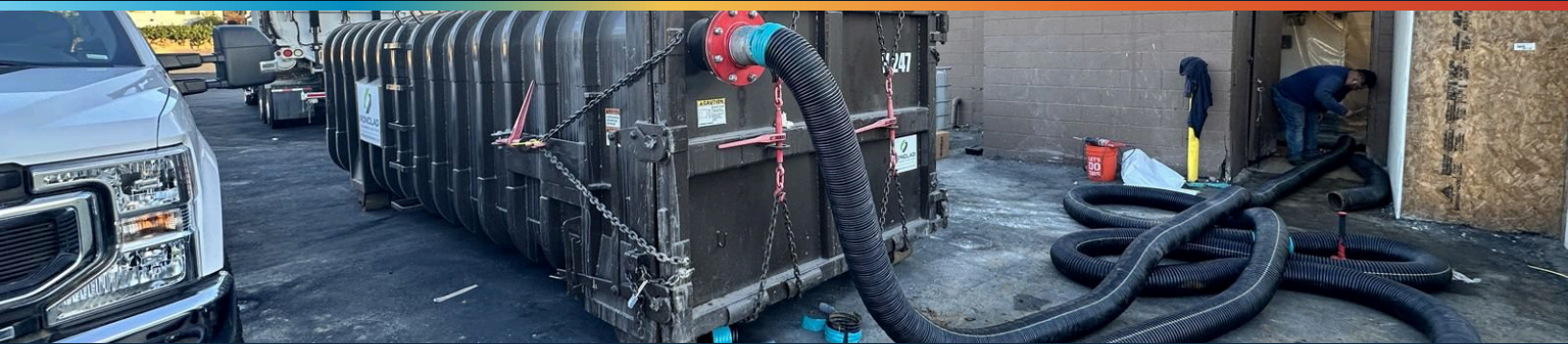


Carson Plaza

COMBINED IN SITU REMEDIATION BENEATH AN OPERATING DRY CLEANER · CARSON, CALIFORNIA



PHASES

SVE/DPE → ERH/MPE → ISCO → HETR™/SVE

TREATMENT AREA

13,270 sq ft

INTERVAL

0 to 30 ft bgs

VOLUME

12,300 cubic yards

CONTAMINANTS

PCE, TCE, DCE, vinyl chloride

CONTRACT

Guaranteed performance to MCLs

AGENCIES

LARWQCB, then DTSC

SUMMARY

Soil and groundwater beneath an operating dry cleaner and strip mall were impacted with PCE, TCE, DCE and vinyl chloride to 30 feet below ground surface. Soil at 16 feet reached 860 µg/kg PCE and 1,700 µg/kg TCE; groundwater hot spots reached 4,600 µg/L PCE and 18,000 µg/L TCE.

The site was remediated in phases while the businesses stayed open: vapor extraction, dual-phase extraction and limited groundwater extraction; then targeted electrical resistance heating; then chemical oxidant injection with continued vapor extraction. In the final phase, a focused eight-well HETR™ thermal conduction heating wellfield operated with soil vapor extraction to treat the residual source zone.

Working under a guaranteed performance contract to reach MCLs, the remedy reduced concentrations about 99% across soil, groundwater and soil vapor. After groundwater reached non-detect, oversight transferred from the Los Angeles RWQCB to DTSC, which issued a No Further Action determination for unrestricted land use on August 24, 2026.

~99%

Reduction in soil, groundwater and soil vapor

ND

Groundwater reached non-detect

Aug 2026

DTSC No Further Action

Unrestricted

Land use, including residential



Thermal and vapor extraction wellheads.



HETR™ wellhead with vapor extraction connection.



Vapor extraction and treatment system.