

Watts Pond Sediment Remediation Program



Location: Windsor Locks, Connecticut

Site Issue: Pond sediment contaminated with PCBs and metals.

Solution: Implement investigation and bench-scale testing program to support remedial design activities.

Brief History

Watts Pond is a six-acre pond located on a 300-acre industrial facility in Windsor Locks, Connecticut. The facility designs and manufactures aircraft and spacecraft control systems and components for the aerospace and marine industries.

During a RCRA Facility Investigation of the site, concentrations of PCBs and metals were found in the pond sediment. A remediation plan was developed that involves removing the impacted sediment and adjacent soil, dewatering and/or solidifying the materials, and disposing them in an on-site corrective action management unit (CAMU).

HE&C was retained to perform a field investigation and a bench-scale sediment testing program to provide data needed to proceed with the remedial program. HE&C designed and implemented a hydrographic investigation and pond sampling program. HE&C also performed a multi-faceted bench-scale study of the sediment dewatering and solidification properties.

Primary Activities Performed by HEC Personnel

- HE&C prepared a work plan and health and safety plan for the Watts Pond investigation.
- HE&C performed an extensive pond investigation, including a hydrographic survey, a sediment thickness probing study, in-situ measurement of the underlying soil strength, and collecting sediment cores and bulk sediment samples.
- HE&C developed a site model to determine the of sediment volume to be removed from the pond and the corresponding volume of solidified, compacted sediment in the CAMU.
- HE&C performed natural dewatering tests in a proprietary bench-scale test apparatus to determine if excavating the sediment, placing it in stockpiles, and allowing it to naturally drain will condition the sediment sufficiently for disposal in the CAMU.
- HE&C performed solidification testing to evaluate potential solidification agents that may be used to condition the sediment for handling and disposal.
- HE&C conducted a jar test program to identify an economic coagulant for treating ground water seepage and water from gravity dewatering of sediment.