

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO.  
POSTCLOSURE MAINTENANCE,  
MONITORING, AND CORRECTIVE ACTION  
A GREENER GLOBE CORPORATION  
BERRY STREET MALL (AKA FINGER'S) LANDFILL  
CLASS III LANDFILL  
PLACER COUNTY

This monitoring and reporting program (MRP) is issued pursuant to California Water Code section 13267 and incorporates requirements for landfill postclosure maintenance and monitoring contained in California Code of Regulations (CCR), title 27, division 2 (Title 27 regulations); Waste Discharge Requirements (WDRs) Order No. \_\_\_\_; and the August 1997 Standard Provisions and Reporting Requirements (SPRR). Compliance with this MRP is ordered by the WDRs. The Discharger shall not implement any changes to this MRP unless a revised MRP is issued by the Executive Officer. Regulatory sections quoted in this MRP refer to CCR, Title 27 unless otherwise noted.

**MONITORING SUMMARY TABLE**

<b>Section</b>	<b>Requirement</b>	<b>Frequency</b>
A	Standard Observations	Monthly
B	Facility Monitoring:	
	1. Maintenance Inspections	Monthly
	2. Storm Response	Within 7 Days After Significant Storm Event
	3. Site Winterization	Annually
C	Water Quality Protection Standard	Update as necessary
D	Leachate Monitoring	Quarterly/Semiannually
E	Landfill Gas (LFG) Monitoring	
	1. Standby LFG Collection System	Quarterly
	2. Soil Gas	Quarterly
F	Unsaturated Zone Monitoring	Semiannually
G	Groundwater Monitoring Programs	
	1. Field Parameter	Quarterly
	2. Background	Same As Compliance <sup>1</sup>
	3. Compliance	
	a. Detection	Semiannually
	b. Corrective Action	Semiannually
	c. Constituents of Concern (COCs)	Every 5 years
H	Surface Water Monitoring:	
	1. Onsite stream	Semiannually
	2. Storm Water	Semiannually

Section	Requirement	Frequency
I	Reporting	
	1. Semiannual Report	Semiannually
	2. Annual Monitoring Summary	Annually
	3. COC Monitoring Report	Every five-years
	4. Other Reports	See Section I.4
J	Attachment Tables	
	1. Groundwater Monitoring Schedules	See Table J.1
	2. COC List	See Table J.2

1. More frequent monitoring may be required to establish CLs for inorganic COCs or in response to a release. See Sections C.2.b and G.3.a.iv.

**A. STANDARD OBSERVATIONS**

Standard Observations of the facility, including visual and olfactory monitoring, shall be performed in accordance with the Standard Provisions, as follows:

1. Monitoring Points – Landfill unit, unit perimeter, and adjacent creek.
2. Monitoring List – See Definition 24, SPRR.
3. Monitoring Schedule – Quarterly
4. If Leachate Detected –
  - a. Any landfill leachate seeps (or other significant physical evidence of a release) detected during these inspections (or at any other time) shall be immediately reported to Central Valley Water Board staff with written follow-up within 7 days.<sup>1</sup>
  - b. If leachate or other waste enters the facility drainage system, representative samples of the discharge shall be collected and analyzed for all Table J.2 COCs.
  - c. If a discharge to surface water occurs, the Discharger shall follow the response to release provisions of the Standard Provisions.<sup>2</sup>

See Sections I.1.c and I.1.h.i herein for reporting requirements.

**B. FACILITY MONITORING**

The Discharger shall conduct facility monitoring, including (but not necessarily limited to) visual monitoring, to ensure that all significant landfill facilities are functioning properly and are in adequate maintenance and repair. Any damage to the landfill facilities observed during these inspections shall be flagged and repaired in accordance with the Postclosure Maintenance Plan.

1. Monitoring Points – Landfill unit and associated controls and monitoring facilities (e.g., landfill cover, precipitation and drainage controls, standby LFG collection system, leachate drain and sump, lysimeters, monitoring wells, access roads).
2. Monitoring List and Schedule

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1. See Provision 3, *Reports to be Filed with the Board, REPORTING REQUIREMENTS*, SPRR.  
 2. See Provisions 2 and 3, *General, RESPONSE TO RELEASE, PROVISIONS FOR MONITORING*, SPRR.

**Table B.2**

<b>Item</b>	<b>Inspection Frequency</b>	<b>Complete Repairs<sup>1</sup></b>
1. Regular Maintenance	Quarterly	Within 30 days
2. Storm Response	Within one week of significant storm event <sup>2</sup>	Within two weeks of storm event
3. Site Winterization	By September 30 of each year	By October 31 of each year

1. If necessary repairs cannot be completed within specified time frame, the Discharger shall, within seven days, notify the Central Valley Water Board and provide a schedule for completing them.
2. A "significant" storm event shall be one that produces 2.0 inches or more of precipitation within a 24-hour period, as measured at the Roseville Fire Station.

See Sections I.1.c.ii and I.1.h.i herein for facility reporting requirements.

**C. WATER QUALITY PROTECTION STANDARD (Section 20390)**

The Water Quality Protection Standard (WQPS) shall consist of the following:

1. **Constituents of Concern (Section 20395)**

The Constituents of Concern (COC) list shall include all the waste constituents, their reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the Unit. The COCs for all monitored waters at the site (i.e., unsaturated zone, groundwater, and surface water) shall be as listed in Table J.2 herein.

2. **Concentration Limits (Section 20400)**

Concentration Limits (CLs) for all monitoring parameters/COCs shall be developed and updated consistent with WDR Monitoring Specification E.7.

a. **Unsaturated zone**

CLs for inorganic constituents in the unsaturated zone have not yet been developed (and no interim CLs have been specified in this MRP) due to lack of historical data (see WDR Finding 27). CLs for these constituents shall be developed (and updated thereafter) once a sufficient amount of background monitoring data has been collected and evaluated under Section F herein.

b. **Groundwater**

CLs for inorganic constituents in groundwater developed under previous WDRs are no longer considered valid (e.g., out of date, COC list incomplete, detection limits too high, data improperly pooled). Interim CLs for these constituents have been specified in this MRP based on available monitoring data, as noted in Table J.2 and explained in the Information Sheet attached to this Order. Revised CLs for these constituents shall be developed (and updated thereafter) once a sufficient amount of background monitoring data has been collected and evaluated under Section G.1 herein.<sup>3</sup>

c. **Surface Water**

CLs for surface water developed under previous WDRs are no longer considered valid for similar reasons as groundwater CLs, and no interim CLs have been specified in this MRP due to a lack of historical data. Revised CLs

3. WDR Provision G.7.b requires that the Discharger submit an updated WQPS report, including CLs, consistent with this Order.

for surface water shall be developed (and updated thereafter) once a sufficient amount of background monitoring data has been collected under Section H.1.c herein. Surface water CLs may be proposed as paired differences of upstream and downstream data for each statistical monitoring parameter/COC. See WDR Finding 43 and Information Sheet.

3. Monitoring and Compliance Points (Section 20405)

a. Monitoring Points

- i. Unsaturated Zone – All lysimeters (i.e., LYS-1 through 4).
- ii. Groundwater – All wells (i.e., GWs-1 through 6).
- iii. Surface Water – All stations (i.e., S-1 through S-3).

b. Compliance Points

- i. Point of Compliance (POC) Wells<sup>4</sup>
  - 1) All downgradient (and cross gradient) wells on the landfill perimeter (i.e., GWs-1, 2, 3, 5 and 6);
  - 2) Any future wells that meet the above criteria.
- ii. Other Compliance Wells
  - 1) All upgradient perimeter wells within the zone of influence of LFG (i.e., GW-4);
  - 2) All impacted wells beyond the POC; and
  - 3) Any future wells that meet either of the above criteria.

4. Compliance Period (Section 20410)

The landfill compliance period, applicable to all water-bearing media, is the minimum period during which the Discharger shall conduct a water quality monitoring program subsequent to a release from the Unit. It is equal to the active life of the Unit plus the closure period. The landfill began operations in 1946 and closed in 1993. The compliance period is therefore 47 years.<sup>5</sup>

The WQPS shall be updated at least annually based on the results of monitoring. For WQPS reporting, see Section I.4.b herein.

**D. LEACHATE MONITORING**

1. Sump

- a. Monitoring Points -- L-1 (Leachate collection sump). See Attachment B.
- b. Monitoring List – Volume collected (gallons); All Table J.1 monitoring parameters, except as follows:
  - i. Elevation -- Monitor leachate elevation from reference point (or depth in sump) based on measurement or observation.
  - ii. Redox potential not required

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4. Title 27 defines the Point of Compliance as a vertical surface located at the hydraulically downgradient limit of the Unit that extends through the uppermost aquifer underlying the Unit.

5. If the landfill is in corrective action at the scheduled end of the compliance period, the compliance period shall be extended until the discharger can demonstrate that the Unit has been in continuous compliance with its WQPS for a period of at least three consecutive years, including proof period under Section 20430(f).

c. Monitoring Schedule:

**Table D.1.c**

<u>Parameter</u> <sup>1</sup>	<u>Units</u>	<u>Frequency</u>	<u>Data Analysis</u>
Field Parameters	See Table J.1	Quarterly	n/a
General Parameters	See Table 2	Semiannually	n/a
General Minerals	mg/L	Annually	n/a
Dissolved Metals	µg/L	Annually	n/a
VOCs	µg/L	Semiannually	n/a
Other Organic COCs	µg/L	Every 2½ years	n/a

1. See Tables J.1 and 2 for full list of constituents and EPA test methods.

Visual Inspections shall be conducted at least quarterly for the presence or absence of leachate. Any liquid detected in the sump shall be removed after completion of sampling.

- d. If COC Monitoring Parameter Detected -- If a constituent is detected in leachate that is a COC monitoring parameter under the groundwater monitoring program (see Table J.1.B.c), that constituent shall be monitored at least **semiannually** under this section and the groundwater monitoring lists updated accordingly. See WDR Monitoring Specification E.25.b.

**E. LANDFILL GAS MONITORING**

The Discharger shall monitor for LFG to assess whether it contains constituents that could impact groundwater and the need for corrective action measures to mitigate any such source (e.g., LFG extraction, soil venting).

1. Standby LFG Collection System

a. Monitoring Points

<u>Header/Lateral</u>	<u>Sampling Locations</u> <sup>1, 2</sup>
Landfill Crown	99; 100; 102 to 109; 113 to 125
SE Flank Spine	94 to 99
Landfill Base - SW	36; 37; 39; 42; 58; 64; 67; 88; 90
Landfill Base - North	138; 139; 142, 144; 147 to 153
Landfill Base - East	69 to 72; 135 to 137

1. Sampling shall be conducted at stub-outs protruding from landfill cover.  
 2. Additional monitoring may be necessary if system activated.  
 3. See WDR Attachment C for monitoring locations.

b. Monitoring List and Schedule

**Table E.1.b**

<u>Parameter</u>	<u>Units</u>	<u>Frequency</u>	<u>Method</u>
Gas Pressure	psig	Quarterly	Meter
Ambient Temperature	°C, °F	Quarterly	Meter
Methane	%	Quarterly	Meter

Carbon Dioxide	%	Quarterly	Meter
VOCs <sup>1, 2</sup>	ppbv	Semiannually	EPA Method TO-15 or 8260B

- VOC sampling may be limited to one probe in each well, provided that VOC sampling of probes in well is rotated each semiannual monitoring event.
- VOC sampling not required if probe has been previously sampled for VOCs under this Order and methane is currently detected at less than 5% by volume.

Field meters shall be calibrated for each parameter before use.

2. Soil Gas

a. Monitoring Points

Soil Gas Well	Location	Probes		
		Shallow	Middle	Deep
GP-1	Northern Site Perimeter	GP-1S	GP-1M	GP-1D
GP-2	NW Corner of Site	GP-2S	GP-2M	GP-2D
GP-3	Western Site Perimeter	GP-3S	GP-3M	GP-3D
GP-4	SW Landfill Perimeter	GP-4S	GP-4M	GP-4D

Soil gas monitoring points shall also include any future or replacement LFG monitoring wells and/or probes installed at the site.

b. Monitoring parameters and Schedule -- Same as for LFG (see Table E.1.b)

c. If COC Monitoring Parameter Detected -- If a constituent (i.e., VOC) is detected in soil gas and/or LFG that is a COC monitoring parameter under either the unsaturated zone or groundwater monitoring programs, the monitoring lists for those programs shall be updated accordingly. See WDR Monitoring Specification E.25.b.

**F. UNSATURATED ZONE MONITORING (20415(d))**

The Discharger shall implement field parameter, background, and compliance monitoring programs for the unsaturated zone consistent with WDR Monitoring Specifications E.4 through E.30, as applicable to soil pore water. A sufficient number of monitoring points (i.e., suction lysimeters) shall be established and maintained at appropriate background locations and depths to yield samples that represent the quality of soil pore liquid unaffected by a release from the Unit.

1. Monitoring Points

Lysimeter	Program	Type	Location <sup>1, 2</sup>
LYS-1	Background	Suction	NE corner of site
LYS -2	Compliance	Suction	NE landfill perimeter near GW-1
LYS -3	Compliance	Suction	NW landfill perimeter near GW-2
LYS -4	Compliance	Suction	SW landfill perimeter near GW-3

- See Attachment B for lysimeter locations.
- Shall also include future or replacement lysimeters installed, as necessary, for corrective action monitoring.

Moisture block sensors shall be checked and repaired as necessary (as part of facility monitoring) to ensure they are in good working order. Sampling shall be attempted at any lysimeter where the moisture block resistivity reading indicates

there is pore fluid.

2. Monitoring List -- The unsaturated zone monitoring list shall include the following:
  - a. Volume of liquid recovered (in cubic inches or other appropriate units);
  - b. All Table J.1 monitoring parameters, except as follows:
    - i. Elevation -- Report lysimeter elevation or depth below ground surface
    - ii. Redox potential not required
3. Monitoring Schedule -- Same as for groundwater compliance monitoring, except as follows:
  - a. Field parameter monitoring shall be conducted **semiannually**;
  - b. All monitoring events shall be conducted during the wet season. No lysimeter sampling is required during the dry season.

See Table G.3.a.iii for detection and corrective action monitoring schedule and Section G.3.c.iii for COC monitoring schedule.

4. If Exceedance Detected --

If tentatively indicated, the Discharger shall proceed with applicable notification and retest procedures per WDR Monitoring Specification E.10.a, except as follows:

  - a. Retesting shall be conducted as soon as feasible if a sufficient liquid sample cannot be collected from the lysimeter within 30-days; and
  - b. Only one sample need be collected for the retest.
5. If Exceedance Confirmed:
  - a. Proceed with notification and response to release procedures in WDR Monitoring Specification E.10.b.
  - b. Update the unsaturated zone monitoring list, as warranted, per WDR Monitoring Specification E.25.a.; and
  - c. If a groundwater COC monitoring parameter, update the groundwater monitoring list per WDR Monitoring Specification E.25.b.

## **G. GROUNDWATER MONITORING**

The Discharger shall implement concurrent field parameter, background, and compliance (including detection; corrective action; and COC) monitoring programs for groundwater consistent with WDR Monitoring Specifications E.1 through E.30.

### **1. Field Parameter Monitoring (Section 20415(e))**

The Discharger shall implement field parameter monitoring, including, but not limited to, groundwater elevation monitoring, consistent with WDR Monitoring Specification E.4.<sup>6</sup> Field Parameter monitoring shall be conducted concurrent with the other groundwater monitoring programs under this MRP, as follows:

- a. Monitoring Point(s) -- All wells (presently GWs-1 through 6). See Section C.3.a.ii and Attachment B.

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6. Groundwater elevation measurements shall be taken within a period of time short enough to avoid temporal variations in groundwater flow to enable accurate determination of gradient and direction. Groundwater elevations may be taken prior to purging the well and sampling.

b. Monitoring List – All Table J.1.A field parameters.

c. Monitoring Schedule -- **Quarterly**

See Section I.1.f.ii for field parameter reporting.

2. Background Monitoring (Section 20415(b)(1)(A))

The Discharger shall develop and implement a background monitoring program for groundwater consistent with WDR Monitoring Specifications E.5 through E.7. The Discharger shall install and operate a sufficient number of background monitoring wells at appropriate locations and depths to yield ground water samples from the uppermost aquifer that represent the quality of ground water that has not been affected by a release from the unit.

a. Monitoring Point(s) – Upgradient well GW-4 and/or as otherwise proposed and approved consistent with Title 27 requirements.

b. Monitoring List – All Table J.1 monitoring parameters.

c. Monitoring Schedule -- As specified for compliance monitoring programs (detection, corrective action, and COC) in Section G.3 herein, subject to Section 20415(e)(6), which requires **quarterly** background monitoring, as necessary, until enough historical data points have been collected for determination of CLs.

3. Compliance Monitoring

a. Detection Monitoring (Section 20420)

The Discharger shall establish and implement a groundwater detection monitoring program that complies with WDR Monitoring Specifications E.8 through E.12, as applicable. The Detection monitoring system shall be designed and installed at appropriate locations and depths to yield groundwater samples that represent the quality of ground water passing the Point of Compliance and to allow for the earliest detection of a release from the unit.

i. Monitoring Points – All background and Point of Compliance wells (presently GWs-1 through 6). See Sections G.2.a, C.3.b.i, and Attachment B.

ii. Monitoring List – All Table J.1.B.a monitoring parameters, as specified below or as updated per WDR Monitoring Specification E.25.

1) General Parameters -- Dissolved oxygen

2) General Minerals

⇒ Major anions – nitrate

⇒ Major cations -- magnesium and potassium

3) Dissolved Metals

⇒ Common – iron and manganese

⇒ Heavy – arsenic

4) VOCs – alcohols; BTEX; common halogenated; common industrial solvents; and common interferences

iii. Monitoring Schedule

**Table G.3.a.iii**

<u>Parameter</u> <sup>1</sup>	<u>Units</u>	<u>Frequency</u> <sup>2</sup>	<u>Data Analysis</u>
General Parameters	%	Semiannually	---
General Minerals	mg/L	Annually	Statistical
Dissolved Metals	µg/L	Annually	Statistical/Nonstatistical
VOCs	µg/L	Semiannually	Nonstatistical

1. See Tables J.1 and 2 for full list of constituents and EPA test methods.
2. More frequent monitoring may be required to establish CLs for inorganic COCs or in response to a release. See Sections C.2.b and G.3.a.iv.

iv. If Release Detected – In the event that verification testing of groundwater samples results in confirmation of a release (or new constituent of a release) to the saturated zone, the Discharger shall follow the notice, response to release, and monitoring list update procedures referenced in WDR Monitoring Specification E.10.b.

b. Corrective Action Monitoring (Section 20430)

The Discharger shall establish and implement a groundwater corrective action monitoring Program that complies with WDR Monitoring Specifications E.13 through E.15, as applicable. The corrective action monitoring system shall be designed and installed so as to monitor the nature and extent of the release and the progress of corrective action measures in returning groundwater to compliance with the WQPS. All samples shall be collected and analyzed in accordance with WDR Monitoring Specifications E.26 through E.30.

- i. Monitoring Points – All background and compliance wells (presently GWs-1 through 6). See Sections G.2.a, C.3.b, and Attachment B.
- ii. Monitoring List – All Table J.1.B.b monitoring parameters, as specified below or as updated consistent with WDR Monitoring Specification E.25.

- 1) General Parameters – COD, total alkalinity, specific conductance, TDS, and total hardness
- 2) General Minerals
  - ⇒ Major anions – bicarbonate alkalinity, chloride, and sulfate
  - ⇒ Major cations – calcium and sodium
- 3) VOCs
  - ⇒ Benzene compounds, other – 1,4-DCB
  - ⇒ CFCs – all;
  - ⇒ Common halogenated -- cis-1,2 DCE

iii. Monitoring Schedule: Same as for detection monitoring (Section G.3.a.iii)

c. COC Monitoring (Sections 20420(g), 20425(e)(4))

Concurrent with the other required monitoring programs under this MRP, the Discharger shall develop and implement a groundwater COC monitoring program in accordance with WDR Monitoring Specifications E.16 and E.17.

- i. Monitoring Points -- All background and compliance wells (presently GWs-1 through 6). See Sections G.2.a, C.3.b, and Attachment B.

- ii. Monitoring List – All Table J.1.B.c monitoring parameters as updated consistent with WDR Monitoring Specification E.25.
- iii. Monitoring Schedule – By **15 December 2011** and at least every five years thereafter. Additional or more frequent COC monitoring may be required to establish CLs or in response to a release. See Section G.1.c.
- iv. If Release Detected – Same as in Detection Monitoring Program. See MRP Section G.3.a.iv.

**H. SURFACE WATER MONITORING (Section 20415(c))**

The Discharger shall develop and implement background and compliance monitoring programs for surface water consistent with WDR Monitoring Specifications E.5 through E.7 (background); E.4 (field parameter); E.8 through E.12 (detection); and E.16 and E.17 (COC).

1. Onsite Stream

a. Monitoring Points

Surface water monitoring shall be conducted at the following locations in the intermittent stream (south branch, Pleasant Grove Creek) that traverses the site: S-1 (upstream), S-2 (onsite pond), and S-3 (outfall from pond). See Attachment B: Site Map.

b. Monitoring List – All Tables J.1 field parameters and J.2 COCs, except as follows:

- i. Elevation -- Monitor surface water (including pond) elevation (or depth from reference point) based on measurement or observation.
- ii. Redox potential not required

c. Monitoring Schedule:

**Table H.1.c**

<u>Parameter</u> <sup>1</sup>	<u>Units</u>	<u>Frequency</u> <sup>2</sup>	<u>Data Analysis</u>
Field Parameters	See Table J.1.A	Semiannually	---
General Parameters	%	Semiannually	---
General Minerals	mg/L	Semiannually	Statistical
Dissolved Metals	µg/L	Annually	Statistical/Nonstatistical
VOCs	µg/L	Annually	Nonstatistical
Other Organic COCs	See Table J.2.B	Every 5 years	

1. See Tables J.1 and 2 for full list of constituents and EPA test methods.

2. More frequent monitoring may be required to establish CLs for inorganic COCs or in response to a release. See Sections C.2.c and G.3.a.iv.

2. Storm Water

a. Monitoring Points

<u>Sampling Point</u>	<u>Sampling Location</u>	<u>Portion of Landfill Drained</u>	<u>Sample Type</u>
SW-1	Upstream of landfill <sup>1</sup>	----	Background
SW-2	Outfall to onsite pond <sup>2</sup>	NW half	Runoff

SW-3		SE half	
SW-4	Outfall from onsite pond <sup>2</sup>	----	Discharge

1. Discharger shall establish a representative background location for storm water monitoring.
2. Formerly referred to as a sedimentation basin.

- b. Monitoring List – All Table H.1.c monitoring parameters, except for elevation, Redox potential, and Other COCs.
- c. Monitoring Schedule: Same as for surface water monitoring (see Table H.1.c), except as follows:
  - i. All sampling shall be conducted during the wet season;
  - ii. 5-year COC monitoring not required.
- d. General Storm Water Permit  
 The Discharger shall also maintain coverage under the SWRCB General Industrial Storm Water Permit, Water Quality Order No. 97-03-DWQ.

The results of surface water monitoring (including storm water monitoring under the General Storm Water Permit) shall be summarized in the monitoring reports submitted under this Order. If there was no water in the pond or stream during the monitoring period, or the Discharger did not obtain samples at one or more of the required monitoring points, the Discharger shall state the reasons and circumstances for not obtaining samples in the monitoring report.

## I. REPORTING

### 1. Semiannual Reports

The Discharger shall report monitoring data and information as required in this MRP and as required under WDRs Order No. \_\_\_ and the SPRR. Reports shall be submitted **semiannually**. Each semiannual monitoring report shall contain the following information:

- a. Compliance Summary  
 A compliance summary for the monitoring period as specified in the Standard Provisions. See Requirement 1, *Reports to be Filed with the Board, REPORTING REQUIREMENTS, SPRR*
- b. Table of Contents  
 A table of contents that, at a minimum, identifies the major sections of the report that contain the information required under this Order (e.g., chapter and page numbers).
- c. Standard Observations and Facility Monitoring
  - i. A summary and certification of the completion of all Standard Observations. See Requirement 2h, *Reports to be Filed with the Board, REPORTING REQUIREMENTS, SPRR*.
  - ii. A summary of the results of facility monitoring, including any significant damage noted and/or repairs conducted. If no inspection and/or repairs were conducted, the report shall so state, providing the reason and circumstances (e.g., no significant storm event during monitoring period).

Documentation of the above shall be provided in an appendix to the report, as specified in Section I.1.h.i.

d. Landfill Control Systems

Provide monitoring results for leachate, LFG, soil gas, and storm water control systems.

- i. Tabular summary<sup>7</sup> and narrative discussion
- ii. Flag detected COCs for which there are exceedances in any water-bearing media

e. Unsaturated Zone Monitoring Results

Same general reporting format as for groundwater, including:

- i. Tabular summary<sup>3</sup> and narrative discussion
- ii. Appropriate plots and graphs, as applicable
- iii. Updated CLs and monitoring lists, as applicable

f. Groundwater Monitoring Results

i. Monitoring Points

- 1) Site map; and
- 2) Tabular summary; and/or
- 3) Geologic cross-section(s) based on installation logs, including well name or number; top casing elevation; total well depth; elevation and depth range of screened intervals/zones; water table elevation; and soil type within screened interval.

ii. Field Parameter Monitoring

- 1) Tabular summaries of the results of monitoring for the monitoring period.<sup>3</sup>
- 2) Groundwater elevation contour map(s) and/or flow net(s) showing gradient direction in the upper aquifer and any additional zone of saturation monitored;
- 3) A narrative discussion of the groundwater elevation monitoring results, including calculated gradient and flow velocity, times of highest and lowest elevations in the wells, and separation from wastes.

iii. Background Monitoring

1) Data Screening

- ⇒ Identify outliers
- ⇒ Identify trends or other data disparities

2) Tabular summary<sup>3</sup> and narrative discussion

3) Plots and Other Graphical Methods<sup>8</sup>

- ⇒ Time series plots

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7. Tables of water quality monitoring data shall include appropriate headers and show monitoring point, sampling date, chemical group, constituent, units, analytical result, laboratory limits (MDL and PQL), exceedance flag, data type (statistical or nonstatistical), and updated CL. Nondetect results shall be shown relative to detection limit (e.g., "<0.3").

8. Scale plots for the range of data shown after excluding outliers. All plotted lines and symbols should be clearly discernible and distinguishable.

- ⇒ Other graphical methods
- 4) Updated CLs
  - ⇒ Describe or reference procedure for determining/updating CLs
  - ⇒ Provide or reference list of updated CLs
- iv. Compliance Monitoring -- Detection
  - 1) Tabular summary of results<sup>3</sup>
  - 2) Narrative discussion of results
    - ⇒ New exceedances and results of confirmation testing
    - ⇒ Exceedances in other source media (e.g., LFG)
    - ⇒ Potentially related exceedances (e.g., parent or daughter compounds)
  - 3) Whether there was physically significant evidence of a release during monitoring period (e.g., sump leak)
  - 4) Updated detection monitoring parameter list (e.g., based on detection and COC monitoring results)
- v. Compliance Monitoring -- Corrective Action
  - 1) Evaluate nature and extent of impacts
    - ⇒ Tabular summary of results<sup>3</sup>
    - ⇒ Narrative discussion of results
      - Continuing exceedances
      - Exceedances in other source media (e.g., LFG)
    - ⇒ Water chemistry analysis, including cation/anion balance and illustrative plots (e.g., Piper, Trilinear, Schueller, and/or Stiff plot)
    - ⇒ Potential onsite and offsite source(s)
    - ⇒ Contaminant contour maps for representative constituents
  - 2) Evaluate corrective action progress and effectiveness
    - ⇒ Plots and graphs
      - Time series plots for representative constituents at representative monitoring points<sup>9</sup>
      - Trend evaluation using graphical methods (e.g., best fit, Mann-Kendall, Sen's Slope)<sup>10</sup>
    - ⇒ Narrative Discussion
      - Concentration trends
      - Changes in water quality chemistry
      - Effectiveness of corrective action measures (e.g., landfill cover, LFG controls)
      - Need for additional measures and/or monitoring wells.
- g. Surface Water Monitoring Results
  - Same general reporting format as for groundwater

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9. Time series plot required for each constituent for which there are three or more data points, including nondetect values.

10. Trend evaluation required for each constituent with four or more data points above the PQL.

- i. Tabular summary<sup>3</sup> and narrative discussion
  - ii. Plots and graphs, as applicable
  - iii. Updated CLs and monitoring lists, as applicable
- h. Appendix Items
- i. Standard Observations and Facility Monitoring Results
    - 1) Field logs,
    - 2) Site map showing location of area of concern
    - 3) Photos (e.g., before and after repairs)
  - ii. Field meter calibration logs;
  - iii. Field and laboratory test sheets;
  - iv. Copies of other relevant reports or data (e.g., results of soil gas/LFG monitoring required by Local Enforcement Agency); and
  - v. Compact disk (CD), including:
    - 1) Copy of monitoring report in (preferably combined) PDF format
    - 2) Excel spreadsheet of monitoring data for monitoring period

## 2. **Annual Monitoring Summary Report**

An Annual Monitoring Summary Report (Annual Report) summarizing monitoring results for the prior year shall also be prepared and submitted in accordance with this Order, including the MRP and Standard Provisions (Requirement 4, *Reports to be Filed with the Board, REPORTING REQUIREMENTS*, SPRR). The report may be submitted as part of the Second Semiannual Report for each year. The Annual Report shall include the following information:

- a. A table of contents (as above) and a written summary of the monitoring results for the year, indicating any changes made or observed since the previous annual report.
- b. A comprehensive discussion of the compliance record, including any necessary repairs, improvements, and/or corrective action measures implemented or planned to bring the Discharger into full compliance with the WDRs and WQPS.
- c. Tabular and graphical summaries of the results of the prior year, including, representative time series plots.
- d. A summary of the results of water chemistry analysis of water quality data collected during the prior year.
- e. Appendix Items
  - i. A copy of the Sample Collection and Analysis Plan (updated as necessary, per WDR Monitoring Specification E.26 and the Standard Provisions (Requirement 1, *General, Provisions for Monitoring*, SPRR).
  - ii. A copy of the most recent aerial topographic survey map for the site. (First aerial survey required to be performed by **31 December 2011** per WDR Postclosure Specification C.5).
  - iii. Electronic copies of the following on CD
    - 1) Historical monitoring data collected under this and previous MRPs  
⇒ Provide in a tabular format necessary for statistical analysis (e.g.,

Excel) per Section 40420(h)

- ⇒ Provide for all control systems (i.e., leachate, LFG, and storm water); media (i.e., surface water, unsaturated zone, and groundwater); and monitoring programs (i.e., background, detection, and corrective action)
- ⇒ Provide for field parameter monitoring, including groundwater elevation and estimated flow direction and gradient);
- ⇒ Provide for at least previous 10 years (or for as long as monitoring has been conducted at a given monitoring point).
- ⇒ Organize tables as specified in Footnote 7.

2) The monitoring report in (preferably combined) PDF format.

iv. Evidence to the Regional Board's Executive Officer that acceptable financial assurance instrument(s) have been provided for closure, post-closure, and corrective action.

**3. COC Monitoring Report**

The five-year COC monitoring report shall be submitted in the semiannual report for the monitoring period in which five-year COC sampling was conducted. The COC monitoring report shall be submitted by the applicable due date specified in Table I.5 below. Consistent with Section G.3.c.iii above, the first COC Monitoring Report under this Order shall be submitted by **31 January 2012**.

**4. Other Reports**

- a. Notifications -- Required notifications under Title 27 (e.g., tentative release, leachate seep, extended repairs) shall be submitted within 7 days of event unless otherwise specified under this Order or the Standard Provisions.
- b. Updated WQPS Report -- shall be submitted concurrent with, or as part of, the next semiannual monitoring report due after submission of the five-year COC monitoring report above. The updated WQPS Report shall be submitted by the applicable due date specified in Table I.5 below. Per WDR Provision G.7.b, the first WQPS Report under this Order shall be submitted by **31 July 2012**.

**5. Reporting Schedule**

The semiannual and annual reports shall be submitted to the Board in accordance with the following schedule for the calendar period in which samples were taken or observations made:

**Table I.5**

<u>Report</u>	<u>End of Reporting Period</u>	<u>Date Report Due</u>
First Semiannual	30 June	<b>31 July</b>
Second Semiannual	31 December	<b>31 January</b>
Annual Report	31 December	<b>31 January</b>

Reports that do not comply with the above-required format will be **REJECTED** and the Discharger shall be deemed to be in noncompliance with the WDRs.

The Discharger shall implement the above monitoring program on the effective date of this Program. The transmittal letter accompanying monitoring reports submitted under this

Order shall, as required under the SPRR (Provision 5, *General Requirements, REPORTING REQUIREMENTS*), contain a statement by the discharger, or the discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate and complete.

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

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

Attachments  
JDM: 10 May 2011

**Table J.1  
 Groundwater Monitoring Schedules**

**A. Field Parameter Monitoring<sup>1</sup>**

All Wells

<u>Monitoring Parameter</u>	<u>Units</u>	<u>Frequency</u>	<u>Data Analysis</u>
Dissolved Oxygen (DO)	%	Quarterly	n/a
Elevation, Groundwater	Feet MSL	Quarterly	n/a
Oxidation-Reduction (Redox) Potential	millivolts	Quarterly	n/a
pH	pH units	Quarterly	n/a
Specific Conductance	µMhos/cm	Quarterly	n/a
Temperature	°C, °F	Quarterly	n/a
Turbidity	NTU	Quarterly	n/a

1. Field parameter monitoring shall be conducted concurrent with other required groundwater monitoring programs under this Order.

**B. Compliance Monitoring**

**a. Detection<sup>1,2</sup>**

Background and Point of Compliance Wells

<u>Monitoring Parameter</u>	<u>Units</u>	<u>Frequency</u>	<u>Data Analysis</u>
<i>General Parameters:</i>			
Dissolved Oxygen (DO)	%	Semiannually	Statistical
<i>General Minerals:</i>			
<i>Major Anions:</i>			
Nitrate – Nitrogen	mg/L	Annually	Statistical
<i>Major Cations:</i>			
Magnesium	mg/L	Annually	Statistical
Potassium	mg/L	Annually	Statistical
<i>Dissolved Metals:<sup>3</sup></i>			
<i>Common:</i>			
Iron	µg/L	Annually	Nonstatistical
Manganese	µg/L	Annually	Nonstatistical
<i>Heavy:</i>			
Arsenic	µg/L	Annually	Nonstatistical

VOCs:<sup>4</sup>

*Alcohols:*

Tert-Amyl methyl ether	µg/L	Semiannually	Nonstatistical
Tert-Butyl alcohol	µg/L	Semiannually	Nonstatistical
tert-Butyl ethyl ether	µg/L	Semiannually	Nonstatistical
Isobutyl alcohol	µg/L	Semiannually	Nonstatistical
di-Isopropyl ether	µg/L	Semiannually	Nonstatistical
Methyl tert-butyl ether (MtBE)	µg/L	Semiannually	Nonstatistical

*Benzene Compounds:*

*BTEX*

Benzene	µg/L	Semiannually	Nonstatistical
Ethylbenzene	µg/L	Semiannually	Nonstatistical
Toluene	µg/L	Semiannually	Nonstatistical
Xylenes (total)	µg/L	Semiannually	Nonstatistical

*Halogenated, Common:*

1,1-Dichloroethane (1,1-DCA)	µg/L	Semiannually	Nonstatistical
1,2-DCA	µg/L	Semiannually	Nonstatistical
1,1-DCE	µg/L	Semiannually	Nonstatistical
Tetrachloroethene (PCE)	µg/L	Semiannually	Nonstatistical
1,1,1-Trichloroethane (TCA)	µg/L	Semiannually	Nonstatistical
1,1,2-TCA	µg/L	Semiannually	Nonstatistical
Trichloroethene (TCE)	µg/L	Semiannually	Nonstatistical
1,1,1,2-Tetrachloroethane	µg/L	Semiannually	Nonstatistical
1,1,2,2-Tetrachloroethane	µg/L	Semiannually	Nonstatistical
Vinyl chloride	µg/L	Semiannually	Nonstatistical

*Industrial Solvents, Common :*

Carbon disulfide	µg/L	Semiannually	Nonstatistical
Methyl ethyl ketone (MEK: 2-Butanone)	µg/L	Semiannually	Nonstatistical

*Interferences, Common:*

Acetone	µg/L	Semiannually	Nonstatistical
Methyl bromide (Bromomethene)	µg/L	Semiannually	Nonstatistical
Methylene chloride	µg/L	Semiannually	Nonstatistical

1. Detection monitoring shall be conducted concurrent with other required groundwater monitoring programs under this Order.
2. Detection Monitoring Program shall include background monitoring required to meet detection monitoring goals/performance standards per WDR Monitoring Specification E.8.
3. Samples shall be filtered prior to performing dissolved inorganics analysis.
4. Unknown chromatographic peaks shall be reported, along with an estimate of the concentration of the unknown analyte per Provision 7, Sampling and Analytical Methods, Provisions For Monitoring, SPRR.

**b. Corrective Action<sup>1, 2</sup>**

Background and Compliance Wells

<u>Monitoring Parameter</u>	<u>Units</u>	<u>Frequency</u>	<u>Data Analysis</u>
<i>General Parameters:</i>			
Alkalinity, Total	mg/L	Semiannually	Statistical
Chemical Oxygen Demand (COD)	mg/L	Semiannually	Statistical
Specific Conductance	µMhos/cm	Semiannually	Statistical
Total Dissolved Solids (TDS)	mg/L	Semiannually	Statistical
Total Hardness	mg/L	Semiannually	Statistical
<i>General Minerals:</i>			
<i>Major Anions:</i>			
Bicarbonate Alkalinity	mg/L	Semiannually	Statistical
Chloride	mg/L	Semiannually	Statistical
Sulfate	mg/L	Semiannually	Statistical
<i>Major Cations:</i>			
Calcium	mg/L	Semiannually	Statistical
Sodium	mg/L	Semiannually	Statistical
<i>VOCs:<sup>3</sup></i>			
<i>Benzene Compounds, Other:</i>			
p-Dichlorobenzene (1,4-DCB)	µg/L	Semiannually	Nonstatistical
<i>CFCs:</i>			
Carbon Tetrachloride (CFC-10)	µg/L	Semiannually	Nonstatistical
Chloroform (CFC-20)	µg/L	Semiannually	Nonstatistical
Dichlorodifluoromethane (CFC-12)	µg/L	Semiannually	Nonstatistical
Trichlorofluoromethane (CFC-11)	µg/L	Semiannually	Nonstatistical
<i>Halogenated, Common:</i>			
Cis-1,2- Dichloroethene (DCE)	µg/L	Semiannually	Nonstatistical

1. Corrective action monitoring shall be conducted concurrent with other required groundwater monitoring programs under this Order.
2. Corrective action monitoring program shall include background monitoring required to meet corrective action monitoring goals/performance standards per WDR Monitoring Specification E.13.
3. Unknown chromatographic peaks shall be reported, along with an estimate of the concentration of the unknown analyte per Provision 7, Sampling and Analytical Methods, Provisions For Monitoring, SPRR.

**c. COC Monitoring<sup>1,2</sup>**

All Wells

<u>Monitoring Parameter</u>	<u>Units</u>	<u>Frequency</u>	<u>Data Analysis</u>
All Table J.2 COCs not listed In Tables J.1.a and b above.	See Table J.2	Every 5 years	Statistical/ Nonstatistical

- 
1. COC monitoring shall be conducted concurrent with other required groundwater monitoring programs under this Order.
  2. COC monitoring program shall include background monitoring required to meet COC monitoring goals/performance standards per WDR Monitoring Specification E.16.

**Table J.2**  
**Constituents of Concern (COCs),**  
**Approved USEPA Analytical Methods, & Concentration Limits**

<u>Constituent of Concern</u>	<u>USEPA Test Method</u>	<u>Concentration Limit</u>		
		Unsaturated Zone <sup>3</sup>	Ground-water	Surface Water <sup>4</sup>
<b>A. Inorganic COCs</b>				
<i>General Parameters (mg/L, except as noted):</i>				
Alkalinity, Total	2320B	----	290 <sup>2,3</sup>	----
Chemical Oxygen Demand (COD)	410.4	----	16 <sup>1</sup>	----
Dissolved Oxygen, %	360.1			
pH, pH units	150.1			
Specific Conductance, µMhos/cm	120.1			
Total Dissolved Solids (TDS)	2540C	----	443 <sup>2,3</sup>	----
Total Hardness	2340B	----	---- <sup>3</sup>	----
<i>General Minerals, mg/L:</i>				
<i>Major Anions</i>				
Alkalinity, Bicarbonate	2310B	----	290 <sup>2,3</sup>	----
Chloride	300	----	86 <sup>1</sup>	----
Sulfate	300	----	30 <sup>1</sup>	----
Nitrate – Nitrogen	300	----	2 <sup>1</sup>	----
<i>Major Cations:</i>				
Calcium	200.7/6010	----	---- <sup>3</sup>	----
Sodium	200.7/6010	----	---- <sup>3</sup>	----
Magnesium	200.7/6010	----	28 <sup>1</sup>	----
Potassium	200.7/6010	----	---- <sup>3</sup>	----
<i>Dissolved Metals, µg/L:</i>				
<i>Common:</i>				
Iron	200.9/200.8	----	PQL	----
Manganese	200.7/6010	----	PQL	----
Aluminum	200.7/6010	----	210 <sup>1</sup>	----
Barium	200.7/6010	----	90 <sup>1</sup>	----
Sulfide	9030	----	750 <sup>1</sup>	----
<i>Heavy:</i>				
Arsenic	200.9/200.8	----	PQL	----
Cadmium	200.7/6010	----	PQL	----



sec-Butlybenzene  
tert-Butlybenzene  
Bromobenzene  
Chlorobenzene  
1,2,4-Trimethylbenzene  
1,3,5-Trimethylbenzene  
n-Propylbenzene  
o-Dichlorobenzene (1,2-DCB)  
m-Dichlorobenzene (1,3-DCB)  
1,2,4-Trichlorobenzene  
Bromochloromethane  
Bromodichloromethane  
Bromoform (Tribromomethane)  
Chloroethane  
1,2-Dibromoethane (Ethylene  
dibromide; EDB)  
Dibromochloromethane  
(Chlorodibromomethane)  
trans-1,2-DCEMethyl chloride  
(Chloromethane)  
p-Dichlorobenzene (1,4-DCB)

*CFCs:*

Carbon Tetrachloride (CFC-10)  
Chloroform (CFC-20)  
Dichlorodifluoromethane (CFC-12)  
Trichlorofluoromethane (CFC-11)

*Hologenated:*

*Common:*

Cis-1,2- Dichloroethene (DCE)  
Trans-1,2-DCE  
1,1-DCE  
1,1-Dichloroethane (1,1-DCA)  
1,2-DCA  
Tetrachloroethene (PCE)  
1,1,1-Trichloroethane (TCA)  
1,1,2-TCA  
Trichloroethene (TCE)  
1,1,1,2-Tetrachloroethane

1,1,2,2-Tetrachloroethane

Vinyl chloride

*Other:*

Bromochloromethane

Bromodichloromethane

Bromoform (Tribromomethane)

Chloroethane

1,2-Dibromoethane (Ethylene  
dibromide; EDB)

Dibromochloromethane  
(Chlorodibromomethane)

Methyl chloride (Chloromethane)

*Industrial Solvents, Common:*

Carbon disulfide

Methyl ethyl ketMethyl ethyl ketone  
(MEK: 2-Butanone)one (MEK:  
2-Butanone)

*Interferences, Common:*

Acetone

Methyl bromide (Bromomethene)

Methylene chloride

*Miscellaneous:*

Acetonitrile

Acrolein

Acrylonitrile

Chloroprene

trans-1,4-Dichloro-2-butene

Ethyl methacrylate

Hexachlorobutadiene

Hexachloroethane

2-Hexanone (Methyl butyl ketone)

Iodomethane (Methyl iodide)

Methacrylonitrile

Methylene bromide  
(Dibromomethane)

4-Methyl-2-pentanone (Methyl  
isobutylketone)

Naphthalene

2-Nitropropane

Propionitrile

Styrene

*Props:*

1,2-Dichloropropane

1,3-Dichloropropane

2,2-Dichloropropene

1,1-Dichloropropene

cis- 1,3-Dichloropropene

1,2,3-Trichloropropane

1,2-Dibromo-3-chloropropane

trans-1,3-Dichloropropene

3-Chloropropene (Allyl chloride)

*Other Organic COCs:*

<i>Semi-VOCs, µg/L:</i>	8270B <sup>5</sup>	MDL	MDL	MDL
Acenaphthene				
Acenaphthylene				
Acetophenone				
2-Acetylaminofluorene (2-AAF)				
4-Aminobiphenyl				
Anthracene				
Benzo[a]anthracene (Benzanthracene)				
Benzo[b]fluoranthene				
Benzo[k]fluoranthene				
Benzo[g,h,i]perylene				
Benzo[a]pyrene				
Benzyl alcohol				
Bis(2-ethylhexyl) phthalate				
Bis(2-chloroethoxy)methane				
Bis(2-chloroethyl) ether (Dichloroethyl ether)				
Bis(2-chloro-1-methylethyl) ether (Bis(2-chloroisopropyl) ether; DCIP)				
4-Bromophenyl phenyl ether				
Butyl benzyl phthalate (Benzyl butyl phthalate)				
p-Chloroaniline				
p-Chloro-m-cresol (4-Chloro-3-methylphenol)				
2-Chloronaphthalene				
2-Chlorophenol				
4-Chlorophenyl phenyl ether				
Chrysene				
o-Cresol (2-methylphenol)				

m-Cresol (3-methylphenol)  
p-Cresol (4-methylphenol)  
Dibenz[a,h]anthracene  
Dibenzofuran  
Di-n-butyl phthalate  
3,3'-Dichlorobenzidine  
2,4-Dichlorophenol  
2,6-Dichlorophenol  
Diethyl phthalate  
p-(Dimethylamino)azobenzene  
7,12-Dimethylbenz[a]anthracene  
3,3'-Dimethylbenzidine  
2,4-Dimethylphenol (m-Xylenol)  
Dimethyl phthalate  
m-Dinitrobenzene  
4,6-Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)  
2,4-Dinitrophenol  
2,4-Dinitrotoluene  
2,6-Dinitrotoluene  
Di-n-octyl phthalate  
Diphenylamine  
Ethyl methanesulfonate  
Famphur  
Fluoranthene  
Fluorene  
Hexachlorobenzene  
Hexachloropropene  
Indeno(1,2,3-c,d)pyrene  
Isophorone  
Isosafrole  
Kepone  
Methapyrilene  
3-Methylcholanthrene  
Methyl methanesulfonate  
2-Methylnaphthalene  
1,4-Naphthoquinone  
1-Naphthylamine  
2-Naphthylamine  
o-Nitroaniline (2-Nitroaniline)  
m-Nitroaniline (3-Nitroaniline)  
p-Nitroaniline (4-Nitroaniline)  
Nitrobenzene

o-Nitrophenol (2-Nitrophenol)  
 p-Nitrophenol (4-Nitrophenol)  
 N-Nitrosodi-n-butylamine (Di-n-butylNitrosamine)  
 N-Nitrosodiethylamine (DiethylNitrosamine)  
 N-Nitrosodimethylamine (DimethylNitrosamine)  
 N-Nitrosodiphenylamine (DiphenylNitrosamine)  
 N-Nitrosodipropylamine (N-Nitroso-N-dipropylamine; Di-n-propylNitrosamine)  
 N-Nitrosomethylethylamine (MethylethylNitrosamine)  
 N-Nitrosopiperidine  
 N-Nitrosopyrrolidine  
 5-Nitro-o-toluidine  
 Pentachlorobenzene  
 Pentachloronitrobenzene (PCNB)  
 Pentachlorophenol  
 Phenacetin  
 Phenanthrene  
 Phenol  
 p-Phenylenediamine  
 Polychlorinated biphenyls (PCBs; Aroclors)  
 Pronamide  
 Pyrene  
 Safrole  
 1,2,4,5-Tetrachlorobenzene  
 2,3,4,6-Tetrachlorophenol  
 o-Toluidine  
 2,4,5-Trichlorophenol  
 0,0,0-Triethyl phosphorothioate  
 sym-Trinitrobenzene

<i>Organochlorine Pesticides:</i>	8081A	MDL	MDL	MDL
Aldrin				
α-BHC				
β-BHC				
γ-BHC (Lindane)				
δ-BHC				
Chlorobenzilate				
α-Chlordane				
γ-Chlordane				
Chlordane – not otherwise specified				
DBCP				
4,4'-DDD				
4,4'-DDE				

4,4'-DDT				
Diallate				
Dieldrin				
Endosulfan I				
Endosulfan II				
Endosulfan sulfate				
Endrin				
Endrin aldehyde				
Endrin ketone				
Heptachlor				
Heptachlor epoxide				
Hexachlorocyclopentadiene				
Isodrin				
Methoxychlor				
Toxaphene				
<i>Polychlorinated Biphenols:</i>	8082	MDL	MDL	MDL
Aroclor 1016				
Aroclor 1221				
Aroclor 1232				
Aroclor 1242				
Aroclor 1248				
Aroclor 1254				
Aroclor 1260				
<i>Organophosphorus Pesticides:</i>	8141A	MDL	MDL	MDL
Chlorpyrifos				
Diazinon				
Dimethioate				
Disulfoton				
Ethion				
Famphur				
Malathion				
Parathion				
Parathion-ethyl				
Parathion-methyl				
Phorate				
<i>Chlorinated Herbicides:</i>	8151A	MDL	MDL	MDL
2,4-D (2,4-Dichlorophenoxyacetic acid)				
Dicamba				
Dinoseb (DNBP; 2-sec-Butyl-4,6-dinitrophenol)				
MCPA				

## MCPP

Silvex (2,4,5-Trichlorophenoxypropionic acid; 2,4,5-TP)

2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)

Pentachlorophenol

- 
1. Interim statistical CLs calculated for this constituent.
  2. Interim CL set equal to 1.5 x highest historical concentration, excluding outlier(s).
  3. Insufficient historical monitoring data to calculate statistical CLs for this constituent.
  4. Interim/default CL shall equal upstream monitoring result updated each monitoring period.
  5. USEPA Method 8270 - base, neutral, & acid extractables.