

Project Title and Location: Chlorinated Solvents, Stoneham, Massachusetts.

Scope of Services Demonstrated by this Project:

Environmental Site Assessment, Phase I Initial Site Assessment, Wetlands Permitting, Land Survey, Method 3 Risk Characterization and Ecological Stage 1 Screening, Downgradient Property Status Evaluation.

Project Description:

The property is a former trucking terminal with a detached maintenance garage. In 2005, developers interested in the property contracted Vineyard (formerly known as Cyprus Engineering & Environmental Services) to complete an Environmental Site Assessment (ESA) in anticipation of developing the site for use as elderly housing. The ESA included a review of the site history, a site inspection, and a subsurface investigation. The subsurface investigation included the placement of 18 borings (seven completed as monitoring wells) for the collection of soil and groundwater samples.



In addition, a soil gas survey was performed to assess the potential for indoor air issues due to chlorinated solvents detected in the groundwater at the site. The results of the investigation were used in a Method 3 Risk Characterization, which was completed as part of the ESA. Based on the results of the ESA and Method 3 risk characterization, Vineyard concluded that at-grade construction of the housing units would not likely result in an unacceptable indoor air issue and that development could be performed provided that appropriate measures were incorporated in the design of the buildings. Vineyard proceeded with a land survey and site design documents that were completed

for the Town of Stoneham review and approval.

In 200, the DEP conducted an audit of a Downgradient Property Status submittal that was prepared by a previous consultant. In response to the audit, Vineyard was contracted by the customer to prepare a Phase I Initial Site Investigation and to Tier Classify the site. In addition, Vineyard was contracted to complete a geotechnical investigation in anticipation of future site development. The geotechnical investigation included 17 additional borings (three as wells) that were used to assess soils in proposed building locations and to further delineate the vertical and horizontal extent of impacted soil and groundwater. In addition, an expanded soil gas survey was performed to assess potential migratory pathways from off site sources.

The Phase I investigation further defined the extent of soil and groundwater contamination and provided additional support for the DPS submittal that had been prepared by the previous consultant. Specifically, Vineyard identified the primary migratory pathway of chlorinated solvents onto the property as groundwater seepage from bedrock at the base of a slope that extended along the upgradient property line. This information will be used to reinstate the Downgradient Property Status for the property.