

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

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364 Knollcrest Drive #205  
Redding, CA 96002

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

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**[TENTATIVE] MONITORING & REPORTING PROGRAM  
R5-2020-####**

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**ORDER INFORMATION**

**Order Type(s):** Monitoring & Reporting Program (MRP)  
**Status:** Administrative Draft  
**Program:** Title 27  
**Region 5 Office:** Sacramento (Rancho Cordova)  
**Discharger(s):** Aerojet Rocketdyne, Inc.  
**Facility:** White Rock North Dump and Aerojet Waste Consolidation Unit Landfill  
**Address:** 12353 White Rock Road  
**County:** Sacramento County  
**Parcel Nos.:** 072-0100-020  
**WDID:** 5A34NC00106  
**Prior Order(s):** CAO 96-150

## 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 \_\_\_\_\_ December 2020.

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PATRICK PULUPA,  
Executive Officer

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WHITE ROCK NORTH DUMP AND AEROJET WASTE CONSOLIDATION UNIT LANDFILL

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|                       |       |  |
|-----------------------|-------|--|
| <b>AMR</b>            | ..... | Annual Monitoring Report   |
| <b>AWCU</b>           | ..... | Aerojet Waste Consolidation Unit   |
| <b>CalRecycle</b>     | ..... | California Department of Resources Recycling and Recovery  |
| <b>CAMP</b>           | ..... | Corrective Action Monitoring Program   |
| <b>CAO</b>            | ..... | Cleanup and Abatement Order  |
| <b>C.F.R.</b>         | ..... | Code of Federal Regulations  |
| <b>CIWQS</b>          | ..... | California Integrated Water Quality System Project   |
| <b>COCs</b>           | ..... | Constituents of Concern  |
| <b>DMP</b>            | ..... | Detection Monitoring Program   |
| <b>DWR</b>            | ..... | California Department of Water Resources   |
| <b>EC</b>             | ..... | Electrical Conductivity  |
| <b>ELAP</b>           | ..... | State Water Board's Environmental Laboratory Accreditation Program (formerly administered by California Department of Public Health) |
| <b>EMP</b>            | ..... | Evaluation Monitoring Program  |
| <b>EW</b>             | ..... | Extraction Well  |
| <b>Five-Year COCs</b> | ..... | Five-Year Constituents of Concern  |
| <b>GeoTracker</b>     | ..... | State Water Board's Data Management System for Sites with Potential Groundwater Impact   |
| <b>GP</b>             | ..... | Gas Probe  |
| <b>LCRS</b>           | ..... | Leachate Collection and Removal System   |
| <b>LF</b>             | ..... | Landfill   |
| <b>LFG</b>            | ..... | Landfill Gas   |

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**GLOSSARY**

|                                     |   |
|-------------------------------------|---|
| <b>MDL</b> .....                    | Method Detection Limit  |
| <b>Method TO-15 VOCs</b> .....      | Volatile Organic Compounds associated with USEPA Method TO-15   |
| <b>MRP</b> .....                    | Monitoring and Reporting Program  |
| <b>MSW</b> .....                    | Municipal Solid Waste   |
| <b>MSWLF</b> .....                  | Municipal Solid Waste Landfill  |
| <b>N/A</b> .....                    | Not Applicable  |
| <b>PID</b> .....                    | Photo Ionization Detector   |
| <b>POC</b> .....                    | Point of Compliance for Water Quality Protection Standard   |
| <b>QA/QC</b> .....                  | Quality Assurance/Quality Control   |
| <b>Qualified Professional</b> ..... | Professional Civil Engineer, Certified Engineering Geologist, or Professional Geologist licensed by the State of California |
| <b>RCRA</b> .....                   | Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq.  |
| <b>RL</b> .....                     | Reporting Limit   |
| <b>ROWD / JTD</b> .....             | Report of Waste Discharge / Joint Technical Document  |
| <b>SAP</b> .....                    | Sampling and Analysis Plan  |
| <b>SPG</b> .....                    | Soil Pore Gas   |
| <b>SPL</b> .....                    | Soil Pore Liquid  |
| <b>SI</b> .....                     | Surface Impoundment   |
| <b>SMR</b> .....                    | Semiannual Monitoring Report  |

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**GLOSSARY**

**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

**WRND** ..... White Rock North Dump

**UNITS**

**ft<sup>3</sup> / min** ..... Cubic Feet per Minute

**°F** ..... Degrees Fahrenheit

**Gallons/Day** ..... Gallons per Day

**mg/L** ..... Milligrams per Liter

**ng/L** ..... Nanograms per Liter

**µg/L** ..... Micrograms per Liter

**µmhos/cm** ..... Microsiemens per Centimeter

**µg/cm<sup>3</sup>** ..... Micrograms per Cubic Centimeter

**NTUs** ..... Nephelometric Turbidity Units

**% Vol.** ..... Percent by Volume

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**GLOSSARY**

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

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

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## 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 Aerojet Rocketdyne, Inc.(Discharger), which owns and operates the White Rock North Dump and Aerojet Waste Consolidation Unit Landfill (Facility) in Sacramento County. Additional information regarding the Facility is set forth in the enumerated findings of Waste Discharge Requirements Order R5-2020-#### (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.

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## MONITORING & REPORTING PROGRAM

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

### A. General Provisions

- 1. Incorporation of Standard Provisions**—The Discharger shall comply with all relevant provisions of the *Standard Provisions and Reporting Requirements for Nonhazardous Solid Waste Discharges Regulated by Subtitle D and/or Title 27 Municipal Solid Waste Facilities, December 2015 Edition* (SPRRs or Standard Provisions), which are incorporated herein. See, e.g., SPRRs section I (*Standard Monitoring Specifications*) and section J (*Response to Release*).
- 2. Monitoring Provisions in WDRs Order**—The Discharger shall comply with all “Monitoring Provisions” in the Facility’s operative Title 27 WDRs Order, which are also incorporated herein.
- 3. Compliance with Title 27**—The Discharger shall comply with all of Title 27 provisions as they pertain to activities described in this MRP (including SPRRs).
- 4. Sampling and Analysis Plan (SAP)**—All samples shall be collected, preserved and transported in accordance with the approved Sampling and Analysis Plan (SAP) 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 and practical quantitation levels (MDLs) equal to or lower than the analytical methods specified in this MRP and are identified in the approved SAP. The SAP shall include provisions to ensure groundwater monitoring points and/or monitoring devices are Per- and polyfluoroalkyl substances (PFAS) free to the maximum extent possible. Installation of any new monitoring point and/or monitoring device shall be Per- and polyfluoroalkyl substances (PFAS) free unless the Discharger submits documentation as to why it is unable to install a PFAS free monitoring point or device and receives a waiver of the requirement in writing from Central Valley Water Board staff.

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**B. Detection Monitoring Program (DMP)**—To detect a release at the earliest possible time (see Title 27, § 20420, subd. (b)), the Discharger shall implement a Detection Monitoring Program (DMP) for groundwater, surface water and the unsaturated zone in accordance with the provisions of Title 27, particularly sections 20415 and 20420. Groundwater, unsaturated zone and surface water<sup>1</sup> detection monitoring networks shall be revised (as needed) 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**.<sup>2</sup> As of the date of this Order, the network meets the requirements of Title 27. (Title 27, § 20415, subd. (b).)

**Table 1—Groundwater Monitoring Network**

| Well | Program               | Monitored Unit | Zone/ Layer | Status  | Point of Compliance (WQPS) |
|------|-----------------------|----------------|-------------|---------|----------------------------|
| MW-1 | Background, Detection | AWCU 1A        | A           | Planned | Yes                        |
| MW-2 | Background, Detection | AWCU 1A        | A           | Planned | Yes                        |
| MW-3 | Background, Detection | AWCU 1A        | A           | Planned | Yes                        |
| MW-4 | Background, Detection | AWCU 1A        | A           | Planned | Yes                        |
| MW-5 | Background, Detection | AWCU 1A        | A           | Planned | Yes                        |

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

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

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| Well           | Program               | Monitored Unit | Zone/<br>Layer | Status  | Point of Compliance (WQPS) |
|----------------|-----------------------|----------------|----------------|---------|----------------------------|
| MW-6           | Background, Detection | AWCU 1A        | A              | Planned | Yes                        |
| MW-7           | Background, Detection | AWCU 1A        | A              | Planned | Yes                        |
| MW-8           | Background, Detection | AWCU 1A        | A              | Planned | Yes                        |
| MW-9           | Background, Detection | AWCU 1A        | A              | Planned | Yes                        |
| MW-10          | Background, Detection | AWCU 1A        | A              | Planned | Yes                        |
| MW-11 to MW-XX | Background, Detection | AWCU 1B-1F     | A              | Planned | Yes                        |

See Glossary for definitions of terms and abbreviations in table.

**Note:** The Discharger plans to construct AWCU phases 1B through 1F depending on how much transfer material is disposed of from the AWCU Service Area. As the Discharger constructs AWCU phases 1B through 1F the Discharger shall install sufficient number of point of compliance groundwater monitoring points MW-XX to provide earliest detection of a release of waste to groundwater in the uppermost aquifer for each phase of construction.

The Discharger has identified four distinct water bearing zones, Layers A through D beneath the Facility with Layer A being the uppermost aquifer as described in WDRs Order R5-2020-####. Layers A through D are concurrently regulated for a release from the Facility of trichloroethene (TCE) and an off-property release of perchlorate and N-Nitroso-dimethylamine (NDMA) under Central Valley Water Board Cleanup and Abatement Order (CAO) 96-150 or any subsequent amendments/revisions thereof.

- 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, subs. (e)-(f).)



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WHITE ROCK NORTH DUMP AND AEROJET WASTE CONSOLIDATION UNIT LANDFILL  
SACRAMENTO COUNTY**Table 2—Groundwater Detection Monitoring, Physical Parameters**

| Physical Parameter      | GeoTracker Code | Units    | Sampling Freq. | Reporting Freq. |
|-------------------------|-----------------|----------|----------------|-----------------|
| Temperature             | TEMP            | °F       | Quarterly      | Semiannually    |
| Electrical Conductivity | SC              | µmhos/cm | Quarterly      | Semiannually    |
| pH                      | PH              | pH Units | Quarterly      | Semiannually    |
| Turbidity               | TURB            | NTUs     | Quarterly      | Semiannually    |

See Glossary for definitions of terms and abbreviations in table.

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

| Constituent Parameter | GeoTracker Code | Units | AWCU Sampling Freq. | Reporting Freq. |
|-----------------------|-----------------|-------|---------------------|-----------------|
| Bicarbonate           | BICACO3         | mg/L  | Quarterly           | Semiannually    |
| Calcium               | CA              | mg/L  | Quarterly           | Semiannually    |
| Carbonate             | CACO3           | mg/L  | Quarterly           | Semiannually    |
| Chloride              | CL              | mg/L  | Quarterly           | Semiannually    |
| Iron                  | FE              | mg/L  | Quarterly           | Semiannually    |
| Magnesium             | MG              | mg/L  | Quarterly           | Semiannually    |
| Manganese             | MN              | mg/L  | Quarterly           | Semiannually    |
| Nitrate (as Nitrogen) | NO3N            | mg/L  | Quarterly           | Semiannually    |
| Potassium             | K               | mg/L  | Quarterly           | Semiannually    |
| Sodium                | NA              | mg/L  | Quarterly           | Semiannually    |
| Sulfate               | SO4             | mg/L  | Quarterly           | Semiannually    |
| TDS                   | TDS             | mg/L  | Quarterly           | Semiannually    |

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| Constituent Parameter          | GeoTracker Code | Units | AWCU Sampling Freq. | Reporting Freq. |
|--------------------------------|-----------------|-------|---------------------|-----------------|
| Short List VOCs (Attachment A) | (various)       | µg/L  | Quarterly           | Semiannually    |
| Perchlorate                    | PCATE           | ug/L  | Quarterly           | Semiannually    |
| N-Nitrosodimethylamine (NDMA)  | NNSM            | ng/L  | Quarterly           | Semiannually    |

See Glossary for definitions of terms and abbreviations in table.

- c. **Five-Year COCs**—The Discharger shall analyze for groundwater samples from each well for the Five-Year Constituents of Concern (Five-Year COCs) listed in **Table 4**. Five-Year COCs were last monitored in 2020, and shall be analyzed again in 2025, and every five years after. (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.

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

**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    |
| Hydraulic Conductivity    | (none)          | Quarterly        | Semiannually    |

## 2. Unsaturated Zone

- a. **Required Network**—The Facility's unsaturated zone monitoring network consists of lysimeters, and landfill gas monitoring points specified in **Table 6**. As of the date of this Order, the network meets the requirements of Title 27. (Title 27, § 20415, subd. (d).)

**Table 6—Unsaturated Zone Monitoring Network**

| Monitoring Point | Device Type   | Program   | Monitored Unit | Status  |
|------------------|---------------|-----------|----------------|---------|
| LYS-1A           | Pan Lysimeter | Detection | AWCU Phase 1A  | Planned |
| LYS-1B           | Pan Lysimeter | Detection | AWCU Phase 1B  | Planned |
| LYS-1C           | Pan Lysimeter | Detection | AWCU Phase 1C  | Planned |
| LYS-1D           | Pan Lysimeter | Detection | AWCU Phase 1D  | Planned |

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

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| <b>Monitoring Point</b> | <b>Device Type</b> | <b>Program</b> | <b>Monitored Unit</b>                               | <b>Status</b> |
|-------------------------|--------------------|----------------|---|---------------|
| LYS-1E                  | Pan Lysimeter      | Detection      | AWCU Phase 1E                                       | Planned       |
| LYS-1F                  | Pan Lysimeter      | Detection      | AWCU Phase 1F                                       | Planned       |
| LFGP-1                  | Gas Probe          | Detection      | WRND  | Planned       |
| LFGP-2                  | Gas Probe          | Detection      | WRND  | Planned       |
| LFGP-3                  | Gas Probe          | Detection      | WRND  | Planned       |
| LFGP-4                  | Gas Probe          | Detection      | WRND  | Planned       |
| LFGP-5                  | Gas Probe          | Detection      | WRND  | Planned       |
| LFGP-6                  | Gas Probe          | Detection      | WRND  | Planned       |
| LFGP-7                  | Gas Probe          | Detection      | WRND  | Planned       |
| LFGP-8                  | Gas Probe          | Detection      | WRND  | Planned       |
| LFGP-9                  | Gas Probe          | Detection      | WRND  | Planned       |
| LFGP-10                 | Gas Probe          | Detection      | WRND  | Planned       |
| LFGP-11                 | Gas Probe          | Detection      | WRND  | Planned       |
| LFGP-12                 | Gas Probe          | Detection      | WRND  | Planned       |
| GCL-1A                  | Gas Probe          | Detection      | AWCU Phase 1A<br>Underlying Gas Collection<br>Layer | Planned       |
| GCL-1B                  | Gas Probe          | Detection      | AWCU Phase 1B<br>Underlying Gas Collection<br>Layer | Planned       |
| GCL-1C                  | Gas Probe          | Detection      | AWCU Phase 1C<br>Underlying Gas Collection<br>Layer | Planned       |

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| Monitoring Point | Device Type | Program   | Monitored Unit                                      | Status  |
|------------------|-------------|-----------|---|---------|
| GCL-1D           | Gas Probe   | Detection | AWCU Phase 1D<br>Underlying Gas Collection<br>Layer | Planned |
| GCL-1E           | Gas Probe   | Detection | AWCU Phase 1E<br>Underlying Gas Collection<br>Layer | Planned |
| GCL-1F           | Gas Probe   | Detection | AWCU Phase 1F<br>Underlying Gas Collection<br>Layer | Planned |

See Glossary for definitions of terms and abbreviations in table.

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

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

| Constituent Parameter | GeoTracker Code | Units              | Sampling Freq. | Reporting Freq. |
|-----------------------|-----------------|--------------------|----------------|-----------------|
| Method TO-15 VOCs     | (various)       | µg/cm <sup>3</sup> | Quarterly      | Semiannually    |
| Methane               | CH <sub>4</sub> | %                  | Quarterly      | Semiannually    |

See Glossary for definitions of terms and abbreviations in table.

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

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

Note: Pan Lysimeters LYS-1B through LYS-1F may be combined depending on whether the AWCU phases share common LCRS sumps. Each installed LCRS sump shall have an unsaturated zone monitoring device in the form of a pan lysimeter installed directly below each LCRS sump and shall monitor the entire unsaturated zone below the LCRS sump. Also, gas probes LFPG-7 through LFPG-11 and LFPG-13 through LFPG-16 will be constructed at the point of compliance as the Discharger constructs phases 1B through 1F as needed for disposal of transfer material from the AWCU Service Area. Gas probes GCL-1B through GCL-1F may be combined depending on whether the AWCU phases share common LCRS sumps.

- c. **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 8 (Physical Parameters)** and **Table 9 (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. Any constituent in the Transfer Material verified to be present in a pan lysimeter shall be added to the monitoring parameters listed in Table 3 for groundwater detection and corrective action monitoring purposes.

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

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

See Glossary for definitions of terms and abbreviations in table.

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

| Constituent Parameter | GeoTracker Code | Units | Sampling Freq. | Reporting Freq. |
|-----------------------|-----------------|-------|----------------|-----------------|
| Bicarbonate           | BICACO3         | mg/L  | Quarterly      | Semiannually    |
| Calcium               | CA              | mg/L  | Quarterly      | Semiannually    |

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| Constituent Parameter                         | GeoTracker Code  | Units            | Sampling Freq. | Reporting Freq. |
|---|------------------|------------------|----------------|-----------------|
| Carbonate                                     | CACO3            | mg/L             | Quarterly      | Semiannually    |
| Chloride                                      | CL               | mg/L             | Quarterly      | Semiannually    |
| Iron  | FE               | mg/L             | Quarterly      | Semiannually    |
| Magnesium                                     | MG               | mg/L             | Quarterly      | Semiannually    |
| Manganese                                     | MN               | mg/L             | Quarterly      | Semiannually    |
| Nitrate (as Nitrogen)                         | NO3N             | mg/L             | Quarterly      | Semiannually    |
| Potassium                                     | K                | mg/L             | Quarterly      | Semiannually    |
| Sodium  | NA               | mg/L             | Quarterly      | Semiannually    |
| Sulfate                                       | SO4              | mg/L             | Quarterly      | Semiannually    |
| TDS   | TDS              | mg/L             | Quarterly      | Semiannually    |
| Short List VOCs<br>(Attachment A)             | <i>(various)</i> | µg/L             | Quarterly      | Semiannually    |
| Transfer Material<br>Compounds (Attachment G) | <i>(various)</i> | <i>(various)</i> | Quarterly      | Semiannually    |

See Glossary for definitions of terms and abbreviations in table.

- d. **Five-Year COCs**—Every five years, liquid from each pan lysimeter shall be analyzed for the Five-Year COCs listed below in **Table 10**. Five-Year COCs monitoring will begin when liquid is found in a lysimeter, and shall be analyzed every 5-years thereafter. (Title 27, § 20420, subd. (g).) Any five-year COC verified to be present in a lysimeter shall be added to the monitoring parameters listed in Table 3 for groundwater detection and corrective action monitoring purposes.

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Five-Year COCs**

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

See Glossary for definitions of terms and abbreviations in table.

3. **Surface Water**— Surface water drainage from the north of the Facility where the AWCU is located does not leave the Discharger's property but is captured in unlined inundation areas and either percolates to groundwater or evaporates. Surface water runoff from the AWCU that has come in contact with waste may percolate into groundwater which may be affected by a release (See Title 27, § 20415, subd. (c)(1).) Surface water drainage to the unlined inundation areas is monitored at monitoring points SW-3 through SW-5. Surface water from the south of the Facility originating from the WRND drains to an unnamed ditch and eventually to Morrison Creek, a tributary to the Sacramento River. Surface water drainage originating from the WRND from the north of the Facility may drain to an unnamed ditch and eventually to Buffalo Creek, a tributary to American River. Surface water monitoring for the WRND shall occur under Central Valley Water Board Cleanup and Abatement Order (CAO) 96-150 or any subsequent amendments/revisions/replacement thereto.
  - a. **Required Network**—The Facility's surface water monitoring network consists of the monitoring points listed in **Table 11**. As of the date of this Order, the network meets the requirements of Title 27. (See § 20415, subd. (c).)



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| Monitoring Point | Location                             | Program or Function | Monitored Unit | Status  |
|------------------|--------------------------------------|---------------------|----------------|---------|
| SW-3             | Drainage Ditch,<br>Northern Boundary | Detection           | AWCU           | Planned |
| SW-4             | Drainage Ditch,<br>Northern Boundary | Detection           | AWCU Phase 1A  | Planned |
| SW-5             | Drainage Ditch,<br>Northern Boundary | Detection           | AWCU Phase 1A  | Planned |

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 11 at any point during the monitoring period between 1 September and 31 May, samples shall be collected from each monitoring point and analyzed for the Monitoring Parameters in **Table 12** (*Physical Parameters*) and **Table 13** (*Constituent Parameters*), in accordance with the specified schedule. (Title 27, § 20420, subds. (e)-(f).)

**Table 12—Surface Water Detection Monitoring, Physical Parameters**

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

See Glossary for definitions of terms and abbreviations in table.

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Constituent Parameters**

| Constituent Parameter                            | GeoTracker Code  | Units            | Sampling Freq. (See Note Below) | Reporting Freq. |
|--|------------------|------------------|---------------------------------|-----------------|
| Bicarbonate                                      | BICACO3          | mg/L             | Varies                          | Semiannually    |
| Calcium  | CA               | mg/L             | Varies                          | Semiannually    |
| Carbonate  | CACO3            | mg/L             | Varies                          | Semiannually    |
| Chloride   | CL               | mg/L             | Varies                          | Semiannually    |
| Iron   | FE               | mg/L             | Varies                          | Semiannually    |
| Magnesium  | MG               | mg/L             | Varies                          | Semiannually    |
| Manganese  | MN               | mg/L             | Varies                          | Semiannually    |
| Nitrate (as Nitrogen)                            | NO3N             | mg/L             | Varies                          | Semiannually    |
| Potassium  | K                | mg/L             | Varies                          | Semiannually    |
| Sodium   | NA               | mg/L             | Varies                          | Semiannually    |
| Sulfate  | SO4              | mg/L             | Varies                          | Semiannually    |
| TDS  | TDS              | mg/L             | Varies                          | Semiannually    |
| TSS  | TSS              | mg/L             | Varies                          | Semiannually    |
| Short List VOCs<br>(Attachment A)                | <i>(various)</i> | µg/L             | Varies                          | Semiannually    |
| Transfer Material<br>Compounds<br>(Attachment G) | <i>(various)</i> | <i>(various)</i> | Varies                          | Semiannually    |

See Glossary for definitions of terms and abbreviations in table.

**Note:** The Discharger during the pre/post Wet Season (May, September, and October) shall monitor for the constituents listed in **Table 13** whenever there exists any portion of

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the AWCU which has not received a final closure cover and there is a surface water discharge from the AWCU outside of the AWCU waste containment system where there also exists liquid at monitoring points SW-3 through SW-5. During the **Wet Season (1 November - 30 April)** the Discharger shall monitor for the constituents listed in **Table 13** on a monthly basis whenever there exists any portion of the AWCU which has not received a final closure cover and there is a surface water discharge from the AWCU outside the AWCU waste containment system where there also exists liquid at monitoring points SW-3 through SW-5. All other monitoring points listed in **Table 11** shall be monitored for constituents listed in **Table 13** at least thrice during the wet season, when water is present at the monitoring points and spaced at least two months apart. Once the AWCU receives its final closure cover the Discharger shall monitor all monitoring points listed in **Table 11** for constituents in **Table 13** on a quarterly basis with a minimum of two samples taken per wet season.

- c. **Five-Year COCs**—The Discharger shall analyze surface water samples for the Five-Year COCs listed in **Table 14**. Five-Year COCs upon initiation of disposal operations in AWCU and the presence of surface water at monitoring points, and shall be analyzed again every five years thereafter. (Title 27, § 20420, subd. (g).)

**Table 14—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.

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

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

- a. **Compliance Period**—The “compliance period” is the minimum time for which a water quality monitoring will be required—i.e., equal to the sum of active years and the closure period. (Title 27, § 20410.) The period restarts each time an Evaluation Monitoring Program (EMP) is initiated for a given WMU. (*Id.*, §§ 20410(a), 20415, 20425.) If a WMU is in corrective action, the period continues until it is demonstrated that the WMU has been in continuous compliance with its WQPS for at least three years. (*Id.*, § 20410, subd. (c).)
- b. **Monitoring Points**—For WQPS purposes, a “monitoring point” is any well, device, or location where monitoring is conducted, and is specified in the Facility’s WDRs and subject to the WQPS. (Title 27, § 20164.) Monitoring Points are listed in **Section B** (*Detection Monitoring Program*)—specifically **Table 1** (*Groundwater*), **Table 6** (*Unsaturated Zone*) and **Table 11** (*Surface Water*).
- c. **Point of Compliance (POC)**—The Point of Compliance (POC) is a vertical plane at the WMU’s hydraulically downgradient limit, extending through the uppermost underlying aquifer. (Title 27, §§ 10164, 20405(a).) The Facility’s POC monitoring wells are listed below in **Table 1**.
- d. **Constituents of Concern (COCs)**—Constituents of Concern (COCs) are waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in a WMU. (Title 27, §§ 20164, 20395.)
- e. **Monitoring Parameters**—Monitoring Parameters are a predetermined set of COCs and measurable physical characteristics (e.g., temp., electrical conductivity, pH), which serve as reliable indicators of a WMU release, and for which samples will

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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 12 and Table 13;
  - ii. For **Groundwater**, those in Table 2 and Table 3; and
  - iii. For the **Unsaturated Zone**, those in Table 7, Table 8 and Table 9.
- f. **Five-Year COCs**—In addition to the Monitoring Parameters described above, this Order requires the *quinquennial analysis* of samples for a larger range of constituents that are reasonably expected to be found in, or derived from, the waste contained within each unit at the Facility. (Title 27, §§ 20395, 20420(g).) Analytical results for Five-Year COCs for WRND were last submitted to the Central Valley Water Board as part of the 2020 Annual Monitoring Report and are due again in 2025. Analytical results for Five-Year COCs for AWCU shall be submitted as part of its WQPS which shall be established prior to discharge of waste to the AWCU and every 5-years thereafter. 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 10** (*Unsaturated Zone*)
- g. **Concentration Limits**—The Concentration Limit for each COC is the “background concentration,” as determined by the statistical

methods outlined in subdivision (e)(8) of Title 27, section 20415.<sup>6</sup> (Title 27, § 20400, subds. (a), (b).) Methods for calculating Concentration Limits were proposed in the Discharger's ROWD/JTD. The Discharger proposes to use either inter-well or intra-well monitoring for detection of a release from the AWCU, based on the initial monitoring results. The Discharger is prohibited from disposal of Transfer Material in the AWCU unless the Discharger has established an approved WQPS including concentration limits for the AWCU.

Concentration Limits shall be proposed and/or updated by the Discharger every two years, in the Annual Monitoring Report submitted per **Section E.2** here.

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

- h. Retesting Procedures**—If monitoring results indicate measurably significant evidence of a release, as described in Section I.45 of the SPRRs (*Standard Monitoring Specifications*), the Discharger shall apply the following:
- i. **Non-Statistical Retesting Procedures (SPRRs, § I.46)** for analytes detected in less than 10 percent of background samples (e.g., non-naturally occurring COCs); and
  - ii. **Statistical Retesting Procedures (SPRRs, § I.46)** for analytes detected in at least 10 percent of background samples (e.g., naturally occurring COCs).

**C. Corrective Action Monitoring Program (CAMP)**—To demonstrate the effectiveness of ongoing 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. **WRND Corrective Action**— The WRND is currently under corrective action for an existing release and is being monitored under CAO 96-150 or any subsequent amendments/revisions/replacement thereof. The CAO requires the Discharger to monitor COCs in four distinct water bearing

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

zones, Layers A through D beneath the Facility. The Discharger shall report the results of the efforts to address the existing release from WRND in **Section E.2, Annual Monitoring Reports.**

**D. Additional Facility Monitoring**

1. **Leachate Collection & Removal System (LCRS) and Leak Detection System (LDS)**—The Discharger shall operate and maintain LCRS and LDS sump(s) and, 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 and LDS sumps shall be inspected monthly for the presence of leachate. As provided in **Table 15**, the total monthly flow and flow rate for leachate in each sump shall be recorded after each inspection and reported semiannually per **Section E.1.**

**Table 15—LCRS and LDS Sump Monitoring, Monthly Inspection Parameters**

| Physical Parameter | GeoTracker Code | Units       | Sampling Freq. | Reporting Freq. |
|--------------------|-----------------|-------------|----------------|-----------------|
| Total Monthly Flow | (none)          | Gallons     | Monthly        | Semiannually    |
| Flow Rate          | FLOW            | Gallons/Day | Monthly        | Semiannually    |

See Glossary for definitions of terms and abbreviations in table.

- c. **LCRS and LDS Leachate Monitoring**—Upon detecting leachate in a previously dry LCRS or LDS sump, the Discharger shall notify Central Valley Water Board staff **within seven days**, and immediately sample and analyze leachate for the parameters in

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**Table 16.**<sup>7</sup> Thereafter, whenever leachate is present in the same LCRS or LDS sump, the leachate shall be sampled and analyzed for the same parameters, and in accordance with the specified sampling and reporting schedule in **Table 16**.

**Table 16—LCRS and LDS Sump Monitoring, Constituent Parameters**

| Constituent Parameter          | GeoTracker Code | Units | Sampling Freq. | Reporting Freq. |
|--------------------------------|-----------------|-------|----------------|-----------------|
| Bicarbonate                    | BICACO3         | mg/L  | Quarterly      | Semiannually    |
| Calcium                        | CA              | mg/L  | Quarterly      | Semiannually    |
| Carbonate                      | CACO3           | mg/L  | Quarterly      | Semiannually    |
| Chloride                       | CL              | mg/L  | Quarterly      | Semiannually    |
| Iron                           | FE              | mg/L  | Quarterly      | Semiannually    |
| Magnesium                      | MG              | mg/L  | Quarterly      | Semiannually    |
| Manganese                      | MN              | mg/L  | Quarterly      | Semiannually    |
| Nitrate (as Nitrogen)          | NO3N            | mg/L  | Quarterly      | Semiannually    |
| Potassium                      | K               | mg/L  | Quarterly      | Semiannually    |
| Sodium                         | NA              | mg/L  | Quarterly      | Semiannually    |
| Sulfate                        | SO4             | mg/L  | Quarterly      | Semiannually    |
| TDS                            | TDS             | mg/L  | Quarterly      | Semiannually    |
| Short List VOCs (Attachment A) | (various)       | µg/L  | Quarterly      | Semiannually    |

<sup>7</sup> The sampling and reporting schedules in Table 16 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.



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| Constituent Parameter                      | GeoTracker Code | Units     | Sampling Freq. | Reporting Freq. |
|--|-----------------|-----------|----------------|-----------------|
| Transfer Material Compounds (Attachment G) | (various)       | (various) | Quarterly      | 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 all LCRS and LDS sumps for the Five-Year COCs listed in **Table 17**. Five-Year COCs shall be initially analyzed for when leachate production begins in a newly constructed WMU and is collected in any LCRS or LDS sump, and then shall be analyzed for five-year COCs on a five year schedule for each LCRS and LDS sump thereafter.

**Table 17—LCRS and LDS 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.

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2. **Leachate Seepage**—Leachate that seeps to the surface from any landfill WMU shall, immediately upon detection, be sampled and analyzed for the Monitoring Parameters in **Table 18 (Physical Parameters)** and **Table 19 (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 18—Leachate Seep Monitoring, Physical Parameters**

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

See Glossary for definitions of terms and abbreviations in table.

**Table 19—Leachate Seep Monitoring, Constituent Parameters**

| Constituent Parameter | GeoTracker Code | Units | Sampling Freq. | Reporting Freq. |
|-----------------------|-----------------|-------|----------------|-----------------|
| Bicarbonate           | BICACO3         | mg/L  | Upon Detection | See MRP, § E.3  |
| Calcium               | CA              | mg/L  | (same)         | (same)          |
| Carbonate             | CACO3           | mg/L  | (same)         | (same)          |
| Chloride              | CL              | mg/L  | (same)         | (same)          |
| Iron                  | FE              | mg/L  | (same)         | (same)          |
| Magnesium             | MG              | mg/L  | (same)         | (same)          |
| Manganese             | MN              | mg/L  | (same)         | (same)          |

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| Constituent Parameter                            | GeoTracker Code | Units     | Sampling Freq. | Reporting Freq. |
|--|-----------------|-----------|----------------|-----------------|
| Nitrate (as Nitrogen)                            | NO3N            | mg/L      | (same)         | (same)          |
| Potassium  | K               | mg/L      | (same)         | (same)          |
| Sodium   | NA              | mg/L      | (same)         | (same)          |
| Sulfate  | SO4             | mg/L      | (same)         | (same)          |
| TDS  | TDS             | mg/L      | (same)         | (same)          |
| Short List VOCs<br>(Attachment A)                | (various)       | µg/L      | (same)         | (same)          |
| Transfer Material<br>Compounds<br>(Attachment G) | (various)       | (various) | (same)         | (same)          |

See Glossary for definitions of terms and abbreviations in table.

3. **Regular Visual Inspection**—The Discharger shall perform regular visual inspections at the Facility in accordance with **Table 20 (Criteria)** and **Table 21 (Schedule)**. Results of these regular visual inspections shall be included in Semiannual Monitoring Reports per **Section E.1**.

**Table 20—Criteria for Regular Visual Inspections**

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

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| Category              | Criteria   |
|-----------------------|--|
| Unit Perimeter        | <ul style="list-style-type: none"> <li>Evidence of leachate seep.</li> <li>Estimated size of affected area (record on map) and flow rate.</li> <li>Evidence of erosion and/or of day-lighted refuse.</li> <li>Evidence of discharge of contact stormwater outside of the AWCU liner containment perimeter. The Discharger shall <b>immediately notify</b> the Central Valley Water Board via telephone or email; and <b>within seven days</b>, submit a written report with the information required in <b>Section E.3</b>.</li> </ul> |
| Nearby Surface Waters | <ul style="list-style-type: none"> <li>Floating and suspended materials of waste origin—presence or absence, source and size of affected areas.</li> <li>Discoloration and turbidity—description of color, source and size of affected areas.</li> </ul>   |

**Table 21—Regular Visual Inspection Schedule**

| Category                 | Pre/Post Wet Season (May, Sept., Oct) | Wet Season (1 Nov. to 30 April) | Dry Season (1 June to 31 Aug.) |
|--------------------------|---------------------------------------|---------------------------------|--------------------------------|
| Active Units             | Following Rain Event                  | Weekly                          | Monthly                        |
| Inactive or Closed Units | Monthly                               | Monthly                         | Quarterly                      |

- 4. Annual Facility Inspections**—Prior to **1 September** of each year, the Discharger shall inspect the Facility to assess repair and maintenance needs for drainage control systems, cover systems and groundwater monitoring wells; and preparedness for winter conditions (e.g., erosion and sedimentation control). The Discharger shall ensure that not more than 2.5 acres of Transfer Material is exposed to the environment during the months of September and October prior to the Wet Season. Furthermore, in the month of May, prior to the Dry Season the Discharger shall ensure that not more than 2.5 acres of Transfer Material is exposed to the environment where stormwater can produce wastewater runoff. The Discharger shall use tarps or other means to ensure that excessive contact stormwater is not produced which may exceed the Discharger's

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ability to collect, store, and dispose of such wastewater. A discharge of wastewater i.e., leachate outside of the AWCU's leachate management system is a violation of the Discharger's WDR Order R5-2020-XXXX. 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 **1 October**. See **Section E.4** for Reporting Requirements.

- 5. Major Storm Events**—Within **seven days** of any storm event capable of discharging waste outside of the AWCU liner boundary, causing damage or significant erosion (Major Storm Event), the Discharger shall inspect the Facility for damage to any precipitation, diversion and drainage facilities, and all landfill side slopes. Necessary repairs shall be completed within 30 days of the inspection. The Discharger shall take photos of any problem areas before and after repairs. See **Section E.5** for Reporting Requirements.
- 6. Iso-Settlement Surveys (Closed Landfills)**—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. The Discharger shall conduct the iso-settlement survey initially upon final closure of each portion of a landfill unit to establish baseline conditions, biennially for the following ten years, and then every five years thereafter. (Title 27, § 21090, subd. (e)(1)-(2); see **Section E.6** for Reporting Requirements.)

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WHITE ROCK NORTH DUMP AND AEROJET WASTE CONSOLIDATION UNIT LANDFILL  
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| <b>Section</b> | <b>Report</b>  | <b>Deadline</b>  |
|----------------|--|--|
| § E.1          | <i>Semiannual Monitoring Reports (SMRs)</i>          | <b>1 August</b><br>(1 January to 30 June)<br><b>1 February</b><br>(1 July to 31 December)  |
| § E.2          | <i>Annual Monitoring Reports (AMRs)</i>              | <b>1 February</b>  |
| § E.3          | <i>Leachate Seep Reporting</i>                       | <b>Immediately upon<br/>Discovery of Seepage</b><br>(staff notification)<br><b>Within 7 Days</b><br>(written report)                                 |
| § E.4          | <i>Annual Facility Inspection Reports</i>            | <b>1 October</b>   |
| § E.5          | <i>Major Storm Reporting</i>                         | <b>Immediately after<br/>Damage Discovery</b><br>(staff notification)<br><b>Within 14 Days of<br/>Completing Repairs</b><br>(written report, photos) |
| § E.6          | <i>Survey and Iso-Settlement Mapping</i>             | <b>Every Five Years</b><br>(Next Due in XXXX)  |
| § E.7          | <i>Financial Assurances Reports</i>                  | <b>1 June</b>  |
| § E.8          | <i>Water Quality Protection<br/>Standard Reports</i> | <b>Proposed Revisions</b><br>(excluding Concentration<br>Limits)   |

1. **Semiannual Monitoring Reports (SMRs)**—The Discharger shall submit Semiannual Monitoring Reports (SMRs) on **1 August** (1 Jan. to 30 June) and **1 February** (1 July to 31 Dec.). SMRs shall contain the following materials and information:
  - a. A statement affirming that all sampling activities referenced in the report were conducted in accordance with the approved SCAP (see § A.4).
  - b. Map(s)/aerial photograph(s) depicting locations of all observation stations, monitoring points referenced in the report.
  - c. In tabulated format, all monitoring data required to be reported on a semiannual basis, including Groundwater Conditions and Monitoring Parameters. (See Section 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.3 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.

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

- a. In tabulated format, all monitoring data for which annual reporting is required under this MRP. (See Section 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.<sup>9</sup>

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

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



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- c. An evaluation of Monitoring Parameters with regard to the cation/anion balance, and graphical presentation of same in a Stiff diagram, Piper graph or Schoeller plot.
- d. All historical monitoring data for which there are detectable results, including data for the previous year, shall be submitted in tabular form in a digital file.
- e. For each groundwater well, quarterly hydrographs showing the elevation of groundwater with respect to the top and bottom of the screened interval, and the elevation of the pump intake,
- f. A comprehensive discussion of the Facility's compliance record, and the result of any corrective actions taken or planned which may be needed to attain full compliance with the WDRs.
- g. For landfill units, a map showing the areas and elevations of each unit where filling was completed during the previous calendar year; comparison to final closure design contours; and projected years in which each discrete module are expected to be filled.
- h. A summary of the monitoring results, indicating any changes made or observed since the previous AMR.
- i. A discussion on the results of Annual LCRS Testing conducted in accordance with Section D.1.a.
- j. When required per Section B.4.g of this Order, periodic updates to the Concentration Limits for all Monitoring Parameters and WQPS Monitoring Points.
- k. To assess the progress of ongoing Corrective Action at the Facility for a release from WRND under CAO 96-150, the Discharger shall submit the following information summarizing the corrective action efforts:
  - i. Corrective action measures taken during the calendar year;
  - ii. Iso-concentration maps showing concentrations of COC plumes that are being monitored under and around WRND;
  - iii. The quantity of groundwater extracted and treated per month by the Groundwater Extraction and Treatment System (GETS) associated with the WRND;

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- iv. Estimated pounds of COCs removed per month by the GETS from wells associated with WRND;
- v. An evaluation of the effectiveness of the corrective action to restore all beneficial uses currently impacted by a release from the WRND;
- vi. An estimate on the amount of time it will take using current corrective action measures to restore all beneficial uses to receiving water currently impacted by a release from the WRND; and
- vii. Any additional corrective action measures proposed during the upcoming year to accelerate the time required to restore all beneficial uses to receiving water currently impacted by a release from the WRND.

I. The following monthly and annual information with respect to leachate generated by the AWCU:

- i. Total volume of leachate generated;
- ii. Volume applied (returned) to AWCU for dust-control purposes,
- iii. Volume exported offsite for treatment and/or disposal; and
- iv. Identification of all offsite facilities receiving leachate.

**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 18 (*Physical Parameters*) and

Table 19 (*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 **1 October**, the Discharger shall submit a report with results of the Annual Facility Inspection per **Section D.4**. The report shall discuss any repair measures implemented, any preparations for winter, and include photographs of any problem areas and repairs.
5. **Major Storm Event Reports**—Immediately following each post-storm inspection described in **Section D.5**, the Discharger shall notify Central Valley Water Board staff of any damage or significant erosion (upon discovery). Subsequent repairs shall be reported to the Central Valley Water Board (together with before and after photos of the repaired areas) **within 14 days** of completion.
6. **Survey and Iso-Settlement Map (Closed Landfill Units)**—The Discharger shall submit all iso settlement maps prepared in accordance with **Section D.6**. (Title 27, § 21090, subd. (e).) The next maps are due initially upon final closure of any portion of a landfill waste management unit, biennially for the following ten years, and then every five years thereafter.
7. **Financial Assurances Report**—By **1 June** of each year, the Discharger shall submit a copy of the annual financial assurances report due to the California Department of Resources Recycling and Recovery (CalRecycle) that updates the financial assurances for closure, post-closure maintenance, and corrective action. (See WDRs Order.)
8. **Water Quality Protection Standard Report**—Any proposed changes<sup>10</sup> to the Water Quality Protection Standard (WQPS) components (§ B.4), other than periodic update of the Concentration Limits (§ B.4.g), shall be submitted in a WQPS Report for review and approval. The report shall be certified by a “Qualified Professional” (§ B), and contain the following:

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<sup>10</sup> If subsequent sampling of the background monitoring point(s) indicates significant water quality changes due to either seasonal fluctuations or other reasons unrelated to onsite waste management activities, the Discharger may request modification of the WQPS.

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- a. *Potentially Affected Waterbodies*—An identification of all distinct bodies of surface water and groundwater potentially affected by a WMU release (including, but not limited to, the uppermost aquifer and any permanent or ephemeral zones of perched groundwater underlying the Facility);
- b. *Map of Monitoring Points*—A map of all groundwater, surface water<sup>11</sup> and unsaturated zone monitoring points (including all background/upgradient and Point of Compliance monitoring points);
- c. *Groundwater Movement*—An evaluation of perennial direction(s) of groundwater movement within the uppermost zone(s);
- d. *Statistical Method for Concentration Limits*—A proposed statistical method for calculating Concentration Limits for Monitoring Parameters and Five-Year COCs (see § B.4.f) detected in at least 10 percent of the background data (naturally-occurring constituents) using a statistical procedure from subdivisions (e)(8)(A)-(D) or (e)(8)(E) of Title 27, section 20415; and
- e. *Retesting Procedure*—A retesting procedure to confirm or deny measurably significant evidence of a release (Title 27, §§ 20415(e)(8)(E), 20420(j)(1)-(3)).

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

**b. Monitoring Data and Reports**

- i. **Electronic Submission via GeoTracker**—All reports with monitoring data (e.g., SMRs and AMRs) shall be submitted electronically via the State Water Board's [GeoTracker Database \(https://geotracker.waterboards.ca.gov\)](https://geotracker.waterboards.ca.gov) including the laboratory analysis results in electronic data format (EDF). After uploading a report, and laboratory analysis results in EDF format the Discharger shall notify Central Valley Water Board staff via email at [CentralVallySacramento@WaterBoards.ca.gov](mailto:CentralVallySacramento@WaterBoards.ca.gov). The following information shall be included in the body of the email:

|                              |   |
|------------------------------|---|
| <b>Attention:</b>            | Title 27 Compliance & Enforcement Unit                              |
| <b>Report Title:</b>         | [Title of Report]   |
| <b>GeoTracker Upload ID:</b> | [Identification Number]   |
| <b>Facility Name:</b>        | White Rock North Dump and Aerojet Waste Consolidation Unit Landfill |
| <b>County:</b>               | Sacramento County   |
| <b>CIWQS Place ID:</b>       | 5A34NC00106   |

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

- iii. **Non-Detections / Reporting Limits**— Any analytical result equal to or greater than the MDL but less than the RL shall be reported and flagged as an estimated value. Only analytical results below the MDL shall be reported as non-detections.

- iv. **Units**—Absent specific justification, all monitoring data shall be reported in the units specified herein.

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

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- 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).

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## **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)  
Attachment G—Transfer Material Compounds

## **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) ([http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)). Copies will also be provided upon request.

## ATTACHMENT A—VOLATILE ORGANIC COMPOUNDS, SHORT-LIST

### USEPA Method 8260B (Unless stated otherwise)

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



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**ATTACHMENT A—VOLATILE ORGANIC COMPOUNDS, SHORT-LIST**

|  |         |
|--|---------|
| 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    |
| 4-Methyl 2 pentanone (Methyl isobutylketone).....                | MIBK    |
| 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    |
| 1,1,1 Trichloroethane (Methylchloroform).....                    | TCA111  |
| 1,1,2 Trichloroethane .....                                      | TCA112  |
| Trichloroethylene (Trichloroethene) .....                        | TCE     |
| Trichlorofluoromethane (CFC 11).....                             | FC11    |
| 1,2,3 Trichloropropane per Method SRL-524M-TCP.....              | TCPR123 |
| Vinyl acetate.....   | VA      |
| Vinyl chloride.....  | VC      |
| Xylenes .....  | XYLENES |

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WHITE ROCK NORTH DUMP AND AEROJET WASTE CONSOLIDATION UNIT LANDFILL  
SACRAMENTO COUNTY**ATTACHMENT B—DISSOLVED INORGANICS (FIVE-YEAR COCS)****Constituent /  
Analytical MethodGeoTracker Code**

|                                       |    |                                       |    |
|---------------------------------------|----|---------------------------------------|----|
| Aluminum,<br>USEPA Method 6010 .....  | AL | Zinc,<br>USEPA Method 6010 .....      | ZN |
| Antimony,<br>USEPA Method 7041 .....  | SB | Iron,<br>USEPA Method 6010 .....      | FE |
| Barium,<br>USEPA Method 6010 .....    | BA | Manganese,<br>USEPA Method 6010 ..... | MN |
| Beryllium,<br>USEPA Method 6010 ..... | BE | Arsenic,<br>USEPA Method 7062 .....   | AS |
| Cadmium,<br>USEPA Method 7131A.....   | CD | Lead,<br>USEPA Method 7421 .....      | PB |
| Chromium,<br>USEPA Method 6010 .....  | CR | Mercury,<br>USEPA Method 7470A.....   | HG |
| Cobalt,<br>USEPA Method 6010 .....    | CO | Nickel,<br>USEPA Method 7521 .....    | NI |
| Copper,<br>USEPA Method 6010 .....    | CU | Selenium,<br>USEPA Method 7742 .....  | SE |
| Silver,<br>USEPA Method 6010 .....    | AG | Thallium,<br>USEPA Method 7841 .....  | TL |
| Tin,<br>USEPA Method 6010 .....       | SN | Cyanide,<br>USEPA Method 9010C.....   | CN |
| Vanadium,<br>USEPA Method 6010 .....  | V  | Sulfide,<br>USEPA Method 9030Bx.....  | S  |

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

**USEPA Method 8260,  
Extended List**

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

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

|   |           |
|---|-----------|
| 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    |
| 1,3 Dichloropropane (Trimethylene dichloride).....                    | DCPA13    |
| 2,2 Dichloropropane (Isopropylidene chloride).....                    | DCPA22    |
| 1,1 Dichloropropene .....   | DCP11     |
| cis 1,3 Dichloropropene.....  | DCP13C    |
| trans 1,3 Dichloropropene .....                                       | DCP13T    |
| Di-isopropylether (DIPE) .....  | DIPE      |
| Ethanol.....  | ETHANOL   |
| Ethyltertiary butyl ether.....  | ETBE      |
| Ethylbenzene .....  | EBZ       |
| Ethyl methacrylate.....   | EMETHACRY |
| 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      |

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SACRAMENTO COUNTY

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

|  |         |
|--|---------|
| Styrene.....   | STY     |
| Tertiary amyl methyl ether.....                                      | TAME    |
| Tertiary butyl alcohol.....  | TBA     |
| 1,1,1,2 Tetrachloroethane.....                                       | TC1112  |
| 1,1,2,2 Tetrachloroethane.....                                       | PCA     |
| Tetrachloroethylene (Tetrachloroethene; Perchloroethylene; PCE)..... | PCE     |
| Toluene.....   | BZME    |
| 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 |

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**ATTACHMENT D—SEMI-VOLATILE ORGANIC COMPOUNDS (FIVE-YEAR COCS)****USEPA Methods 8270C or 8270D  
(Base, Neutral & Acid Extractables)**

| <b>Constituent .....</b>   | <b>GeoTracker Code</b> |
|--|------------------------|
| Acenaphthene .....   | ACNP                   |
| Acenaphthylene .....   | ACNPY                  |
| Acetophenone .....   | ACPHN                  |
| 2 Acetylaminofluorene (2 AAF) .....  | ACAMFL2                |
| Aldrin .....   | ALDRIN                 |
| 4 Aminobiphenyl.....   | AMINOBP4               |
| Anthracene.....  | ANTH                   |
| Benzo[a]anthracene (Benanthracene).....                                      | BZAA                   |
| Benzo[b]fluoranthene .....   | BZBF                   |
| Benzo[k]fluoranthene .....   | BZKF                   |
| Benzo[g,h,i]perylene.....  | BZGHIP                 |
| Benzo[a]pyrene .....   | BZAP                   |
| Benzyl alcohol.....  | BZLAL                  |
| Bis(2 ethylhexyl) phthalate .....  | BIS2EHP                |
| alpha BHC.....   | BHCALPHA               |
| beta BHC.....  | BHCBETA                |
| delta BHC.....   | BHCDelta               |
| gamma BHC (Lindane).....   | BHCGAMMA               |
| Bis(2 chloroethoxy) methane.....   | BECEM                  |
| Bis(2 chloroethyl) ether (Dichloroethyl ether) .....                         | BIS2CEE                |
| Bis(2 chloro 1 methylethyl) ether (Bis(2 chloroisopropyl) ether; DCIP) ..... | BIS2CIE                |
| 4 Bromophenyl phenyl ether .....   | BPPE4                  |
| Butyl benzyl phthalate (Benzyl butyl phthalate).....                         | BBP                    |
| Chlordane.....   | CHLORDANE              |
| p Chloroaniline .....  | CLANIL4                |
| Chlorobenzilate .....  | CLBZLATE               |

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

|   |          |
|---|----------|
| p Chloro m cresol (4 Chloro 3 methylphenol) .....       | C4M3PH   |
| 2 Chloronaphthalene .....                               | CNPH2    |
| 2 Chlorophenol .....                                    | CLPH2    |
| 4 Chlorophenyl phenyl ether .....                       | CPPE4    |
| Chrysene .....  | CHRYSENE |
| o Cresol (2 methylphenol) .....                         | MEPH2    |
| m Cresol (3 methylphenol) .....                         | MEPH3    |
| p Cresol (4 methylphenol) .....                         | MEPH4    |
| 4,4' DDD .....  | DDD44    |
| 4,4' DDE .....  | DDE44    |
| 4,4' DDT .....  | DDT44    |
| Diallate .....  | DIALLATE |
| Dibenz[a,h]anthracene .....                             | DBAHA    |
| Dibenzofuran .....                                      | DBF      |
| 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    |

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

|                                 |             |
|---------------------------------|-------------|
| Di n octyl phthalate.....       | DNOP        |
| Diphenylamine .....             | DPA         |
| Endosulfan I .....              | ENDOSULFANA |
| Endosulfan II .....             | ENDOSULFANB |
| 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    |
| Methyl methanesulfonate .....   | MMSULFN     |
| 2 Methylnaphthalene .....       | MTNPH2      |
| 1,4 Naphthoquinone .....        | NAPHQ14     |
| 1 Naphthylamine .....           | AMINONAPH1  |
| 2 Naphthylamine .....           | AMINONAPH2  |



AEROJET ROCKETDYNE, INC.

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

|  |           |
|--|-----------|
| o Nitroaniline (2 Nitroaniline) .....  | NO2ANIL2  |
| m Nitroaniline (3 Nitroaniline) .....  | NO2ANIL3  |
| p Nitroaniline (4 Nitroaniline) .....  | NO2ANIL4  |
| Nitrobenzene .....   | NO2BZ     |
| o Nitrophenol (2 Nitrophenol) .....  | NTPH2     |
| p Nitrophenol (4 Nitrophenol) .....  | NTPH4     |
| N Nitrosodi n butylamine (Di n butylNitrosamine) .....                           | NNSBU     |
| N Nitrosodiethylamine (DiethylNitrosamine) .....                                 | NNSE      |
| N Nitrosodimethylamine (DimethylNitrosamine) .....                               | NNSM      |
| N Nitrosodiphenylamine (DiphenylNitrosamine) .....                               | NNSPH     |
| N Nitrosodipropylamine (N Nitroso N dipropylamine; Di n propylNitrosamine) ..... | NNSPR     |
| N Nitrosomethylethylamine (MethylethylNitrosamine) .....                         | NNSME     |
| N Nitrosopiperidine .....  | NNSPPRD   |
| N Nitrosopyrrolidine .....   | NNSPYRL   |
| 5 Nitro o toluidine .....  | TLDNONT5  |
| Pentachlorobenzene .....   | PECLBZ    |
| Pentachloronitrobenzene (PCNB) .....   | PECLNO2BZ |
| Pentachlorophenol .....  | PCP       |
| 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     |

AEROJET ROCKETDYNE, INC.

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

|                                      |        |
|--------------------------------------|--------|
| 2,4,5 Trichlorophenol.....           | TCP245 |
| 0,0,0 Triethyl phosphorothioate..... | TEPTH  |
| sym Trinitrobenzene.....             | TNB135 |

TENTATIVE

AEROJET ROCKETDYNE, INC.

WHITE ROCK NORTH DUMP AND AEROJET WASTE CONSOLIDATION UNIT LANDFILL

SACRAMENTO COUNTY

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

**USEPA Method 8151A**

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

TENTATIVE

AEROJET ROCKETDYNE, INC.

WHITE ROCK NORTH DUMP AND AEROJET WASTE CONSOLIDATION UNIT LANDFILL

SACRAMENTO COUNTY

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

**USEPA Method 8141B**

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

AEROJET ROCKETDYNE, INC.

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**ATTACHMENT G—TRANSFER MATERIAL COMPOUNDS**

| <b>Constituent Name</b>                           | <b>Units</b> | <b>Geotracker Code</b> | <b>Test Method</b> |
|---|--------------|------------------------|--------------------|
| <b>Anions</b>                                     |              |                        |                    |
| Cyanide   | µg/L         | CN                     | USEPA 90114        |
| Fluoride  | mg/L         | F                      | USEPA 300.0        |
| Nitrite as N                                      | mg/L         | NO2                    | USEPA 300.0        |
| Perchlorate                                       | µg/L         | PCATE                  | USEPA 314.0        |
| <b>Dioxins</b>                                    |              |                        |                    |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | pg/L         | OCDD                   | USEPA 8290         |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | pg/L         | HPCDD1234678           | USEPA 8290         |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)    | pg/L         | HXCDD123478            | USEPA 8290         |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)    | pg/L         | HXCDD123678            | USEPA 8290         |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)    | pg/L         | HXCDD123789            | USEPA 8290         |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)     | pg/L         | PECDD12378             | USEPA 8290         |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin               | pg/L         | TCDD2378               | USEPA 8290         |
| Total heptachlorodibenzo-p-dioxin (HpCDD)         | pg/L         | HPCDD                  | USEPA 8290         |
| Total hexachlorodibenzo-p-dioxin (HxCDD)          | pg/L         | HXCDD                  | USEPA 8290         |
| Total pentachlorodibenzo-p-dioxin (PeCDD)         | pg/L         | PECDD                  | USEPA 8290         |
| Total tetrachlorodibenzo-p-dioxin (TCDD)          | pg/L         | TCDD                   | USEPA 8290         |
| <b>Explosives</b>                                 |              |                        |                    |
| Nitroguanidine                                    | µg/L         | NGURADIN               | USEPA 8330         |
| <b>Furans</b>                                     |              |                        |                    |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)     | pg/L         | OCDF                   | USEPA 8290         |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)     | pg/L         | HPCDF1234678           | USEPA 8290         |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)     | pg/L         | HPCDF1234789           | USEPA 8290         |

AEROJET ROCKETDYNE, INC.

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SACRAMENTO COUNTY

| <b>Constituent Name</b>                    | <b>Units</b> | <b>Geotracker Code</b> | <b>Test Method</b>     |
|--|--------------|------------------------|------------------------|
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | pg/L         | HXCDF123478            | USEPA 8290             |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | pg/L         | HXCDF123678            | USEPA 8290             |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | pg/L         | HXCDF123789            | USEPA 8290             |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)  | pg/L         | PECDF12378             | USEPA 8290             |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | pg/L         | HXCDF234678            | USEPA 8290             |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)  | pg/L         | PECDF23478             | USEPA 8290             |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF)     | pg/L         | TCDF2378               | USEPA 8290             |
| Total heptachlorodibenzofuran (HpCDF)      | pg/L         | HPCDF                  | USEPA 8290             |
| Total hexachlorodibenzofuran (HxCDF)       | pg/L         | HXCDF                  | USEPA 8290             |
| Total pentachlorodibenzofuran (PeCDF)      | pg/L         | PECDF                  | USEPA 8290             |
| Total tetrachlorodibenzofuran (TCDF)       | pg/L         | TCDF                   | USEPA 8290             |
| <b>Metals</b>                              |              |                        |                        |
| Aluminum                                   | µg/L         | AL                     | USEPA 6010             |
| Antimony                                   | µg/L         | SB                     | USEPA 7041             |
| Arsenic                                    | µg/L         | AS                     | USEPA 7062             |
| Barium                                     | µg/L         | BA                     | USEPA 6010             |
| Beryllium                                  | µg/L         | BE                     | USEPA 6010             |
| Boron                                      | µg/L         | B                      | USEPA 200.7            |
| Cadmium                                    | µg/L         | CD                     | USEPA 7131A            |
| Chromium                                   | µg/L         | CR                     | USEPA 6010             |
| Chromium III (trivalent)                   | µg/L         | CR3                    | USEPA 6010<br>or 6020  |
| Chromium VI (hexavalent)                   | µg/L         | CR6                    | USEPA 7196A<br>or 7199 |
| Cobalt                                     | µg/L         | CO                     | USEPA 6010             |
| Copper                                     | µg/L         | CU                     | USEPA 6010             |
| Iron                                       | µg/L         | FE                     | USEPA 6010             |
| Lead                                       | µg/L         | PB                     | USEPA 7421             |
| Lithium                                    | µg/L         | LI                     | USEPA 200.7            |

AEROJET ROCKETDYNE, INC.

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SACRAMENTO COUNTY

| <b>Constituent Name</b>                     | <b>Units</b> | <b>Geotracker Code</b> | <b>Test Method</b>      |
|---|--------------|------------------------|-------------------------|
| Manganese                                   | µg/L         | MN                     | USEPA 6010              |
| Mercury                                     | µg/L         | HG                     | USEPA 7470A             |
| Molybdenum                                  | µg/L         | MO                     | USEPA 200.7             |
| Nickel                                      | µg/L         | NI                     | USEPA 7521              |
| Selenium                                    | µg/L         | SE                     | USEPA 7742              |
| Silver                                      | µg/L         | AG                     | USEPA 6010              |
| Strontium                                   | µg/L         | SR                     | USEPA 6010<br>or 6020   |
| Thallium                                    | µg/L         | TL                     | USEPA 7841              |
| Tin   | µg/L         | SN                     | USEPA 6010              |
| Titanium                                    | µg/L         | TI                     | USEPA 6010<br>or 6020   |
| Vanadium                                    | µg/L         | V                      | USEPA 6010              |
| Zinc  | µg/L         | ZN                     | USEPA 6010              |
| <b>PCBs</b>                                 |              |                        |                         |
| 2,2',3,3',6,6'-Hexachlorobiphenyl (PCB 136) | µg/L         | PCB136                 | USEPA 1668              |
| 2,3,3',4,6-Pentachlorobiphenyl (PCB 109)    | µg/L         | PCB109                 | USEPA 1668              |
| Aroclor 1248                                | µg/L         | PCB1248                | USEPA 8082              |
| Aroclor 1254                                | µg/L         | PCB1254                | USEPA 8082              |
| Aroclor 1260                                | µg/L         | PCB1260                | USEPA 8082              |
| Total PCBs                                  | µg/L         | TOTPCB                 | USEPA 8082              |
| <b>Pesticides</b>                           |              |                        |                         |
| 4,4'-DDD                                    | µg/L         | DDD44                  | USEPA 8270C<br>or 8270D |
| 4,4'-DDE                                    | µg/L         | DDE44                  | USEPA 8270C<br>or 8270D |
| 4,4'-DDT                                    | µg/L         | DDT44                  | USEPA 8270C<br>or 8270D |
| Aldrin                                      | µg/L         | ALDRIN                 | USEPA 8270C<br>or 8270D |
| alpha-BHC/HCH                               | µg/L         | BHCALPHA               | USEPA 8270C<br>or 8270D |
| alpha-Chlordane                             | µg/L         | CHLORDANEA             | USEPA 8081A             |
| beta-BHC/HCH                                | µg/L         | BHCBETA                | USEPA 8270C<br>or 8270D |

AEROJET ROCKETDYNE, INC.

WHITE ROCK NORTH DUMP AND AEROJET WASTE CONSOLIDATION UNIT LANDFILL

SACRAMENTO COUNTY

| Constituent Name                            | Units | Geotracker Code | Test Method             |
|---|-------|-----------------|-------------------------|
| delta-BHC/HCH                               | µg/L  | BHCDELTA        | USEPA 8270C<br>or 8270D |
| Dieldrin                                    | µg/L  | DIELDRIN        | USEPA 8270C<br>or 8270D |
| Endosulfan I (Alpha)                        | µg/L  | ENDOSULFANA     | USEPA 8270C<br>or 8270D |
| Endosulfan II (Beta)                        | µg/L  | ENDOSULFANB     | USEPA 8270C<br>or 8270D |
| Endrin                                      | µg/L  | ENDRIN          | USEPA 8270C<br>or 8270D |
| gamma-BHC/HCH (Lindane)                     | µg/L  | BHCGAMMA        | USEPA 8270C<br>or 8270D |
| gamma-Chlordane                             | µg/L  | CHLORDANEG      | USEPA 8081A             |
| Heptachlor                                  | µg/L  | HEPTACHLOR      | USEPA 8270C<br>or 8270D |
| Heptachlor epoxide                          | µg/L  | HEPT-EPOX       | USEPA 8270C<br>or 8270D |
| Pendimethalin                               | µg/L  | PENOXALIN       | USEPA 8081A             |
| <b>SVOCs</b>                                |       |                 |                         |
| 1,2-Diphenylhydrazine                       | µg/L  | DPHY12          | USEPA 8270C             |
| 10-10'-Oxybis-10H-phenoxarsine              | µg/L  | 1010OXYRSIN     | HPLC                    |
| 2,3',4,4',5,5'-Hexachlorobiphenyl (PCB 167) | µg/L  | PCB167          | USEPA 1668              |
| 2-Methylnaphthalene                         | µg/L  | MTNPH2          | USEPA 8270C<br>or 8270D |
| 3,3',4,4',5,5'-Hexachlorobiphenyl (PCB 169) | µg/L  | PCB169          | USEPA 1668              |
| Anthracene                                  | µg/L  | ANTH            | USEPA 8270C<br>or 8270D |
| Benzo(a)anthracene                          | µg/L  | BZAA            | USEPA 8270C<br>or 8270D |
| Benzo(a)pyrene                              | µg/L  | BZAP            | USEPA 8270C<br>or 8270D |
| Benzo(b)fluoranthene                        | µg/L  | BZBF            | USEPA 8270C<br>or 8270D |
| Benzo(b)fluoranthene/Benzo(k)fluoranthene   | µg/L  | BZBFBZKF        | USEPA 8270C             |



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|--|-------|-----------------------|-------------------------|
| Benzo(g,h,i)perylene                         | µg/L  | BZGHIP                | USEPA 8270C<br>or 8270D |
| Benzo(k)fluoranthene                         | µg/L  | BZKF                  | USEPA 8270C<br>or 8270D |
| Bis(2-ethylhexyl)phthalate                   | µg/L  | BIS2EHP               | USEPA 8270C<br>or 8270D |
| Chrysene                                     | µg/L  | CHRYSENE              | USEPA 8270C<br>or 8270D |
| Dibutyl phthalate                            | µg/L  | DNBP                  | USEPA 8270C<br>or 8270D |
| Diethyl ester hexanedioic acid A             | µg/L  | <b>See Note Below</b> | USEPA 8270C<br>(TIC)    |
| Fluoranthene                                 | µg/L  | FLA                   | USEPA 8270C<br>or 8270D |
| Fluorene                                     | µg/L  | FL                    | USEPA 8270C<br>or 8270D |
| Hexadecanoic acid                            | µg/L  | PALMA                 | USEPA 8270C<br>(TIC)    |
| Indeno(1,2,3-cd)pyrene                       | µg/L  | INP123                | USEPA 8270C<br>or 8270D |
| Naphthalene                                  | µg/L  | NAPH                  | USEPA 8260B             |
| n-Nitrosodimethylamine                       | µg/L  | NNSM                  | USEPA 8270C<br>or 8270D |
| Phenanthrene                                 | µg/L  | PHAN                  | USEPA 8270C<br>or 8270D |
| Phenol                                       | µg/L  | PHENOL                | USEPA 8270C<br>or 8270D |
| Pyrene                                       | µg/L  | PYR                   | USEPA 8270C<br>or 8270D |
| <b>Total Petroleum Hydrocarbons (TPH)</b>    |       |                       |                         |
| Diesel fuel                                  | mg/L  | PHCD                  | USEPA 8015              |
| Diesel Range Organics (C10-C24)              | mg/L  | DROC10C24             | USEPA 8015              |
| Extractable Petroleum Hydrocarbons (C10-C30) | mg/L  | TPHC10C30             | USEPA 8015              |
| Kerosene                                     | mg/L  | KEROSENE              | USEPA 8015              |
| Oil and grease                               | mg/L  | OILGREASE             | Visual                  |
| Total Petroleum Hydrocarbons                 | mg/L  | PHC                   | USEPA 8015              |

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SACRAMENTO COUNTY

| Constituent Name                                 | Units | Geotracker Code       | Test Method |
|--|-------|-----------------------|-------------|
| Total Petroleum Hydrocarbons (C16-C36) Motor Oil | mg/L  | MOILC16C36            | USEPA 8015  |
| Total Petroleum Hydrocarbons (C24-C36) Motor Oil | mg/L  | MOILC24C36            | USEPA 8015  |
| Total Recoverable Petroleum Hydrocarbons         | mg/L  | TRPH                  | USEPA 8015  |
| <b>VOCs</b>                                      |       |                       |             |
| 1,2-Dichloroethene (total)                       | µg/L  | DCE12TOT              | USEPA 8260B |
| Bromodichloromethane                             | µg/L  | BDCME                 | USEPA 8260B |
| Freon  | µg/L  | <b>See Note Below</b> | USEPA 8260B |
| Freon 113  | µg/L  | FC113                 | USEPA 8260B |
| Methylene chloride                               | µg/L  | MTLNCL                | USEPA 8260B |
| Octadecanoic acid                                | µg/L  | OCDNA                 | USEPA 8260B |

**Note:** Geotracker Electronic Data Submittal currently does not have a Geotracker Code assigned to Dioctyl ester hexanedioic acid A and Freon. The Discharger shall apply for and receive Geotracker codes for these two compounds prior to performing background water quality sampling for the AWCU.