standard

**UNITS**

°F .....	Degrees Fahrenheit
mg/L .....	Milligrams per Liter

µg/L .....Micrograms per Liter  
µmhos/cm.....Microsiemens per Centimeter  
ng/L .....Nanograms per Liter NTUs  
NTUs.....Nephelometric Turbidity Units

## **PREFACE**

Adopted by the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) pursuant to Water Code section 13267, subdivision (b)(1), this Order establishes a Monitoring and Reporting Program (MRP) for Browning-Ferris Industries of California, Inc., which own and maintain the Chateau Fresno Municipal Solid Waste Landfill (Facility) in Fresno County. Additional information regarding the Facility is set forth in the enumerated findings of Waste Discharge Requirements Order R5-2026-XXXX (WDRs Order). Except as otherwise provided in the following MRP, these findings are incorporated herein.

The MRP also contains supplemental findings related to monitoring and reporting activities, and/or Facility conditions. For the purposes of California Code of Regulations, title 27 (Title 27) (e.g., §§ 21720, 20380-20435), the findings and provisions of this Order are conversely incorporated as part of the WDRs Order as well.

Although adopted with the WDRs Order, this is a separate order subject to subsequent revision by the Executive Officer in accordance with delegated authority per Water Code section 13223. For the purposes of Title 27, such revisions shall be automatically incorporated as part of the WDRs Order.

## **MONITORING & REPORTING PROGRAM**

**IT IS HEREBY ORDERED**, pursuant to Water Code section 13267: that previously issued Monitoring and Reporting Program (MRP) R5-2018-0082 for the discharge of solid waste at the Facility is rescinded (except for enforcement purposes); and that the Discharger, their agents, employees and successors shall comply with the following MRP. The Discharger shall not implement any changes until a revised MRP is issued by the Central Valley Water Board or its Executive Officer.

### **A. General Provisions**

#### **1. Incorporation of Standard Provisions**

The Discharger shall comply with all relevant provisions of the *Standard Provisions and Reporting Requirements for Nonhazardous Solid Waste Discharges Regulated by Subtitle D and/or Title 27 Municipal Solid Waste Facilities, December 2015 Edition* (SPRRs or Standard Provisions), which are incorporated herein. See, e.g., SPRRs section I (*Standard Monitoring Specifications*) and section J (*Response to Release*).

#### **2. Monitoring Provisions in WDRs Order**

The Discharger shall comply with all “Monitoring Provisions” in the Facility’s operative Title 27 WDRs Order, which are also incorporated herein.

#### **3. Compliance with Title 27**

The Discharger shall comply with all of Title 27 provisions as they pertain to activities described in this MRP (including SPRRs).

#### **4. Sample Collection and Analysis Plan (SCAP)**

All samples shall be collected, preserved and transported in accordance with the approved Sample Collection and Analysis Plan (SCAP) and the Quality Assurance/Quality Control (QA/QC) standards specified therein. The Discharger may use alternative analytical test methods (including new USEPA-approved methods), provided that the alternative methods have method detection limits (MDLs) equal to or lower than the analytical methods specified in this MRP and are identified in the approved SCAP.

## B. Detection Monitoring Program (DMP)

To detect a release at the earliest possible time (see Title 27, § 20420, subd. (b)), the Discharger shall implement a Detection Monitoring Program (DMP) for groundwater, surface water, and the unsaturated zone in accordance with the provisions of Title 27, particularly sections 20415 and 20420.

Groundwater, unsaturated zone, and surface water<sup>1</sup> detection monitoring networks shall be revised as needed.

### 1. Groundwater

#### a. Required Network

The Facility's groundwater monitoring well network consists of the wells listed in **Table 1**.<sup>2</sup> As of the date of this Order, the network meets the requirements of Title 27. (Title 27, § 20415, subd. (b).)

**Table 1—Groundwater Monitoring Network**

Well	Program	Status
G-1 <sup>2</sup>	Background	Dry
G-1B <sup>2</sup>	Background	Operational
MW-L2 <sup>2</sup>	Background	Dry
MW-L3 <sup>2</sup>	Background	Operational
G-2	Detection	Dry
G-2B	Detection	Operational
G-3	Detection	Dry

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<sup>1</sup> I.e., to the extent that surface water detection monitoring is required under this Order.

<sup>2</sup> Non-background monitoring wells at the Point of Compliance constitute "Monitoring Points" for purposes of the Water Quality Protection Standard (WQPS).

<b>Well</b>	<b>Program</b>	<b>Status</b>
G-3B	Detection	Operational
G-5R <sup>1</sup>	Detection	Dry
G-5RB <sup>1</sup>	Detection	Operational
G-6	Detection	Dry
GM-1	Corrective Action	Dry
GM-1B	Corrective Action	Operational
GM-2	Corrective Action	Dry
GM-2B	Corrective Action	Operational
GM-3 <sup>1</sup>	Corrective Action	Dry
GM-3B <sup>1</sup>	Corrective Action	Operational
GM-4	Detection	Dry
MW-L11 <sup>1</sup>	Detection	Dry
MW-L11B <sup>1</sup>	Detection	Operational
Ag Well 5350 <sup>3</sup>	Detection/Evaluation	Operational
Ag Well 5351 <sup>3</sup>	Detection/Evaluation	Operational
Ag Well 5352 <sup>3</sup>	Detection/Evaluation	Operational
MW-18A <sup>2, 3</sup>	RWTF/Evaluation	Operational
MW-18B <sup>2, 3</sup>	RWTF/Evaluation	Operational
MW-19A <sup>3</sup>	RWTF/Evaluation	Operational
MW-19B <sup>3</sup>	RWTF/Evaluation	Operational
MW-20A <sup>3</sup>	RWTF/Evaluation	Operational
MW-20B <sup>3</sup>	RWTF/Evaluation	Operational

Well	Program	Status
MW-21A <sup>3</sup>	RWTF/Evaluation	Operational
MW-21B <sup>3</sup>	RWTF/Evaluation	Operational
MW-21C <sup>3</sup>	RWTF/Evaluation	Operational
MW-23A <sup>2, 3</sup>	RWTF/Evaluation	Operational
MW-23B <sup>2, 3</sup>	RWTF/Evaluation	Operational
MW-23C <sup>2, 3</sup>	RWTF/Evaluation	Operational

<sup>1</sup> Point of Compliance well. <sup>2</sup>Wells to be sampled annually. <sup>3</sup> Not required to sample for the 5-year COCs unless 5-year COC constituents are detected in the landfill's monitoring wells.

\*See Glossary for definitions of terms and abbreviations in table.

**b. Sample Collection and Analysis**

Groundwater samples shall be collected from each well and analyzed for Monitoring Parameters listed in **Table 2** (Physical Parameters) and **Table 3** (Constituent Parameters), in accordance with the specified schedule for each parameter. (Title 27, § 20420, subds. (e)-(f).)

**Table 2—Groundwater Detection Monitoring, Physical Parameters**

Physical Parameter	GeoTracker Code	Units	Sampling Frequency <sup>1</sup>	Reporting Frequency <sup>1</sup>
Temperature	TEMP	°F	Semiannually	Semiannually
Electrical Conductivity	SC	µmhos/cm	Semiannually	Semiannually
pH	PH	pH Units	Semiannually	Semiannually
Turbidity	TURB	NTUs	Semiannually	Semiannually

<sup>1</sup> with the exception of the wells noted on Table 1, which shall be sampled annually. See Glossary for definitions of terms and abbreviations in table.

**Table 3—Groundwater Detection Monitoring, Constituent Parameters**

<b>Constituent Parameter</b>	<b>GeoTracker Code</b>	<b>Units</b>	<b>Sampling Frequency<sup>1</sup></b>	<b>Reporting Frequency<sup>1</sup></b>
TDS	TDS	mg/L	Semiannually	Semiannually
Chloride	CL	mg/L	Semiannually	Semiannually
Carbonate	CACO3	mg/L	Semiannually	Semiannually
Bicarbonate	BICACO3	mg/L	Semiannually	Semiannually
Sulfate	SO4	mg/L	Semiannually	Semiannually
Calcium	CA	mg/L	Semiannually	Semiannually
Magnesium	MG	mg/L	Semiannually	Semiannually
Potassium	K	mg/L	Semiannually	Semiannually
Sodium	NA	mg/L	Semiannually	Semiannually
Short List VOCs (Attachment A)	(various)	µg/L	Semiannually	Semiannually
1,2,3-Trichloropropane per Method SRL-524M-TCP	TCPR123	ng/L	Semiannually	Semiannually

<sup>1</sup> with the exception of the wells noted on Table 1, which shall be sampled annually.

\*See Glossary for definitions of terms and abbreviations in table.

**c. Five-Year COCs**

The Discharger shall analyze for groundwater samples from each well for the Five-Year Constituents of Concern (Five-Year COCs) listed in **Table 4**. Five-Year COCs were last monitored in 2023 and shall be analyzed again in 2028. (Title 27, § 20420, subd. (g).)

**Table 4—Groundwater Detection Monitoring, Five-Year COCs**

Five-Year Constituent	GeoTracker Code	Units	Sampling & Reporting Frequency <sup>1</sup>
Total Organic Carbon	TOC	mg/L	Every 5 Years
Dissolved Inorganics (Attachment B)	(various)	µg/L	Every 5 Years
Extended List VOCs (Attachment C)	(various)	µg/L	Every 5 Years
Semi-Volatile Organic Compounds (Attachment D)	(various)	µg/L	Every 5 Years
Chlorophenoxy Herbicides (Attachment E)	(various)	µg/L	Every 5 Years
Organophosphorus Compounds (Attachment F)	(various)	µg/L	Every 5 Years

<sup>1</sup> with the exception of the wells noted on Table 1. \*See Glossary for definitions of terms and abbreviations in table.

**d. Groundwater Conditions**

Each quarter, the Discharger shall monitor the Groundwater Conditions specified in **Table 5**, with the result of such monitoring being reported semiannually per **Section F.1.**<sup>3</sup> (Title 27, § 20415, subd. (b)(1).)

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<sup>3</sup> To the extent feasible, this information shall be determined separately for: (1) the uppermost aquifer; (2) any zones of perched water; and (3) any additional zone of saturation monitored based upon water level elevations taken prior to the collection of the water quality data submitted in the report. (Title 27, § 20415, subd. (e)(15).)

**Table 5—Groundwater Detection Monitoring, Groundwater Conditions**

Groundwater Condition	GeoTracker Code	Monitoring Frequency	Reporting Frequency
Elevation (Well-Specific)	ELEV	Quarterly	Semiannually
Gradient	(none)	Quarterly	Semiannually
Flow Rate	(none)	Quarterly	Semiannually

**2. Unsaturated Zone**

**a. Required Network**

The historical unsaturated zone detection monitoring network consisted of suction lysimeters LY-4, LY-5, and LY-6. They have been dry and no longer hold a vacuum. Soil pore gas samples are collected from the lysimeters in lieu of soil-pore liquid in the vadose zone. The Facility’s unsaturated zone monitoring network consists of the soil pore gas monitoring points specified in **Table 6**. As of the date of this Order, the network meets the requirements of Title 27. (Title 27, § 20415, subd. (d).)

**Table 6—Unsaturated Zone Monitoring Network**

Monitoring Point	Program	Status
LYS 4	Detection, Soil-Pore Gas	Operational
LYS 5	Detection, Soil-Pore Gas	Operational
LYS 6	Detection, Soil-Pore Gas	Operational

See Glossary for definitions of terms and abbreviations in table.

**b. Soil Pore Gas (SPG) Monitoring**

Soil Pore Gas (SPG) shall be monitored for Methane and Method TO-15 VOCs<sup>4</sup> in accordance with **Table 7**, provided that samples may be prescreened to determine if such analyses will be required.<sup>5</sup> (Title 27, § 20420, subds. (e)-(f).)

**Table 7—Unsaturated Zone Detection Monitoring (Soil Pore Gas),  
Constituent Parameters**

Constituent Parameter	GeoTracker Code	Units	Sampling Frequency	Reporting Frequency
Method TO-15 VOCs	(various)	µg/cm <sup>3</sup>	Annual	Annual
Methane	CH4	%	Semiannual	Semiannual

**3. Surface Water**

There are **no surface water** monitoring requirements for this Facility.

**4. Summary of Water Quality Protection Standard (WQPS) Components**

The Water Quality Protection Standard (WQPS) is the Title 27 analytical framework through which an individual WMU is monitored for releases and impacts to water quality, i.e., the Detection Monitoring Program (DMP). (See Title 27, § 20390, subd. (a).) As explained in further detail below, for the duration of the Compliance Period, the Monitoring Points situated at a WMU's Point of Compliance are sampled and analyzed for Monitoring Parameters indicative of a release. If concentrations of

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<sup>4</sup> Volatile Organic Compounds associated with USEPA Method TO-15.

<sup>5</sup> A gas analyzer for methane concentrations or a Photo Ionization Detector (PID) for total VOCs concentrations may be used. If methane concentrations exceed 1 percent by volume OR organic vapors (total VOCs) exceed 1 ppm, a gas sample shall be obtained and analyzed for VOCs using Method TO-15. Both the screening results and lab analysis results shall be reported. Otherwise, the methane or total VOC screening results shall be reported, and no further lab analysis will be required.

Constituents of Concern exceed Concentration Limits, the results are confirmed through Retesting Procedures.

**a. Compliance Period**

The “compliance period” is the minimum time for which a water quality monitoring will be required—i.e., equal to the sum of active years and the closure period. (Title 27, § 20410.) The period restarts each time an Evaluation Monitoring Program (EMP) is initiated for a given WMU. (Id., §§ 20410(a), 20415, 20425.) If a WMU is in corrective action, the period continues until it is demonstrated that the WMU has been in continuous compliance with its WQPS for at least three years. (Id., § 20410, subd. (c).)

**b. Monitoring Points**

For WQPS purposes, a “monitoring point” is any well, device, or location where monitoring is conducted, and is specified in the Facility’s WDRs and subject to the WQPS. (Title 27, § 20164.) Monitoring Points are listed in **Section 0** (Detection Monitoring Program)—specifically **Table 1** (Groundwater) and **Table 6** (Unsaturated Zone)

**c. Point of Compliance (POC)**

The Point of Compliance (POC) is a vertical plane at the WMU’s hydraulically downgradient limit, extending through the uppermost underlying aquifer. (Title 27, §§ 10164, 20405(a).)

**d. Constituents of Concern (COCs)**

Constituents of Concern (COCs) are waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in a WMU. (Title 27, §§ 20164, 20395.)

**e. Monitoring Parameters**

Monitoring Parameters are a predetermined set of COCs and measurable physical characteristics (e.g., temp., electrical conductivity, pH), which serve as reliable indicators of a WMU release, and for which samples will therefore be routinely analyzed. (Title 27, §§ 20164, 20395(a), 20420(e)-(f).) For the purposes of this MRP, the Monitoring Parameters are:

- i. For **Groundwater**, those in **Table 2** and **Table 3**; and
- ii. For the Unsaturated Zone, those in **Table 7**.

**f. Five-Year COCs**

In addition to the Monitoring Parameters described above, this Order requires the quinquennial analysis of samples for a larger range of constituents that are reasonably expected to be found in, or derived from, the waste contained within each unit at the Facility. (Title 27, §§ 20395, 20420(g).) Analytical results for Five-Year COCs were last submitted to the Central Valley Water Board as part of the 2023 Annual Monitoring Report and are due again in 2028. For the purposes of this MRP, the Five-Year COCs are listed in:

- i. **Attachment B** (*Dissolved Inorganics*);
- ii. **Attachment C** (*Extended List VOCs*);
- iii. **Attachment D** (*Semi-Volatile Organic Compounds*);
- iv. **Attachment E** (*Chlorophenoxy Herbicides*);
- v. **Attachment F** (*Organophosphorus Compounds*); and
- vi. Any other COCs listed in **Table 4** (*Groundwater*).

**g. Concentration Limits**

The Concentration Limit for each COC is the “background concentration,” as determined by the statistical methods outlined in subdivision (e)(8) of Title 27, section 20415.<sup>6</sup> (Title 27, § 20400, subds. (a), (b).) The approved methods use intrawell statistical analysis.

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<sup>6</sup> Concentration Limits are initially proposed by the discharger, then reviewed and approved by the Central Valley Water Board (subject to any necessary revisions). The limits specified herein are approved and incorporated as part of the Facility’s WDRs.

Concentration Limits shall be proposed and/or updated by the Discharger on an annual basis, in the Annual Monitoring Report (AMR) submitted per **Section 0** here.

Unless expressly rejected by the Executive Officer in writing, these Concentrations Limits shall be incorporated as part of this Order.

If the Discharger fails to submit periodically updated concentration limits, as provided in this MRP, the existing concentration limits shall remain operative, provided that, where appropriate, the Executive Officer may revert to lower concentrations where warranted based on existing monitoring data.

**h. Retesting Procedures**

If monitoring results indicate measurably significant evidence of a release, as described in Section I.45 of the SPRRs (Standard Monitoring Specifications), the Discharger shall apply the following:

- vii. **Non-Statistical Retesting Procedures (SPRRs, § I.46)** for analytes detected in less than 10 percent of background samples (e.g., non-naturally occurring COCs); and
- viii. **Statistical Retesting Procedures (SPRRs, § I.46)** for analytes detected in at least 10 percent of background samples (e.g., naturally occurring COCs).

**C. Corrective Action Monitoring Program (CAMP)**

To demonstrate the effectiveness of ongoing correction action at the Facility, the Discharger shall perform the following additional monitoring in accordance with subdivision (d) of Title 27, section 20430.

**1. Groundwater Corrective Action**

In addition to parameters in **Table 2** (Physical Parameters), extraction well EW-1 shall be sampled for additional constituents as specified in **Table 8** and MRP 96-206. The effluent of the groundwater extraction and treatment system is still regulated under WDRs Order 96-206.

**Table 8—Groundwater Corrective Action Monitoring (Extraction Well)**

Constituents	Units	Type of Sample	Frequency
Flow	mgd	Metered	Daily
Chloroform	µg/L	Grab	Quarterly
1,4 – Dichlorobenzene	µg/L	Grab	Quarterly
Dichlorofluoromethane	µg/L	Grab	Quarterly
1,1 – Dichloroethane	µg/L	Grab	Quarterly
cis-1, 2 – Dichloroethene	µg/L	Grab	Quarterly
1,2 – Dichloropropane	µg/L	Grab	Quarterly
Tetrachloroethene	µg/L	Grab	Quarterly
Trichloroethene	µg/L	Grab	Quarterly
Trichlorofluoromethane	µg/L	Grab	Quarterly
Vinyl Chloride	µg/L	Grab	Quarterly

See Glossary for definitions of terms and abbreviations in table.

## **2. Groundwater Extraction Well System**

The Facility's currently has one groundwater extraction well (EW-1). The hours of operation for this system shall be recorded and reported as part of the Semiannual Monitoring Report (SMR) as well as the daily volume of treated groundwater, the cumulative amount of VOCs removed, and any shut-down of the system. This shall be reported in accordance with the schedule in **F.1**.

## **3. Landfill Gas Corrective Action Monitoring**

All shutdowns of the landfill gas extraction system, regardless of the type of restart, shall be summarized and tabulated in the semiannual reports. The summary shall include the start/stop dates, and the cause of the shutdown. In addition, the LFG plant run-time per month and percent

down-time per month shall be reported and tabulated in each semiannual report. This shall be reported in accordance with the schedule in **F.1**.

**D. In-Situ Groundwater Remediation and Discharge of Treated Groundwater to Land (General Order Requirements)**

To demonstrate the effectiveness of bioremediation at the Facility, the Discharger shall perform the following additional monitoring in accordance with *Waste Discharge Requirements Order R5-2015-0012 – General Order for In-Situ Groundwater Remediation and Discharge of Treatment Groundwater to Land* (In-Situ Remediation General Order) which are incorporated into this MRP.

All samples should be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form.

**1. Groundwater Monitoring**

There will be three monitoring wells and three injection wells associated with the bioremediation at the Facility. The groundwater monitoring program for these wells and any treatment system wells installed subsequent to the issuance of this MRP shall follow the schedule below. Monitoring wells with free phase petroleum product or visible sheen shall be monitored, at a minimum, for product thickness and depth to water. The volume of extracted groundwater, if applicable, shall also be provided in semiannual monitoring reports, which can be incorporated into the regular semiannual groundwater monitoring reports. Sample collection and analysis shall follow standard EPA protocol. The monitoring wells and injection wells shall be sampled according to the schedule in **Table 9** and the samples analyzed by the methods in **Table 10**, as follows:

**Table 9—Bioremediation Monitoring Points**

<b>Well</b>	<b>Constituent</b>	<b>Frequency</b>	<b>Monitoring Objective</b>
GM-1B	Tables 10: Suites A-D and Table 11	Three initial monthly samples, followed by one year of quarterly samples	Treatment Zone/ Compliance

Well	Constituent	Frequency	Monitoring Objective
MW-19B	Tables 10: Suites A-D and Table 11	Three initial monthly samples, followed by one year of quarterly samples	Treatment Zone/ Compliance
MW-21B	Tables 10: Suites A-D and Table 11	Three initial monthly samples, followed by one year of quarterly samples	Treatment Zone/ Compliance
EW-1	Tables 10: Suites A-C and Table 11	Three initial monthly samples, followed by one year of quarterly samples	Treatment Zone/ Compliance
IJ-1	Table 11	Three initial monthly samples, followed by one year of quarterly samples	Treatment Zone
IJ-2	Table 11	Three initial monthly samples, followed by one year of quarterly samples	Treatment Zone
IJ-3	Table 11	Three initial monthly samples, followed by one year of quarterly samples	Treatment Zone

See Glossary for definitions of terms and abbreviations in table.

**Table 10—Analytical Methods per In-Situ Remediation General Order**

Constituent	Method <sup>1</sup>	Maximum Practical Quantitation Limit (µg/L) <sup>2</sup>
<b>Suite A</b>		
VOCs	EPA 8260B	0.5
Dissolved Metals <sup>3</sup>	EPA 200.7, 200.8	Various

<b>Constituent</b>	<b>Method<sup>1</sup></b>	<b>Maximum Practical Quantitation Limit (µg/L)<sup>2</sup></b>
<b>Suite B</b>		
Hexavalent Chromium	EPA 7199	1
<b>Suite C</b>		
Iron, Total and Dissolved	EPA 200.7	100
Ferrous and Ferric Iron	EPA 200, 6020 or SM3000	100
Sodium	EPA 200.7	100
Potassium	EPA 300	20
Total Organic Carbon	EPA 415	300
Chloride, Nitrate, and Sulfate	EPA 6500	300
Phosphorus	EPA 200.7, 365	1,000
<b>Suite D</b>		
Potassium Permanganate	Visual	N/A

Notes:

1. Analytical method substitutions may be made, provided the method achieves the Maximum Practical Quantitation Limit.
2. Metals include aluminum, antimony, arsenic, barium, cadmium, calcium, total chromium, copper, iron, lead, manganese, magnesium, mercury, molybdenum, nickel, selenium, silver, vanadium, silica, and zinc.
3. All concentrations between the Method Detection Limit and the Practical Quantitation Limit shall be reported as trace.
4. The presence of permanganate causes interference in the analysis of hexavalent chromium. Therefore, samples shall be analyzed for total chromium when permanganate is present. When permanganate is not present, samples shall be analyzed by EPA Method 7199 or an equivalent method.

5. If salts, total dissolved solids, metals, or electrical conductivity are more than 20% greater than their respective baseline concentrations at compliance zone wells, the Discharger shall implement one or more contingency measures as outlined in their workplan.

## 2. Field Sampling Requirements

In addition to the above sampling and laboratory analyses, field sampling and analysis shall be conducted each time a monitoring well or injection well is sampled. The sampling and analysis of field parameters shall be specified in **Table 11**.

**Table 11—Field Sampling Requirements per In-Situ Remediation General Order**

Parameters	Units	Practical Quantitation Limit	Analytical Method
Groundwater Elevation	Feet, Mean Sea Level	0.01 feet	Measurement
Oxidation Reduction Potential	Millivolts	10 millivolts	Field Meter
Electrical Conductivity	µmhos/cm	50µS/cm	Field Meter
Dissolved Oxygen	mg/L	0.2 mg/L	Field Meter
pH	pH Units (to 0.1 units)	0.1 units	Field Meter
Temperature	°F/°C	0.1 °F/°C	Field Meter

All wells that are purged shall be purged until pH, temperature, conductivity and dissolved oxygen are within 10% of the previous value. Field test instruments (such as those used to test pH 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 “In-Situ Bioremediation Reporting” section of this MRP, below.

**4. In-Situ Discharge Monitoring**

The Discharger shall monitor daily the discharge of water and amendments that are injected into the groundwater according to the requirements specified in **Table 12**. Each amendment addition shall be recorded individually, along with information regarding the time period over which the amendment was injected into the aquifer.

**Table 12—Discharge Monitoring Requirements per General Order**

Parameters	Units	Type of Sample
Injected Volume	gallons per injection	Measured
Amendment(s) Added	pounds per injection	Measured

**5. Amendment Analysis**

Prior to use, amendments shall be analyzed for the constituents listed in **Table 13**. The analysis should be done on a mixture of the amendment and deionized water at the estimated concentration that would be injected.

**Table 13—Amendment Analytical Requirements per General Order**

Constituent	Method <sup>1</sup>	Maximum Practical Quantitation Limit (µg/L) <sup>2</sup>
Volatile Organic Compounds	EPA 8020 or 8260B	0.5
General Minerals <sup>3</sup>		
Metals, Total and Dissolved <sup>4</sup>	EPA 200.7, 200.8	Various
Total Dissolved Solids	EPA 160.1	10,000
pH	meter	NA
Electrical Conductivity	meter	NA

<sup>1</sup> Or an equivalent EPA Method that achieves the maximum Practical Quantitation Limit.

<sup>2</sup> All concentrations between the Method Detection Limit and the Practical Quantitation Limit shall be reported as an estimated value.

<sup>3</sup> General Minerals include: alkalinity, bicarbonate, potassium, chloride, sulfate, total hardness, nitrate, nitrite, ammonia.

TABLE 13 NOTES CONTINUED: <sup>4</sup> Metals include arsenic, barium, cadmium, calcium, total chromium, copper, iron, lead, manganese, magnesium, mercury, molybdenum, nickel, selenium and silica.

## **6. Establishment of Background Concentration Values**

The Discharger shall develop background values for concentrations of constituents such as dissolved iron, dissolved manganese, total dissolved solids and electrical conductivity in groundwater following the procedures found in CCR Section 20415(e)(10).

## **7. In-Situ Bioremediation Reporting**

When reporting the data, the Discharger shall arrange the information in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to illustrate clearly the compliance with this Order. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall also be reported to the Central Valley Water Board.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all reports shall be prepared by a registered professional Civil Engineer or Geologist or their subordinate and signed by the registered professional.

The Discharger shall compile semiannual reports (see section **F.1**) which can be incorporated into their semiannual groundwater monitoring reports, which conform to the requirements of the California Code of Regulations, Title 23, Division 3, Chapter 30. These reports shall be submitted electronically over the internet to the Geotracker database system by the 1st day of the second month following the end of each calendar quarter by **1 February and 1 August** until such time as the Executive Officer determines that the reports are no longer necessary.

Each semiannual report shall include the following minimum information:

- (a) a description and discussion of the groundwater sampling event and results, including trends in the concentrations of pollutants and groundwater elevations in the wells, how and when samples were collected, and whether the pollutant plume(s) is delineated;

- (b) field logs that contain, at a minimum, water quality parameters measured before, during, and after purging, method of purging, depth of water, volume of water purged, etc.;
- (c) groundwater contour maps for all groundwater zones, if applicable;
- (d) pollutant concentration maps for all groundwater zones, if applicable;
- (e) a table showing well construction details such as well number, groundwater zone being monitored, coordinates (longitude and latitude), ground surface elevation, reference elevation, elevation of screen, elevation of bentonite, elevation of filter pack, and elevation of well bottom;
- (f) a table showing historical lateral and vertical (if applicable) flow directions and gradients;
- (g) cumulative data tables containing the water quality analytical results and depth to groundwater;
- (h) a copy of the laboratory analytical data report;
- (i) the status of any ongoing remediation, including an estimate of the cumulative mass of pollutant removed from the subsurface, system operating time, the effectiveness of the remediation system, and any field notes pertaining to the operation and maintenance of the system; and
- (j) if applicable, the reasons for and duration of all interruptions in the operation of any remediation system, and actions planned or taken to correct and prevent interruptions.

An Annual Report shall be submitted to the Central Valley Water Board by **1 February** of each year. This report shall contain an evaluation of the effectiveness and progress of the investigation and remediation. The Annual Report may be substituted for the second semi-annual monitoring report as long as it contains all of the information required for that report plus that required for the Annual Report. The Annual Report shall contain the following minimum information:

- (a) both tabular and graphical summaries of all data obtained during the year;
- (b) groundwater contour maps and pollutant concentration maps containing all data obtained during the previous year;
- (c) a discussion of the long-term trends in the concentrations of the pollutants in the groundwater monitoring wells;
- (d) an analysis of whether the pollutant plume is being effectively treated;
- (e) a description of all remedial activities conducted during the year, an analysis of their effectiveness in removing the pollutants, and plans to improve remediation system effectiveness;
- (f) an identification of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program; and
- (g) if desired, a proposal and rationale for any revisions to the groundwater sampling plan frequency and/or list of analytes.

A letter transmitting the 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 1991 SPRRs, section B.3.

The Discharger shall implement the above monitoring program on the first day of the month following the deployment of ISCO injections.

## E. Additional Facility Monitoring

### 1. Leachate Collection & Removal System (LCRS)

The Discharger shall operate and maintain leachate collection and removal system (LCRS) sumps, and conduct monitoring of any detected leachate seeps in accordance with Title 27 and the following provisions.

#### a. Annual LCRS Testing

All Leachate Collection and Removal Systems (LCRS) shall be tested annually to demonstrate proper operation, with the results of each test being compared to the results of prior testing. (See Title 27, § 20340, subd. (d).)

#### b. Monthly Sump Inspection

All LCRS sumps shall be inspected monthly for the presence of leachate. As provided in **Table 14**, the total flow and flow rate for leachate in each sump shall be recorded after each inspection and reported semiannually per **Section F.1**.

**Table 14—LCRS Sump Monitoring, Monthly Inspection Parameters**

Physical Parameter	GeoTracker Code	Units	Sampling Frequency	Reporting Frequency
Total Flow	(none)	Gallons	Monthly	Semiannually
Flow Rate	FLOW	Gallons/Day	Monthly	Semiannually

See Glossary for definitions of terms and abbreviations in table.

#### c. First Detection of Leachate in Sump

Upon detecting leachate in a previously dry sump, the Discharger shall notify Central Valley Water Board staff within seven days, and immediately sample and analyze leachate for the parameters in **Table 14**.<sup>7</sup> Thereafter, whenever leachate is present in the same

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<sup>7</sup> The sampling and reporting schedules in **Table 15** are applicable for subsequent monitoring only. When notifying Central Valley Water Board staff of the first detection of

sump, the leachate shall be sampled and analyzed for the same parameters, and in accordance with the specified sampling and reporting schedule in **Table 15**.

**Table 15—LCRS Sump Monitoring, Parameters for Subsequent Monitoring**

Constituent Parameter	GeoTracker Code	Units	Sampling Frequency	Reporting Frequency
Electrical Conductivity	SC	µmhos/cm	Semiannually	Semiannually
pH	PH	pH Units	Semiannually	Semiannually
TDS	TDS	mg/L	Semiannually	Semiannually
Chloride	CL	mg/L	Semiannually	Semiannually
Carbonate	CACO3	mg/L	Semiannually	Semiannually
Bicarbonate	BICACO3	mg/L	Semiannually	Semiannually
Nitrate (as Nitrogen)	NO3N	mg/L	Semiannually	Semiannually
Sulfate	SO4	mg/L	Semiannually	Semiannually
Calcium	CA	mg/L	Semiannually	Semiannually
Magnesium	MG	mg/L	Semiannually	Semiannually
Potassium	K	mg/L	Semiannually	Semiannually
Sodium	NA	mg/L	Semiannually	Semiannually
Short List VOCs (Attachment A)	(various)	µg/L	Semiannually	Semiannually

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leachate, the Discharger shall indicate when laboratory results are expected to be available.

Constituent Parameter	GeoTracker Code	Units	Sampling Frequency	Reporting Frequency
1,2,3-Trichloropropane per Method SRL-524M-TCP	TCPR123	ng/L	Semiannually	Semiannually

See Glossary for definitions of terms and abbreviations in table.

**d. Five-Year COCs**

At least once every five years, the Discharger shall sample and analyze any leachate present in the sump for the Five-Year COCs listed in **Table 16**.

**Table 16—LCRS Sump Monitoring, Five-Year COCs**

Parameter	GeoTracker Code	Units	Sampling & Reporting Frequency
Total Organic Carbon	TOC	mg/L	Every 5 Years
Dissolved Inorganics (Attachment B)	(various)	µg/L	Every 5 Years
Extended List VOCs (Attachment C)	(various)	µg/L	Every 5 Years
Semi-Volatile Organic Compounds (Attachment D)	(various)	µg/L	Every 5 Years
Chlorophenoxy Herbicides (Attachment E)	(various)	µg/L	Every 5 Years
Organophosphorus Compounds (Attachment F)	(various)	µg/L	Every 5 Years

See Glossary for definitions of terms and abbreviations in table.

**2. Leachate Seepage**

Leachate that seeps to the surface from any landfill WMU shall, immediately upon detection, be sampled and analyzed for the Monitoring Parameters in **Table 17** (Physical Parameters) and **Table 18** (Constituent

Parameters). See **Section F.3** for Reporting Requirements. In the event of a reported leachate seep, Central Valley Water Board staff may direct additional sampling and analysis pursuant to Water Code section 13267, subdivision (b)(1).

**Table 17—Leachate Seep Monitoring, Physical Parameters**

Physical Parameter	GeoTracker Code	Units	Sampling Frequency	Reporting Frequency
Total Flow	(none)	Gallons	Upon Detection	See MRP, § E.3
Flow Rate	FLOW	Gallons/Day	(same)	(same)
Electrical Conductivity	SC	µmhos/cm	(same)	(same)
pH	PH	pH Units	(same)	(same)

See Glossary for definitions of terms and abbreviations in table.

**Table 18—Leachate Seep Monitoring, Constituent Parameters**

Constituent Parameter	GeoTracker Code	Units	Sampling Frequency	Reporting Frequency
TDS	TDS	mg/L	Upon Detection	See MRP, § F.3
Chloride	CL	mg/L	(same)	(same)
Carbonate	CACO3	mg/L	(same)	(same)
Bicarbonate	BICACO3	mg/L	(same)	(same)
Nitrate as N	NO3N	mg/L	(same)	(same)
Sulfate	SO4	mg/L	(same)	(same)
Calcium	CA	mg/L	(same)	(same)
Magnesium	MG	mg/L	(same)	(same)
Potassium	K	mg/L	(same)	(same)

Constituent Parameter	GeoTracker Code	Units	Sampling Frequency	Reporting Frequency
Sodium	NA	mg/L	(same)	(same)
Short List VOCs (Attachment A)	(various)	µg/L	(same)	(same)
1,2,3-Trichloropropane per Method SRL-524M-TCP	TCPR123	ng/L	(same)	(same)

See Glossary for definitions of terms and abbreviations in table.

### 3. Regular Visual Inspection

The Discharger shall perform regular visual inspections at the Facility in accordance with **Table 19** (Criteria) and **Table 20** (Schedule). Results of these regular visual inspections shall be included in Semiannual Monitoring Reports per **Section F.1**.

**Table 19—Criteria for Regular Visual Inspections**

Category	Criteria
Within Unit	<ul style="list-style-type: none"> <li>Evidence of ponded water at any point on unit outside of any contact storm water/leachate diversions structures on the active face of unit (record affected areas on map).</li> <li>Evidence of erosion and/or of day-lighted refuse.</li> </ul>
Unit Perimeter	<ul style="list-style-type: none"> <li>Evidence of leachate seep.</li> <li>Estimated size of affected area (record on map) and flow rate.</li> <li>Evidence of erosion and/or of day-lighted refuse.</li> </ul>

**Table 20—Regular Visual Inspection Schedule**

Category	Wet Season (1 Oct. to 30 April)	Dry Season (1 May to 30 Sept.)
Inactive or Closed Units	Monthly	Quarterly

#### 4. Annual Facility Inspections

Prior to **30 September** of each year, the Discharger shall inspect the Facility to assess repair and maintenance needs for drainage control systems, cover systems and groundwater monitoring wells; and preparedness for winter conditions (e.g., erosion and sedimentation control). If repairs are made as result of the annual inspection, problem areas shall be photographed before and after repairs. Any necessary construction, maintenance, or repairs shall be completed by **31 October**. See **Section F.4** for Reporting Requirements.

#### 5. Major Storm Events

Within seven days of any storm event capable of causing damage or significant erosion (Major Storm Event), the Discharger shall inspect the Facility for damage to any precipitation, diversion and drainage facilities, and all landfill side slopes. Necessary repairs shall be completed within 30 days of the inspection. The Discharger shall take photos of any problem areas before and after repairs. See **Section F.5** for Reporting Requirements.

#### 6. Five-Year Iso-Settlement Surveys (Closed Landfills)

Every five years, the Discharger shall conduct an iso-settlement survey of each closed landfill unit 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, § 21090, subd. (e)(1)-(2).) See **Section F.6** for Reporting Requirements.

### F. Reporting Requirements

**Table 21—Summary of Required Reports**

Section	Report	Deadline
§ 0	Semiannual Monitoring Reports (SMRs)	<b>1 August</b> (1 January to 30 June)
		<b>1 February</b> (1 July to 31 December)

Section	Report	Deadline
§ 0	Annual Monitoring Reports (AMRs)	<b>1 February</b>
§ F.3	Leachate Seep Reporting	Immediately upon Discovery of Seepage ( <i>staff notification</i> )  <b>Within 7 Days</b> ( <i>written report</i> )
§ 0	Annual Facility Inspection Reports	<b>15 November</b>
§ 0	Major Storm Reporting	Immediately after Damage Discovery ( <i>staff notification</i> )  Within 14 Days of Completing Repairs ( <i>written report, photos</i> )
§ 0	Survey and Iso-Settlement Mapping	<b>Every Five Years</b> (Next Due by 31 December 2026)
§ 0	Financial Assurances Reports	<b>1 June</b>
§ 0	Water Quality Protection Standard Reports	<b>Proposed Revisions</b> (excluding Concentration Limits)

**1. Semiannual Monitoring Reports (SMRs)**

The Discharger shall submit Semiannual Monitoring Reports (SMRs) on **1 August** (1 Jan. to 30 June) and **1 February** (1 July to 31 Dec.). SMRs shall contain the following materials and information:

- a. A statement affirming that all sampling activities referenced in the report were conducted in accordance with the approved SCAP (see § A.4).
- b. Map(s)/aerial photograph(s) depicting locations of all observation stations, monitoring points referenced in the report.

- c. In tabulated format, all monitoring data required to be reported on a semiannual basis, including Groundwater Conditions and Monitoring Parameters. (See **Section F.9.b** for additional requirements.)
- d. For each groundwater monitoring point referenced in the SMR:
  - i. The times each water level measurement was taken;
  - ii. The type of pump or other device used to purge and elevate pump intake level relative to screening interval;
  - iii. The purging methods used to stabilize water in the well bore before sampling (including pumping rate);
  - iv. The equipment and methods used for monitoring pH, temperature and electrical conductivity (EC) during purging activity, and the results of such monitoring;
  - v. Methods for disposing of purged water; and
  - vi. The type of device used for sampling, if different than the one used for purging.
- e. Evaluation of concentrations for all Constituent Parameters and Five-Year COCs (when analyzed), comparison to current Concentration Limits, and results of any Retesting Procedures per **Section B.4.h**.
- f. In the event of a verified exceedance of Concentration Limit(s), any actions taken per Section J of the SPRRs (*Response to Release*) for wells and/or constituents not already specifically addressed in Corrective Action Monitoring under this MRP.
- g. Evaluation as to effectiveness of existing leachate monitoring and control facilities, and runoff/run-on control facilities.
- h. Summaries of all Regular Visual Inspections conducted per **Section E.3** the reporting period.
- i. For closed landfills, summaries of inspections, leak searches and final cover repairs conducted in accordance with an approved Post-Closure Maintenance Plan per 2015 SPRRs section G.26-29 (*Standard Closure and Post-Closure Maintenance Specifications*).

- j. Laboratory statements of results of all analyses evaluating compliance with the WDRs.
- k. For any Corrective Action systems at the Facility, tabulated summaries of:
  - i. Operating hours;
  - ii. Monthly runtimes and downtimes; and
  - iii. Shutdowns, including start/stop dates and causes.

## 2. Annual Monitoring Reports (AMRs)

On 1 February of each year,<sup>8</sup> the Discharger shall submit an Annual Monitoring Report (AMR) containing following materials and information:

- a. In tabulated format, all monitoring data for which annual reporting is required under this MRP. (See **Section F.9.b** for additional requirements for monitoring reports.)
- b. Graphs of historical trends for all Monitoring Parameters and Five-Year COCs (if such analyses were performed) with respect to each monitoring point over the five prior calendar years.<sup>9</sup>
- c. An evaluation of Monitoring Parameters with regard to the cation/anion balance, and graphical presentation of same in a Stiff diagram, Piper graph or Schoeller plot.
- d. All historical monitoring data for which there are detectable results, including data for the previous year, shall be submitted in tabular form in a digital file.

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<sup>8</sup> The Annual Monitoring Report may be combined with the Semiannual Monitoring Report for 1 July through 31 December of the same year, provided that the combination is clearly indicated in the title.

<sup>9</sup> Each graph shall contain individual data points (not mean values) and be appropriately scaled to accurately depict statistically significant trends or variations in water quality.

- e. For each groundwater well, quarterly hydrographs showing the elevation of groundwater with respect to the top and bottom of the screened interval, and the elevation of the pump intake.
- f. A comprehensive discussion of the Facility's compliance record, and the result of any corrective actions taken or planned which may be needed to attain full compliance with the WDRs.
- g. A summary of the monitoring results, indicating any changes made or observed since the previous AMR.
- h. A discussion on the results of Annual LCRS Testing conducted in accordance with **Section E.1.a**.
- i. Annual updates to the Concentration Limits for all Monitoring Parameters and WQPS Monitoring Points, in accordance with **Section B.4.g** of this Order.
- j. To assess the progress of ongoing Corrective Action at the Facility, the following:
  - (A) Time/plot graphs showing stability, decreases, or increases in VOC concentrations in the groundwater monitoring wells and extraction well since the implementation of ISCO and the injection wells.

### 3. Leachate Seep Reporting

Upon discovery of seepage from any disposal area within the Facility, the Discharger shall immediately notify the Central Valley Water Board via telephone or email; and within seven days, submit a written report with the following information:

- a. Map(s) depicting the location(s) of seepage;
- b. Estimated flow rate(s);
- 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 Monitoring Parameters in **Table 17** (*Physical Parameters*) and **Table 18** (*Constituent Parameters*), 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.

**4. Annual Facility Inspection Report**

By **15 November**, the Discharger shall submit a report with results of the Annual Facility Inspection per **Section 0**. The report shall discuss any repair measures implemented, any preparations for winter, and include photographs of any problem areas and repairs.

**5. Major Storm Event Reports**

Immediately following each post-storm inspection described in **Section 0**, the Discharger shall notify Central Valley Water Board staff of any damage or significant erosion (upon discovery). Subsequent repairs shall be reported to the Central Valley Water Board (together with before and after photos of the repaired areas) within 14 days of completion.

**6. Survey and Iso-Settlement Map (Closed Landfill Units)**

The Discharger shall submit all iso settlement maps prepared in accordance with **Section E.6**. (Title 27, § 21090, subd. (e).) The next maps are due by **31 December 2026**.

**7. Financial Assurances Report**

By **1 June** of each year, the Discharger shall submit a copy of the annual financial assurances report due to the California Department of Resources Recycling and Recovery (CalRecycle) that updates the financial assurances for post-closure maintenance and corrective action. (See WDRs Order.)

**8. Water Quality Protection Standard Report**

Any proposed changes<sup>10</sup> to the Water Quality Protection Standard (WQPS) components (§ B.4), other than periodic update of the

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<sup>10</sup> If subsequent sampling of the background monitoring point(s) indicates significant water quality changes due to either seasonal fluctuations or other reasons unrelated to

Concentration Limits (§ B.4.g), shall be submitted in a WQPS Report for review and approval. The report shall be certified by a “Qualified Professional” (§ B), and contain the following:

- a. *Potentially Affected Waterbodies*—An identification of all distinct bodies of surface water and groundwater potentially affected by a WMU release (including, but not limited to, the uppermost aquifer and any permanent or ephemeral zones of perched groundwater underlying the Facility);
- b. *Map of Monitoring Points*—A map of all groundwater, surface water<sup>11</sup> and unsaturated zone monitoring points (including all background/upgradient and Point of Compliance monitoring points);
- c. *Groundwater Movement*—An evaluation of perennial direction(s) of groundwater movement within the uppermost zone(s);
- d. *Statistical Method for Concentration Limits*—A proposed statistical method for calculating Concentration Limits for Monitoring Parameters and Five-Year COCs (see § 0) detected in at least 10 percent of the background data (naturally-occurring constituents) using a statistical procedure from subdivisions (e)(8)(A)-(D) or (e)(8)(E) of Title 27, section 20415; and
- e. *Retesting Procedure*—A retesting procedure to confirm or deny measurably significant evidence of a release (Title 27, §§ 20415(e)(8)(E), 20420(j)(1)-(3)).

## 9. General Reporting Provisions

### a. Transmittal Letters

Each report submitted under this MRP shall be accompanied by a Transmittal Letter providing a brief overview of the enclosed report, as well as the following:

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onsite waste management activities, the Discharger may request modification of the WQPS.

<sup>11</sup> To the extent that surface water monitoring is included in the Detection Monitoring Program.

- i. Any violations found since the last report was submitted, a description of all actions undertaken to correct the violation (referencing any previously submitted time schedules for compliance), and whether the violations were corrected; and
- ii. A statement from the submitting party, or its authorized agent, signed under penalty of perjury, certifying that, to the best of the signer's knowledge, the contents of the enclosed report are true, accurate and complete.

**b. Monitoring Data and Reports**

**i. Electronic Submission via GeoTracker**

All reports with monitoring data (e.g., SMRs and AMRs) shall be submitted electronically via the State Water Board's [Geotracker Database](https://geotracker.waterboards.ca.gov) (<https://geotracker.waterboards.ca.gov>). After uploading a report, the Discharger shall notify Central Valley Water Board staff via email at [CentralValleyFresno@WaterBoards.ca.gov](mailto:CentralValleyFresno@WaterBoards.ca.gov). The following information shall be included in the body of the email:

Attention:	Title 27 Unit
Report Title:	[Title of Report]
GeoTracker Upload ID:	[Number]
GeoTracker Global ID:	L10007990218
Facility Name:	Chateau Fresno Municipal Solid Waste Landfill
County:	Fresno County
CIWQS Place ID:	214108

**ii. Data Presentation and Formatting**

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, the concentrations, and the units are readily discernible. Additionally, data shall be summarized in a manner that clearly illustrates compliance/noncompliance with WDRs.

**iii. Non-Detections / Reporting Limits**

Unless the reporting limits (RL) are specified in the same table, non-detections and sub-RL concentrations shall be reported as "< [limit]" (e.g., "< 5 µg/L").

**iv. Units**

Absent specific justification, all monitoring data shall be reported in the units specified herein.

**c. Compliance with SPRRs**

All reports submitted under this MRP shall comply with applicable provisions of the SPRRs, including those in Section I (Standard Monitoring Specifications) and Section J (Response to Release).

**d. Additional Requirements for Monitoring Reports**

Every monitoring report submitted under this MRP (e.g., SMRs [§ E.1], AMRs [§ E.2]) shall include a discussion of relevant field and laboratory tests, and 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.

**G. Record Retention Requirements**

The Discharger shall maintain permanent records of all monitoring information, including without limitation: calibration and maintenance records; original strip chart recordings of continuous monitoring instrumentation; copies of all reports required by this MRP; and records of all data used to complete the application for WDRs. Such records shall be legible, and show the following for each sample:

1. 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;
2. Date, time and manner of sampling;
3. Date and time that analyses were started and completed, and the name of the personnel and laboratory performing each analysis;
4. A complete list of procedures used (including method of preserving the sample, and the identity and volumes of reagents used);
5. A calculation of results; and

6. The results of all analyses, as well as the MDL and PQL for each analysis (all peaks shall be reported).

### **LIST OF ATTACHMENTS**

Attachment A—Volatile Organic Compounds, Short List  
Attachment B—Dissolved Inorganics (Five-Year COCs)  
Attachment C—Volatile Organic Compounds, Extended List (Five-Year COCs)  
Attachment D—Semi-Volatile Organic Compounds (Five-Year COCs)  
Attachment E—Chlorophenoxy Herbicides (Five-Year COCs)  
Attachment F—Organophosphorous Compounds (Five Year COCs)

### **ENFORCEMENT**

If, in the opinion of the Executive Officer, the Dischargers fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

### **ADMINISTRATIVE REVIEW**

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. To be timely, the petition must be received by the State Water Board by 5:00 pm on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday or state holiday, the petition must be received by the State Water Board by 5:00 pm on the next business day. The law and regulations applicable to filing petitions are available on the [State Water Board website](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) ([http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)). Copies will also be provided upon request.

**ATTACHMENT A—VOLATILE ORGANIC COMPOUNDS, SHORT LIST**  
**USEPA Method 8260B,**  
**Short List**

<b>Constituent</b>	<b>Geotracker Code</b>
Acetone	ACE
Acrylonitrile	ACRAMD
Benzene	BZ
Bromochloromethane	BRCLME
Bromodichloromethane	BDCME
Bromoform (Tribromomethane)	TBME
Carbon disulfide	CDS
Carbon tetrachloride	CTCL
Chlorobenzene	CLBZ
Chloroethane (Ethyl chloride)	CLEA
Chloroform (Trichloromethane)	TCLME
Dibromochloromethane (Chlorodibromomethane)	DBCME
1,2 Dibromo 3 chloropropane (DBCP)	DBCP
1,2 Dibromoethane (Ethylene dibromide; EDB)	EDB
o Dichlorobenzene (1,2 Dichlorobenzene)	DCBZ12
m Dichlorobenzene (1,3 Dichlorobenzene)	DCBZ13
p Dichlorobenzene (1,4 Dichlorobenzene)	DCBZ14
trans 1,4 Dichloro 2 butene	DCBE14T
Dichlorodifluoromethane (CFC-12)	FC12

<b>Constituent</b>	<b>Geotracker Code</b>
1,1 Dichloroethane (Ethylidene chloride)	DCA11
1,2 Dichloroethane (Ethylene dichloride)	DCA12
1,1 Dichloroethylene (1,1 Dichloroethene; Vinylidene chloride)	DCE11
cis 1,2 Dichloroethylene (cis 1,2 Dichloroethene)	DCE12C
trans 1,2 Dichloroethylene (trans 1,2 Dichloroethene)	DCE12T
1,2 Dichloropropane (Propylene dichloride)	DCPA12
cis 1,3 Dichloropropene	DCP13C
trans 1,3 Dichloropropene	DCP13T
Di-isopropylether (DIPE)	DIPE
Ethanol	ETHANOL
Ethyltertiary butyl ether	ETBE
Ethylbenzene	EBZ
2 Hexanone (Methyl butyl ketone)	HXO2
Hexachlorobutadiene	HCBU
Methyl bromide (Bromomethene)	BRME
Methyl chloride (Chloromethane)	CLME
Methylene bromide (Dibromomethane)	DBMA
Methylene chloride (Dichloromethane)	DCMA
Methyl ethyl ketone (MEK: 2 Butanone)	MEK
Methyl iodide (Iodomethane)	IME
Methyl t-butyl ether	MTBE

<b>Constituent</b>	<b>Geotracker Code</b>
4-Methyl 2 pentanone (Methyl isobutylketone)	MIBK
Naphthalene	NAPH
Styrene	STY
Tertiary amyl methyl ether	TAME
Tertiary butyl alcohol	TBA
1,1,1,2 Tetrachloroethane	TC1112
1,1,2,2 Tetrachloroethane	PCA
Tetrachloroethylene (Tetrachloroethene; Perchloroethylene)	PCE
Toluene	BZME
1,2,4-Trichlorobenzene	TCB124
1,1,1 Trichloroethane (Methylchloroform)	TCA111
1,1,2 Trichloroethane	TCA112
Trichloroethylene (Trichloroethene)	TCE
Trichlorofluoromethane (CFC 11)	FC11
1,2,3 Trichloropropane	TCPR123
Vinyl acetate	VA
Vinyl chloride	VC
Xylenes	XYLENES

## ATTACHMENT B—DISSOLVED INORGANICS (FIVE-YEAR COCS)

### Dissolved Inorganics List

<b>Constituent</b>	<b>Analytical Method</b>	<b>Geotracker Code</b>
Aluminum	USEPA Method 6010	AL
Antimony	USEPA Method 7041	SB
Arsenic	USEPA Method 7062	AS
Barium	USEPA Method 6010	BA
Beryllium	USEPA Method 6010	BE
Cadmium	USEPA Method 7131A	CD
Chromium	USEPA Method 6010	CR
Cobalt	USEPA Method 6010	CO
Copper	USEPA Method 6010	CU
Cyanide	USEPA Method 9010C	CN
Iron	USEPA Method 6010	FE
Lead	USEPA Method 7421	PB
Manganese	USEPA Method 6010	MN
Mercury	USEPA Method 7470A	HG
Nickel	USEPA Method 7521	NI
Selenium	USEPA Method 7742	SE
Silver	USEPA Method 6010	AG
Sulfide	USEPA Method 9030Bx	S
Thallium	USEPA Method 7841	TL
Tin	USEPA Method 6010	SN

<b>Constituent</b>	<b>Analytical Method</b>	<b>Geotracker Code</b>
Vanadium	USEPA Method 6010	V
Zinc	USEPA Method 6010	ZN

**ATTACHMENT C—VOLATILE ORGANIC COMPOUNDS, EXTENDED LIST  
(FIVE-YEAR COCS)**

**USEPA Method 8260,  
Extended List**

<b>Volatile Organic Compound</b>	<b>Geotracker Code</b>
Acetone	ACE
Acetonitrile (Methyl cyanide)	ACCN
Acrolein	ACRL
Acrylonitrile	ACRAMD
Allyl chloride (3 Chloropropene)	CLPE3
Benzene	BZ
Bromochloromethane (Chlorobromomethane)	BRCLME
Bromodichloromethane (Dibromochloromethane)	DBCME
Bromoform (Tribromomethane)	TBME
Carbon disulfide	CDS
Carbon tetrachloride	CTCL
Chlorobenzene	CLBZ
Chloroethane (Ethyl chloride)	CLEA
Chloroform (Trichloromethane)	TCLME
Chloroprene	CHLOROPRENE
Dibromochloromethane (Chlorodibromomethane)	DBCME
1,2 Dibromo 3 chloropropane (DBCP)	DBCP
1,2 Dibromoethane (Ethylene dibromide; EDB)	EDB

**ATTACHMENT C—VOLATILE ORGANIC COMPOUNDS, EXTENDED LIST, (FIVE-YEAR COCS)**

<b>Volatile Organic Compound</b>	<b>Geotracker Code</b>
o Dichlorobenzene (1,2 Dichlorobenzene)	DCBZ12
m Dichlorobenzene(1,3 Dichlorobenzene)	DCBZ13
p Dichlorobenzene (1,4 Dichlorobenzene)	DCBZ14
trans 1,4 Dichloro 2 butene	DCBE14T
Dichlorodifluoromethane (CFC 12)	FC12
1,1 Dichloroethane (Ethylidene chloride)	DCA11
1,2 Dichloroethane (Ethylene dichloride)	DCA12
1,1 Dichloroethylene (1, I Dichloroethene; Vinylidene chloride)	DCE11
cis 1,2 Dichloroethylene (cis 1,2 Dichloroethene)	DCE12C
trans 1,2 Dichloroethylene (trans 1,2 Dichloroethene)	DCE12T
1,2 Dichloropropane (Propylene dichloride)	DCPA12
1,3 Dichloropropane (Trimethylene dichloride)	DCPA13
2,2 Dichloropropane (Isopropylidene chloride)	DCPA22
1,1 Dichloropropene	DCP11
cis 1,3 Dichloropropene	DCP13C
trans 1,3 Dichloropropene	DCP13T
Di-isopropylether (DIPE)	DIPE
Ethanol	ETHANOL
Ethyltertiary butyl ether	ETBE
Ethylbenzene	EBZ
Ethyl methacrylate	EMETHACRY

**ATTACHMENT C—VOLATILE ORGANIC COMPOUNDS, EXTENDED LIST, (FIVE-YEAR COCS)**

<b>Volatile Organic Compound</b>	<b>Geotracker Code</b>
Hexachlorobutadiene	HCBU
2 Hexanone (Methyl butyl ketone)	HXO2
Isobutyl alcohol	ISOBTOH
Methacrylonitrile	METHACRN
Methyl bromide (Bromomethane)	BRME
Methyl chloride (Chloromethane)	CLME
Methyl ethyl ketone (MEK; 2 Butanone)	MEK
Methyl iodide (Iodomethane)	IME
Methyl t-butyl ether	MTBE
Methyl methacrylate	MMTHACRY
4 Methyl 2 pentanone (Methyl isobutyl ketone)	MIBK
Methylene bromide (Dibromomethane)	DBMA
Methylene chloride (Dichloromethane)	DCMA
Naphthalene	NAPH
Propionitrile (Ethyl cyanide)	PACN
Styrene	STY
Tertiary amyl methyl ether	TAME
Tertiary butyl alcohol	TBA
1,1,1,2 Tetrachloroethane	TC1112
1,1,2,2 Tetrachloroethane	PCA
Tetrachloroethylene (Tetrachloroethene; Perchloroethylene; PCE)	PCE

**ATTACHMENT C—VOLATILE ORGANIC COMPOUNDS, EXTENDED LIST, (FIVE-YEAR COCS)**

<b>Volatile Organic Compound</b>	<b>Geotracker Code</b>
Toluene	BZME
1,2,4 Trichlorobenzene	TCB124
1,1,1 Trichloroethane (Methylchloroform)	TCA111
1,1,2 Trichloroethane	TCA112
Trichloroethylene (Trichloroethene; TCE)	TCE
Trichlorofluoromethane (CFC 11)	FC11
1,2,3 Trichloropropane	TCPR123
Vinyl acetate	VA
Vinyl chloride (Chloroethene)	VC
Xylene (total)	XYLENES

**ATTACHMENT D—SEMI-VOLATILE ORGANIC COMPOUNDS  
(FIVE-YEAR COCS)**

**USEPA Methods 8270C or 8270D  
Base, Neutral & Acids Extractables List**

<b>Constituent</b>	<b>Geotracker Code</b>
Acenaphthene	ACNP
Acenaphthylene	ACNPY
Acetophenone	ACPHN
2 Acetylaminofluorene (2 AAF)	ACAMFL2
Aldrin	ALDRIN
4 Aminobiphenyl	AMINOBPH4
Anthracene	ANTH
Benzo[a]anthracene (Benzanthracene)	BZAA
Benzo[b]fluoranthene	BZBF
Benzo[k]fluoranthene	BZKF
Benzo[g,h,i]perylene	BZGHIP
Benzo[a]pyrene	BZAP
Benzyl alcohol	BZLAL
Bis(2 ethylhexyl) phthalate	BIS2EHP
alpha BHC	BHCALPHA
beta BHC	BHCBETA
delta BHC	BHCDELTA
gamma BHC (Lindane)	BHCGAMMA

<b>Constituent</b>	<b>Geotracker Code</b>
Bis(2 chloroethoxy) methane	BECEM
Bis(2 chloroethyl) ether (Dichloroethyl ether)	BIS2CEE
Bis(2 chloro 1 methylethyl) ether (Bis(2 chloroisopropyl) ether; DCIP)	BIS2CIE
4 Bromophenyl phenyl ether	BPPE4
Butyl benzyl phthalate (Benzyl butyl phthalate)	BBP
Chlordane	CHLORDANE
p Chloroaniline	CLANIL4
Chlorobenzilate	CLBZLATE
p Chloro m cresol (4 Chloro 3 methylphenol)	C4M3PH
2 Chloronaphthalene	CNPH2
2 Chlorophenol	CLPH2
4 Chlorophenyl phenyl ether	CPPE4
Chrysene	CHRYSENE
o Cresol (2 methylphenol)	MEPH2
m Cresol (3 methylphenol)	MEPH3
p Cresol (4 methylphenol)	MEPH4
4,4' DDD	DDD44
4,4' DDE	DDE44
4,4' DDT	DDT44
Diallate	DIALLATE
Dibenz[a,h]anthracene	DBAHA

<b>Constituent</b>	<b>Geotracker Code</b>
Dibenzofuran	DBF
Di n butyl phthalate	DNBP
3,3' Dichlorobenzidine	DBZD33
2,4 Dichlorophenol	DCP24
2,6 Dichlorophenol	DCP26
Dieldrin	DIELDRIN
Diethyl phthalate	DEPH
p (Dimethylamino) azobenzene	PDMAABZ
7,12 Dimethylbenz[a]anthracene	DMBZA712
3,3' Dimethylbenzidine	DMBZD33
2,4 Dimehtylphenol (m Xylenol)	DMP24
Dimethyl phthalate	DMPH
m Dinitrobenzene	DNB13
4,6 Dinitro o cresol (4,6 Dinitro 2 methylphenol)	DN46M
2,4 Dinitrophenol	DNP24
2,4 Dinitrotoluene	DNT24
2,6 Dinitrotoluene	DNT26
Di n octyl phthalate	DNOP
Diphenylamine	DPA
Endosulfan I	ENDOSULFANA
Endosulfan II	ENDOSULFANB
Endosulfan sulfate	ENDOSULFANS

<b>Constituent</b>	<b>Geotracker Code</b>
Endrin	ENDRIN
Endrin aldehyde	ENDRINALD
Ethyl methanesulfonate	EMSULFN
Famphur	FAMPHUR
Fluoranthene	FLA
Fluorene	FL
Heptachlor	HEPTACHLOR
Heptachlor epoxide	HEPT-EPOX
Hexachlorobenzene	HCLBZ
Hexachlorocyclopentadiene	HCCP
Hexachloroethane	HCLEA
Hexachloropropene	HCPR
Indeno(1,2,3 c,d) pyrene	INP123
Isodrin	ISODRIN
Isophorone	ISOP
Isosafrole	ISOSAFR
Kepone	KEP
Methapyrilene	MTPYRLN
Methoxychlor	MTXYCL
3 Methylcholanthrene	MECHLAN3
Methyl methanesulfonate	MMSULFN
2 Methylnaphthalene	MTNPH2

<b>Constituent</b>	<b>Geotracker Code</b>
1,4 Naphthoquinone	NAPHQ14
1 Naphthylamine	AMINONAPH1
2 Naphthylamine	AMINONAPH2
o Nitroaniline (2 Nitroaniline)	NO2ANIL2
m Nitroaniline (3 Nitroaniline)	NO2ANIL3
p Nitroaniline (4 Nitroaniline)	NO2ANIL4
Nitrobenzene	NO2BZ
o Nitrophenol (2 Nitrophenol)	NTPH2
p Nitrophenol (4 Nitrophenol)	NTPH4
N Nitrosodi n butylamine (Di n butylNitrosamine)	NNSBU
N Nitrosodiethylamine (Diethylnitrosamine)	NNSE
N Nitrosodimethylamine (Dimethylnitrosamine)	NNSM
N Nitrosodiphenylamine (Diphenylnitrosamine)	NNSPH
N Nitrosodipropylamine (N Nitroso N dipropylamine; Di n propylNitrosamine)	NNSPR
N Nitrosomethylethylamine (Methylethylnitrosamine)	NNSME
N Nitrosopiperidine	NNSPPRD
N Nitrosopyrrolidine	NNSPYRL
5 Nitro o toluidine	TLDNONT5
Pentachlorobenzene	PECLBZ
Pentachloronitrobenzene (PCNB)	PECLNO2BZ
Pentachlorophenol	PCP

<b>Constituent</b>	<b>Geotracker Code</b>
Phenacetin	PHNACTN
Phenanthrene	PHAN
Phenol	PHENOL
p Phenylenediamine	ANLNAM4
Polychlorinated biphenyls (PCBs; Aroclors)	PCBS
Pronamide	PRONAMD
Pyrene	PYR
Safrole	SAFROLE
1,2,4,5 Tetrachlorobenzene	C4BZ1245
2,3,4,6 Tetrachlorophenol	TCP2346
o Toluidine	TLDNO
Toxaphene	TOXAP
2,4,5 Trichlorophenol	TCP245
0,0,0 Triethyl phosphorothioate	TEPTH
sym Trinitrobenzene	TNB135

**ATTACHMENT E—CHLOROPHENOXY HERBICIDES (FIVE-YEAR COCS)**

**USPEA Method 8151A List**

<b>Constituent</b>	<b>GeoTracker Code</b>
2,4 D (2,4 Dichlorophenoxyacetic acid)	24D
Dinoseb (DNBP; 2 sec Butyl 4,6 dinitrophenol)	DINOSEB
Silvex (2,4,5 Trichlorophenoxypropionic acid; 2,4,5 TP)	SILVEX
2,4,5 T (2,4,5 Trichlorophenoxyacetic acid)	245T

**ATTACHMENT F—ORGANOPHOSPHOROUS COMPOUNDS  
(FIVE YEAR COCS)**

**USEPA Method 8141B List**

<b>Constituent</b>	<b>GeoTracker Code</b>
Atrazine	ATRAZINE
Chlorpyrifos	ZINOPHOS
Diazinon	DIAZ
Dimethoate	DIMETHAT
Disulfoton	DISUL
Methyl parathion (Parathion methyl)	PARAM
Parathion	PARAE
Phorate	PHORATE
Simazine	SIMAZINE