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CENTRAL VALLEY REGION

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CLEANUP & ABATEMENT ORDER R5-2023-0700



ORDER INFORMATION

Order Type(s):	Cleanup & Abatement Order (CAO)
Status:	ADOPTED
Program:	Site Cleanup Program / Title 27
Region 5 Office:	Sacramento (Rancho Cordova)
Responsible Discharger:	Aerojet Rocketdyne, Inc.
Site/Facility:	White Rock North Dump
Address:	White Rock Road & Grant Line Road
County:	Sacramento County
Parcel Nos.:	072-0100-020-0000
GeoTracker ID:	L10001232320
Prior Order:	CAO 96-150
Related Orders:	Waste Discharge Requirements Order R5-2020-0059 Monitoring & Reporting Program Order R5-2020-0059

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GLOSSARY

µg/L	Micrograms per Liter
Aerojet-General	Aerojet-General Corporation
AWCU	Aerojet Waste Consolidation Unit
Brighton	Brighton Sand and Gravel Company
CAI Unit	Closed, Abandoned, or Inactive Unit
CAO 96-150	Cleanup and Abatement Order 96-150
Central Valley Water Board	Central Valley Regional Water Quality Control Board
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLC	CLC Investment Corporation
CPCMP	Closure and Post-Closure Maintenance Plan
DTSC	Department of Toxic Substances Control
IRIS	Integrated Risk Information System
MCL	Maximum Contaminant Level
MRP	Monitoring and Reporting Program
MRP Order	Monitoring & Reporting Program R5-2020-0059
MUN	municipal and domestic water supply
NAWDCO	North American Waste Disposal Company
OU-5	Aerojet Superfund Site Operable Unit 5
PCBs	Polychlorinated Biphenyls
PEA	Preliminary Endangerment Assessment

RfD.....Reference Dose

SVOCs.....Semi-Volatile Organics Compounds

SWAT.....Solid Waste Assessment Test

TCE.....Trichloroethene

Title 23.....California Code of Regulations, Title 23

Title 27.....California Code of Regulations, Title 27

USEPA.....United States Environmental Protection Agency

VOCs.....Volatile Organic Compounds

WDRs.....Waste Discharge Requirements

WDRs Order.....Waste Discharge Requirements (WDRs) Order
R5-2020-0059

WMU.....Waste Management Unit

WQOs.....water quality objectives

WRND.....White Rock North Dump

FINDINGS

The Executive Officer of the Central Valley Regional Water Quality Control Board (Central Valley Water Board) hereby finds as follows:

Introduction

1. This Cleanup and Abatement Order (Order) is issued to Aerojet Rocketdyne, Inc. (Responsible Discharger) for the White Rock North Dump (WRND), which is located near the corner of White Rock Road and Grant Line Road in Sacramento County. The WRND's location is depicted in **Attachment A**.
2. The WRND is an unlined solid waste disposal site which is situated on a 242-acre property designated as Sacramento County Assessor's Parcel Number 072-0100-020-0000. The Responsible Discharger is the current owner of the WRND property.

Site History

3. In approximately 1954, Alan T. Olson and Alan F. Olson (collectively, the Olsons) purchased the WRND property from Yuba Consolidated Gold Fields.
4. On 30 December 1957, Sacramento County approved North American Waste Disposal Company (NAWDCO) operating a disposal site on the property. NAWDCO appears to have been a partnership/joint venture of Ben G. Petrucci, Richard Sovell, and Alan T. Olson. The WRND property continued to be owned by the Olsons.
5. NAWDCO initially received a 15-year franchise for waste collection and disposal for the unincorporated areas of Sacramento County. Permitted disposal operations ceased in September 1964; however, unauthorized waste disposal continued into the 1970s.
6. At various points in time, the Responsible Discharger (formerly known as Aerojet-General Corporation or Aerojet-General), also disposed of wastes, including those containing trichloroethene (TCE) at the WRND.
7. From approximately 1963 to 1969, Aerojet-General leased WRND from the Olsons for use as a buffer zone for its operations to the north.

8. On 18 December 1969, the Olsons conveyed the WRND property to Brighton Sand and Gravel Co. (Brighton), a now-dissolved California corporation of which Alan F. Olson was a director.
9. In June 1970, Aerojet-General purchased the WRND property from Brighton.
10. In approximately 1975, Aerojet-General sold the property to Peter and Verica Lausevic.
11. In March 1976, Peter and Verica Lausevic sold the WRND property to Bene Soil, a partnership for which Peter Lausevic was a general partner. Bene Soil subsequently went bankrupt, resulting in Hill Top Developers purchasing the property from Bene Soil in 1978.
12. In 1988, C.L.C. Investment Corporation (CLC), a Nevada corporation, purchased the property from Hill Top Developers.
13. In 1994, Hill Top Developers filed for bankruptcy.
14. According to the Nevada Secretary of State's website, CLC filed for dissolution in Nevada in approximately 2000. Similarly, CLC (renamed Nevada C.L.C. Investment Corporation, per a 4 October 2001 filing) was suspended by the California Secretary of State in 2005.
15. In approximately April 2008, the Responsible Discharger purchased the WRND property from CLC. The Responsible Discharger currently owns the WRND property.

Pre-1996 Investigations

16. There have been many investigations of WRND over the years, starting with a United States Environmental Protection Agency (USEPA) Field Investigation Team investigation in 1983. Notable investigation activities, remediation activities, and submittals are summarized in **Attachment B**.
17. In 1989, CLC was required to perform a Solid Waste Assessment Test (SWAT) at the request of the Central Valley Water Board and a Preliminary Endangerment Assessment (PEA) at the request of the Department of Toxic Substances Control (DTSC). The SWAT/PEA results demonstrated that underlying groundwater contained volatile organic compounds (VOCs), including 2,100 micrograms per liter ($\mu\text{g/L}$) of TCE, 6.4 $\mu\text{g/L}$ of 1,1-dichloroethylene, and 2.6 $\mu\text{g/L}$ of chloroform. Additionally, VOCS, semi-volatile organics compounds

(SVOCs), polychlorinated biphenyls (PCBs), dioxins, and dibenzofurans were detected in soil samples.

18. The presence of certain VOCs in groundwater was determined to have been partly the result of WRND disposal activities, with additional sources present upgradient at the Aerojet Superfund Site. Groundwater beneath WRND flows primarily to the southwest. Groundwater monitoring wells southwest of WRND were found to contain the same contaminants as monitoring wells located at WRND, but generally at lower concentrations.

Cleanup and Abatement Order (CAO) 96-150

19. Based on the SWAT/PEA data and additional investigation data, on 3 May 1996, the Central Valley Water Board issued Cleanup and Abatement Order 96-150 (CAO 96-150) to CLC, Aerojet-General, NAWDCO, Alan F. Olson,¹ and Ben G. Petrucci.
20. At the time of his death in 2002, Ben G. Petrucci was the last surviving partner of NAWDCO. These parties are therefore omitted from this Order.
21. Similarly, CLC no longer exists as a corporate entity under the state laws of California and Nevada. It is also omitted from this Order.
22. Aerojet-General, now Aerojet Rocketdyne, Inc. (i.e., the Responsible Discharger), is now the sole remaining responsible party named under CAO 96-150. The Responsible Discharger is currently the only party performing investigation and remediation activities at WRND.
23. CAO 96-150 required an investigation of the extent of contamination in groundwater and the vadose zone emanating from the WRND, both on and off the property. CAO 96-150 also required the submittal of technical documents to support the identification of potential remedial measures to address the contamination. The required technical reports were submitted and groundwater remediation measures were instituted, monitored, and modified. Further details are provided in **Attachment B**.
24. This Order is intended to revoke and replace CAO 96-150. To date, the Responsible Discharger has substantially complied with CAO 96-150. However,

¹ As of 1996, Alan T. Olson was already deceased.

there are additional actions necessary to complete the closure of the WRND. Therefore, the replacement of CAO 96-150 with this Order is warranted.

Planned Aerojet Waste Consolidation Unit (AWCU)

25. In December 2019, the Responsible Discharger proposed the construction and operation of a new Class II Waste Management Unit (WMU)² called the Aerojet Waste Consolidation Unit (AWCU), on a portion of landfilled area within WRND. The AWCU will receive non-hazardous, contaminated soil and inert construction debris generated from the clean closure of an existing Class III landfill located within the contiguous, Responsible Discharger-owned property in eastern Sacramento County and from soil remediation activities conducted in accordance with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial actions at the contiguous Aerojet Superfund Site. Non-hazardous soils likely contain metals, PCBs, dioxins, perchlorate, SVOCs, and VOCs at concentrations requiring disposal at a Class II facility.
26. On 22 December 2020, the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order R5-2020-0059 (WDRs Order), prescribing waste discharge requirements for the construction, operation, closure, and post-closure maintenance of the AWCU, as well as closure requirements for the WRND. Although Findings in the WDRs Order discuss the prescription therein of closure and post-closure requirements for the WRND, these requirements were deferred to a separately-issued CAO and are, therefore, included herein. AWCU construction is anticipated to begin in 2023.
27. On 22 December 2020, the Central Valley Water Board also adopted Monitoring & Reporting Program (MRP) R5-2020-0059 (MRP Order), prescribing monitoring and reporting requirements for the AWCU and WRND, as further described below. Central Valley Water Board staff is currently drafting a new MRP to replace the MRP Order. Among other things, the new MRP will present a revised approach for developing and updating concentration limit values to fulfill the California Code of Regulations, Title 27 (Title 27) Detection Monitoring Program requirements (Title 27, § 20380 et seq.).

² Such WMUs may receive designated wastes (Class II) and nonhazardous wastes (Class III). (See Cal. Code Regs., tit. 27, §§ 20200–20220; see also Wat. Code, § 13173 [defining “designated waste”].)

28. The AWCU will act as a final closure cover for up to approximately 50 acres of the approximately 100 acres of landfilled area at WRND. The Responsible Discharger has committed to closing the AWCU and WRND no later than December 31, 2035 (WDRs Order, Finding 23(c)); however, this is not presently an enforceable deadline. Following closure of the AWCU, the portion of the WRND landfilled area that is not covered by the AWCU will be capped and closed. WDRs Order finding 100 states that the evapotranspirative cover proposed in the *Joint Technical Document* (SLR International Corporation, August 2020) does not appear to meet the applicable performance standard for closure under Title 27. Accordingly, this Order requires the Responsible Discharger to submit a Closure and Post-Closure Maintenance Plan (CPCMP) presenting their plan to identify; design, including the option to conduct pilot studies to evaluate alternative covers; and install a Title 27-compliant cover over the portion of WRND that will not be covered by the AWCU. This Order also requires the Responsible Discharger to install the cover in accordance with the specifications and schedule presented in the final CPCMP.

Current Monitoring, Reporting, and Remediation Approach

29. As of the date of this Order, the Responsible Discharger monitors groundwater conditions at WRND in accordance with the monitoring program presented in Section 5.2 of the *2022 Site-Wide Groundwater Monitoring Plan Update* (Geosyntec Consultants, Inc., April 2022), which is updated annually following review and approval by staffs of the Central Valley Water Board, DTSC, and USEPA. The *2022 Site-Wide Groundwater Monitoring Plan Update* presents a comprehensive collection of groundwater monitoring plans for the Aerojet Superfund Site, WRND, and the Inactive Rancho Cordova Test Site, located south of the Aerojet Superfund Site on land owned by the Responsible Discharger. Additionally, the MRP Order requires the Responsible Discharger to install and sample groundwater monitoring wells, pan lysimeters, gas probes, and surface water locations at the AWCU as part of the AWCU Detection Monitoring Program to provide notification of a potential release from the AWCU. (See WDRs Order provision G.3, Standard Provisions and Reporting Requirements I.5, I.29, and I.31, and MRP Order, § B.). The Responsible Discharger installed Detection Monitoring Program monitoring wells in July and August 2022. These monitoring wells will be incorporated into future versions of the *2022 Site-Wide Groundwater Monitoring Plan Update*.
30. Finding 68 of WDRs Order R5-2020-0059 states that the Responsible Discharger currently does not conduct surface water monitoring associated with WRND, and that any necessary surface water monitoring for WRND will be imposed by this

Order. The extent of WRND that will be covered by a Title 27-compliant cover (i.e., the portion that will not be covered by the AWCU) is unknown at this time. Additionally, the Responsible Discharger has not yet developed grading plans for WRND. Accordingly, this Order requires the Responsible Discharger to submit a WRND surface water monitoring program in their draft CPCMP for WRND. (See Required Action B.1.d.)

31. WRND is located between Aerojet Superfund Site Operable Unit 5 (OU-5) Zones 2 and 3. Operating groundwater extraction wells installed to capture releases from WRND are present to the south of WRND. Operating OU-5 groundwater extraction wells are present to the south, east, and west of WRND. Since the groundwater contaminant plumes associated with WRND and the Aerojet Superfund Site have comeled, the groundwater remedial actions conducted for WRND effectively function as part of the OU-5 groundwater remedy. The Responsible Discharger currently evaluates remedy performance at WRND in their OU-5 annual reports and other Aerojet Superfund Site project deliverables. These performance evaluations often result in remedy modifications, including installation of new groundwater extraction wells. Therefore, this Order does not require further groundwater remediation or remedy performance evaluation. Rather, this Order requires installation and maintenance of a Title 27-compliant cover over the remaining uncovered surfaces of WRND (i.e., those surfaces not already covered by the AWCU) to prevent further waste discharges from WRND to underlying groundwater.

Cleanup and Abatement Authority

32. Water Code section 13304, subdivision (a) provides in relevant part as follows:

A person who has discharged or discharges waste³ into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is,

³ Waste is broadly defined as including “sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.” (Wat. Code, § 13050, subd. (d).)

or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution^[4] or nuisance,^[5] shall ... clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts.

33. As described in the findings above, waste constituents have been discharged at and from WRND. These constituents are continuing to migrate from soil into and through underlying groundwater. This continuing migration constitutes a discharge of waste for the purposes of Water Code section 13304. (See *Tesoro Refining & Marketing Co. LLC v. Los Angeles Regional Water Quality Control Bd.* (2019) 42 Cal.App.5th 453, 471-476.)
34. The Central Valley Water Board's *Water Quality Control Plan for the Sacramento and San Joaquin River Basins* (Basin Plan) designates the beneficial uses of waters with that region and prescribes water quality objectives (WQOs) to protect those beneficial uses. Basin Plan chapter 2.2 provides that, unless otherwise designated, all ground waters in that region are considered as suitable or potentially suitable, at a minimum, for municipal and domestic water supply (MUN). Basin Plan chapter 3.2 requires that ground waters shall not contain taste- or -odor producing substances in concentrations that cause nuisance or adversely affect beneficial uses, not contain chemical constituents in concentrations that adversely affect beneficial uses,⁶ and shall be maintained

⁴ A pollution is defined in part as "an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either: "The waters for beneficial uses," or "Facilities which serve these beneficial uses." (Wat. Code, § 13050, subd. (l)(1).)

⁵ A nuisance is anything that: "(1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property"; "(2) Affects ... an entire community or neighborhood, or any considerable number of persons..."; and "(3) Occurs during, or as a result of, the treatment or disposal of wastes." (Wat. Code, § 13050, subd. (m).)

⁶ At a minimum, groundwaters designed for MUN beneficial use shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the tables contained in California Code of Regulations, title 22, sections 64431, 64444, and 64449.

free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial use(s).

35. Groundwater at and beneath WRND is designated for the MUN beneficial use. Waste constituents associated with discharges at WRND have adversely affected beneficial uses of WRND groundwater by imparting objectionable tastes and odors to groundwater, exceeding applicable maximum contaminant levels (MCLs), and producing detrimental physiological responses in humans. Therefore, discharges at WRND have caused or threatened to cause conditions of "pollution" and/or "nuisance," as those terms are defined in Water Code section 13050. As stated in WDRs Order, Finding 75, the WQO for chemical constituents in groundwater designated MUN incorporates the USEPA MCL for TCE of 5 µg/L. Further, the USEPA Integrated Risk Information System (IRIS) has set a reference dose (RfD) 3.5 µg/L for TCE, above which daily oral exposure to the human population can result in detrimental physiological responses. The Responsible Discharger has historically detected TCE at concentrations up to 780 µg/L at hydrostratigraphic Layer A monitoring well WR-1R, located about 175 feet south of the WRND landfilled area, and up to 610 µg/L at Layer A monitoring well WR-18A, located just south of the WRND landfilled area. Therefore, the discharge of TCE has caused a condition of pollution and caused or threatened to cause a condition of nuisance. The Responsible Discharger has also detected tetrachloroethene (up to 2.9 µg/L), cis-1,2-dichloroethene (up to 11 µg/L), trans-1,2-dichloroethene (up to 0.59 µg/L), 1,1-dichloroethene (up to 2 µg/L), and toluene (1.4 µg/L) in samples collected from these wells.
36. As current owner and operator of the WRND, the Responsible Discharger has permitted waste to be discharged or deposited where it is, or probably will be, discharged to waters of the state and has permitted, or threatened to permit, conditions of pollution and/or nuisance. Accordingly, the Responsible Discharger is subject to this Order under Water Code section 13304.

Reporting Requirements

37. This Order is also issued pursuant to Water Code section 13267, subdivision (b)(1), which provides in pertinent part as follows:

[T]he regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region ...

shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports.

As current owner and operator of the WRND, the Responsible Discharger is suspected of having discharged waste within the Central Valley Region. In accordance with Water Code section 13267, subdivision (b)(1), this Order requires the Responsible Discharger to submit technical and monitoring reports which the Central Valley Water Board requires.

38. The technical reports required by this Order are necessary to: (a) ensure that the WRND is closed in accordance with Title 27 standards; (b) monitor the implementation and effectiveness of the final cover installed at WRND; and (c) ensure compliance with all applicable laws, regulations, and policies (e.g., State Water Board Resolution No. 92-49). The burden, including costs, of the required reports bears a reasonable relationship to the need for those reports and the benefits to be obtained thereby.

Limited Applicability of Title 27

39. California Code of Regulations title 27, section 20010 et seq. (Title 27) sets forth prescriptive requirements for the regulation of solid waste disposal facilities. However, Title 27 section 20080, subdivision (g) provides as follows:

Persons responsible for discharges at Units which were closed, abandoned, or inactive on or before November 27, 1984 (CAI Units), may be required to develop and implement a detection monitoring program in accordance with [Title 27, section 20380 et seq.]. If water quality impairment is found, such persons may be required to develop and implement a corrective action program under [section 20380 et seq.].

40. The WRND was inactive as of 27 November 1984. It is therefore deemed to be a CAI Unit for the purposes of Title 27.
41. With respect to corrective action under Title 27, section 20090, subdivision (d) of that title further provides as follows:

Actions taken by or at the direction of public agencies to cleanup or abate conditions of pollution or nuisance resulting from unintentional or unauthorized releases of waste or pollutants to the environment; provided that ... remedial actions intended to contain such wastes at the place of release shall implement applicable SWRCB- promulgated provisions of [Title 27 section 20005 et seq.] to the extent feasible.

42. To the extent that this Order imposes any requirements not otherwise mandated for CAI Units under Title 27, those additional requirements are imposed for protection of the waters of the State of California, and for the protection of human health and the environment. In particular, this Order requires the Responsible Discharger to close WRND with a Title 27-compliant cover to prevent further infiltration through the waste column. This closure will occur upon the completion of discharge activities to the AWCU.

Other Regulatory Matters

43. Issuance of this Order is for the protection of the environment and is exempt from the provisions of the California Environmental Quality Act (CEQA) (Pub. Res. Code, § 21000 et seq.) in accordance with California Code of Regulations title 14, sections 15061, subdivision (b)(3), 15306, 15307, 15308, and 15321. This Order generally requires the submission of plans for Central Valley Water Board staff concurrence prior to implementation of monitoring, cleanup, and abatement activities at the WRND. Staff concurrence in plans is exempt from CEQA as such activities will not, and could not possibly, cause a direct or indirect physical change in the environment. To the extent that this Order discusses construction of the AWCU and capping of the WRND, the Central Valley Water Board previously adopted a Mitigated Negative Declaration for those project activities in October 2020. If the Central Valley Water Board determines that implementation of the requirements of this Order would have a potentially significant effect on the environment that was not evaluated in the October 2020 analysis, the Board will conduct necessary and appropriate environmental review prior its concurrence in, or approval of, any potentially impactful requirement.

44. This Order implements State Water Board Resolution 92-49 (*Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code section 13304*), which provides that the investigation and remediation of waste discharges shall proceed in a sequential manner through the submission of technical workplans and other reports (e.g., summarizing activities and/or monitoring data) for technical concurrence by staff.
45. Pursuant to Water Code section 13304, the Central Valley Water Board may seek reimbursement for all reasonable costs to oversee cleanup, abatement, or other remedial actions.
46. This Order is issued under authority delegated pursuant to Water Code section 13223 and Central Valley Water Board Resolution R5-2018-0057.
47. In accordance with Water Code section 13360, this Order does not dictate the particular means of compliance with the requirements herein.
48. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring the Responsible Discharger to install and maintain a Title 27-compliant cover over the remaining uncovered surfaces of WRND (i.e., those surfaces not covered by the AWCU) to prevent further waste discharges from WRND to underlying groundwater.

REQUIRED ACTIONS

IT IS HEREBY ORDERED, CAO 96-150 is revoked (except for enforcement purposes) and, pursuant to Water Code sections 13304 and 13267, the Responsible Discharger shall comply with the following provisions.

A. Compliance with Operative Groundwater Monitoring Program

The Responsible Discharger shall conduct groundwater monitoring at WRND in accordance with the WRND monitoring program presented in the *2022 Site-Wide Groundwater Monitoring Plan Update* (Geosyntec Consultants, Inc., April 2022) and any subsequent version which has been approved by the Central Valley Water Board. The Central Valley Water Board reserves the right to modify the existing MRP Order or to issue an additional MRP order if the Responsible Discharger does not comply with the monitoring program presented in the current version of the annual groundwater monitoring plan update.

B. WRND Closure and Post-Closure Maintenance

1. As stated in Finding 28 of this Order, the Responsible Discharger has committed to completing WRND closure by December 31, 2035. **At least two years prior to the anticipated start of closure activities at WRND**, the Responsible Discharger shall submit to the Central Valley Water Board a draft CPCMP for the WRND, to be implemented following closure of the AWCU. The CPCMP shall include at least the following elements:
 - a. A description and depiction of the planned closure of the AWCU.
 - b. A description and depiction of the proposed Title 27-compliant cover that will provide sufficient protection of groundwater from wastes within WRND.
 - c. A schedule presenting anticipated dates for the completion of the major components of the WRND closure.
 - d. A proposed WRND surface water monitoring program and any proposed updates to the WRND groundwater monitoring program.
 - e. A post-closure operation and maintenance plan that is compatible with the closure and post-closure monitoring and maintenance of the AWCU.
2. A final version of the CPCMP shall be submitted **within 30 days of Central Valley Water Board staff concurrence** that their comments on the draft document have been adequately addressed.
3. The Responsible Discharger shall implement the final CPCMP in accordance with the specifications and schedule provided therein, including but not limited to installation of a Title 27-compliant cover over the remaining uncovered surfaces of WRND (i.e., those surfaces not already covered by the AWCU) and post-closure maintenance.

C. General Requirements

The following provisions apply to all submittals and activities carried out under this Order.

1. **Electronic Submittal of Reports.** Except as expressly provided otherwise, all materials, information and correspondence submitted to the Central Valley Water Board under this Order shall be submitted in an electronic format compatible for upload to the State Water Board

GeoTracker Database (<http://geotracker.waterboards.ca.gov>). (See Title 23, §§ 3890-3895.)

2. **Preparation of Technical Reports.** All technical documents (i.e., involving planning, investigation, evaluation, or design; or other work requiring interpretation and proper application of engineering or geologic sciences) submitted under this Order shall be:
 - a. Prepared by a licensed professional engineer or geologist, or another individual working under their direction (see Bus. & Prof. Code, §§ 6735, 7835, 7835.1);
 - b. Signed and stamped by the same licensed professional engineer or geologist; and
 - c. Presented in a manner that clearly and unequivocally attributes work to the licensed professional responsible for its preparation.
3. **Endorsements.** Each submittal under this Order shall include a signed endorsement from the submitting Responsible Discharger (or their legal representative) indicating:
 - a. Whether the submitting Responsible Discharger agrees with any of the document's recommendations and proposals; and
 - b. Whether the submitting Responsible Discharger approves implementation of the documents proposals.
4. **Certification.** Each submittal under this Order shall also include a signed statement from the submitting Responsible Discharger (or their legal representative) stating:

I certify under penalty of law that I have personally examined, and am familiar with, all of the information set forth in this document and the attachments thereto; and based on my personal knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.
5. **Site Access.** The Responsible Discharger shall provide Central Valley Water Board staff and representatives with reasonable Site access to: (1) conduct inspections during business hours; (2) ensure compliance with this and other Central Valley Water Board orders; and (3) take other actions necessary to implement Water Code section 13000 et seq.

6. **Requests for Extension.** Except as provided below, the deadlines set forth herein shall not be extended.
- a. If, for any reason, the Responsible Discharger is unable to perform an activity or submit a report under this Order (and materials incorporated herein), the Responsible Discharger may submit a written request for an extension to the Executive Officer.
 - b. To be considered, an extension request must set forth a definite period of extension (no indefinite extensions) and include justification for the delay.
 - c. Any extension request shall be submitted as soon as the situation is recognized and no later than the compliance date. Untimely requests may be disregarded.
 - d. An extension is not valid unless granted by means of a revision to this Order or a letter from either the Executive Officer or their delegee. All requests not approved in writing with reference to this Order are denied. Central Valley Water Board technical staff lack authority to approve any extensions under this Order.
 - e. The Central Valley Water Board acknowledges that obtaining local, state, and federal permits may result in delays that are beyond Responsible Discharger's control. Accordingly, the Executive Officer or their delegee will take all the available relevant facts into consideration when considering whether to grant an extension request.
7. **Modification of Order.** Any deviation from, or modification to, this Order, except by prior written approval from the Executive Officer or their delegee shall be considered invalid.

This Order is effective as of the date below.

ORDERED BY:

 _____
PATRICK PULUPA
Executive Officer

DATE:

10 March 2023

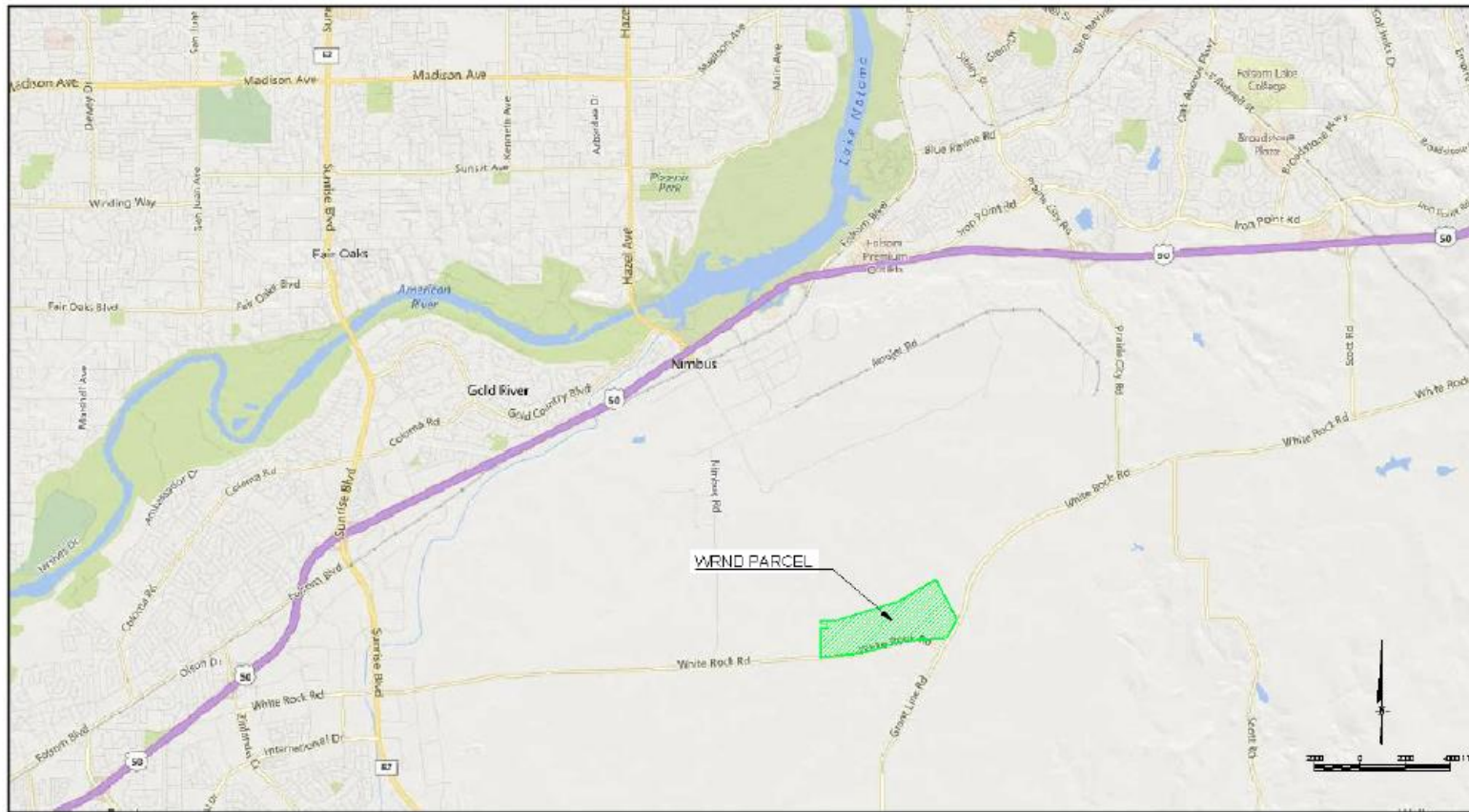
ENFORCEMENT

If, in the opinion of the Executive Officer, the Responsible Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

ADMINISTRATIVE REVIEW

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. To be timely, the petition must be received by the State Water Board by 5:00 pm on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday or state holiday, the petition must be received by the State Water Board by 5:00 pm on the next business day. The law and regulations applicable to filing petitions are available on the [State Water Board website](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) (http://www.waterboards.ca.gov/public_notices/petitions/water_quality). Copies will also be provided upon request.

ATTACHMENT A – MAP OF WHITE ROCK NORTH DUMP



**ATTACHMENT B – SUMMARY OF PRIOR INVESTIGATION AND
 REMEDIATION ACTIVITIES**

Period	Activity	Submittals
Pre-1990	USEPA contracted the consulting firm Ecology and Environment to collect soil samples. The sampling found elevated levels of metals including copper, lead and zinc and trace levels of PCBs. This was followed by the collection of ninety soil samples and 4 groundwater samples. These samples found PCBs and TCE in soil samples and TCE in groundwater.	USEPA Fit Report 1983
1991	Dames and Moore contracted by CLC Investment of collect soil and groundwater samples for developing Solid Waste Assessment Test and Preliminary Endangerment Assessment.	Dec. 1991, <i>Interim Report on Data Collected for SWAT and PEA</i> (Dames and Moore)
1992-1993	Dames and Moore continues collection of data for developing SWAT/PEA. The data was collected from wells constructed specifically for the SWAT/PEA investigation and wells associated with the Aerojet Superfund Site adjacent and north of WRND.	May 1993, <i>Letter Report, Groundwater Investigation Data</i> (Dames and Moore)
1993-1994	Dames and Moore continues soil and groundwater sampling activities and conducts soil vapor sampling for PEA/SWAT. Showed concentrations of TCE and methane in soil vapor in many places on the WRND.	Feb. 1994, <i>Letter Report, Soil Vapor Survey</i> (Dames and Moore)

Period	Activity	Submittals
1995	Dames and Moore completes soil, soil vapor and groundwater investigation of WRND. Extensive soil and groundwater contamination found. delineated the source of VOCs in groundwater as being the septage receiving pond in the middle of WRND. The report also delineated the extent of landfilled wastes.	April 1985, <i>SWAT PEA Report</i> (Dames and Moore)
1996	Responsible parties under 96-150 begin second phase of determination of extent of contamination at the Dump.	Sept. 1996, <i>Final Phase II Work Plan</i> (Dames and Moore)
1996- Present	Conducted groundwater monitoring pursuant to a groundwater monitoring and reporting program under 96-150, with revisions occurring periodically. Current Aerojet Rocketdyne submits an annual groundwater monitoring report for WRND.	Quarterly, Semi-Annual and Annual Monitoring Reports

Period	Activity	Submittals
1997	Responsible parties continue having Dames and Moore collect soil, groundwater and soil vapor samples. This refined the extent of contamination, particularly the plume of groundwater contamination and the extent of TCE in soil vapor at WRND.	<p>April 1997, <i>Data Transmittal, Phase II Investigation</i></p> <p>June 1997, <i>Technical Memorandum, Phase II Groundwater Investigation and Technical Memorandum, Phase II Soil Gas Investigation,</i></p> <p>August 1997, <i>Work Plan, Vadose Zone Pilot Test,</i> September 1997, <i>Supplemental Work Plan, Phase II, Off-Site Sample Locations and Additional Groundwater Sampling On-Site Locations, Phase II Investigation</i></p> <p>(all Dames and Moore)</p>
1998	Responsible parties finish soil and soil vapor sampling at WRND and begin collecting information on an interim remedial action for groundwater consisting of extraction wells on the southern boundary of WRND.	<p>July 1998, <i>Analysis of VOC Sources, Additional On-Site Groundwater Sampling, Phase II</i> November 1998,</p> <p><i>Work Plan, Interim Groundwater Remedial Action</i> (both by Dames and Moore)</p>

Period	Activity	Submittals
1999	Continued work on determining extent of groundwater contamination downgradient of WRND, evaluating potential remedial alternatives at the former septage pond and conducting evaluation of groundwater remedial options.	January 1999, <i>Additional Off-Site Investigation, Groundwater Interim Remedial Action and Draft RI/FS and Remedial Action Work Plan for the Former Pond Area</i> , August 1999, <i>Additional Off-Site Investigation, Groundwater Interim Remedial Action</i> (all Dames and Moore)
1999-2000	Commenced designing, constructing and operating interim groundwater extraction and treatment systems. First five wells constructed in 1999 along the southern property boundary for WRND. The water from the extraction wells is sent to Aerojet's Superfund groundwater treatment facility (GET B) for treatment and disposal under its NPDES permit.	<i>Groundwater Interim Removal Action, System Construction, and Initial Operating Conditions</i> (Aerojet)
2001-2002	Operated, modified and expanded groundwater extraction and treatment systems to have extraction wells at the southern WRND boundary to cut off the VOC plume and extraction wells at the downgradient extent of the plume to provide capture. Included the operation of a treatment system on the water supply well serving the Teichert Sand and Gravel facility on Grant Line Road southeast of WRND.	<i>Groundwater Cleanup and Abatement Plan</i> (Aerojet, August 2001)

Period	Activity	Submittals
2003-2010	<p>Aerojet expands extraction and treatment system, adds groundwater monitor wells and submits a report of waste discharge for the operation of the groundwater extraction and treatment systems. Groundwater extraction and treatment is coordinated with the on-going remediation of groundwater pollution associated with the Aerojet Superfund Site as its plumes pass beneath WRND and are beginning to comingle with the Dump groundwater pollution. Aerojet provides wellhead treatment to a private water supply well on Cupp Lane.</p>	<p><i>Aerojet Bioremediation Studies and Their Potential Application</i> (Aerojet, June 2002)</p> <p>Many other submittals for plans and construction of various components of the remedy.</p>
2011-2020	<p>Aerojet is issued Order R5-2011-0025 prescribing waste discharge requirements for the WRND Groundwater Treatment Facility. The facility treats groundwater from two extraction wells and the Teichert supply well for the removal of VOCs associated with WRND and perchlorate attributed to the Superfund Site. In 2013 that Order was rescinded and the extracted groundwater sent to Aerojet's GET AB treatment facility for disposal under its NPDES permit contained in Order R5-2013-0155. In 2018 and 2020, based on concerns from Sacramento County Environmental Management Aerojet removed surface debris and tires from WRND.</p>	<p>Monthly and Quarterly Monitoring Reports required under Waste Discharge Requirements.</p>

Period	Activity	Submittals
2020-2021	<p>Aerojet's NPDES permit was revised in October 2020 and January 2021. One of the revisions allowed Aerojet to add NDMA treatment to the White Rock GET, increase treated water flows and added the disposal option of discharging the treated water to Morrison Creek.</p> <p>Soil vapor probes were installed, additional groundwater monitoring was performed, and extent of waste was investigated to assess the location of the proposed AWCU and help in the design of that waste unit.</p>	Monthly Monitoring Reports required by NPDES permit.