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 Discharges to Land
Region 5 Office:	Sacramento (Rancho Cordova)
Discharger(s):	County of Yolo, Department of Community Services
Facility:	Yolo County Central Landfill
Address:	44090 County Road 28H, Woodland, California 95776
County:	Yolo County
Parcel Nos.:	042-140-001, 042-140-002, 042-140-006; 042-100-017; 042-100-018
GeoTracker ID:	L10001819539
WDID:	5A570306001
Prior Order(s):	R5-2016-0094; R5-2007-0180; R5-2004-134; R5-2002-118; R5-2000-134; R5-1996-223; R5-1995-048; R5-1994-196; R5-1993-119; R5-1989-173; R5-1980-022
Related Order(s):	R5-2002-0078; NOA 2020-0012-DWQ-R5S001

CERTIFICATION

I, PATRICK PULUPA, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Central Valley Region, on XX June 2025.

PATRICK PULUPA,
Executive Officer

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GLOSSARY

AMR	Annual Monitoring Report
bgs	Below Ground Surface
CalRecycle	California Department of Resources Recycling and Recovery
CAMP	Corrective Action Monitoring Program
CF1	Compost Facility #1
CF2	Compost Facility #2
C.F.R.	Code of Federal Regulations
CIWQS	California Integrated Water Quality System Project
COCs	Constituents of Concern
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
GeoTracker	State Water Board's Data Management System for Sites with Potential Groundwater Impact
GP	Gas Probe
LCRS	Leachate Collection and Removal System

GLOSSARY

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/A	Not Applicable
NAD27	North American Datum of 1927
NAVD88	North American Vertical Datum of 1988
NGVD29	National Geodetic Vertical Datum of 1929
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
ROWD / JTD	Report of Waste Discharge / Joint Technical Document

GLOSSARY

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

WDRs.....Waste Discharge Requirements

WMU .....Waste Management Unit

WQPS .....Water Quality Protection Standard

WWTP.....Wastewater Treatment Plant, typically referring to the City of Davis Wastewater Treatment Plant

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

GLOSSARY

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)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
[TENTATIVE] MONITORING AND REPORTING PROGRAM R5-20XX-XXXX
FOR
COUNTY OF YOLO, DEPARTMENT OF COMMUNITY SERVICES
YOLO COUNTY CENTRAL LANDFILL
Yolo County

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 County of Yolo, Department of Community Services (Discharger) which owns and/or operates the Yolo County Central Landfill (Facility) in Yolo County. Additional information regarding the Facility is set forth in the enumerated findings of Waste Discharge Requirements Order R5-20XX-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 and liquid waste and composting activities 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. Intrawell Statistical Methodology

The Discharger utilizes an intrawell statistical method to evaluate water quality in each well independently for measurably significant changes over time. Intrawell statistical tests are used to determine whether there are differences over time at a given monitoring point. Groundwater extraction changes the direction of groundwater flow and can alter geochemistry in areas where the groundwater flow direction changes. The intrawell statistic methodology allows for the detection of Constituents of Concern (COCs) within each well while taking into account the geochemical

fluctuations for each well. Intrawell concentration limits for each well are established using background data collected from each respective well. The Discharger also conducts intrawell statistics on background wells to detect off site impacts or regional aquifer changes

5. 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).)

---

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

[2] Table 1 identifies all Facility monitoring wells, including wells used for multiple programs and/or WMUs. As of the date of this Order, only certain wells are used to monitor groundwater quality constitute.

Table 1—Groundwater Monitoring Network

Well[1]	WMU / Area	Groundwater Quality Monitoring	Water-Bearing Zone
DW6	WMU 3	Yes	Deep
DW7	WMU 4, 5	Yes	Deep
DW8	WMU 1, 2	Yes	Deep
DW9[2]	WMU 1, 2, WMU G	Yes	Deep
EW1	WMU 1, 2, 3, 4, 5	No	Shallow
EW2	WMU 1, 2, 3, 4, 5	Yes	Shallow
EW3	WMU 1, 2, 3, 4, 5	No	Shallow
EW4	WMU 1, 2, 3, 4, 5	No	Shallow
EW5	WMU 1, 2, 3, 4, 5	No	Shallow
EW6	WMU 1, 2, 3, 4, 5	No	Shallow
EW7	WMU 1, 2, 3, 4, 5	Yes	Shallow
EW9	WMU 6	No	Shallow
EW10	WMU 6	Yes	Shallow
EW11	WMU 6	No	Shallow
EW12	WMU 6	No	Shallow
EW13	WMU 6	No	Shallow
EW14	WMU 6	No	Shallow
EW15	WMU 6	No	Shallow
EW16	WMU 6	Yes	Shallow
EW23	WMU 3	No	Shallow
EW24	WMU 3	No	Shallow
EW25	WMU 3	No	Shallow
EW26	WMU 3	No	Shallow
EW27	WMU 3	No	Shallow
EW28	WMU 1, 2	No	Shallow
EW29	WMU 1, 2	No	Shallow
EW30	WMU 1, 2	No	Shallow
EW31	WMU 1, 2	No	Shallow
EW32	WMU 1, 2	No	Shallow
EW33	WMU 1, 2	No	Shallow
LTPZA	WMU 6A	Yes	Shallow
LTPZB	WMU 6B	Yes	Shallow
OW1	WMU 1, 2	Yes	Shallow
OW3	WMU 1, 2	Yes	Shallow
OW4A[3]	WMU 1, 2	Yes	Shallow
OW5	WMU 1, 2, 3	Yes	Shallow
OW6	WMU 3	Yes	Shallow
OW7	WMU 4, 5	Yes	Shallow

Well[1]	WMU / Area	Groundwater Quality Monitoring	Water-Bearing Zone
OW8	WMU 4, 5	Yes	Shallow
OW9	WMU 6A, 6B, 6C, 6D	Yes	Shallow
OW10	WMU 6A, 6B	Yes	Shallow
OW11	Land Application Area	Yes	Shallow
OW14	WMU 6D, 6F, 6H, H	Yes	Shallow
OW15	WMU 6C, 6F, 6H	Yes	Shallow
OW16	Land Application Area	Yes	Shallow
OW17	WMU 1, 2, WMU H	Yes	Shallow
OW18	WMU 1, 2, WMU G	Yes	Shallow
OW19	Land Application Area	Yes	Shallow
OW20	Land Application Area	Yes	Shallow
OW22	Groundwater / Stormwater Storage Reservoir	Yes	Shallow
OW23	WMU 6D, WMU H	Yes	Shallow
OW24	WMU 4, 5	Yes	Shallow
OW25	Land Application Area	Yes	Shallow
OW26	WMU 3	Yes	Shallow
OW27	WMU 3	Yes	Shallow
OW30[4]	WMU G	Yes	Shallow
OW31	WMU 6F	Yes	Shallow
OW32	WMU 6F	Yes	Shallow
OW33	WMU 6H	Yes	Shallow
OW34	WMU H4	Yes	Shallow
OW35	WMU H4	Yes	Shallow
OW36	WMU H4	Yes	Shallow
SIMW4	WMU G, WMU H	Yes	Shallow
SIMW5	WMU H	Yes	Shallow
MW-1	CF2, Composting Pond 3	Yes	Shallow
MW-2	CF2, Composting Pond 3	Yes	Shallow
MW-3	CF2, Composting Pond 3	Yes	Shallow
MW-4	CF2, Composting Pond 3	Yes	Shallow
MW-5	CF2, Composting Pond 3	Yes	Shallow

1 Certain wells are used for multiple programs and/or WMUs.
2 Replaces DW2 (abandoned in 2020)
3 Replaces OW4 (abandoned in 2020)
4 Replaces SIMW1 (abandoned in 2017)
5 EW 8 disconnected in 1992 due to low yield
6 LTPZC and LTPZD abandoned in 2019 during construction of WMU 6F

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	Semiannual	Semiannual
Electrical Conductivity	SC	µmhos/cm	Semiannual	Semiannual
pH	PH	pH Units	Semiannual	Semiannual
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
Chloride	CL	mg/L	Semiannual	Semiannual
Carbonate	CACO3	mg/L	Semiannual	Semiannual
Bicarbonate	BICACO3	mg/L	Semiannual	Semiannual
Nitrate as Nitrogen	NO3N	mg/L	Semiannual	Semiannual
Sulfate	SO4	mg/L	Semiannual	Semiannual
Calcium	CA	mg/L	Semiannual	Semiannual
Magnesium	MG	mg/L	Semiannual	Semiannual

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Potassium	K	mg/L	Semiannual	Semiannual
Sodium	NA	mg/L	Semiannual	Semiannual
Boron	B	mg/L	Semiannual	Semiannual
Cobalt	CO	µg/L	Annual	Annual
Copper	CU	µg/L	Annual	Annual
Iron, Dissolved	FE	µg/L	Annual	Annual
Manganese	MN	µg/L	Annual	Annual
Nickel	NI	µg/L	Annual	Annual
Selenium	SE	µg/L	Semiannual	Semiannual
Vanadium	V	µg/L	Annual	Annual
Zinc	ZN	µg/L	Annual	Annual
Short List VOCs (Attachment A)	(various)	µg/L	Semiannual	Annual
1,2,3-Trichloropropane per Method SRL-524M-TCP	TCPR123	µg/L	Every 5 Years	Annual

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 2020, and shall be analyzed again in 2025. (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 **SectionE.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	Monitoring Freq.	Reporting Freq.
Elevation (Well-Specific)	ELEV	Quarterly	Semiannually
Gradient	(none)	Quarterly	Semiannually
Flow Rate	(none)	Quarterly	Semiannually

2. Unsaturated Zone

a. Required Network

The Facility's unsaturated zone monitoring network consists of the lysimeter (LYS) 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	Unit	Device Type	Access	Status
6B-N-LYS	WMU 6B	Pan Lysimeter	Sampling access at manhole located along the eastern perimeter of WMU 6B	Operational
6B-S-LYS	WMU 6B	Pan Lysimeter	Sampling access at manholes located along the eastern perimeter of WMU 6B	Operational
6C-N-LYS	WMU 6C	Suction Lysimeter	Eastern end of the LCRS collection trenches for WMU 6C	Inactive since 2003
6C-S-LYS	WMU 6C	Suction Lysimeter	Eastern end of the LCRS collection trenches for WMU 6C	Operational
6D1-E-LYS	WMU 6D1	Pan Lysimeter	Under the LCRS sumps at the southern end of WMU 6D1	Operational
6D1-W-LYS	WMU 6D1	Pan Lysimeter	Under the LCRS sumps at the southern end of WMU 6D1	Operational
6D2-E-LYS	WMU 6D2	Pan Lysimeter	Under the LCRS sumps at the southern end of WMU 6D2	Operational
6D2-W-LYS	WMU 6D2	Pan Lysimeter	Under the LCRS sumps at the southern end of WMU 6D2	Operational

Monitoring Point	Unit	Device Type	Access	Status
6F-1-LYS	WMU 6F	Pan Lysimeter	Under the LCRS collection trenches with sampling access located along the eastern a perimeter of WMU 6F	Operational
6F-2-LYS	WMU 6F	Pan Lysimeter	Under the LCRS collection trenches with sampling access located along the eastern a perimeter of WMU 6F	Operational
6F-3-LYS	WMU 6F	Pan Lysimeter	Under the LCRS collection trenches with sampling access located along the eastern a perimeter of WMU 6F	Operational
6F-4-LYS	WMU 6F	Pan Lysimeter	Under the LCRS collection trenches with sampling access located along the southern perimeter of WMU 6F	Operational
6F-5-LYS	WMU 6F	Pan Lysimeter	Under the LCRS collection trenches with sampling access located along the southern perimeter of WMU 6F	Operational
6H-1-LYS	WMU 6H	Pan Lysimeter	Under the LCRS collection trenches with sampling access located along the southern perimeter of WMU 6H	Operational
G-LYS-1	WMU G	Suction Lysimeter	Under the Leak Detection Sump	Operational
G-LYS-2	WMU G	Suction Lysimeter	Under the trench	Operational
G-LYS-3	WMU G	Suction Lysimeter	Under the trench	Operational
H1-LYS	WMU H1	Suction Lysimeter	Under Leak Detection Sump	Operational
H2-LYS	WMU H2	Suction Lysimeter	Under Leak Detection Sump	Operational
H3-E-LYS	WMU H3	Suction Lysimeter	Under Leak Detection Sump	Operational
H3-W-LYS	WMU H3	Suction Lysimeter	Under Leak Detection Sump	Operational
H4-W-LYS	WMU H4	Pan Lysimeter	Under Leak Detection Sump	Planned

Monitoring Point	Unit	Device Type	Access	Status
H4-E-LYS	WMU H4	Pan Lysimeter	Under Leak Detection Sump	Planned
Pond 1-A-LYS	Compost Pond 1	Pan Lysimeter	South side at the middle of the Pond	Operational
Pond 1-B-LYS	Compost Pond 1	Pan Lysimeter	North side at the middle of the Pond	Operational
Pond 2-A-LYS	Compost Pond 2	Pan Lysimeter	North side behind Pump House 1	Operational
Pond 2-B-LYS	Compost Pond 2	Pan Lysimeter	South side of the Pond	Operational
Pond 3-A-LYS	Compost Pond 3	Pan Lysimeter	South side of the Pond, east of centerline	Operational
Pond 3-B-LYS	Compost Pond 3	Pan Lysimeter	South side of the Pond, west of centerline	Operational

See Glossary for definitions of terms and abbreviations in table.

b. Leak detection and Secondary Containment Network

The Facility's leak detection and secondary containment network consists of the monitoring points specified in **Table 7**Table 6.

Table 7—Leak Detection and Secondary Containment Network

Monitoring Point	Unit
G-LD	WMU G
H1-LD	WMU H1
H2-LD	WMU H2
H3-E-LD	WMU H3
H3-W-LD	WMU H3
H4-E-LD	WMU H4
H4-W-LD	WMU H4
6F-1-LD	WMU 6F

Monitoring Point	Unit
6F-2-LD	WMU 6F
6F-3-LD	WMU 6F
6F-4-LD	WMU 6F
6F-5-LD	WMU 6F
6H-1-LD	WMU 6H

See Glossary for definitions of terms and abbreviations in table.

c. Soil Pore Gas (SPG) Monitoring

Soil Pore Gas (SPG) shall be monitored in each unsaturated zone monitoring device described in **Table 6** for Methane and Method TO-15 VOCs[4] in accordance with **Table 8**. The Discharger may prescreen each sample to determine if such analyses will be required.[5] (Title 27, § 20420, subds. (e)-(f).)

Table 8—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	Semiannual	Semiannual
Methane	CH4	%	Semiannual	Semiannual

[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.

See Glossary for definitions of terms and abbreviations in table.

d. Monthly Lysimeter Inspection

Pan lysimeters shall be inspected monthly for the presence of liquid, which shall then be analyzed for the Monitoring Parameters in **Table 9** (Physical Parameters) and **Table 10** (Constituent Parameters). (Title 27, § 20420, subds. (e)-(f).) If liquid is detected in a previously dry pan lysimeter, the Discharger shall notify Central Valley Water Board staff within seven days of the detection.

Table 9—Unsaturated Zone Detection Monitoring (Lysimeters), Physical Parameters

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

See Glossary for definitions of terms and abbreviations in table.

Table 10—Unsaturated Zone Detection Monitoring (Lysimeters), Constituent Parameters

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
TDS	TDS	mg/L	Monthly	Semiannual
Chloride	CL	mg/L	Monthly	Semiannual
Carbonate	CACO3	mg/L	Monthly	Semiannual
Bicarbonate	BICACO3	mg/L	Monthly	Semiannual
Sulfate	SO4	mg/L	Monthly	Semiannual
Calcium	CA	mg/L	Monthly	Semiannual
Magnesium	MG	mg/L	Monthly	Semiannual

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Potassium	K	mg/L	Monthly	Semiannual
Sodium	NA	mg/L	Monthly	Semiannual
Short List VOCs (Attachment A)	(various)	µg/L	Monthly	Semiannual
1,2,3-Trichloropropane per Method SRL-524M-TCP	TCPR123	µg/L	Every 5 Years	Annual

See Glossary for definitions of terms and abbreviations in table.

e. Five-Year COCs

Every five years, liquid from each pan lysimeter shall be analyzed for the Five-Year COCs listed below in **Table 11**. Five-Year COCs were last monitored in 2020 and shall be analyzed again in 2025. (Title 27, § 20420, subd. (g).)

Table 11—Unsaturated Zone Detection Monitoring (Lysimeter), Five-Year COCs

Five-Year Constituent[1]	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.
[1] The priority of sampling/analysis, based on what may be a limited amount of liquid recovered from a lysimeter shall be as follows: TOC, SVOCs, Herbicides, Organo Phosphorus Compounds, and then Extended List VOCs

3. Surface Water

Runoff from the Facility is collected from one of four 94) stormwater drainage areas with the goal of retaining stormwater onsite. If a discharge occurs from the Facility, the discharge will flow to Willow Slough Bypass, 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).)

Table 12—Surface Water Detection Monitoring Network

Monitoring Point	Location	Program	Drainage Area
SW-1	SE Corner of Borrow Pit	Detection	1
SW-2	South of Stormwater Pond 1	Detection	2
SW-3	Borrow Site	Detection	Borrow Site
SW-4	Adjacent to WMU H4	Detection	Compost Facility #2
SW-5	Adjacent to WMU H4	Detection	Compost Facility #2

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 12** at any point during the monitoring period, 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).)

Table 13—Surface Water Detection Monitoring, Physical Parameters

Physical Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Electrical Conductivity	SC	µmhos/cm	All Storm Events	Semiannually
pH	PH	Std. Units	All Storm Events	Semiannually
Turbidity	TURB	NTUs	All Storm Events	Semiannually
Hardness	HARD	mg / L	All Storm Events	Semiannually
Presence of Oil & Grease	(none)	Yes / No	All Storm Events	Semiannually
Flow to Surface Waters at Time of Sampling	(none)	Yes/No	All Storm Events	Semiannually

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.
TSS	TSS	mg/L	Major Storm Events	Semiannually

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Chloride	CL	mg/L	Major Storm Events	Semiannually
Carbonate	CACO3	mg/L	Major Storm Events	Semiannually
Bicarbonate	BICACO3	mg/L	Major Storm Events	Semiannually
Nitrate as Nitrogen	NO3N	mg/L	Major Storm Events	Semiannually
Sulfate	SO4	mg/L	Major Storm Events	Semiannually
Calcium	CA	mg/L	Major Storm Events	Semiannually
Magnesium	MG	mg/L	Major Storm Events	Semiannually
Potassium	K	mg/L	Major Storm Events	Semiannually
Sodium	NA	mg/L	Major Storm Events	Semiannually
Short List VOCs (Attachment A)	(various)	µg/L	Major Storm Events	Semiannually

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

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 2020 and shall be analyzed again in 2025. (Title 27, § 20420, subd. (g).)

Table 15—Surface Water 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.

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 Order 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. Background Monitoring Points (Background)

A Background Monitoring Point is a well, device, or location specified in the waste discharge requirements at which monitoring for background water quality or background soil quality is conducted (Title 27 § 20164). Title 27 requires a sufficient number of background monitoring points installed at appropriate locations and depths to yield ground water samples from the uppermost aquifer that represent the quality of groundwater that has not been affected by a release from the WMU.

The groundwater monitoring system may include background monitoring points that are not hydraulically upgradient of a WMU if the Discharger demonstrates to the satisfaction of the Central Valley Water Board that sampling at other background monitoring points will provide samples that are representative of the background quality of groundwater or are more representative than

those provided by the upgradient background monitoring points (Title 27, § 20415(b)(2)).

d. 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).)

e. 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.)

f. 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 8**, **Table 9** and **Table 10**.

g. 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 First Semester 2020 Monitoring Report and are due again in 2025. 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 14** (*Surface Water*), **Table 4** (*Groundwater*) and **Table 11** (*Unsaturated Zone*)

h. 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).)

As of the date of this Order, Concentration Limits were last specified in the Discharger's 30 June 2017 WQPS Report. Upon review and examination, the Discharger's 30 June 2017 WQPS Report does not establish WQPS for each waste management unit and does not provide for individual monitoring of Facility waste management units monitored for releases and impacts to water quality.

By 1 April 2026, the Discharger shall prepare a revised WQPS report for Central Valley Water Board review and approval for each waste management unit which 1.) Proposes WQPS and concentration limits for organic and inorganic compounds for each waste management unit to provide for monitoring of Facility waste management units for releases and impacts to water quality; 2.) Identifies points of compliance for each waste management unit; and 3.) Considers eligible contiguous waste management units. The revised WQPS report may propose alternate background

[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.

locations if supported by the available evidence. If necessary, the statistical methods proposed in the WQPS shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data. The WQPS should also identify unsaturated zone monitoring devices used to further support the earliest possible detection and measurement of a release from each waste management unit.

The WQPS for organic compounds, which are not naturally occurring and not detected in background groundwater samples, shall be taken as the detection limit of the analytical method used. The repeated detection of one or more non-naturally occurring organic compounds in samples above the WQPS from detection monitoring wells is evidence of a release from a WMU.

For whenever a constituent is detected at a detection monitoring point at a concentration that exceeds the concentration limit from the water quality protection standard, the WQPS shall propose a methodology for investigation and identification of the specific waste management unit(s) suspected or believed to be the source of the apparent release

Concentration Limits approved by the Central Valley Water Board shall be be incorporated as part of this Order and updated by the Discharger every two years, in the Annual Monitoring Report submitted per **Section E.2** here. Updated Concentration limits, unless expressly rejected by the Executive Officer in writing, shall be incorporated as part of this Order.

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

i. 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).

5. Groundwater Extraction and Treatment System

a. Influent Monitoring: The Discharger shall monitor and report Air Stripper influent characteristics for the parameters described in **Table 16**.

Table 16—Air Stripper Monitoring, Influent

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Cumulative Flow	(none)	Gallons	Continuous	Semiannually
Flow Rate	FLOW	Gallons/Day	Continuous	Semiannually
TSS	TSS	mg/L	Quarterly	Semiannually
Chloride	CL	mg/L	Quarterly	Semiannually
Carbonate	CACO3	mg/L	Quarterly	Semiannually
Short List VOCs (Attachment A)	(various)	µg/L	Quarterly	Semiannually

See Glossary for definitions of terms and abbreviations in table.

b. Effluent Monitoring: The Discharger shall monitor and report Air Stripper effluent characteristics parameters described in **Table 17**.

Table 17—Air Stripper Monitoring, Effluent

Constituent Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
pH	PH	Std. Units	Monthly	Semiannually
Electrical Conductivity	SC	µmhos/cm	Monthly	Semiannually
Temperature	TEMP	°F	Monthly	Semiannually
Bicarbonate	BICACO3	mg/L	Monthly	Semiannually
Carbonate	CACO3	mg/L	Monthly	Semiannually
Chloride	CL	mg/L	Monthly	Semiannually
Nitrate (as Nitrogen)	NO3N	mg/L	Monthly	Semiannually
Sulfate	SO4	mg/L	Monthly	Semiannually
Total Dissolved Solids	TDS	mg/L	Monthly	Semiannually
Boron, dissolved	B	mg/L	Monthly	Semiannually
Selenium, dissolved	SE	mg/L	Monthly	Semiannually
Short List VOCs (Attachment A)	(various)	µg/L	Quarterly	Semiannually

See Glossary for definitions of terms and abbreviations in table.

c. Standard Observations: The Discharger shall conduct weekly inspections of the Air Stripper Treatment system and prepare logs which record weekly observations:

i. Operational status

ii. Any malfunctions and repairs

iii. Evidence of spill(s)

iv. Weekly logs of standard observations

d. Groundwater Treatment and Assessment: The Discharger shall provide the following information relating to volume extracted and mass removed via the groundwater extraction and treatment system:

i. Tabular summary of volume extracted from each extraction well, volume treated by the air stripper, volume discharged directly to the Groundwater Storage Reservoir during the year.

ii. Tabular summary showing the mass of total VOCs removed by treatment during the year and estimates/calculations of the amount cumulatively removed since the initiation of remediation. Calculations supporting this information should also be provided.

iii. Contour maps of groundwater elevation and contaminant concentration data obtained during the previous year. If insufficient data exists to produce a contour map, the Discharger shall provide a reasonable visual summary based on the available data.

iv. A summary of facility operation and maintenance (O&M) activities, including the groundwater extraction wells, air stripper treatment system, storage reservoir, land application area, and associated piping. Any malfunctioning or interruptions in the operation of these facilities, and any repairs made or planned should be noted in this discussion. Field notes pertaining to O&M activities should also be included.

6. Land Application Areas

a. Groundwater Monitoring: The Discharger shall monitor all "Land Application Area" groundwater monitoring wells identified in **Table 1** for the parameters described in **Table 18**.

Table 18—Land Application Groundwater Sampling Parameters

Monitoring Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
pH	PH	Std. Units	Semiannual	Semiannual
Boron	B	mg/l	Semiannual	Semiannual
Selenium	Se	mg/l	Semiannual	Semiannual
Electrical Conductivity	SC	µmhos/cm	Semiannual	Semiannual
Total Dissolved Solids	TDS	mg/l	Semiannual	Semiannual
Nitrate (as Nitrogen)	NO3N	mg/L	Semiannual	Semiannual

b. Soil Monitoring: For every 15 acres of authorized Land Application Area, the Discharger shall collect composite samples from one (1) foot, three (3) feet, and five (5) feet below ground surface and analyze the samples from each respective strata for the Monitoring Parameters described in **Table 19**. Soil samples shall be collected in after the final Fall or Winter (whichever occurs later) harvest and prior to irrigation of the Land Application Area in the Spring.

Table 19—Land Application Soil Sampling Parameters

Monitoring Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
pH	PH	Std. Units	Annually	Annually
Boron	B	mg/kg	Annually	Annually
Selenium	Se	mg/kg	Annually	Annually
Electrical Conductivity	SC	µmhos/cm	Annually	Annually
Total Dissolved Solids	TDS	mg/kg	Annually	Annually

See Glossary for definitions of terms and abbreviations in table.

c. Standard Observations: The Discharger shall conduct weekly inspections of the Land Application Area and document and prepare weekly logs of the following observations and information:

i. Operational status

ii. Quantity of effluent discharged to each parcel

iii. Facility malfunctions and repairs

iv. Evidence of spill

v. A summary of facility operation and maintenance (O&M) activities, including measures employed to prevent breeding of mosquitos. Any malfunctioning or interruptions in the operation of these facilities, and any repairs made or planned should be noted in this discussion. Field notes pertaining to O&M activities should also be included.

vi. Weekly logs of standard observations

vii. Type, quantity, and fate of harvested crops from each parcel

viii. Using the groundwater monitoring wells for the Land Application Area as identified **in Table 1**, provide analysis (including contours) of water depth, groundwater flow direction, Boron, Selenium, Electrical Conductivity, and Total Dissolved Solids concentrations in groundwater beneath each Land Application Area.

7. Groundwater Storage Reservoir

a. Groundwater Monitoring: The Discharger shall monitor all “Groundwater / Storm Water Storage Reservoir” groundwater

monitoring wells identified in **Table 1** for the parameters described in **Table 20**.

Table 20—Groundwater Storage Reservoir Groundwater Sampling Parameters

Monitoring Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
pH	PH	Std. Units	Semiannual	Semiannual
Boron	B	mg/l	Semiannual	Semiannual
Selenium	Se	mg/l	Semiannual	Semiannual
Electrical Conductivity	SC	µmhos/cm	Semiannual	Semiannual
Total Dissolved Solids	TDS	mg/l	Semiannual	Semiannual

See Glossary for definitions of terms and abbreviations in table.

b. Standard Observations: The Discharger shall conduct weekly inspections of the Groundwater / Stormwater Storage Reservoir and document and prepare weekly logs of the following observations and information:

i. Operational status

ii. Water elevation (Feet, MSL (NAVD88)

iii. Available storage to 16.0 Feet MSL (NAVD88);

iv. Available storage to 22.0 Feet MSL (NAVD88)

v. Evidence of spill or overtopping

vi. Evidence of odors

vii. Berm condition (evidence of erosion, cracking, animal burrows, etc.)

c. Groundwater Elevation Analysis: Using all available relevant groundwater elevation data, including, but not limited to, data collected from “Groundwater / Storm Water Storage Reservoir” groundwater monitoring wells identified in **Table 1**, the Discharger

shall provide analysis (including contours) of water depth, groundwater flow direction, and the constituent concentrations for the parameters described in Table 20.

d. In the event observed freeboard elevations are less than minimum levels set forth in the in the Facility's WDRs Order, Facility Specifications C.3 provide a written plan for reduction of water levels to comply with minimum freeboard requirements.

8. Compost Facility #2

The Discharger shall inspect Compost Facility #2 in accordance with the following schedule, record, and report the following observations:

a. Operation Area(s): Perform quarterly inspections of the working surfaces, berms, ditches, pumps, facility perimeter, erosion control best management practices (BMPs), and any other operational surfaces. The Discharger shall include the following observations in the Annual Monitoring Report:

i. Date and time of inspections, along with the name of the inspector;

ii. Evidence of areas of deficiency such as cracking or subsidence in the working areas;

iii. Evidence of ponding upon working surfaces (depict affected area(s) on a map);

iv. Effectiveness of erosion control BMPs;

v. Maintenance activities associated with, but not limited to, the working surfaces, berms, ditches, pumps, and erosion control BMPs;

vi. Evidence of any water or wastewater leaving or entering Compost Facility #2, estimated size of the affected areas (s) (depict affected area(s) on a map);

vii. Integrity of stormwater conveyance and drainage systems between 1 October and 1 April, annually;

viii. Photographs of observed and corrected deficiencies.

b. Compost Ponds and Wastewater Discharge: Perform quarterly inspections of each of the compost pond and submit the following observations and records in the Annual Monitoring Report:

i. Date and time of inspections, along with the name of the inspector;

ii. Overall condition of each compost pond (i.e., liner condition, presence of weeds, berm condition);

iii. Freeboard elevation (feet, MSL (NAVD 88)

iv. Available pond storage capacity;

v. Volume of wastewater discharged at an off-site treatment system and name and location of the wastewater treatment facility; and

vi. Photographs of observed and corrected deficiencies.

c. Compost Pond Monitoring: Perform quarterly inspections of each compost pond monitoring device and submit the following observations and records in the Annual Monitoring Report:

i. The Discharger shall monitor the contents of each compost pond for the parameters described in **Table 21**.

Table 21—Compost Pond Sampling Parameters

Monitoring Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
pH	PH	Std. Units	Quarterly	Semiannual
Dissolved Oxygen	DO	mg/l	Quarterly	Semiannual
Fixed Dissolved Solids	FDS	mg/l	Quarterly	Semiannual
Total Dissolved Solids	TDS	mg/l	Quarterly	Semiannual
Electrical Conductivity	SC	µmhos/cm	Quarterly	Semiannual
Total Nitrogen	TOTN	mg/l	Quarterly	Semiannual

See Glossary for definitions of terms and abbreviations in table.

ii. The Discharger shall monitor each compost pond lysimeter described in **Table 6** for the parameters described in **Table 21**.

iii. The Discharger shall inspect each compost pond lysimeter described in **Table 6** monthly for the presence of liquid, which shall then be analyzed for the Monitoring Parameters in **Table 6**. If liquid is detected in a previously dry lysimeter, the Discharger shall notify Central Valley Water Board staff within seven (7) days of the detection.

iv. The Discharger shall monitor "Composting Pond" groundwater monitoring wells identified in **Table 1** for the parameters described in **Table 22**.

Table 22—Compost Pond Groundwater Wells Sampling Parameters

Monitoring Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Groundwater Elevation		0.01 Feet	Quarterly	Semiannual
Depth To Groundwater		0.01 Feet	Quarterly	Semiannual
Gradient		Feet/Feet	Quarterly	Semiannual
Gradient Direction		Degrees	Quarterly	Semiannual
pH	PH	Std. Units	Semiannual	Semiannual
Electrical Conductivity	SC	µmhos/cm	Semiannual	Semiannual
Total Dissolved Solids	TDS	mg/l	Semiannual	Semiannual
Nitrate (as N)	NO3N	mg/l	Semiannual	Semiannual
Sodium	NA	mg/l	Semiannual	Semiannual
Chloride	CL	mg/l	Semiannual	Semiannual

Monitoring Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Total Coliform Bacteria[1]		MPN/100 mL	Semiannual	Semiannual

See Glossary for definitions of terms and abbreviations in table.
[1] If Total Coliform Bacteria are measured with the multiple tube fermentation technique, use a minimum of 15 tubes and three dilutions

d. Annual Survey: Perform annual survey of the Compost Facility #2 to confirm that all containment structures are prepared for the pending wet season. Dischargers shall conduct an annual survey prior to the anticipated wet season, but no later than August 31 and complete any necessary construction, maintenance, or repairs by October 31. The Discharger shall include the following in the Annual Monitoring Report:

i. Date and time of inspections, along with the name of the inspector;

ii. The type of deficiency/non-compliance observed;

iii. The cause for the deficiency/non-compliance;

iv. Map showing the area of deficiency/non-compliance;

v. Measure taken to prevent recurrence of the subject deficiency/non-compliance;

vi. Description of corrective action taken, or planned, to resolve the deficiency/non-compliance, including the time and date of corrective action;

vii. Photographs of the observed deficiency/non-compliance, corrective action(s) taken, and location of a map;

e. Major Storm Events: Following major storm events, the Discharger shall inspect Compost Facility #2 as described in Additional Monitoring D.6 of this MRP.

C. Corrective Action Monitoring Program (CAMP)

The Facility's groundwater corrective action extraction, groundwater elevation control monitoring well network and landfill gas corrective action system consists of the monitoring devices identified in **Table 1**. As of the date of this Order, the network does not meet the requirements of Title 27. (Title 27, § 20430, subd. (d).)

Table 23—Corrective Action Monitoring

Monitoring Device	Device Type	WMU(s) Monitored	Corrective Action Program(s)
DW2	Well	WMU 1,2, WMU G	WMU 1-5; WMUs 6B, 6C and G
DW6	Well	WMU 3	WMU 1-5
DW7	Well	WMU 4, 5	WMU 1-5
DW8	Well	WMU 1,2	WMU 1-5
DW9	Well	WMU 1-5, WMU G	WMU 1-5
EW1	Well	WMU 1, 2, 3, 4, 5	Groundwater Elevation Control
EW2	Well	WMU 4, 5	WMU 1-5; Groundwater Elevation Control
EW3	Well	WMU 1, 2, 3, 4, 5	Groundwater Elevation Control
EW4	Well	WMU 1, 2, 3, 4, 5	Groundwater Elevation Control
EW5	Well	WMU 1, 2, 3, 4, 5	Groundwater Elevation Control
EW6	Well	WMU 1, 2, 3, 4, 5	Groundwater Elevation Control
EW7	Well	WMU 4, 5	WMU 1-5; Groundwater Elevation Control
EW9	Well	WMU 6	Groundwater Elevation Control
EW10	Well	WMU 6	Groundwater Elevation Control
EW11	Well	WMU 6	Groundwater Elevation Control
EW12	Well	WMU 6	Groundwater Elevation Control
EW13	Well	WMU 6	Groundwater Elevation Control
EW14	Well	WMU 6	Groundwater Elevation Control
EW15	Well	WMU 6	Groundwater Elevation Control
EW16	Well	WMU 6	Groundwater Elevation Control
EW23	Well	WMU 3	Groundwater Elevation Control
EW24	Well	WMU 3	Groundwater Elevation Control
EW25	Well	WMU 3	Groundwater Elevation Control
EW26	Well	WMU 3	Groundwater Elevation Control
EW27	Well	WMU 3	Groundwater Elevation Control
EW28	Well	WMU 1, 2	Groundwater Elevation Control
EW29	Well	WMU 1, 2	Groundwater Elevation Control
EW30	Well	WMU 1, 2	Groundwater Elevation Control
EW31	Well	WMU 1, 2	Groundwater Elevation Control

Monitoring Device	Device Type	WMU(s) Monitored	Corrective Action Program(s)
EW32	Well	WMU 1, 2	Groundwater Elevation Control
EW33	Well	WMU 1, 2	Groundwater Elevation Control
OW1	Well	WMU 1,2	WMU 1-5 (Background)
OW3	Well	WMU 1, 2	WMU 1-5
OW4	Well	WMU 1,2	WMU 1-5 (Background)
OW5	Well	WMU 1,2,3	WMU 1-5 (Background)
OW6	Well	WMU 3	WMU 1-5 (Background)
OW7	Well	WMU 4,5	WMU 1-5 (Background)
OW8	Well	WMU 4, 5	WMU 1-5
OW17	Well	WMU 1,2	WMU 1-5
OW18	Well	WMU 1,2, WMU G	WMU 1-5; WMUs 6B, 6C and G
OW 24	Well	WMU 4, 5	WMU 1-5 (Background)
OW26	Well	WMU 3	WMU 1-5
OW27	Well	WMU 3	WMU 1-5
SIMW1	Well	WMU G	WMUs 6B, 6C and G (Background)
SIMW4	Well	WMU G	WMUs 6B, 6C and G
6B-S-LYS	Lysimeter	WMU 6B	WMUs 6B, 6C and G
6B- N-LYS	Lysimeter	WMU 6B	WMUs 6B, 6C and G
6C-S-LYS	Lysimeter	WMU 6C	WMUs 6B, 6C and G
G-LYS-1	Lysimeter	WMU G	WMUs 6B, 6C and G

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

In addition to parameters in **Table 2** (Field Parameters) and **Table 3** (Monitoring Parameters), corrective action monitoring wells for shall be sampled for additional constituents as specified in **Table 24**.

Table 24—Groundwater Corrective Action Monitoring, Additional Constituent Parameters

Monitoring Point	WMUs	Additional Constituents	Sampling Freq.
DW9	1-5	Cis-1,2 dichloroethene	Semiannual

Monitoring Point	WMUs	Additional Constituents	Sampling Freq.
DW9	1-5	tetrachloroethene	Semiannual
EW2	1-5	Cis-1,2 dichloroethene	Semiannual
EW2	1-5	tetrachloroethene	Semiannual
OW8	1-5	Cis-1,2 dichloroethene	Semiannual
OW8	1-5	tetrachloroethene	Semiannual
OW27	1-5	Cis-1,2 dichloroethene	Semiannual
OW27	1-5	tetrachloroethene	Semiannual

See Glossary for definitions of terms and abbreviations in table.

2. Groundwater Extraction Well System

The Facility's current network of groundwater extraction wells is summarized in **Table 25**.

Table 25—Groundwater Corrective Action, Extraction Well Network

Well	WMU	Water-Bearing Zone	Note
EW1	WMU 1, 2, 3, 4, 5	Shallow	
EW2	WMU 1, 2, 3, 4, 5	Shallow	EW 2 is also part of Corrective Action Monitoring, see Table 23
EW3	WMU 1, 2, 3, 4, 5	Shallow	
EW4	WMU 1, 2, 3, 4, 5	Shallow	
EW5	WMU 1, 2, 3, 4, 5	Shallow	
EW6	WMU 1, 2, 3, 4, 5	Shallow	
EW7	WMU 1, 2, 3, 4, 5	Shallow	EW7 is also part of Corrective Action Monitoring, see Table 23
EW8		Shallow	Disconnected in 1992 due to low yield

Well	WMU	Water-Bearing Zone	Note
EW9	WMU 6	Shallow	
EW10	WMU 6	Shallow	EW10 is also part of Corrective Action Monitoring, see Table 23
EW11	WMU 6	Shallow	
EW12	WMU 6	Shallow	
EW13	WMU 6	Shallow	
EW14	WMU 6	Shallow	
EW15	WMU 6	Shallow	
EW16	WMU 6	Shallow	EW16 is also part of Corrective Action Monitoring, see Table 23
EW23	WMU 3	Shallow	
EW24	WMU 3	Shallow	
EW25	WMU 3	Shallow	
EW26	WMU 3	Shallow	
EW27	WMU 3	Shallow	
EW28	WMU 1, 2	Shallow	
EW29	WMU 1, 2	Shallow	
EW30	WMU 1, 2	Shallow	
EW31	WMU 1, 2	Shallow	
EW32	WMU 1, 2	Shallow	
EW33	WMU 1, 2	Shallow	

See Glossary for definitions of terms and abbreviations in table.

The Discharger shall monitor the groundwater extraction monitoring wells identified in Table 25, and any additional installed groundwater extraction wells, for the parameters described in Table 26.

Table 26—Groundwater Corrective Action, Extraction Well Network

Monitoring Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Groundwater Elevation		0.01 Feet	Quarterly	Semiannual
Depth To Groundwater		0.01 Feet	Quarterly	Semiannual
Gradient		Feet/Feet	Quarterly	Semiannual
Gradient Direction		Degrees	Quarterly	Semiannual

3. Landfill Gas Corrective Action

The Facility's landfill gas (LFG) control system includes a gas flaring facility, a landfill gas-to-energy plant, and vertical and horizontal extraction wells. The LFG control system is part of the corrective action program at the Facility to prevent VOCs present in LFG from impacting the unsaturated zone and/or groundwater. The LFG collection and conveyance system currently consists of a network of dozens of active and inactive LFG extraction wells, LFG condensate sumps, pipelines, valves, and sample ports.

Typically, the Discharger installs vertical landfill gas collection wells to a depth of 5 feet above the bottom of the waste cell and are screened from the bottom. The Discharger installed horizontal gas extraction wells during the active filling stages of landfill WMUs 6D1 and 6D2 and consist of windrows of piping and shredded tires placed between each lift of waste and a horizontal spacing of between 40 and 80 feet.

The Discharger also installed horizontal extraction wells during the active filling stages of the remaining landfill WMUs and consist of windrows of pipe and tires. These horizontal wells are spaced between 80 and 160 feet. For landfill WMUs 1 through 5 the Discharger install just one layer of horizontal wells (between the older waste and new waste). The Discharger also installs vertical collection wells during active filling.

The Discharger often changes the configuration Facility's LFG collection and conveyance system to abandon low or no producing wells, change piping configurations, or add new LFG wells as needed. As such general monitoring of VOC production by each respective LFG well is not justified unless and until data justifies additional monitoring of specific LFG well(s).

The Discharger shall conduct landfill gas corrective action system performance monitoring in accordance with **Table 27**. 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. In addition, the LFG gas-to-energy plant run-time per month and percent down-time per month shall be reported and tabulated. This information shall be reported semiannually per **Section E.1**.

Table 27—Landfill Gas Corrective Action Monitoring, Control System Performance

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

See Glossary for definitions of terms and abbreviations in table.

a. Extraction Well Sample Ports

The LFG sample ports listed in **Table 28** are associated with Facility LFG condensate sumps which the Discharger monitors to ensure the condensate sumps are operating correctly. These same sample ports are believed to be able to provide for representative LFG sample collection to enable characterization of LFG generated by the respective landfill WMUs, including monitoring of VOCs. Detection of VOCs at a sample port may trigger additional monitoring of LFG wells associated with the respective sample port(s).

LFG samples shall be collected from the LFG Extraction Sample Port network described in **Table 28** and analyzed for the Monitoring Parameters specified in **Table 29**.

Table 28—Landfill Gas Corrective Action, Extraction Sample Port Network

Unit	Monitoring Point	Comment
WMU 1	U01-SP2	Located on the South side of WMU1, should be predominantly LFG from WMU 1 regardless of flow direction.
WMU 2	U02-SP4	Located on lateral on North side of WMU 2 servicing 4 LFG wells.
WMU 3	U03-SP1	Combined sample point for all of WMU 3
WMU 4	U04-GA05	Only significant producing LFG well on WMU 4.
WMU 5	U5-SP1	Located on West side of WMU 5
WMU 6A	U6A-SP1	Located on West side of WMU 6A
WMU 6B	U6B-SP3	Located on lateral on West side of WMU 6C servicing 3 LFG wells.
WMU 6C	U6C-SP2	Centrally located LFG well on WMU 6D1.
WMU 6D1	U6D1-001	Centrally located horizontal LFG well on WMU 6D2.
WMU 6D2	U6D2-004	Landfill gas collection line installed in the LCRS layer of WMU 6F
WMU 6F	U6F-L102	Landfill gas collection line installed in the LCRS layer of WMU 6H
WMU 6H	U6H-L101	Landfill gas collection line installed in the LCRS layer of WMU 6H
WMU H2	IVD-SP1	Located on lateral servicing the IVD

Table 29—Landfill Gas Corrective Action, Extraction Sample Port / Well Network Monitoring Parameters

Parameter	Units	Sampling Freq.	Reporting Freq.
Atmospheric Temperature	°F	Monthly	Annually
Atmospheric Pressure	Inches Hg	Monthly	Annually
Methane	% by Vol.	Monthly	Annually
Carbon Dioxide	% by Vol.	Monthly	Annually
Oxygen	% by Vol.	Monthly	Annually
Remainder Gas	% by Vol.	Monthly	Annually
Volatile Organic Compounds per USEPA Method TO-15[1]	µg / cm	Annual	Annually

See Glossary for definitions of terms and abbreviations in table.

b. LFG Extraction Well Field

LFG samples shall be collected from the LFG Extraction well(s) associated with the Sample Port(s) and analyzed for the Monitoring Parameters specified in **Table 29**.

D. Additional Facility Monitoring

1. Landfill Gas Offsite Migration Probe Network

Offsite LFG migration is monitored by perimeter landfill gas probes 1 to 12 listed in **Table 30**.

Table 30—Landfill Gas Offsite Migration Probe Network

LFG Probe	Modules Addressed
P1	WMU 3
P2	WMU 2
P3	WMU 2
P4A	WMU 2
P5	WMU 1
P6	WMU 1
P7	WMU 1
P8	WMU 3
P9	WMU 5
P10	WMU 6A
P11	WMU H2
P12	Abandoned during construction of WMU 6F
P-13	WMU 6F & 6H
P-14	WMU 6H
P-15	WMU 6A, 6F, 6H

LFG gas probes described in **Table 30** shall be monitored for the parameters specified in **Table 31**.

Table 31— Landfill Gas Offsite Migration Probe Monitoring Parameters

Monitoring Parameter	Units	Sampling Freq.	Reporting Freq.
Atmospheric Temperature	°F	Quarterly	Semiannually
Atmospheric Pressure	Inches Hg	Quarterly	Semiannually
Methane	% by Vol.	Quarterly	Semiannually
Carbon Dioxide	% by Vol.	Quarterly	Semiannually
Oxygen	% by Vol.	Quarterly	Semiannually
Remainder Gas	% by Vol.	Quarterly	Semiannually
Probe Pressure/Vacuum	Inches H2O	Quarterly	Semiannually
Volatile Organic Compounds per USEPA Method TO-15[1]	µg / cm	Quarterly	Semiannually

See Glossary for definitions of terms and abbreviations in table.
[1] Gas samples may be prescreened to determine if laboratory analysis using Method TO-15 is required. A gas analyzer for methane concentrations or a Photo Ionization Detector (PID) for total VOCs concentrations may be used. If methane concentrations exceeding 1.0 percent by volume OR organic vapors (total VOCs) are detected at a concentration greater than 1.0 ppm then a gas sample shall be obtained and analyzed for VOCs using EPA Method TO-15. Both the screening results and laboratory analysis results shall be reported. Otherwise, the Discharger shall report the methane or total VOC screening results and no further laboratory analysis is required.

2. Leachate Collection & Removal System (LCRS)

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

a. Annual LCRS Testing

All Leachate Collection and Removal Systems (LCRS) shall be tested annually to demonstrate proper operation, with the results of

each test being compared to the results of prior testing. (See Title 27, § 20340, subd. (d).)

b. Monthly Sump Inspection

All LCRS sumps shall be inspected monthly for the presence of leachate. As provided in **Table 32**, 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 32—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

See Glossary for definitions of terms and abbreviations in table.

c. First Detection of Leachate in a 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 33**.[7] 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 33**.

[7] The sampling and reporting schedules in **Table 33** 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.

Table 33—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
TDS	TDS	mg/L	Semiannually	Semiannually
Chloride	CL	mg/L	Semiannually	Semiannually
Carbonate	CACO3	mg/L	Semiannually	Semiannually
Bicarbonate	BICACO3	mg/L	Semiannually	Semiannually
Nitrate (as Nitrogen)	NO3N	mg/L	Semiannually	Semiannually
Sulfate	SO4	mg/L	Semiannually	Semiannually
Calcium	CA	mg/L	Semiannually	Semiannually
Magnesium	MG	mg/L	Semiannually	Semiannually
Potassium	K	mg/L	Semiannually	Semiannually
Sodium	NA	mg/L	Semiannually	Semiannually
Short List VOCs (Attachment A)	(various)	µg/L	Semiannually	Semiannually
1,2,3-Trichloropropane per Method SRL-524M-TCP	TCPR123	µg/L	Semiannually	Semiannually

See Glossary for definitions of terms and abbreviations in table.

d. Five-Year COCs

At least once every five years, the Discharger shall sample and analyze any leachate present in the sump for the Five-Year COCs listed in **Table 34**. Five-Year COCs were last monitored in 2020 and shall be analyzed again in 2025.

Table 34—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.

3. 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 35** (Physical Parameters) and **Table 36** (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 35—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)

Physical Parameter	GeoTracker Code	Units	Sampling Freq.	Reporting Freq.
Electrical Conductivity	SC	µmhos/cm	(same)	(same)
pH	PH	pH Units	(same)	(same)

See Glossary for definitions of terms and abbreviations in table.

Table 36—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)
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.

4. Borrow Site

a. The Discharger shall install and maintain a staff gauge for measuring water levels in the Borrow Site. The staff gauge shall depict water level in both depth of water (feet) and water elevation MSL (NAVD88). A Professional Land Surveyor shall tie the staff gauge to the Facility surveying monuments required by these WDRs.

b. On a monthly basis, the Discharger shall record both depth of water (feet) and water elevation MSL (NAVD88)

5. Class II Surface Impoundment & Compost Pond Monitoring

a. The Discharger shall monitor all class II surface impoundments and compost ponds for the parameters identified in **Table 37** and included the results in the Semiannual Monitoring Reports per **Section E.1**.

Table 37—Class II Surface Impoundment & Pond Sampling Parameters

Physical Parameter	Units	Sampling Freq.	Reporting Freq.
Quantity Discharged	Gallons	Quarterly	Semiannually
Type of Material Discharged		Quarterly	Semiannually
Freeboard	Feet	Quarterly	Semiannually
Capacity Remaining	Percent/Gallons	Quarterly	Semiannually
Source of materials Discharged		Quarterly	Semiannually
Solids removed	Cubic Yards	Quarterly	Semiannually
Discharge location for solids Removed		Quarterly	Semiannually
Liquids removed	Gallons	Quarterly	Semiannually
Discharge location for liquids Removed		Quarterly	Semiannually

See Glossary for definitions of terms and abbreviations in table.

b. Non-hazardous Class II surface impoundment liquids utilized at the Facility regulated by and in accordance with WDRs Order R5-20XX-XXXX shall be analyzed for the parameters listed in **Table 2 and Table 3** and include the results in the Semiannual Monitoring Reports per **Section E.1**.

6. Regular Visual Inspection

The Discharger shall perform regular visual inspections at the Facility in accordance with **Table 38** (Criteria) and **Table 39** (Schedule). Results of these regular visual inspections shall be included in Semiannual Monitoring Reports per **Section E.1**.

Table 38—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	• Condition of gate valve or control structure installed in the drainage swale along the eastern site boundary that separates the landfill and the Davis WWTP to prevent water from the Groundwater/Stormwater Reservoir pooling into the drainage swale. • Condition of drainage structures intended to divert non-contact runoff from closed areas of the landfill to the Borrow Site rather than the Groundwater/Stormwater Reservoir. • Evidence of leachate seep(s). • 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 39—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

7. Annual Facility Inspections

Prior to 30 September of each year, the Discharger shall inspect the Facility, including the Soil Borrow Site, to assess repair and maintenance needs for drainage control systems, cover systems, and groundwater monitoring wells; removal of free liquids, 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.

8. 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, including the Soil Borrow Site, 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.

9. 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.

10. Load Inspection and Monitoring

Prior to accepting a load for discharge to WMU G with wastes suspected to have originated in areas of contamination, the Discharger shall characterize such load(s) for waste constituents. The Discharger shall collect representative samples from vehicles and analyze the collected sample to verify the wastes are not hazardous wastes or otherwise prohibited. Alternatively, the Discharger may provide documentation from waste generators who collect representative sample(s) and analyze the collected samples and provide a laboratory analysis report on waste constituents. For portable toilet and septage derived wastes, the Discharger may provide a representative generalized characterization of the subject waste. At a minimum, the required supporting documentation shall include all laboratory analytical reports (including quality assurance, quality control, and chain of custodies), a written record of the chain of custody from the time the waste leaves generator until it reaches the Facility, and a certification statement by a duly authorized representative of the waste generator that the waste is not a hazardous waste or otherwise prohibited under this Order. The Dischargers shall, at a minimum, analyze the collected sample in accordance with **Table 40**, record the results, and verify wastes are not hazardous wastes or otherwise prohibited. At all times, the Discharger is responsible to ensure and demonstrate that the wastes the Discharger accepts for discharge to WMU G are not hazardous wastes or any wastes required to be managed as a hazardous waste, which are incompatible with Basin containment features, or otherwise prohibited.

Table 40—Regular Load Inspection

Parameter	Units
pH	Std Units
Electrical Conductivity	μmhos/cm
Hydrocarbons	mg/L
Visible sheen	Each
Rejected Loads	Each

Field test instruments used to measure pH, electrical conductivity, and presence of volatile gasses may be used provided that:

a. The operator is trained in proper use and maintenance of the instruments;

b. The instruments are field calibrated at the frequency recommended by the instrument manufacturer;

c. The instruments are serviced and/or calibrated at the manufacturer's recommended frequency; and

d. Field calibration reports are available upon request.

E. Reporting Requirements

Table 41—Summary of Required Reports

Section	Report	Deadline
§ E.10	Semiannual Monitoring Reports (SMRs)	**15 August** (1 January to 30 June) **15 February** (1 July to 31 December)
§ E.2	Annual Monitoring Reports (AMRs)	15 February
§ E.3	Leachate Seep Reporting	Immediately upon Discovery of Seepage (*staff notification*) **Within 7 Days** (*written report*)
§ E.40	Annual Facility Inspection Reports	1 December
§ 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 XXXX)
§ E.7	Financial Assurances Reports	1 September

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) on 15 August (1 Jan. to 30 June) and 15 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 elevate pump intake level relative to screening interval;

iii. The purging methods used to stabilize water in the well bore before sampling (including pumping rate);

iv. The equipment and methods used for monitoring pH, temperature and electrical conductivity (EC) during purging activity, and the results of such monitoring;

v. Methods for disposing of purged water; and

vi. The type of device used for sampling, if different than the one used for purging.

e. Evaluation of concentrations for all Constituent Parameters and Five-Year COCs (when analyzed), comparison to current Concentration Limits, and results of any Retesting Procedures per **Section B.4.h**.

f. In the event of a verified exceedance of Concentration Limit(s), any actions taken per Section J of the SPRRs (*Response to Release*) for wells and/or constituents not already specifically addressed in Corrective Action Monitoring under this MRP.

g. Evaluation as to effectiveness of existing leachate monitoring and control facilities, and runoff/run-on control facilities.

h. For lined landfill units, a summary of any instances where leachate on the landfill liner system exceeded a depth of 30 cm (excluding the leachate sump), and information about the required notification and corrective action in Section E.13 of the SPRRs (*Standard Facility Specifications*).

i. Summaries of all Regular Visual Inspections conducted per **Section D.6** during the reporting period.

j. 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*).

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

l. For any Corrective Action systems at the Facility, tabulated summaries of:

   i. Operating hours;

   ii. Monthly runtimes and downtimes; and

   iii. Shutdowns, including start/stop dates and causes.

2. Annual Monitoring Reports (AMRs)

On 15 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.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.[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.

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[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.

[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.

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

i. A discussion on the results of Annual LCRS Testing conducted in accordance with **Section D.2.a**.

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

k. To assess the progress of ongoing Corrective Action at the Facility, the Discharger shall quarterly evaluate and report the groundwater separation distance beneath landfill WMUs 1-5. The assessment shall consider historic groundwater elevation data, the as-built elevations of the base of waste in WMUs 1-5, capillary forces, and any applicable corrections for datum.

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 35** (*Physical Parameters*) and **Table 36** (*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.7**. 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 **SectionD.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 by 30 September 2025.

7. **Financial Assurances Report**

   By 1 September 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[10] to the Water Quality Protection Standard (WQPS) components **(§ B.4**), other than periodic update of the Concentration Limits (**§ B.4.h**), 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 § 0) detected in at least 10 percent of the background data (naturally-occurring constituents) using a statistical procedure from subdivisions (e)(8)(A)-(D) or (e)(8)(E) of Title 27, section 20415; and

e. *Retesting Procedure*—A retesting procedure to confirm or deny measurably significant evidence of a release (Title 27, §§ 20415(e)(8)(E), 20420(j)(1)-(3)).

9. General Reporting Provisions

a. Transmittal Letters

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

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.

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

b. Monitoring Data and Reports

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) as described below. 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.

(A) **For the Yolo County Central Landfill**, the following information shall be included in the body of the email:

Attention:	Title 27 Compliance & Enforcement Unit
Report Title:	[Title of Report]
GeoTracker Upload ID:	L10001819539
Facility Name:	Yolo County Central Landfill
County:	Yolo County
CIWQS Place ID:	213885

(B) **For Compost Facility #2**, the following information shall be included in the body of the email:

Attention:	Title 27 Compliance & Enforcement Unit
Report Title:	[Title of Report]
GeoTracker Upload ID:	T10000017497]
Facility Name:	Yolo County Central Landfill, Compost Facility #2
County:	Yolo County
CIWQS Place ID:	875733

iii. 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.

iv. 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").

v. 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

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

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

Volatile Organic Compound	Geotracker Code
Tetrachloroethylene (Tetrachloroethene; Perchloroethylene; PCE)	PCE
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	CLPYRIFOSME
0,0-Diethyl 0-2-pyrazinyl phosphorothioate	TEPTH
(Thionazin)	ZINOPHOS
Diazinon	DIAZ
Dimethoate	DIMETHAT
Disulfoton	DISUL
Methyl parathion (Parathion methyl)	PARAM
Parathion	PARAE
Phorate	PHORATE
Simazine	SIMAZINE