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) R5-2026-XXXX

ORDER INFORMATION

Order Type(s):	Monitoring & Reporting Program (MRP)
Status:	Tentative
Program:	Title 27 Discharges to Land
Region 5 Office:	Sacramento (Rancho Cordova)
Discharger(s):	California Department of Corrections and Rehabilitation
Facility:	Sierra Conservation Center Landfill
Address:	5100 O'Byrnes Ferry Road, Jamestown CA 95327
County:	Tuolumne County
Parcel Nos.:	063-070-020
WDID:	GT-L10001487851
Prior Order(s):	96-010

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 _____ [Month] 2026.

_____

PATRICK PULUPA,
Executive Officer

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GLOSSARY

AMR	Annual Monitoring Report
CAMP	Corrective Action Monitoring Program
CIWQS	California Integrated Water Quality System Project
COCs	Constituents of Concern
COD	Chemical Oxygen Demand
DMP	Detection Monitoring Program
EC	Electrical Conductivity
EMP	Evaluation Monitoring Program
Five-Year COCs	Five-Year Constituents of Concern
GeoTracker	State Water Board's Data Management System for Sites with Potential Groundwater Impact
GP	Gas Probe
LCRS	Leachate Collection and Removal System
LF	Landfill
LFG	Landfill Gas
LY	Lysimeter
MDL	Method Detection Limit
Method TO-15 VOCs	Volatile Organic Compounds associated with USEPA Method TO-15
MRP	Monitoring and Reporting Program
N/A	Not Applicable
NPDES	National Pollutant Discharge Elimination System

GLOSSARY

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
RL	Reporting Limit
SCAP or SAP	Sample Collection and Analysis Plan
SGP	Soil Pore Gas
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
TOC	Total Organic Carbon
TSS	Total Suspended 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

ft3 / min .....Cubic Feet per Minute

°F .....Degrees Fahrenheit

Gallons/Day.....Gallons per Day

mg/L .....Milligrams per Liter

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 California Department of Corrections and Rehabilitation (Discharger), which owns and operates the Sierra Conservation Center Landfill (Facility) in Tuolumne 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, those 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/SAP)

All samples shall be collected, preserved and transported in accordance with the approved Sample Collection and Analysis Plan and the Quality (SCAP) Assurance/Quality Control (QA/QC) standards specified therein. In June 2017, the Discharger submitted Sampling and Analysis Plan for Sierra Conservation Center Landfill (2017 SAP) which serves as the SCAP. 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 2017 SAP.

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). Results of these sampling events shall be included in Semiannual Monitoring Reports per **Section E.1**.

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).) However, groundwater gradient was historically depicted as to the northwest prior to installation of monitoring wells MW-4 through MW-7 in 2017. With the addition of these new wells to the monitoring network the groundwater gradient appears to trend to the west/southwest. The updated network and current depictions of the groundwater gradient now indicate a data gap in the monitoring network along the southwestern edge of the WMU. The Waste Discharge Requirements (WDRs) Order R5-2026-XXXX requires the Discharger to submit a groundwater network assessment to determine if additional groundwater monitoring wells are needed.

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[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).

Table 1—Groundwater Monitoring Network

Well	Program	Monitored Unit	Point of Compliance (WQPS)	Zone	Status
MW-1	Background	WMU	No	Shallow	Operational
MW-2	Detection	WMU	Yes	Shallow	Operational
MW-3	Detection	WMU	Yes	Shallow	Operational
MW-4	Detection	WMU	Yes	Shallow	Operational
MW-5	Background	WMU	No	Shallow	Operational
MW-6	Background	WMU	No	Shallow	Operational
MW-7	Corrective Action	WMU	Yes	Shallow	Operational
PZ-1	Piezometer	WMU	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).) Results of these sampling events shall be included in Semiannual Monitoring Reports per **Section E.1**.

Table 2—Groundwater Detection Monitoring, Physical Parameters

Physical Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Temperature	TEMP	°F	Semiannual	Semiannual
Electrical Conductivity	SC	µmhos/cm	Semiannual	Semiannual
pH	PH	pH Units	Semiannual	Semiannual

Physical Parameter	**GeoTracker Code**	**Units**	**Sampling Freq.**	**Reporting Freq.**
Turbidity	TURB	NTUs	Semiannual	Semiannual

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	Semiannual	Semiannual
Total Organic Carbon (TOC)	TOC	mg/L	Semiannual	Semiannual
Chemical Oxygen Demand (COD)	COD	mg/L	Semiannual	Semiannual
Alkalinity	ALKCACO3	mg/L	Semiannual	Semiannual
Iron	FE	mg/L	Semiannual	Semiannual
Chloride	CL	mg/L	Semiannual	Semiannual
Carbonate	CACO3	mg/L	Semiannual	Semiannual
Bicarbonate	BICACO3	mg/L	Semiannual	Semiannual
Sulfate	SO4	mg/L	Semiannual	Semiannual
Calcium	CA	mg/L	Semiannual	Semiannual
Magnesium	MG	mg/L	Semiannual	Semiannual
Manganese	MN	mg/L	Semiannual	Semiannual
Nitrate (as N)	NO3N	mg/L	Semiannual	Semiannual
Potassium	K	mg/L	Semiannual	Semiannual
Sodium	NA	mg/L	Semiannual	Semiannual
Zinc	ZN	mg/L	Semiannual	Semiannual

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Short List VOCs (Attachment A)	(various)	µg/L	Semiannual	Semiannual

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, and shall be analyzed again in 2026. (Title 27, § 20420, subd. (g).)

Table 4—Groundwater Detection Monitoring, Five-Year COCs

Five-Year Constituent	GeoTracker Code	Units	Sampling & Reporting Freq.
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
1,2,3-Trichloropropane per Method SRL-524M-TCP	TCPR123	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).)

Table 5—Groundwater Detection Monitoring, Groundwater Conditions

Groundwater Condition	GeoTracker Code	Units	Monitoring Freq.	Reporting Freq.
Elevation (Well-Specific)	ELEV	Ft. & hundredths, MSL	Quarterly	Semiannually
Gradient	(none)	foot/foot	Quarterly	Semiannually
Flow Rate	(none)	feet/day	Quarterly	Semiannually

2. Unsaturated Zone

a. Required Network

The Facility's unsaturated zone monitoring network consists of the landfill gas (LFG), lysimeter (LY), and soil moisture probes 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	Monitored Unit	Status
GP-1	Detection, Gas Probe (LFG)	WMU	Operational

[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).)

Monitoring Point	Program	Monitored Unit	Status
GP-2	Detection, Gas Probe (LFG)	WMU	Operational
LY-1	Detection	WMU	Operational
SM-1	Detection, Soil Moisture	WMU	Operational
SM-2	Detection, Soil Moisture	WMU	Operational

See Glossary for definitions of terms and abbreviations in table.

b. Soil Pore Gas (SPG) Monitoring

Soil Pore Gas (SPG) shall be monitored via the Gas Probes for Methane 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).) Results of these sampling events shall be included in Semiannual Monitoring Reports per **Section E.1**.

[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 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.

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

Constituent Parameter	Units	Sampling Freq.	Reporting Freq.
Atmospheric Temperature	°F	Semiannual	Semiannual
Atmospheric Pressure	in of Hg	Semiannual	Semiannual
Carbon Dioxide	%	Semiannual	Semiannual
Oxygen	%	Semiannual	Semiannual
Remainder Gas	%	Semiannual	Semiannual
Probe Pressure / Vacuum	in of Hg	Semiannual	Semiannual
Methane[5]	%	Semiannual	Semiannual
Method TO-15 VOCs[5]	µg/cm^3	Semiannual	Semiannual

See Glossary for definitions of terms and abbreviations in table.

c. Lysimeter Inspection

The lysimeter shall be inspected with each sampling event for the presence of liquid, which shall then be analyzed for the Monitoring Parameters in **Table 8** (Physical Parameters) and **Table 9** (Constituent Parameters). (Title 27, § 20420, subds. (e)-(f).) If liquid is detected in a previously dry lysimeter, the Discharger shall notify Central Valley Water Board staff within seven days of the detection. Results of these sampling events shall be included in Semiannual Monitoring Reports per **Section E.1**.

Table 8—Unsaturated Zone Detection Monitoring (Lysimeter), Physical Parameters

Physical Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Temperature	TEMP	°F	Semiannual	Semiannual

Physical Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Electrical Conductivity	SC	µmhos/cm	Semiannual	Semiannual
pH	PH	pH Units	Semiannual	Semiannual
Volume of Removed Liquid	(none)	mL	Semiannual	Semiannual

See Glossary for definitions of terms and abbreviations in table.

Table 9—Unsaturated Zone Detection Monitoring (Lysimeter), Constituent Parameters

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
TDS	TDS	mg/L	Semiannual	Semiannual
Total Organic Carbon (TOC)	TOC	mg/L	Semiannual	Semiannual
Chemical Oxygen Demand (COD)	COD	mg/L	Semiannual	Semiannual
Chloride	CL	mg/L	Semiannual	Semiannual
Iron	FE	mg/L	Semiannual	Semiannual
Sulfate	SO4	mg/L	Semiannual	Semiannual
Sodium	NA	mg/L	Semiannual	Semiannual
Short List VOCs (Attachment A)	(various)	µg/L	Semiannual	Semiannually

See Glossary for definitions of terms and abbreviations in table.

d. Five-Year COCs

Every five years, liquid from each lysimeter shall be analyzed for the Five-Year COCs listed below in **Table 10**. Five-Year COCs were last monitored in 2021, and shall be analyzed again in 2026. (Title 27, § 20420, subd. (g).)

Table 10—Unsaturated Zone Detection Monitoring (Lysimeter), Five-Year COCs

Five-Year Constituent	GeoTracker Code	Units	Sampling & Reporting Freq.
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
Alkalinity	ALKCACO3	mg/L	Every 5 Years
Bicarbonate	BICACO3	mg/L	Every 5 Years
Calcium	CA	mg/L	Every 5 Years
Carbonate	CACO3	mg/L	Every 5 Years
Magnesium	MG	mg/L	Every 5 Years
Nitrate (as N)	NO3N	mg/L	Every 5 Years
Potassium	K	mg/L	Every 5 Years
1,2,3-Trichloropropane per Method SRL-524M-TCP	TCPR123	µg/L	Every 5 Years

See Glossary for definitions of terms and abbreviations in table.

e. Soil Moisture

The soil moisture sensors identified in **Table 6** were installed at the landfill closure and replaced in 2016. The sensors are placed above and below the GCL of the WMU. A soil moisture data logger was

installed and connected to the soil moisture probes alongside a rain gauge. The equipment is required to analyze for the parameters detailed in **Table 11**. Results of these sampling events shall be included in Semiannual Monitoring Reports per **Section E.1**.

Table 11—Unsaturated Zone Detection Monitoring (Soil Moisture), Physical Parameters

Physical Parameter	Units	Sampling Freq.	Reporting Freq.
Water Content	%	Continuous	Semiannual
Rainfall	inches	Continuous	Semiannual

3. Surface Water

Runoff from the Facility is discharged into a shotcrete channel located on the eastern and southern edges of the WMU, which then flows to Shotgun Creek (a tributary to Stanislaus 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 12**. As of the date of this Order, the network meets the requirements of Title 27. (See § 20415, subd. (c).) However, uncertainty with National Pollutant Discharge Elimination System (NPDES) permits for the Facility regarding drainage discharge and the amount of active water in the drainage channel requires more frequent sampling events. WDR Order R5-2026-XXXX requires the Discharger to submit documentation regarding active permits of stormwater discharge into the drainage channel surrounding the WMU.

Table 12—Surface Water Detection Monitoring Network

Monitoring Point	Program or Function	Monitored Unit	Location / Notes
S-1	Background (Upstream)	WMU	Upgradient and east of WMU
S-3	Detection (Downstream)	WMU	Downgradient and west of WMU

See Glossary for definitions of terms and abbreviations in table.

b. Sample Collection and Analysis

Over the course of a calendar year, at least two samples should be collected from each monitoring point in Table 12 at least one month apart. Additionally, samples should also be collected at least 24 hours after a Major Storm Event at the Facility. The samples shall be collected from each monitoring point and analyzed for the Monitoring Parameters in **Table 13** (Physical Parameters) and **Table 14** (Constituent Parameters), in accordance with the specified schedule. (Title 27, § 20420, subds. (e)-(f).) Results of these sampling events shall be included in Semiannual Monitoring Reports per **Section E.1**.

According to the National Oceanic and Atmospheric Administration's (NOAA) Precipitation Frequency Alas 14, Volume 6, the Facility's one year, 24-hour rainfall event is estimated to result in at least 1.68 inches of precipitation. Source: NOAA Precipitation Frequency Data Server (https://hdsc.nws.noaa.gov/pfds/pfds_map_cont.html?bkmrk=ca). This is considered a Major Storm Event for this Facility.

Table 13—Surface Water Detection Monitoring, Physical Parameters

Physical Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Temperature	TEMP	°F	At least 2x per year and Major Storm Events	Semiannual

Physical Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Electrical Conductivity	SC	µmhos/cm	At least 2x per year and Major Storm Events	Semiannual
pH	PH	Std. Units	At least 2x per year and Major Storm Events	Semiannual
Turbidity	TURB	NTUs	At least 2x per year and Major Storm Events	Semiannual
Dissolved Oxygen	DO	mg / L	At least 2x per year and Major Storm Events	Semiannual
Oil & Grease	(none)	mg / L	At least 2x per year and Major Storm Events	Semiannual
Flow to Surface Waters at Time of Sampling	(none)	Yes/No	At least 2x per year and Major Storm Events	Semiannual

See Glossary for definitions of terms and abbreviations in table.

Table 14—Surface Water Detection Monitoring, Constituent Parameters

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Total Organic Carbon (TOC)	TOC	mg/L	At least 2x per year and Major Storm Events	Semiannual
Chemical Oxygen Demand (COD)	COD	mg/L	At least 2x per year and Major Storm Events	Semiannual

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
TSS	TSS	mg/L	At least 2x per year and Major Storm Events	Semiannual
TDS	TDS	mg/L	At least 2x per year and Major Storm Events	Semiannual
Alkalinity	ALKCACO3	mg/L	At least 2x per year and Major Storm Events	Semiannual
Chloride	CL	mg/L	At least 2x per year and Major Storm Events	Semiannual
Carbonate	CACO3	mg/L	At least 2x per year and Major Storm Events	Semiannual
Bicarbonate	BICACO3	mg/L	At least 2x per year and Major Storm Events	Semiannual
Iron	FE	mg/L	At least 2x per year and Major Storm Events	Semiannual
Nitrate as Nitrogen	NO3N	mg/L	At least 2x per year and Major Storm Events	Semiannual
Sulfate	SO4	mg/L	At least 2x per year and Major Storm Events	Semiannual
Calcium	CA	mg/L	At least 2x per year and Major Storm Events	Semiannual

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Magnesium	MG	mg/L	At least 2x per year and Major Storm Events	Semiannual
Manganese	MN	mg/L	At least 2x per year and Major Storm Events	Semiannual
Potassium	K	mg/L	At least 2x per year and Major Storm Events	Semiannual
Sodium	NA	mg/L	At least 2x per year and Major Storm Events	Semiannual
Short List VOCs (Attachment A)	(various)	µg/L	At least 2x per year and Major Storm Events	Semiannual

See Glossary for definitions of terms and abbreviations in table.

c. Five-Year COCs

The Discharger shall analyze surface water samples for the Five-Year COCs listed in **Table 15** Five-Year COCs were last monitored in 2021, and shall be analyzed again in 2026. (Title 27, § 20420, subd. (g).)

Table 15—Surface Water Detection Monitoring, Five-Year COCs

Five-Year Constituent	GeoTracker Code	Units	Sampling & Reporting Freq.
Dissolved Inorganics (Attachment B)	(various)	µg/L	Every 5 Years
Extended List VOCs (Attachment C)	(various)	µg/L	Every 5 Years

Five-Year Constituent	GeoTracker Code	Units	Sampling & Reporting Freq.
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
1,2,3-Trichloropropane per Method SRL-524M-TCP	TCPR123	µg/L	Every 5 Years

See Glossary for definitions of terms and abbreviations in table.

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 12** (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 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 13** and **Table 14**;

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

iii. For the **Unsaturated Zone**, those in **Table 7**, **Table 8** and **Table 9**.

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 Annual Monitoring Report and are due again in 2026. 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 15** (*Surface Water*), **Table 4** (*Groundwater*) and **Table 10** (*Unsaturated Zone*)

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 30 April 2020 WQPS Report. The approved methods use interwell data analysis and ProUCL tolerance interval calculations to establish concentration limits for the monitored constituents. A tolerance interval procedure statistical analysis method is utilized for naturally occurring constituents. A 95 percent coverage and 95 percent tolerance coefficient is applied. The upper 95 percent tolerance limit contains at least 95 percent of the distribution of observations from background well data.

Concentration Limits shall be proposed and/or updated by the Discharger every two years, in the Annual Monitoring Report submitted per **Section E.2** here. As of the date of this Order, Concentration Limits were last specified in 30 April 2020 WQPS,

[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.

and shall be updated again as part of the 2026 Annual Monitoring Report, and again every two years thereafter.

Unless expressly rejected by the Executive Officer in writing, these Concentration Limits shall be incorporated as part of this Order. Concentration Limits calculated from background monitoring wells MW-1, MW-5, and MW-6 and surface sample location S-1 as set forth in the 2024 Annual Report, are included below in **Table 16**.[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 Executive Officer may revert to lower concentrations where warranted based on existing monitoring data.

Table 16—Concentration Limits, 2024 Annual Report (WQPS)

Constituents	Units	Analysis	Groundwater (Background wells MW-1, MW-5, & MW-6)	Surface Water (Background S-1)
Chloride	mg/L	Interwell	9.566	-
Sodium	mg/L	Interwell	21	-
Sulfate	mg/L	Interwell	10.23	-
Iron	mg/L	Interwell	0.758	-
COD	mg/L	Interwell	27.39	-
TOC	mg/L	Interwell	1.019	-
TDS	mg/L	Interwell	350	274.5
TSS	mg/L	Interwell	-	599

[7] The Concentration Limits set forth in **Table 16** shall be superseded once updated values are submitted.

Constituents	Units	Analysis	Groundwater (Background wells MW-1, MW-5, & MW-6)	Surface Water (Background S-1)
Oil and Grease	mg/L	Interwell	-	MDL
Alkalinity (as $CaCO_3$)	mg/L	Interwell	290	-
Carbonate (as $CaCO_3$)	mg/L	Interwell	MDL	MDL
Bicarbonate (as $CaCO_3$)	mg/L	Interwell	290	-
Calcium	mg/L	Interwell	83.27	-
Nitrate as N	mg/L	Interwell	1.3	-
Magnesium	mg/L	Interwell	25.26	-
Potassium	mg/L	Interwell	2.242	-
Manganese	mg/L	Interwell	0.164	-
Zinc	mg/L	Interwell	0.0328	-
VOCs (Attachment C)	µg/L	Interwell	MDL	MDL
Semi-VOCs (Attachment D)	µg/L	Interwell	MDL	-

See Glossary for definitions of terms and abbreviations in table.

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:

i. **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

ii. **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 corrective 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

Corrective action monitoring well MW-7 shall be sampled for the parameters and constituents identified in **Table 2** (Physical Parameters) and **Table 3** (Monitoring Parameters), **Table 4** (Five Year COCs) and **Table 5** (Groundwater Conditions).

2. Landfill Gas Corrective Action

Landfill gas probes shall be sampled for the constituent parameters in **Table 7** (Constituent Parameters).

D. Additional Facility Monitoring

1. Regular Visual Inspection

The Discharger shall perform regular visual inspections at the Facility in accordance with **Table 17** (Criteria) and **Table 18** (Schedule). Results of these regular visual inspections shall be included in Semiannual Monitoring Reports per **Section E.1**.

Table 17—Criteria for Regular Visual Inspections

Category	Criteria
Within Unit	• Evidence of ponded water at any point on unit outside of any contact storm water diversions structures on the active face of unit (record affected areas on map). • Evidence of erosion and/or of day-lighted refuse.

Category	Criteria
Unit Perimeter	• Estimated size of affected area (record on map) and flow rate. • Evidence of erosion and/or of day-lighted refuse.
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 18—Regular Visual Inspection Schedule

Category	Wet Season **(1 Oct. to 30 April)**	Dry Season **(1 May to 30 Sept.)**
Closed Unit	Monthly	Quarterly

2. 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.3** for Reporting Requirements.

3. 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.

According to NOAA's Precipitation Frequency Alas 14, Volume 6, the Facility's one year, 24-hour rainfall event is estimated to result in at least 1.68 inches of precipitation. Source: NOAA Precipitation Frequency Data Server (https://hdsc.nws.noaa.gov/pfds/pfds_map_cont.html?bkmrk=ca).

This is considered a Major Storm Event for this Facility. 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.4** for Reporting Requirements.

4. Five-Year Iso-Settlement Surveys (Closed Landfill)

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.5** for Reporting Requirements.

E. Reporting Requirements

Table 19—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	Annual Facility Inspection Reports	15 November
§ E.4	Major Storm Reporting	Immediately after Damage Discovery (*staff notification*) Within 14 Days of Completing Repairs (*written report, photos*)
§ E.5	Survey and Iso-Settlement Mapping	**Every Five Years** (Next Due in 2026)
§ E.6	Financial Assurances Reports	1 June

Section	Report	Deadline
§ E.7	Water Quality Protection Standard Reports	**1 November 2026** (and with each new established monitoring well)

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/SAP (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.8.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. Summaries of all Regular Visual Inspections conducted per **Section D.1** during the reporting period.

h. 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*).

i. Laboratory statements of results of all analyses evaluating compliance with the WDRs.

2. Annual Monitoring Reports (AMRs)

On 1 February of each year,[8] 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.8.b** for additional requirements for monitoring reports.)

[8] 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.

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.[9]

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,

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

3. Annual Facility Inspection Report

By 15 November, the Discharger shall submit a report with results of the Annual Facility Inspection per **Section D.2**. The report shall discuss any

[9] 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.

repair measures implemented, any preparations for winter, and include photographs of any problem areas and repairs.

4. Major Storm Event Reports

Immediately following each post-storm inspection described in **Section D.3**, 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.

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

The Discharger shall submit all iso settlement maps prepared in accordance with **Section D.4**. (Title 27, § 21090, subd. (e).) The next maps are due in 2026.

6. Revised Financial Assurances Estimate Report

The Discharger shall submit a copy of a revised financial assurances estimate report due to the Central Valley Water Board that updates the financial assurances for closure, post-closure maintenance, and corrective action. (See WDRs Order Table 8 Item 6).

7. Water Quality Protection Standard Report

Any proposed changes[10] 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

[10] 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.

and any permanent or ephemeral zones of perched groundwater underlying the Facility);

b. *Map of Monitoring Points*—A map of all groundwater, surface water[11] 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)).

8. 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

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

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 and Compliance & Enforcement Unit
Report Title:	[Title of Report]
GeoTracker Upload ID:	L10001487851
Facility Name:	Sierra Conservation Center Landfill
County:	Tuolumne County
CIWQS Place ID:	256918

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.

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 fail 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
o Dichlorobenzene (1,2 Dichlorobenzene)	DCBZ12

Volatile Organic Compound	Geotracker Code
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
Hexachlorobutadiene	HCBU

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

Volatile Organic Compound	Geotracker Code
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
Toluene	BZME

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

Volatile Organic Compound	Geotracker Code
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
Bis(2 chloroethoxy) methane	BECEM

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

Constituent	Geotracker Code
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
Dibenzofuran	DBF

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

Constituent	Geotracker Code
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

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

Constituent	Geotracker Code
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

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

Constituent	Geotracker Code
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
Pentachloronitrobenzene (PCNB)	PECLNO2BZ

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

Constituent	Geotracker Code
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
Methyl parathion (Parathion methyl)	PARAM
Parathion	PARAE
Phorate	PHORATE
Simazine	SIMAZIN