

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

RESOLUTION NO. R11-007

APPROVING THE ENVIRONMENTAL CHECKLIST AND
ADOPTING A MITIGATED NEGATIVE DECLARATION FOR
PILOT TESTS FOR THE
INJECTION OF SURFACTANTS INTO SUBSURFACE
TO REMEDIATE PETROLEUM HYDROCARBON IMPACTED GROUNDWATER
GX-145 PIPELINE RELEASE AREA,
RANCHO DOMINGUEZ, CALIFORNIA

(FILE NO. 98-135, SCP NO. 0532B)

WHEREAS, the California Regional Water Quality Control Board, Los Angeles Region finds that:

1. California Water Code (CWC) section 13260(a)(1) requires that any person discharging wastes, or proposing to discharge wastes other than into a community wastewater collection system, which could affect the quality of the waters of the State, shall file a report of waste discharge (ROWD) with the Regional Water Quality Control Board exercising jurisdiction in the area, and that Regional Board shall then prescribe requirements for the discharge or proposed discharge of wastes.
2. The GX-145 Pipeline Release Area (Site) is located in the vicinity of the 18900 block of Santa Fe Avenue at Compton Creek in Rancho Dominguez, California (Latitude 33° 51' 36" N, Longitude 118° 12' 58" W). The Site where the proposed remediation is going to be implemented is owned by Union Pacific Railroad Company; however, Paramount Petroleum Corporation (hereafter Discharger) is responsible for the investigation and remediation of petroleum hydrocarbon impacted soil and groundwater. The Site is approximately 3.5 acres in size, based upon the lateral extent of the hydrocarbon impacted groundwater, and is located in the vicinity of the intersection of Santa Fe Avenue and Compton Creek in an industrial/commercial area of Rancho Dominguez.
3. The GX-145 pipeline runs mostly below ground surface along Santa Fe Avenue; however, it runs above ground surface attached beneath the Santa Fe Avenue Bridge that passes over Compton Creek. In September 1997 a leak was discovered in the underground section of the pipeline, just west of the Bridge. The pipeline carried jet fuel, naphtha, and diesel fuel prior to the leak discovery.
4. The Discharger and previous pipeline owners and operators have been conducting soil and groundwater investigations since September 1997 under the oversight of the Regional Board. In October 1998, the Regional Board issued Cleanup and Abatement Order (CAO) No. 98-075, requiring cleanup and abatement of soil and groundwater pollution caused by the release of petroleum hydrocarbons at the Site. A total of 31 groundwater monitoring wells have been installed to monitor the groundwater conditions and recover free phase hydrocarbons at the Site and vicinity. Results from the soil and groundwater assessments indicates that the primary contaminants are free and dissolved phase hydrocarbons, and associated volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and total xylenes (BTEX).
5. A soil vapor extraction (SVE) system was operated at the Site from 1999 to 2006 to address petroleum hydrocarbon impacted soil. The SVE system extracted impacted soil vapors from the

vadose zone and treated them with catalytic oxidizers. During SVE operations at the Site, an estimated 18,400 gallons of vapor-phase product was recovered. In 2006, the Regional Board conditionally approved the shutdown of the SVE system due to its inefficiency, and required the Discharger to reinstall the SVE system or use alternative remedial actions after the free product plume is shrunk or adequately mitigated.

6. Free phase hydrocarbon recovery has been conducted since September 1997, initially with manual bailing and vacuum truck and followed by two permanent automated recovery systems starting May 1999. An estimated 205,000 gallons of free phase product have been recovered to date.
7. The Discharger submitted the "Updated Remediation Evaluation Report and Workplan" (Report/Workplan), dated December 2009. In the Report/Workplan, the Discharger evaluated alternative remedial technologies to address petroleum hydrocarbon impacts in soil and groundwater, and proposed pilot tests for the injection of surfactants into groundwater to enhance free phase hydrocarbon recovery. Multi-phase extraction (MPE) will be applied by extracting soil vapor, free product, and impacted groundwater from wells within the treatment area. The Regional Board approved the proposed pilot tests in a letter dated April 12, 2010.
8. To enhance the free product recovery, the Discharger proposes to inject the surfactant Ivey-sol[®] into impacted groundwater. The surfactant is expected to desorb free phase hydrocarbon from the solid phase and allow them to migrate as a liquid phase for improved mass recovery and treatment by various remediation techniques, such as MPE.
9. Groundwater beneath the Site and vicinity is unconfined and has been encountered at approximately 47 feet below ground surface. The direction of groundwater flow is generally to the south-southwest.
10. The Discharger will monitor groundwater for the presence and concentration of the injection solution and contaminants and evaluate flow conditions and any potential for migration of contaminants outside the treatment area. As specified in the Waste Discharge Requirements and Notice of Preparation of Mitigated Negative Declaration, the Discharger shall provide hydraulic control, if necessary, to prevent offsite migration. Monitoring of groundwater quality and flow conditions across the entire Site is required by a comprehensive separate site-wide groundwater monitoring program.
11. The application of surfactants to groundwater may result in temporary adverse impacts to groundwater quality, but impacts that may result will be localized and of short-term duration, and will not impact any existing or prospective uses of groundwater. According to the manufacturer, Ivey International Inc., the proposed surfactant to be used at the Site is biodegradable and has a biodegradability of greater than 90% in 28 days.
12. The Water Quality Control Plan (Basin Plan) for the Los Angeles Region designates the beneficial uses of groundwater in the Central Basin as municipal and domestic supply, industrial process supply, industrial service supply, and agricultural supply.

13. The permitted discharge is consistent with the anti-degradation provisions of State Water Resources Control Board Resolution No. 68-16 (Anti-degradation Policy). The discharge may result in some localized exceedance of background concentrations of constituents such as total organic carbon and total dissolved solids, but this is not anticipated to result in any long-term groundwater degradation.
14. This Regional Board has assumed lead agency role for this project under the California Environmental Quality Act (CEQA) [Public Resources Code section 21000 et seq.] and has conducted an Initial Study (in the format of an expanded Environmental Checklist) in accordance with Title 14, California Code of Regulations, Section 15063, and titled Guidelines for Implementation of the California Environmental Quality Act. Based on the Initial Study, Regional Board prepared a Mitigated Negative Declaration that the project will not have a significant adverse effect on the environment.
15. The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for this discharge and has provided them with an opportunity to submit their written comments and recommendations. The Regional Board, in a public meeting on May 5, 2011, heard and considered all comments pertaining to the discharge and to the tentative requirements.
16. Copies of the Environmental Checklist and proposed Mitigated Negative Declaration were transmitted to the State Clearinghouse, all agencies and interested parties. All comments received have been addressed by Regional Board staff. The Regional Board considered all testimony and evidence at a public hearing held on May 5, 2011 at the Metropolitan Water District of Southern California, Board Room, Los Angeles, located at 700 North Alameda Street, Los Angeles, California, and good cause was found to approve the Environmental Checklist and adopt a Mitigated Negative Declaration.
17. The Regional Board has reviewed the Initial Study and Mitigated Negative Declaration concerning this Resolution prepared by staff in compliance with CEQA (Public Resources Code section 21000 et seq.). The Regional Board concurs with the staff findings that a Mitigated Negative Declaration should be adopted. The Initial Study and Mitigated Negative Declaration were circulated for public review and comment.

THEREFORE, BE IT RESOLVED that the Regional Board:

1. Adopts the Environmental Checklist, Initial Study, and Mitigated Negative Declaration and directs the Executive Officer to file a Notice of Determination with the State Clearinghouse within 30 days as required by the California Code of Regulations.
2. Directs that a copy of this Resolution shall be forwarded to the State Water Resources Control Board and all interested parties.

3. Directs that the discharge of surfactants into the groundwater shall conform with all the requirements, conditions, and provisions set forth in *A. "Discharge Limits"* and *B. "Discharge Specifications"* of ORDER NO. R4-2011-0089.

CERTIFICATION

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Los Angeles Region on May 5, 2011.


Samuel Unger, PE
Executive Officer