

# PROJECT SNAPSHOT

## ERH Treatment of Norman Dry Cleaning Facility in an Urban Setting

ERH

**Location:** Eureka, CA

**Client:** St. John - Mittelhauser

**Contamination:** PCE, TCE, cis 1,2-DCE, and  
TPH-g

**Volume:** 5,198 cy

**Goal:** Reduce max PCE concentration to 35  
 $\mu\text{g/L}$

**Number of Electrodes:** 81

**Duration:** 6.5 months of operation

**Mass Removed:** 3,000 lbs.

## WHAT MAKES THIS PROJECT UNIQUE?

Half of the targeted treatment zone (TTZ) was installed and operated in a busy street. City utilities and AT&T's main west coast fiber-optic communication line ran directly through the TTZ conduit in the ground. An innovative electrode design was developed to allow the heating of a treatment interval less than 10 ft thick and avoid the utilities, which had never been accomplished before using ERH.

### Important Project Details

- **Approach:** Complicated system installation and operations, a 24 inch clay pipe sewer main, an 8 inch steel water main, a 4 inch steel natural gas main, and the AT&T west coast fiber optics/telephone trunk line ran directly through the TTZ at depths that exposed them to both elevated temperature, steam, and electrical current. In addition to performing vapor extraction at each of the 81 electrodes, a shallow horizontal air movement system was installed adjacent, and just below, the utilities in the street to provide cooling.
- **Challenges:** The challenge in protecting the aquifer was limiting electrode lengths to less than 9 ft, which is below the standard of minimum 20 ft. The issue was solved by an innovative installation technique. The team installed off-site system components at night to avoid impacting the public. Once installed, the electrode field in the street and sidewalk were open to unrestricted public access.
- **Results:** All soil and groundwater remediation goals were achieved.



## CONTACT INFO

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