



## Lakewood PCE Remediation

**CLIENT:**

City of Lakewood

**ROLE:**

Subcontractor/  
Self-Performing

**PROJECT NUMBER:**

10-19-0061

**Contract Amount:**

\$1,500,000

**DATE COMPLETED:**

April 2020

**PROJECT HIGHLIGHTS:**

- *Excavated, transport, and disposed of over 2,000tons of haz PCE Impacted soil*
- *Solidified and disposed of over 1,000,000gallons of water using SAP*
- *In-Situ treated 24,000SF with RegenOx*
- *Designed and Installed filtration system for filtering and discharging another 500,000gallons of PCE Impacted water*
- *Saved a development deal from stopping due to surprise PCE contamination.*



Buckeye Elm was contracted to performed environmental remediation of PCE impacted soils and water discovered after the demo of an old hospital. The site was to become a multimillion-dollar development and the contamination was not expected.

**HAZARDOUS AND NON-HAZARDOUS PCE SOIL**

Buckeye Elm created three (3) different profiles for the soils based on laboratory characterization (Haz PCE requiring treatment, Haz PCE direct Subtitle C disposal, Non-Haz PCE). Buckeye Elm worked with the environmental consultant to identify and segregate contaminated soils based on the characterizations. A total of 800tons of PCE haz/treatment, 1200tons of PCE direct haz, and 1800 tons of non-hazardous PCE impacted soils were excavated and properly disposed of.





### **PCE IMPACTED WATER SOLIDIFICATION**

Due to the price of off-site water transportation and disposal, Buckeye Elm solidified nearly 1,000,000 gallons of PCE impacted water using SAP. Upon solidification, the material was placed in a lined bermed area and transported off-site for disposal.

### **IN-SITU TREATMENT**

After removing the bulk of impacted soils, Buckeye Elm treated a surface area of 24,000SF with RegenOx prior to capping the area with a concrete cap. After installing, the RegenOx could be seen activating by “bubbling” for 24 hours.



### **WATER TREATMENT**

After the initial impacted water was dealt with, Buckeye Elm helped design, implement, and run an on-site treatment system to further reduce PCE impacted water costs. The WWTP required a Non-Detect so Buckeye Elm provided four 2,000lb virgin carbon filters and one 2,000lb organoclay pre-filter. This resulted in nearly 1-hour of contact time and frak tanks allowed us to pre-store liquids to meet discharge volume requirements.



### **TEAM PARTNERS**

Buckeye Elm worked as a team with the City, the GC, and numerous environmental and civil consultants to make sure the project was performed economically but efficiently. Buckeye Elms experience was often called upon to solve difficult issues in brief amounts of time.

*Proper scheduling and coordination with the field personnel allowed completion of the project within budget and ahead of time.*



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