



Central Valley Regional Water Quality Control Board

30 October 2022

Mr. Brad Barnett
Tom's Sierra Company dba Sierra Energy
140 Diamond Creek Place #150
Roseville, CA 95747

NOTICE OF APPLICABILITY – ORDER NO. R5-2015-0012-0076, FORMER SIERRA SUPERSTOP #8, 5057 OLIVEHURST AVENUE, OLIVEHURST, YUBA COUNTY, LUST CASE #580087, GEOTRACKER ID #T0611500069

Stratus Environmental, Inc. (Stratus) submitted the following documents on your behalf:

- *Corrective Action Plan and Additional Assessment Work Plan (Work Plan)*, dated 26 June 2020
- *Work Plan Addendum (Addendum)*, dated 21 December 2020
- *Notice of Intent Application (NOI)*, dated 5 November 2021

Stratus submitted these documents for the proposed injection of ozone to remediate petroleum hydrocarbon impacts to groundwater at 5057 Olivehurst Avenue in Olivehurst. Stratus requested coverage for the proposed injection of ozone under *Order R5-20150-0012, Waste Discharge Requirements General Order for In-SITU Groundwater Remediation and Discharge of Treated Groundwater to Land* (General Order). Based upon review of the documents submitted by Stratus, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff concludes the proposed application of ozone by injection complies with the conditions specified in the General Order. As such, you are being issued this Notice of Applicability and have been assigned Order Number **R5-2015-0012-0076**.

Project Location:

Street Address:	5057 Olivehurst Avenue
City, County:	Olivehurst, Yuba
Assessor's Parcel Number:	013-520-018
Latitude & Longitude:	North 39.10047, West -121.55101
Township/Range/Section:	T15N / R4E / S32

MARK BRADFORD, CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

The Site consists of an approximately 0.60-acre lot occupied by a Kwik Serv retail fuel service station. The property contains a single commercial building along the east side of the property with a dispenser island and parking lot occupying the remainder of the property to the west of the building. A small recycling center structure is located north of the retail building. The Site is bounded by Olivehurst Avenue and residential properties to the west, a commercial property to the north, undeveloped property to the east, and mixed residential and commercial properties to the south. The unauthorized petroleum release is recorded as occurring from leaking dispenser piping in May 1993.

Project Description:

Yuba County Office of Emergency Services recorded the unauthorized petroleum release occurred from leaking dispenser piping in May 1993, based on analytical results from soil sampling conducted beneath the dispensers during a facility upgrade. Between 1996 and 2003, Apex Envirotech Inc. (Apex), Augeas Corporation (Augeas), and J.S. Environmental and Geological Support services conducted subsurface investigations to characterize the extent of the petroleum release in soil and groundwater.

Between March and April 2017, the Site's two 10,000-gallon and one 7,500-gallon gasoline underground storage tanks (USTs) were removed and replaced, along with the Site's dispensers and product lines. Soil samples collected during these activities did not indicate the presence of a new release from the former UST system.

To date, 15 groundwater monitoring wells, 10 air sparge wells, 10 soil vapor extraction wells (1 additional well proposed), and 2 dual-nested ozone injection wells (6 additional wells proposed) have been installed at the Site. Remedial actions conducted at the Site have included liquid phase hydrocarbon removal, groundwater extraction, soil vapor extraction (SVE)/air sparging (AS), and ozone sparging. The most recent remedial actions occurred in December 2020, when Stratus restarted the Site's SVE system to full-time operation, and between May and June 2021, when Stratus conducted an 8-week ozone injection (OI) pilot test. The results of OI pilot testing indicated that OI, combined with SVE system operation, improved subsurface conditions for contaminant destruction with minimal breakdown product creation and increased rates of vapor-phase petroleum extraction.

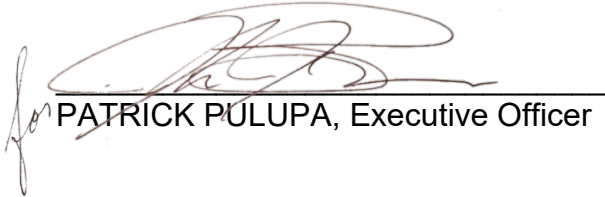
Based on the results of OI pilot testing, Stratus has recommended full-scale installation and implementation of OI. OI is an oxidation remediation technology that increases subsurface dissolved oxygen concentrations in groundwater, which then increases the chemical breakdown of petroleum hydrocarbons in groundwater. Stratus proposes to inject ozone into groundwater beneath the Site using 24-inch microbubbler diffusers positioned at two depths within dedicated OI wells. Stratus proposes to simultaneously utilize SVE to remove petroleum hydrocarbon mass remaining in unsaturated soils in the vadose zone.

Analytical testing shall be performed on select monitoring wells in accordance with the enclosed Monitoring and Reporting Program (MRP) to assess the effectiveness of the remediation effort and to ensure that breakdown products generated or mobilized from the injection of ozone into groundwater does not exceed water quality objectives or groundwater limitations based on naturally occurring background water quality. As indicated in the attached MRP, if groundwater quality is degraded and concentrations of breakdown products in Compliance Zone wells exceed Site-specific Action Levels due to ozone injection, the Contingency Plan will be implemented.

General Information:

1. The project will be operated in accordance with the requirements contained in the *General Order*, the information submitted in the *NOI*, the Work Plan and Addendum, and as specified in this Notice of Applicability (NOA).
2. The required annual fee (as specified in the annual billing you will receive from the State Water Resources Control Board) shall be submitted until this NOA is officially rescinded.
3. Injection of materials other than those specified in the *NOI* into the subsurface is prohibited, unless analysis, as specified in the *General Order*, of the injectant is provided and concurred with by Central Valley Water Board staff.
4. Failure to abide by the conditions of the *General Order* in this NOA can result in enforcement actions as authorized by provisions of the California Water Code.
5. The Discharger shall comply with the attached MRP, and any revisions thereto as ordered by the Executive Officer or directed by Central Valley Water Board staff.
6. Central Valley Water Board staff concurrence with the use of the proposed remedial technology within this NOA does not constitute an endorsement or requirement of its specific use. It is the explicit responsibility of the applicant/discharger to obtain all relevant legal rights of its use.

If you have any questions regarding this NOA, please contact Michael DeSmet at (916) 464-4830 or by email at michael.desmet@waterboards.ca.gov.



PATRICK PULUPA, Executive Officer

Enclosure: General Order and MRP

cc: Lakhbur S. Hira, Hira Petroleum (email)
Greg Brandin, Sierra Energy (email)
Clark Pickell, Yuba County Health Department (email)
Jay Johnson, Stratus Environmental Inc. (email)