CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

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Regional Board Website (https://www.waterboards.ca.gov/centralvalley)

[TENTATIVE] MONITORING & REPORTING PROGRAM (MRP) R5-2025-XXXX

ORDER INFORMATION

Order Type(s):	Monitoring & Reporting Program (MRP)
Status:	Tentative
Program:	Title 27
Region 5 Office:	Sacramento (Rancho Cordova)
Discharger(s):	City of Sacramento
Facility:	28th Street Landfill
Address:	28th and 'A' Street, Sacramento CA 95816
County:	Sacramento County
Parcel Nos.:	001-0170-018, 001-0170-019, 001-0170-021, 001-0170-026, 003-0010-001, 003-0042-002, 003-0050-012, 003-0050-014, 003-0050-015, 003-0050-016, 001-0170-006, 003-0032-008, 003-0032-009, 003-0032-030, 003-0032-034, and 003-0041-003
WDID:	5A340309001
Prior Order(s):	84-094, 88-207, 95-224, 96-286, R5-2004-0039

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 February 2025.

PATRICK PULUPA,
Executive Officer

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GLOSSARY

A	WMU-A
AMR	Annual Monitoring Report
B	WMU-B
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
COCs	Constituents of Concern
COD	Chemical Oxygen Demand
CSP	Cannon and Scollan Properties WMUs
DMP	Detection Monitoring Program
DWR	California Department of Water Resources
EC	Electrical Conductivity
ELAP	State Water Board's Environmental Laboratory Accreditation Program (formerly administered by California Department of Public Health)
EMP	Evaluation Monitoring Program
EW	Extraction Well
Five-Year COCs	Five-Year Constituents of Concern
GCCS	Gas Collection and Control System
GeoTracker	State Water Board's Data Management System for Sites with Potential Groundwater Impact

GLOSSARY

GP	Gas Probe
LCRS	Leachate Collection and Removal System
LEA	Local Enforcement Agency
LF	Landfill
LFG	Landfill Gas
MDL	Method Detection Limit
Method TO-15 VOCs	Volatile Organic Compounds associated with USEPA Method TO-15
MRP	Monitoring and Reporting Program
MSL	Mean Sea Level
MSW	Municipal Solid Waste
MSWLF	Municipal Solid Waste Landfill
N	North Area WMU
N/A	Not Applicable
pH	Potential of Hydrogen
PID	Photo Ionization Detector
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

GLOSSARY

ROWD / JTD	Report of Waste Discharge / Joint Technical Document
SCAP	Sample Collection and Analysis Plan
SGP	Soil Pore Gas
SI	Surface Impoundment
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
W	West Area WMU
WDRs	Waste Discharge Requirements
WMU(s)	Waste Management Unit(s)
WQPS	Water Quality Protection Standard

UNITS

ft^3 / min	Cubic Feet per Minute
°F	Degrees Fahrenheit
Ft	Feet
Gallons/Day	Gallons per Day
GPM	Gallons per minute

GLOSSARY

mg/L .....Milligrams per Liter

ppbv .....Parts per billion by volume

ppmv .....Parts per million by volume

µg/L .....Micrograms per Liter

µmhos/cm.....Microsiemens per Centimeter

µg/cm3 .....Micrograms per Cubic Centimeter

NTUs .....Nephelometric Turbidity Units

% Vol. .....Percent by Volume

Inches Hg .....Inches of Mercury (Barometric Pressure)

MM Hg Vacuum .....Millimeters of Mercury (Barometric Pressure)

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 the City of Sacramento (Discharger), which owns and operates the 28th Street Landfill (Facility) in Sacramento County. Additional information regarding the Facility is set forth in the enumerated findings of Waste Discharge Requirements Order R5-2025-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 all previously issued Monitoring and Reporting Program(s) for the discharge of solid waste at the Facility are rescinded (except for enforcement purposes); and that the Discharger, their agents, employees and successors shall comply with the following Monitoring and Reporting Program (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[1] detection monitoring networks shall be revised (as needed) with the construction of each new landfill cell or module.

1. Groundwater

a. Required Network

The Facility's groundwater monitoring well network consists of the wells listed in **Table 1**.[2] 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	Monitored Unit	POC (WQPS)	Zone	Status
B-1	Corrective Action	A, B	Yes	Shallow	Operational
B-3	Corrective Action	A, B	No	Shallow	Operational
B-4	Corrective Action	A, N	Yes	Shallow	Operational
B-6	Corrective Action	A	No	Shallow	Operational
C-7	Corrective Action	A, B	Yes	Shallow	Operational
C-8	Corrective Action	A, B	Yes	Shallow	Operational
C-9	Background	N/A	No	Shallow	Operational

[1] I.e., to the extent that surface water detection monitoring is required under this Order.

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

Well	Program	Monitored Unit	POC (WQPS)	Zone	Status
C-10	Background	N/A	No	Shallow	Operational
C-11S	Corrective Action	A, B	No	Shallow	Operational
C-11D	Corrective Action	A, B	No	Deep	Operational
C-12	Corrective Action	W, N	Yes	Shallow	Operational
C-13	Corrective Action	W, CSP	No	Shallow	Operational
C-14	Corrective Action	W, CSP	Yes	Shallow	Operational
C-15	Corrective Action	N	No	Shallow	Operational
D-16	Corrective Action	A, B	No	Shallow	Operational
D-17	Corrective Action	W, N	No	Shallow	Operational
D-18	Corrective Action	W, CSP	Yes	Deep	Operational
D-19	Corrective Action	W, CSP	No	Shallow	Operational
D-20	Corrective Action	W	No	Shallow	Operational
D-21	Detection, Evaluation	W, CSP	No	Shallow	Operational
D-22	Detection, Evaluation	W, CSP	Yes	Shallow	Operational
D-23	Detection, Evaluation	N, A, B	Yes	Shallow	Operational
D-24	Detection, Evaluation	N, A, B	Yes	Deep	Operational
D-25	Detection, Evaluation	W, N	No	Shallow	Operational
D-26	Detection, Evaluation	N	No	Shallow	Operational
PZ-1	Groundwater Elevation	A	No	Shallow	Operational
PZ-2	Groundwater Elevation	A	No	Shallow	Operational

Well	Program	Monitored Unit	POC (WQPS)	Zone	Status
PZ-3	Groundwater Elevation	A	No	Shallow	Operational
PZ-4	Groundwater Elevation	W	No	Shallow	Operational
PZ-5	Groundwater Elevation	W	No	Shallow	Operational

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 Freq.	Reporting Freq.
Temperature	TEMP	°F	Semiannually	Semiannually
Electrical Conductivity	SC	µmhos/cm	Semiannually	Semiannually
pH	PH	pH Units	Semiannually	Semiannually
Turbidity	TURB	NTUs	Semiannually	Semiannually

See Glossary for definitions of terms and abbreviations in table.

Table 3—Groundwater Detection Monitoring, Constituent Parameters

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
TDS	TDS	mg/L	Semiannually	Semiannually

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Chloride	CL	mg/L	Semiannually	Semiannually
Carbonate	CACO3	mg/L	Semiannually	Semiannually
Chemical Oxygen Demand	COD	mg/L	Semiannually	Semiannually
Bicarbonate	BICACO3	mg/L	Semiannually	Semiannually
Sulfate	SO4	mg/L	Semiannually	Semiannually
Calcium	CA	mg/L	Annually	Annually
Magnesium	MG	mg/L	Annually	Annually
Nitrate as Nitrogen	NO3N	Mg/L	Semiannually	Semiannually
Potassium	K	mg/L	Annually	Annually
Sodium	NA	mg/L	Annually	Annually
Iron, Dissolved	FE	mg/L	Semiannually	Semiannually
Short List VOCs (Attachment A)	(various)	µg/L	Semiannually	Semiannually
1,2,3-Trichloropropane per Method SRL-524M-TCP	TCPR123	µg/L	Semiannually	Semiannually

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 2021 1st SMR and shall be analyzed again in the **2026 1st SMR**. (Title 27, § 20420, subd. (g).)

Table 4—Groundwater Detection Monitoring, Five-Year COCs

Five-Year Constituent	GeoTracker Code	Units	Sampling & Reporting Freq.
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.

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 E.1**.[3] (Title 27, § 20415, subd. (b)(1).)

[3] 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	Units	Monitoring Freq.	Reporting Freq.
Elevation (Well-Specific)	GWELEV	0.01 Ft MSL	Quarterly	Semiannually
Gradient	GRADIENT	Ft/ft	Quarterly	Semiannually
Flow Rate	FLOW	Ft/day	Quarterly	Semiannually

See Glossary for definitions of terms and abbreviations in table.

2. Unsaturated Zone

a. Required Network

The Facility's unsaturated zone monitoring network consists of the landfill gas (LFG) 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	Device Type	Program	Monitored Unit	Status
S-1	Gas Probe	Detection	A	Operational
S-2	Gas Probe	Detection	A, W	Operational
S-4	Gas Probe	Detection	W, CSP	Operational
S-5	Gas Probe	Detection	W	Operational
S-7	Gas Probe	Corrective Action	N	Operational
S-8	Gas Probe	Detection	N	Operational
S-12	Gas Probe	Detection	A	Operational

Monitoring Point	Device Type	Program	Monitored Unit	Status
S-14	Gas Probe	Detection	B	Operational
S-18	Gas Probe	Detection	B	Operational
S-21	Gas Probe	Corrective Action	A	Operational
S-37	Gas Probe	Detection	CSP	Planned

See Glossary for definitions of terms and abbreviations in table.

b. Soil Pore Gas (SPG) Monitoring

Soil Pore Gas (SPG) monitoring points in **Table 6** shall be monitored for Methane, other landfill gas components, and Method TO-15 VOCs[4] in accordance with **Table 7**, provided that samples may be prescreened to determine if such analyses will be required.[5] (Title 27, § 20420, subds. (e)-(f).) The results of any monitoring in other landfill gas probes installed at the Facility boundary not listed in **Table 6** but required by the LEA and/or CalRecycle as part of their monitoring requirements shall be reported as part of this MRP in the Discharger's annual self-monitoring report.

[4] Volatile Organic Compounds associated with USEPA Method TO-15.

[5] 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 ppmv, 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.

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

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Method TO-15 VOCs	(various)	µg/cm^3	Semiannually	Semiannually
Methane	CH4	%	Monthly	Semiannually
Carbon Dioxide	CO2	%	Monthly	Semiannually
Oxygen	OXYGEN	%	Monthly	Semiannually
Organic Vapors	TVO	ppmV	Monthly	Semiannually

See Glossary for definitions of terms and abbreviations in table.

3. Surface Water

Runoff from the Facility is collected in one or more sedimentation basins, which periodically flow to the American River, which may be affected by a release. (See Title 27, § 20415, subd. (c)(1).)

a. Required Network

The Facility's surface water monitoring network consists of the monitoring points listed in **Table 8**. As of the date of this Order, the network meets the requirements of Title 27. (See § 20415, subd. (c).)

Table 8—Surface Water Detection Monitoring Network

Monitoring Point	Program or Function	Monitored Unit	Location / Notes
S-1	Detection	A, B	Outfall of North Detention Basin adjacent American River
S-2	Detection	A	Discharge of18-inch corrugated pipe adjacent American River
R-1	Background	American River	Sampling point upstream in American River

Monitoring Point	Program or Function	Monitored Unit	Location / Notes
R-2	Detection	WMU-A, WMU-B	Sampling point downstream in American River

See Glossary for definitions of terms and abbreviations in table.

b. Sample Collection and Analysis

When surface water is present at monitoring points in **Table 8** during the monitoring period, samples shall be collected from each monitoring point and analyzed for the Monitoring Parameters in **Table 9** (Physical Parameters) and **Table 10** (Constituent Parameters), in accordance with the specified schedule. (Title 27, § 20420, subds. (e)-(f).)

Table 9—Surface Water Detection Monitoring, Physical Parameters

Physical Parameter	GeoTracker Code	Units	Sampling Freq.[1]	Reporting Freq.
Electrical Conductivity	SC	µmhos/cm	Wet Season	Semiannually
pH	PH	Std. Units	Wet Season	Semiannually
Turbidity	TURB	NTUs	Wet Season	Semiannually
Total Dissolved Solids	TDS	mg / L	Wet Season	Semiannually
Presence of Oil & Grease	OILGREASE	Yes / No	Wet Season	Semiannually
Flow to Surface Waters at Time of Sampling	FLOW	Estimated GPM	Wet Season	Semiannually

See Glossary for definitions of terms and abbreviations in table.

[1]Surface water sampling shall occur twice during the wet season. The first sampling event shall occur during the first discharge from the monitoring points to the American

River when a representative sample of the discharge can be obtained for laboratory analysis. The second monitoring event shall occur in the latter part of March or April when a discharge to the American River is present, and a representative sample of the discharge can be obtained for laboratory analysis.

Table 10—Surface Water Detection Monitoring, Constituent Parameters

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.[1]	Reporting Freq.
Total Dissolved Solids	TDS	mg/L	Wet Season	Semiannually
Total Suspended Solids	TSS	mg/L	Wet Season	Semiannually
Chloride	CL	mg/L	Wet Season	Semiannually
Sulfate	SO4	mg/L	Wet Season	Semiannually
Nitrate as Nitrogen	NO3N	mg/L	Wet Season	Semiannually
Bicarbonate	BICACO3	mg/L	Wet Season	Semiannually
Carbonate	CACO3	mg/L	Wet Season	Semiannually
Chemical Oxygen Demand	COD	mg/L	Annually[2]	Annually
Total Organic Carbon	TOC	mg/L	Annually[2]	Annually
Total Alkalinity	ALK	mg/L	Annually[2]	Annually
Dissolved Oxygen	DO	mg/L	Annually[2]	Annually
Oil and Grease	TPHOG	mg/L	Annually[2]	Annually
Calcium	CA	mg/L	Annually[2]	Annually
Magnesium	MG	mg/L	Annually[2]	Annually
Potassium	K	mg/L	Annually[2]	Annually
Sodium	NA	mg/L	Annually[2]	Annually

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.[1]	Reporting Freq.
Dissolved Inorganics (Attachment B)	(various)	µg/L	Annually[2]	Annually
Short List VOCs (Attachment A)	(various)	µg/L	Annually[2]	Annually
1,2,3-Trichloropropane per Method SRL-524M-TCP	TCPR123	µg/L	Annually[2]	Annually

See Glossary for definitions of terms and abbreviations in table.

[1]Surface water sampling shall occur twice during the wet season. The first sampling event shall occur during the first discharge from the monitoring points to the American River when a representative sample of the discharge can be obtained for laboratory analysis. The second monitoring event shall occur in the latter part of March or April when a discharge to the American River is present, and a representative sample of the discharge can be obtained for laboratory analysis.

[2]The annual sample shall be taken at the time of the first sampling event which shall occur during the first discharge from the monitoring points to the American River when a representative sample of the discharge can be obtained for laboratory analysis.

c. Five-Year COCs

The Discharger shall analyze surface water samples for the Five-Year COCs listed in **Table 11** Five-Year COCs were last monitored in the 2021 1st SMR and shall be analyzed again in **2026 1st SMR**. (Title 27, § 20420, subd. (g).)

Table 11—Surface Water Detection Monitoring, Five-Year COCs

Five-Year Constituent	GeoTracker Code	Units	Sampling & Reporting Freq.[1]
Total Organic Carbon	TOC	mg/L	Every 5 Years
Dissolved Inorganics (Attachment B)	(various)	µg/L	Every 5 Years

Five-Year Constituent	GeoTracker Code	Units	Sampling & Reporting Freq.[1]
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.

[1]Surface water sampling shall occur twice during the wet season. The first sampling event shall occur during the first discharge from the monitoring points to the American River when a representative sample of the discharge can be obtained for laboratory analysis. The second monitoring event shall occur in the latter part of March or April when a discharge to the American River is present, and a representative sample of the discharge can be obtained for laboratory analysis. The results shall be reported in the semiannual report in which the sampling event occurred.

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 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 B** (Detection Monitoring Program)—specifically **Table 1** (Groundwater), **Table 6** (Unsaturated Zone) and **Table 8** (Surface Water).

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).) The Facility's POC groundwater monitoring wells are listed below in **Table 1**.

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 **Surface Water**, those in **Table 9** and **Table 10**;

ii. For **Groundwater**, those in **Table 2** and **Table 3**; and

iii. 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 2021 1st Semiannual Monitoring Report and are due again in the **2026 1st Semiannual Monitoring Report**. 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 11** (*Surface Water*), and **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.[6] (Title 27, § 20400, subds. (a), (b).) Methods for calculating Concentration Limits were proposed in the 2020 WQPS Report. The approved methods uses the upper tolerance limit (UTL) for concentration limits (CL) set at the 95% upper tolerance limit for the 95th percentile concentration.

This is consistent with USEPA and state recommendations, a 95 percent coverage and 95 percent tolerance coefficient will be used.

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[6] 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.

The upper 95 percent tolerance limit will contain at least 95 percent of the distribution of observations from background well data. The UTL is the upper bound of a background concentration range for a given analyte.

The inorganic and organic constituents detected above the CLs in groundwater shall be analyzed using the Mann-Kendall trend analysis method at a 95% level of confidence. The Mann- Kendall estimate of trend is commonly used for groundwater data because it provides useful results even in the presence of outliers, missing data, and non-detects.

Concentration Limits shall be proposed and/or updated by the Discharger every **5 years for groundwater** in the Annual Monitoring Report submitted per **Section E.2** here. As of the date of this Order, Concentration Limits were last specified in 2021, and shall be updated again as part of the **2026 Annual Monitoring Report**, and again every 5 years thereafter.

Concentration Limits shall be proposed and/or updated by the Discharger **annually for surface waters** in the Annual Monitoring Report submitted per **Section E.2** here. As of the date of this Order, Concentration Limits were last specified in 2023, and shall be updated again as part of the **2024 Annual Monitoring Report**, and again every year thereafter.

Unless expressly rejected by the Executive Officer in writing, these Concentration Limits shall be incorporated as part of this Order. Several notable Concentration Limits, as set forth in the 2023 Annual Report, are set forth below in **Table 12** and **Table 13**.[7]

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

[7] The Concentration Limits set forth in **Table 12** and **Table 13** is only a partial list of values that are provided for general informational purposes only. These limits shall be superseded once updated values are submitted.

Executive Officer may revert to lower concentrations where warranted based on existing monitoring data.

Table 12—Notable Groundwater Concentration Limits, 2023 Annual Report (WQPS)[2]

Well	Analysis	pH (std units)	EC (µmhos/cm)	Chloride (mg/L)	Nitrate as N (mg/L)	Sulfate (mg/L)	TDS (mg/L)	COD (mg/L)	Bicarbonate (mg/L)	Total Iron (mg/L)	VOCs
Detection or Corrective Action Wells listed in Table 1	Interwell	8.23	1195	22.4	10[1]	312	776	17.2	246	0.3[1]	Non-Detect

See Glossary for definitions of terms and abbreviations in table.

[1]Limited by Maximum Contaminant Level for Drinking Water.

[2]**Table 12** are concentration limits for 28th Street Landfill and interim concentration limits for Cannon and Scollan Properties WMUs. Once the Discharger establishes concentration limits for CSP WMUs based on upgradient background wells **Table 12** shall be updated to include separate concentration limits for the Cannon and Scollan Properties WMUs.

Table 13—Notable Surface Water Concentration Limits, 2023 Annual Report (WQPS)[1]

Monitoring Points **S1, S2, and R2** using R1 as a Background Monitoring Point to calculate Concentration Limits

pH (std units)	EC (µmhos/cm)	Cl (mg/L)	Nitrate as N (mg/L)	Sulfate (mg/L)	TDS (mg/L)	COD (mg/L)	Bicarbonate (mg/L)	Turbidity (NTU)	TSS (mg/L)	Carbonate (mg/L)
8.00	101.9	4.32	0.44	4.42	63.45	144	34.98	17.45	7.13	1

TOC (mg/L)	DO (mg/L)	Al (ug/L)	Sb (ug/L)	As (ug/L)	Ba (ug/L)	Be (ug/L)	Cd (ug/L)	Cr (ug/L)	Chrom e VI	Co (ug/L)
4.91	14.75	40	16	1	4	0.1	0.7	1.4	0.25	3.7

See Glossary for definitions of terms and abbreviations in table.

[1]See **Attachment B** for acronymns for inorganic metals.

Cu (ug/L)	Dissolv ed Fe (ug/L)	Total Fe (ug/L)	Pb (ug/L)	Mn (ug/L)	Dissolv ed Fe (ug/L)	Total Fe (ug/L)	Pb (ug/L)	Mn (ug/L)	Hg (ug/L)	Ni (ug/L)
1.8	2.1	2.1	2.6	40	2.1	2.1	2.6	40	0.056	4
Se (ug/L)	Ag (ug/L)	S (ug/L)	Tl (ug/L)	Sn (ug/L)	V (ug/L)	Zn (ug/L)	Cn (ug/ L)	VOCs		
11	1.7	10	7.5	4.8	1.1	6.8	3.4	Non-detect		

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 of subdivision (d) of Title 27, section 20430.

1. Groundwater Corrective Action (To be Determined. Please see WDRs Time Schedule, Section I)

2. Unsaturated Zone Corrective Action

In addition to parameters in **Table 7** (Monitoring Parameters), unsaturated zone corrective action monitoring points for shall be sampled for any additional constituents as specified in **Table 14** at the accelerated frequency.

Table 14—Unsaturated Zone Corrective Action Monitoring, Additional Parameters

LFG Probe	Zone	Additional Constituents	Sampling Freq.
S-7	Shallow, Middle, Deep	None	Quarterly
S-21	Deep	None	Quarterly

See Glossary for definitions of terms and abbreviations in table.

3. Groundwater Extraction Well System (Currently Not Applicable)

4. Landfill Gas Corrective Action

The Facility's landfill gas (LFG) corrective action system currently consists of a gas collection and control system (GCCS) which includes an LFG extraction well field, soil gas monitoring probes, and two LFG flares. The Discharger shall log all system shutdowns (including causes and stop/start dates), monthly downtime and monthly runtime. All shutdowns, regardless of the type of restart, shall be recorded. This information shall be reported semiannually per **Section E.1**. Additionally, system performance shall be monitored in accordance with **Table 15**.

Table 15—Landfill Gas Corrective Action Monitoring, Control System Performance (GCCS)

Parameter	Units	Sampling Freq.	Reporting Freq.
Control System Runtime	Hours	N/A	Semiannually
Control System Downtime	%	N/A	Semiannually
Temperature into Plant	°F	Daily	Semiannually
Flare Combustion Temperature	°F	Daily	Semiannually
System Vacuum	mm Hg vacuum	Daily	Semiannually
Totalized Flow into Plant	ft^3	Daily	Semiannually
Totalized Flow Rate into Plant	ft^3 / min	Daily	Semiannually
VOCs per USEPA Method TO-15 in Influent	µg / cm	Semiannually	Semiannually
Methane in Influent	%	Daily	Semiannually

See Glossary for definitions of terms and abbreviations in table.

a. Extraction Well Field

The Facility's network of LFG extraction wells consists of the active and planned extraction wells listed in **Table 16**.

The Discharger is required to report on a semiannual basis the monthly monitoring results of this existing and planned network of LFG extraction wells including any future LFG extraction wells. The Discharger shall monitor the parameters listed in **Table 17** at these LFG extraction wells as part of its corrective action program to address VOCs in the unsaturated zone/groundwater due to landfill gas.

Table 16—Landfill Gas Corrective Action, Extraction Well Network

Well-ID	Unit Monitored
112, 113, 145, A01-A28, B01, B02, B04, B06, B07, B08, B10-B30, B33, B34-B36, B38-B39, C01, C02, C06, C07-C13, C16-C21	WMU-A
00Well1- 00Well18	WMU-B
114, 144, MW01-MW68	Perimeter Berm
100-102, 104-105, 115-131, 133-141, 107D, 107S, 108D, 108S, 110D, 110S, , 111D, 111S	West Area (W)
Six Planned LFG Extraction Wells CS-1 through CS-6	Cannon and Scollan

Table 17—Landfill Gas Corrective Action, Extraction Well Network Monitoring Parameters

Monitoring Parameter	Units	Sampling Freq.	Reporting Freq.
Methane	% by Vol.	Monthly	Semiannually
Carbon Dioxide	% by Vol.	Monthly	Semiannually
Oxygen	% by Vol.	Monthly	Semiannually
Remainder Gas	% by Vol.	Monthly	Semiannually
VOCs per USEPA Method TO-15[1]	µg / cm	Semiannually	Semiannually
Gas Temperature at Each Well	°F	Monthly	Semiannually
Initial Static Pressure in Wellhead	Inches Hg	Monthly	Semiannually
Adjusted Static Pressure in Wellhead	Inches Hg	Monthly	Semiannually

See Glossary for definitions of terms and abbreviations in table.

[1]VOC sampling meeting the criteria below shall be required at any LFG extraction wells specifically identified in a corrective action program to address VOCs detected at the facility boundary LFG probes and/or VOCs detected in groundwater at groundwater POC monitoring wells and/or beyond the facility boundary where VOC detections exceed concentration limits and are attributed to LFG at those POC monitoring points. At these corrective action LFG extraction wells in which methane is detected above 1% by volume and/or total organic vapors detected above 1 ppmv during the monitoring event, VOC analysis shall be conducted using USEPA Method TO-15.

b. **Corrective Action Landfill Gas Probe Network** (Please see Section C.2)

D. Additional Facility Monitoring

1. Leachate Collection & Removal System (LCRS)

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

a. Annual LCRS Testing (Not Applicable)

b. Monthly Sump Inspection

All LCRS sumps and monitoring points in **Table 18** shall be inspected monthly for the presence of leachate. As provided in **Table 19**, the total flow and flow rate for leachate in each sump shall be recorded after each inspection and reported semiannually per **Section E.1**.

Table 18—LCRS Monitoring Points

Monitoring Point	Program or Function	Monitored Unit	Location / Notes
SUMP	Background	B	LCRS Sump for WMU-B
DW-1	Detection, Corrective Action	A, Underdrain	Abandoned Dewatering Well

See Glossary for definitions of terms and abbreviations in table.

Table 19—LCRS Sump Monitoring, Monthly Inspection Parameters

Physical Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Total Flow	(none)	Gallons	Monthly	Semiannually
Flow Rate	FLOW	Gallons/Day	Monthly	Semiannually
Depth (DW-1 Only)	GWDEPTH	0.1 Feet	Monthly	Semiannually
Elevation (DW-1 Only)	GWELEV	0.1 Feet MSL	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 20**.[8] Thereafter, whenever leachate is present in the same sump, the leachate shall be sampled and analyzed for the same parameters, and in accordance with the specified sampling and reporting schedule in **Table 20**.

Table 20—LCRS Sump Monitoring, Parameters for Subsequent Monitoring

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Electrical Conductivity	SC	µmhos/cm	Semiannually	Semiannually
pH	PH	pH Units	Semiannually	Semiannually

[8] The sampling and reporting schedules in **Table 20** are applicable for subsequent monitoring only. When notifying Central Valley Water Board staff of the first detection of leachate, the Discharger shall indicate when laboratory results are expected to be available.

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
TDS	TDS	mg/L	Semiannually	Semiannually
Chloride	CL	mg/L	Semiannually	Semiannually
Bicarbonate	BICACO3	mg/L	Semiannually	Semiannually
Nitrate (as Nitrogen)	NO3N	mg/L	Semiannually	Semiannually
Sulfate	SO4	mg/L	Semiannually	Semiannually
Carbonate	CACO3	mg/L	Annually	Annually
Calcium	CA	mg/L	Annually	Annually
Magnesium	MG	mg/L	Annually	Annually
Potassium	K	mg/L	Annually	Annually
Sodium	NA	mg/L	Annually	Annually
Chemical Oxygen Demand	COD	mg/L	Annually	Annually
Total Organic Carbon	TOC	mg/L	Annually	Annually
Total Alkalinity	ALK	mg/L	Annually	Annually
Dissolved Inorganics (Attachment B)	(various)	µg/L	Annually	Annually
Short List VOCs (Attachment A)	(various)	µg/L	Annually	Annually
1,2,3-Trichloropropane per Method SRL-524M-TCP	TCPR123	µg/L	Annually	Annually

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 21**. Five-Year COCs were last monitored in the 2021 1st SMR and shall be analyzed again in **2026 1st SMR**.

Table 21—LCRS Sump Monitoring, Five-Year COCs

Parameter	GeoTracker Code	Units	Sampling & Reporting Freq.
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 22** (Physical Parameters) and **Table 23** (Constituent Parameters). See **Section E.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 22—Leachate Seep Monitoring, Physical Parameters

Physical Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
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 23—Leachate Seep Monitoring, Constituent Parameters

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
TDS	TDS	mg/L	Upon Detection	See MRP, § E.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)
Sodium	NA	mg/L	(same)	(same)
Chemical Oxygen Demand	COD	mg/L	(same)	(same)

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Total Organic Carbon	TOC	mg/L	(same)	(same)
Total Alkalinity	ALK	mg/L	(same)	(same)
Dissolved Inorganics (Attachment B)	(various)	µg/L	(same)	(same)
Short List VOCs (Attachment A)	(various)	µg/L	(same)	(same)
1,2,3-Trichloropropane per Method SRL-524M-TCP	TCPR123	µg/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 24** (Criteria) and **Table 25** (Schedule). Results of these regular visual inspections shall be included in Semiannual Monitoring Reports per **Section E.1**.

Table 24—Criteria for Regular Visual Inspections

Category	Criteria
Within Unit	• 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). • Evidence of erosion and/or of day-lighted refuse.
Unit Perimeter	• Evidence of leachate seep. • Estimated size of affected area (record on map) and flow rate. • Evidence of erosion and/or of day-lighted refuse.

Category	Criteria
Receiving Waters	• Floating and suspended materials of waste origin—presence or absence, source and size of affected areas. • Discoloration and turbidity—description of color, source and size of affected areas.

Table 25—Regular Visual Inspection Schedule

Category	Wet Season **(1 Oct. to 30 April)**	Dry Season **(1 May to 30 Sept.)**
Active Units	Weekly	Monthly
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 E.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 E.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 E.6** for Reporting Requirements.

E. Reporting Requirements

Table 26—Summary of Required Reports

Section	Report	Deadline
§ E.1	Semiannual Monitoring Reports (SMRs)	**1 August** (1 January to 30 June) **1 February** (1 July to 31 December)
§ E.2	Annual Monitoring Reports (AMRs)	**1 February**
§ E.3	Leachate Seep Reporting	Immediately upon Discovery of Seepage (*staff notification*) **Within 7 Days** (*written report*)
§ E.4	Annual Facility Inspection Reports	**15 November**
§ E.5	Major Storm Reporting	Immediately after Damage Discovery (*staff notification*) Within 14 Days of Completing Repairs (*written report, photos*)
§ E.6	Survey and Iso-Settlement Mapping	**Every Five Years** (Next Due in **2027**)
§ E.7	Financial Assurances Reports	**1 June**

Section	Report	Deadline
§ E.8	Water Quality Protection Standard Reports	**Proposed Revisions** (excluding Concentration Limits)

1. Semiannual Monitoring Reports (SMRs)

The Discharger shall submit Semiannual Monitoring Reports (SMRs) by 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 E.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 the elevation of the 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 D3** during 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 Standard Provisions 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. The Gas Collection and Control System operational record;

ii. The methane concentrations at the landfill gas probes and landfill gas extraction wells;

iii. The condition of the final closure covers over the WMUs with a list of any deficiencies in the covers and repairs made to maintain the final closure covers as a means to minimize

infiltration of liquids into underlying waste and as a result minimizing the production of leachate and landfill gas; and

iv. Any additional Post closure landfill activities over areas of the final closure covers not previously reported in prior annual reports.

2. Annual Monitoring Reports (AMRs)

By 1 February of each year,[9] 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 E.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.[10]

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.

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,

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[9] 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.

[10] 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.

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. For landfill units, a map showing the areas and elevations of each unit where filling was completed during the previous calendar year; comparison to final closure design contours; and projected years in which each discrete module are expected to be filled.

h. A summary of the monitoring results, indicating any changes made or observed since the previous AMR.

i. If applicable, a discussion on the results of Annual LCRS Testing conducted in accordance with **Section D.1.a**.

j. When required per **Section B.4.g** of this Order, periodic updates to the Concentration Limits for all Monitoring Parameters and WQPS Monitoring Points.

k. The Discharger shall provide an assessment of the progress of ongoing corrective action at the Facility to eliminate VOC detections in groundwater above the WQPS concentration limits beyond the Facility boundary which is caused by a discharge of waste from the Facility. The Discharger shall provide a timeline of when the Facility will come into compliance with its Water Quality Protection Standard and what additional corrective action measures may be required to bring the Facility into compliance.

l. The Discharger shall provide an assessment of the progress of ongoing corrective action at the Facility to eliminate inorganic concentrations in groundwater and surface waters beyond the Facility boundary above the WQPS concentration limits which is caused by a discharge of waste from the Facility. The Discharger shall provide a timeline of when the Facility will come into compliance with its Water Quality Protection Standard and what additional corrective action measures may be required to bring the Facility into compliance.

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 22** (*Physical Parameters*) and **Table 23** (*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 D.4**. 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 D.5**, 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 D.6**. (Title 27, § 21090, subd. (e).) The next maps are due on **2027**.

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 closure, post-closure maintenance, and corrective action. (See WDRs Order.)

8. Water Quality Protection Standard Report

Any proposed changes[11] to the Water Quality Protection Standard (WQPS) components (§ **B.4**), other than periodic update of the 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[12] 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 § f) 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)).

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[11] If subsequent sampling of the background monitoring point(s) indicates significant water quality changes due to either seasonal fluctuations or other reasons unrelated to onsite waste management activities, the Discharger may request modification of the WQPS.

[12] To the extent that surface water monitoring is included in the Detection Monitoring Program.

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:

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). After uploading a report, the Discharger shall notify Central Valley Water Board staff via email at CentralVallySacramento@WaterBoards.ca.gov. The following information shall be included in the body of the email:

Attention:	Title 27 Permitting Unit
Report Title:	[Title of Report]
GeoTracker Upload ID:	[Identification Number]
Facility Name:	28th Street Landfill
County:	Sacramento County
CIWQS Place ID:	202262

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

Concentrations below the reporting limit shall not be reported as non-detect "ND" unless the concentration is below the method detection limit (MDL) and the method detection limit is also given in the table. Laboratory results indicating trace values of COCs between the MDL and PQL (Reporting Limit or RL) shall be reported as estimated values (flagged and estimated value reported). Laboratory results of COCs at or above the PQL shall be reported and indicated clearly as exceeding the PQL relative to laboratory results reported below the PQL. Laboratory results shall clearly distinguish on time series graphs data that is reported as non-detect versus data that was reported at or above MDL (trace) levels.

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.

F. 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 Discharger 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). Copies will also be provided upon request.

ATTACHMENT A—VOLATILE ORGANIC COMPOUNDS, SHORT LIST

USEPA Method 8260B, Short List

Constituent	Geotracker Code
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 l ,4 Dichloro 2 butene	DCBE14T
Dichlorodifluoromethane (CFC-12)	FC12

ATTACHMENT A—VOLATILE ORGANIC COMPOUNDS, SHORT LIST

Constituent	Geotracker Code
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

ATTACHMENT A—VOLATILE ORGANIC COMPOUNDS, SHORT LIST

Constituent	Geotracker Code
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

Constituent	Analytical Method	Geotracker Code
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

ATTACHMENT B—DISSOLVED INORGANICS (FIVE-YEAR COCS)

Constituent	Analytical Method	Geotracker Code
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

Volatile Organic Compound	Geotracker Code
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)

Volatile Organic Compound	Geotracker Code
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, l Dichloroethene; Vinylidene chloride)	DCE11
cis l ,2 Dichloroethylene (cis 1,2 Dichloroethene)	DCE12C
trans l ,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 l ,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)

Volatile Organic Compound	Geotracker Code
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)

Volatile Organic Compound	**Geotracker Code**
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

Constituent	Geotracker Code
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

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

Constituent	Geotracker Code
Bis(2 chloroethoxy) methane	BECEM
Bis(2 chloroethyl) ether (Dichloroethyl ether)	BIS2CEE
Bis(2 chloro 1 methyethyl) 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

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

Constituent	Geotracker Code
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

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

Constituent	Geotracker Code
Endosulfan sulfate	ENDOSULFANS
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

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

Constituent	Geotracker Code
Methyl methanesulfonate	MMSULFN
2 Methylnaphthalene	MTNPH2
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 Nitrosospyrrolidine	NNSPYRL
5 Nitro o toluidine	TLDNONT5
Pentachlorobenzene	PECLBZ

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

Constituent	Geotracker Code
Pentachloronitrobenzene (PCNB)	PECLNO2BZ
Pentachlorophenol	PCP
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

Constituent	GeoTracker Code
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

Constituent	GeoTracker Code
Atrazine	ATRAZINE
Chlorpyrifos	CLPYRIFOS
0,0-Diethyl 0-2-pyrazinyl phosphorothioate (Thionazin)	ZINOPHOS
Diazinon	DIAZ
Dimethoate	DIMETHAT
Disulfoton	DISUL
Ethion	ETHION
Methyl parathion (Parathion methyl)	PARAM
Parathion	PARAE
Phorate	PHORATE
Simazine	SIMAZINE