



North Coast Regional Water Quality Control Board

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD NORTH COAST REGION

Cleanup and Abatement Order No. R1-2026-0018

for

**The Remediation of Petroleum Compounds in Soil and/or
Groundwater Using Nutrients, Microorganisms, and/or
Electron Acceptors via an In-situ Injection Process**

for

**Cross Petroleum
Pacific Pride Cardlock
505 North Foothill Drive, Yreka, CA
Case Number 1NSI234**

This Cleanup and Abatement Order No. R1-2026-0018 (Order) is issued to Cross Petroleum (hereafter referred to as the Discharger or Responsible Party) based on provisions of California Water Code (Water Code) section 13304, which authorizes the North Coast Regional Water Quality Control Board (North Coast Water Board) to issue an order to clean up a waste, or abate the effects of a waste to a person who has discharged or threatens to discharge waste to waters of the state, and Water Code section 13267, which authorizes the North Coast Water Board to require the preparation and submittal of technical and monitoring reports to a person suspected of discharging, or threatening to discharge waste to waters of the state. The purpose of the Order is to require immediate action to clean up and abate the impacts and threats to water quality and human health caused by the discharge of waste to the subsurface.

The Executive Officer finds, with respect to the Discharger's acts, or failure to act, the following:

1. Site Conditions

Pacific Pride Cardlock (site) is an active petroleum bulk plant and cardlock facility with seven above ground storage tanks (ASTs) containing gasoline, diesel, and kerosene. Soil and groundwater have been impacted by petroleum hydrocarbons derived from operations at the site. Based on environmental investigations to date, the constituents of concern include total petroleum hydrocarbons as gasoline (TPHg)

and as diesel (TPHd), and petroleum-related volatile organic compounds including methyl tert-butyl ether (MTBE) in groundwater.

2. Purpose of the Order

This Order requires the Discharger to clean up and abate the discharge of petroleum constituents in groundwater and soil and eliminate the threat of future discharges. Investigation and cleanup actions required under this Order shall be conducted to comply with the Porter-Cologne Water Quality Control Act (Wat. Code § 13000 et seq.), the *Water Quality Control Plan for the North Coast Region* (Basin Plan), State Water Resources Control Board (State Water Board) Resolution 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304* (Resolution 92-49), and other applicable State and North Coast Water Board plans, policies, and regulations.

3. Site Description

The site is an approximately one-acre parcel located at 505 North Foothill Drive in Yreka, California identified by Assessor's Parcel Number 053-601-050. Development on the site includes an active petroleum bulk plant and cardlock facility that includes seven ASTs containing gasoline, diesel, and kerosene. Surrounding uses include a mixture of light industrial/ commercial and residential in an area served by a public water district.

4. Responsible Parties

The Discharger and former property owner, Cross Petroleum, is the responsible party (RP) for purposes of this Order. The North Coast Water Board reserves the right to amend this Order to add responsible parties when and if those parties are identified.

5. Factual Basis of Order

The Discharger's activity at the site, as detailed below, created and threatens to create a condition of pollution in waters of the state, including groundwater by unreasonably impacting water quality and beneficial uses.

- a. In 1987, an unauthorized release of approximately 840 gallons of diesel occurred at the northwest corner of the AST farm that flowed off-site into a holding pond near the railroad tracks that bound the northern boundary. In response, approximately 20 yards of impacted soil was excavated and remediated with aeration; however, the pond itself was not excavated and it is unknown if the pond was sampled. Siskiyou County closed the site in 1988 after soil samples were collected of the remediated soil; however, post-aeration soil sampling data was not provided in records. From 1988 to 2020, no subsurface investigations are known to have been completed.
- b. On September 22, 2020, soil samples were collected at the site as part of a phase II environmental site assessment (Phase II ESA) for a potential property transaction that showed detectable concentrations of petroleum hydrocarbons. Groundwater samples were unable to be collected due to shallow refusal. In response, Siskiyou County required additional investigation for the collection of

groundwater samples. On January 14 and 15, 2021, three borings (SB1-B, SB3-B, and SB4-B) were advanced at the site for groundwater collection.

Approximately two inches of free product was observed in SB1-B during the exploration, and groundwater analytical results showed petroleum hydrocarbon impacts to groundwater. Due to the presence of free product, the product lines were tested and results showed that the midgrade product line failed the testing. The midgrade AST was removed from service on January 22, 2021, and the California Office of Emergency Service was notified on January 25, 2021. An unauthorized release form was filed January 25, 2021, and the site referred to the North Coast Water Board on February 23, 2021.

- c. On July 12, 2024, the operators of the facility observed surface staining. A product line test identified there was a slight leak in the diesel line and the line was taken out of service. A leak report, dated July 14, 2024, was submitted to Siskiyou County.
- d. A "Remedial Action Work Plan" dated August 21, 2025, submitted to the North Coast Water Board, was prepared to address contamination at the site using enhanced monitored natural attenuation.

6. Beneficial Uses

The Basin Plan designates beneficial uses, establishes water quality objectives applicable to those uses, contains implementation programs for achieving objectives, and incorporates by reference the plans and policies adopted by the North Coast Water Board.

- a. The site is located near the Yreka River, and the Shasta River & tributaries in the Shasta Valley Hydrologic Area. Existing beneficial uses for groundwater within the Shasta Valley Hydrologic Area include Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND), Groundwater Recharge (GWR), Freshwater Replenishment (FRSH), Navigation (NAV), Water Contact Recreation (REC1), Non-contact Water Recreation (REC2), Commercial and Sport Fishing (COMM), Warm Freshwater Habitat (WARM), Cold Freshwater Habitat (COLD), Wildlife Habitat (WILD), Rare Threatened or Endangered Species (RARE), Migration of Aquatic Organisms (MIGR), Spawning, reproduction, and/or Early Development (SPWN), and Aquaculture (AQUA). Beneficial uses of any specifically identified water body generally apply to all its tributaries. Additionally, potential beneficial uses include Industrial Process Supply (PRO) and Hydropower Generation (POW).

7. State Water Board Resolutions 92-49

State Water Board Resolution 92-49 sets forth the policies and procedures to be used during an investigation and cleanup of a polluted site and requires that cleanup levels be consistent with State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality Waters in California ("Resolution 68-16"). Resolution 92-49 requires the waste to be cleaned up in a manner that promotes attainment of either background water quality, or the best water quality that is reasonable if background levels of water quality cannot be restored. Any alternative cleanup level to background must: (1) be consistent with the maximum

benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board. Resolution 92-49 directs that investigations and cleanup and abatement proceed in a progressive sequence. To the extent practical, it directs the North Coast Water Board to require and review for adequacy written work plans for each element and phase, and the written reports that describe the results of each phase of the investigation and cleanup.

8. Water Quality Objectives

Water quality objectives in the Basin Plan are adopted to ensure protection of the beneficial uses of water. The most stringent water quality objectives for protection of all beneficial uses are selected as the protective water quality criteria. Alternative cleanup and abatement actions must evaluate the feasibility of, at a minimum: (1) cleanup to background levels; (2) cleanup to levels attainable through application of best practicable technology; and (3) cleanup to the level of water quality objectives for protection of beneficial uses.

9. Legal Authority to Require Cleanup and Abatement

Water Code section 13304, subdivision (a) states, in relevant part:

“A person who has discharged or discharges waste into waters of this state in violation of any waste discharge requirements 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, or probably will be, discharged into the waters of the state and causes, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board 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....Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.”

- a. “Pollution” is defined by Water Code section 13050, subdivision (l)(1) 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 the facilities which serve these beneficial uses.
- b. “Nuisance” is defined by Water Code section 13050, subdivision (m) to mean anything which meets all the following requirements:
 - i. 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.

- ii. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
- iii. Occurs during, or as a result of, the treatment or disposal of wastes.

10. Cleanup and Abatement Action Necessary

Cleanup and abatement is necessary to ensure that the existing condition of pollution is cleaned up; that threatened unauthorized discharges to waters of the state from the Site are prevented; that background water quality, or the best water quality that can be attained is restored; and that any impacts to beneficial uses are mitigated. The current condition of pollution is a priority violation and the issuance of a cleanup and abatement order pursuant to Water Code section 13304 is appropriate and consistent with the policies of the North Coast Water Board.

11. Technical Reports Required

Water Code section 13267, subdivision (a) provides that the North Coast Water Board may investigate the quality of any water of the state within its region in connection with any action relating to the Basin Plan. Water Code section 13267, subdivision (b) provides that the North Coast Water Board, in conducting an investigation, may require a discharger to furnish, under penalty of perjury, technical or monitoring program reports. The burden of preparing the reports required by this Order bears a direct relationship for the need for the reports and the benefits to be obtained from the reports. The technical reports required by this Order are necessary to assure compliance with this Order and to protect the waters of the state. The technical reports are further necessary to demonstrate that appropriate methods will be used to clean up waste discharged to soil and groundwater and to ensure that the urgent cleanup actions required will comply with Basin Plan requirements. In accordance with Water Code section 13267(b), the findings in this Order provide the Discharger with a written explanation with regard to the need for investigation and reports and identifies the evidence that supports the requirement to implement clean up and abatement activities and submit the reports.

The reports and work required under this Order are necessary for the North Coast Water Board to ensure that the quality of waters of the state is adequately protected. The burden, including the costs of the reports, bears a reasonable relationship to the need for the reports and the benefits to be obtained from them. The reports and work required in this Order are reasonable and would be required by any person who discharged petroleum hydrocarbons or chlorinated hydrocarbons in a manner that impaired the quality of the waters of the state.

The listed costs shown on the table below associated with the project are estimated by the North Coast Water Board. The responsible party and not the Water Board will select contractors and other professionals to complete the required work, and costs may differ from the estimate provided.

Task	Approximate Cost
1. Following completion of excavation of impacted soil, during backfill operation approximately 1,520 pounds of a soil amendment consisting of oxygen releasing compound (ORC) from Regenesis Remediation Solutions, of Carlsbad, California. ORC will be applied within the saturated zone in accordance with Regenesis site-specific design specifications.	\$340,000
2. A permeable reactive barrier (PRB) will be installed consisting of 15 borings installed every 5 feet and to a depth of approximately 18 feet below ground surface (bgs). The PRB boring will consist of a 192-gallon mixture of water and PetroFix. The mixture will be injected using a Geoprobe from 8 feet to 18 feet bgs at approximately 19 gallons per foot. PetroFix is a proprietary formula of activated carbon to adsorb total petroleum hydrocarbons and electron acceptors (a blend of nitrate and sulfate salts) to stimulate hydrocarbon biodegradation.	
3. Groundwater monitoring will include the constituents listed in the enclosed Attachment A.	
Total Estimated Cost	\$340,000

12. Electronic Reporting Requirements

Sampling data, reports, and plans shall be submitted to the North Coast Water Board via the State Water Resources Control Board's Geographic Environmental Information Management System database (GeoTracker) as specified in Title 23, Division 3, Chapter 30, Article 2, Sections 3890-3895 of the California Code of Regulations.

13. California Environmental Quality Act

Issuance of this Order is being taken for the protection of the environment and to enforce the laws and regulations administered by the North Coast Water Board and, as such, is exempt from provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14 sections 15301, 15304, 15306, 15307, 15308, and 15321, 15330. If the North Coast Water Board determines that implementation of any action or plan required by this Order will have a significant effect on the environment that is not otherwise exempt from CEQA, the North Coast Water Board will conduct the necessary and appropriate environmental review prior to implementation of the applicable plan or action. The Discharger will bear the costs, including the North Coast Water Board's costs, of determining whether implementation of any plan or action required by this Order will have a significant effect on the environment and, if so, in preparing and handling any documents necessary for environmental review. If necessary, the Discharger and a consultant

acceptable to the North Coast Water Board, shall enter into a memorandum of understanding with the North Coast Water Board regarding such costs prior to undertaking any environmental review.

REQUIRED ACTIONS

IT IS HEREBY ORDERED that, pursuant to Water Code sections 13267 and 13304, the Discharger shall clean up the wastes and abate the impacts to water quality in accordance with the scope and schedule set forth below and provide the following information. The Discharger shall obtain all necessary permits for the activities required in this Order.

1. **April 10, 2026**, the Discharger shall submit a remedial action workplan (workplan) and schedule of implementation for in-situ soil and/or groundwater remediation at the site. The workplan shall be reviewed and approved by the Executive Officer and shall include:
 - a. A description of the amendment or amendments including but not limited to nutrients (nitrogen, phosphorus, and/or nutrient formula), microorganisms, and/or electron acceptors, like an oxygen source (magnesium peroxide, calcium peroxide, hydrogen peroxide, and other similar compounds) or anaerobic terminal electron acceptors (e.g. nitrate or sulfate), and air to groundwater and/or soil.
 - b. The background water quality conditions of the aquifer into which the nutrients, microorganisms, and/or an oxygen source will be added. Groundwater parameters to be evaluated include nutrient concentrations, nitrate, nitrite, ferric iron, ferrous iron, sulfate, sulfide, total nitrogen, total phosphorous, oxygen, carbon dioxide, oxidation-reduction potential, alkalinity, pH, temperature, specific conductivity, total dissolved solids, oxygen reductive potential;
 - c. Description and schematic of the treatment system, including a schematic of the area of application;
 - d. Complete definition of all preferential pathways and buried utilities;
 - e. Description and volume of any chemical additives;
 - f. Results of a preliminary study to evaluate the effectiveness and feasibility of the in situ soil and groundwater bioremediation. The preliminary study should include geologic and hydraulic aspects of the site such as soil stratification and hydraulic conductivity;
 - g. Description of expected breakdown products and potential impacts;
 - h. Description and quantities of specific microorganisms to be used; and
 - i. Description and quantities of nutrients to be used.
 - j. A monitoring plan to monitor the effectiveness of the treatment system and groundwater quality. The monitoring plan shall describe the locations to be sampled and will include the following: (1) an up-gradient sampling point; (2) a

down-gradient sampling point and; (3) sampling points within the contaminated zone. The monitoring plan shall also address the constituents in the table of sampling parameters found in Attachment A to this Order.

- k. The Discharger shall submit a sensitive receptor study that includes identification of all sensitive receptors within 1500 feet and all beneficial uses of groundwater for the specific site.
- l. The Discharger shall publish a notice of proposed discharge of constituents in accordance with the Order in a newspaper of general circulation in the affected area, post a copy of the notice at the site in a prominent location(s), and shall provide notice to contiguous property owners and any interested parties.
- m. The identification of all federal, state and local agency permit requirements associated with the proposed in situ treatment method. A condition of eligibility is compliance with federal, state and local agency permit requirements.
- n. Acknowledgement signed by a licensed professional engineer or geologist that the following discharges are prohibited and will not occur as a result of the in-situ remediation work:
 - i. The discharge of any nutrients, microorganisms, and/or electron acceptor not specifically regulated by this Order is prohibited
 - ii. Creation of pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code (CWC), is prohibited.
 - iii. The discharge of nutrients, microorganisms, and/or electron acceptor to land, surface waters or to groundwater in areas other than that proposed is prohibited.
 - iv. The discharge of nutrients, microorganisms, and/or electron acceptor to property that is not under the control of the discharger is prohibited.
 - v. The migration of any byproducts produced as part of the treatment process beyond the boundaries of the property owned or controlled by the Discharger is prohibited.
2. Within 90 days of receiving workplan approval, the Discharger shall begin to implement the workplan per the approved schedule of implementation.
3. Within 90 days of the completion of the in-situ remediation work, the Discharger shall submit a technical report documenting the in-situ remediation activities including:
 - a. all field injection activities
 - b. a map of all injection points
 - c. injection zones targeted and depths, substrate selection and volume injected at each point
 - d. pre-and -post injection groundwater monitoring results
 - e. waste management handling and disposal summary
 - f. any deviations from the approved workplan.

4. Additional injection events

If the RP determines that additional injection events are needed, the RP must submit a workplan for additional injections for review and approval by the North Coast Water Board's Executive Officer or authorized delegatee for review and approval. This will ensure proper oversight and control to maintain water quality and environmental safety. These events must be proposed in a new workplan including injection locations, depths, volumes of material injected, and any changes in methodology. The details of the injection work must be reported in a technical report and submitted to the North Coast Water Board after each injection event, including a description of activities as outlined in Section 2 (a-f).

GENERAL REQUIREMENTS AND NOTICES

1. Duty to Use Qualified Professionals

The Discharger shall provide documentation that plans and reports required under this Order are prepared under the direction of appropriately qualified professionals. Conduct all work under the direction of a California professional civil engineer or professional geologist experienced in surface water, soil, and groundwater investigation and remediation. All workplans and reports submitted to the Executive Officer of the North Coast Water Board shall be signed and stamped by a licensed professional. As required by the California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. The Discharger shall include a statement of qualification and registration numbers of the responsible lead professionals in all plans and reports required under this Order. The lead professional shall sign and affix their registration stamp to the report, plan, or document. The required activities must be implemented by the appropriately qualified/licensed professional as otherwise required by law.

2. Signatory Requirements

All technical reports submitted by the Discharger shall include a cover letter signed by the Discharger, or a duly authorized representative, certifying under penalty of law that the signer has examined and is familiar with the report and that to his/her knowledge, the report is true, complete, and accurate. The Discharger, or a duly authorized representative, shall also state in the cover letter whether he/she will implement the recommendations/proposals provided in the report and the schedule for implementation. Any person signing a document submitted under this Order shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware

that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

3. Notice of Onsite Work

The Discharger, or a duly authorized agent, shall notify North Coast Water Board staff at least 48 hours prior to any onsite work, testing, or sampling that pertains to environmental remediation and investigation and is not routine monitoring, maintenance, or inspection. The Discharger may contact the North Coast Water Board using the general phone line at (707) 576-2220.

4. Agency Coordination

Investigation and cleanup activities associated with soils, surface waters, and/or groundwater with North Coast Water Board staff, Siskiyou County Environmental Health staff, California Department of Fish and Wildlife, and other regulatory agencies involved in the cleanup as necessary.

5. Other Regulatory Requirements

The Discharger shall obtain all applicable local, state, and federal permits necessary to fulfill the requirements of this Order prior to beginning the work.

6. Cost Recovery

Pursuant to Water Code section 13304, the State or North Coast Water Board is entitled to all reasonable costs it actually incurs to investigate and abate the effects of unauthorized discharges of waste and to oversee/supervise the cleanup of such waste, or other restoration action, required by this Order. The State Water Board's Site Cleanup Program Cost Recovery Program was established through the authorities of Water Code sections 13267, 13304, and 13365. The Discharger shall pay all cost recovery invoices within 30 days of issuance of the invoice.

7. Delayed Compliance

If for any reason, the Discharger is unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule submitted pursuant to this Order and approved by the Executive Officer, the Discharger may request, in writing, an extension of the time specified. The extension request shall include justification for the delay. Any extension request shall be submitted as soon as a delay is recognized and 5 days prior to the compliance date. An extension may be granted by revision of this Order or by a letter from the Executive Officer.

8. Potential Liability

If the Discharger fails to comply with the requirements of this Order, this matter may be referred to the Attorney General for judicial enforcement or a complaint for administrative civil liability may be issued by the North Coast Water Board. Failure to comply with this Order may result in the assessment of an administrative civil liability of up to \$10,000 per violation per day and \$10 per gallon of waste discharged in excess of the initial 1,000 gallons, when the violation results in the discharge of waste, pursuant to California Water Code sections 13350, and/or 13385. Failure to

provide workplans and investigative reports as required by this Order may result in the assessment of administrative civil liability of up to \$1,000 per day for each violation pursuant to Water Code section 13268. The North Coast Water Board reserves its right to take any enforcement actions authorized by law, including, but not limited to, violation of the terms and condition of this Order.

9. No Limitation of Water Board Authority

This Order in no way limits the authority of the North Coast Water Board to institute additional enforcement actions or to require additional investigation and cleanup of the site consistent with the Water Code. This Order may be revised as additional information becomes available.

10. Modifications

Any modification to this Order shall be in writing and approved by the North Coast Water Board or its delegated officer including any potential extension requests.

11. Reasonable Access

The Discharger shall allow the North Coast Water Board, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter at reasonable times to inspect the site and any records that must be kept under the conditions of this Order for the purposes of assuring compliance with this Order or as otherwise authorized by the Water Code.

12. Requesting Review by the State Water Board

Any person aggrieved by this or any final action of the North Coast Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et al. The State Water Board must receive the petition no later than 5:00 p.m., 30 days following the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the [State Water Resources Control Board's website](https://www.waterboards.ca.gov/public_notices/petitions/water_quality/) (https://www.waterboards.ca.gov/public_notices/petitions/water_quality/) or will be provided upon request.

13. Order Termination

The North Coast Water Board will consider termination of the Order after all injection events associated with this Order have been performed and the appropriate and complete reports documenting the work are submitted and approved by the North Coast Water Board.

Ordered by: _____
Valerie Quinto
Executive Officer



Figure 1: Site Plan (Figure excerpted from SHN's "Remedial Action Work Plan" dated August 21, 2025.)

Attachment A

Table of parameters to be addressed in the monitoring plan:

Constituent	Frequency	Duration
Constituents of Concern: Volatile Organic Compounds, TPHg, and TPHd	Semiannual	Two years
Visual confirmation of Petrofix in wells	Quarterly	As needed
Nitrate	Quarterly first year, semiannual second year	Two years
Sulfate	Quarterly first year, semiannual second year	Two years
Dissolved Iron	Quarterly first year, semiannual second year	Two years
Dissolved Manganese	Quarterly first year, semiannual second year	Two years
pH	Quarterly first year, semiannual second year	Two years
Dissolved Oxygen	Quarterly first year, semiannual second year	Two years
Oxygen reduction potential	Quarterly first year, semiannual second year	Two years
Electrical Conductivity	Quarterly first year, semiannual second year	Two years
Cations – Calcium, Magnesium, Aluminum by EPA method 6010*	Quarterly first year, semiannual second year	Two years
Sulfide	Quarterly first year, semiannual second year	Two years
Methane	Quarterly first year, semiannual second year	Two years