

# Lordship Gun Club Lead Remediation



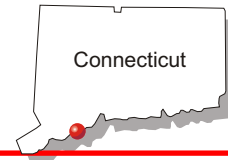
**Location:** Stratford, Connecticut

**Site Issue:** Lead shot in sediment impacting water fowl and other wildlife.

**Solution:** Dredge sediments and process sediments through treatment system to remove lead shot.

**Client:** Confidential

**Total Cost:** Confidential



---

## **Brief History**

The Lordship Gun Club operated on Lordship Point from 1926 through 1986 as a rod and gun club. The facility was used by the Remington Arms Company and was open to the public on weekends. Operations included shooting skeet and trap over the open waters of Long Island Sound. During operation of the Gun Club it was estimated that lead shot was discharged up to 300 feet offshore in the ocean. The remedial plan negotiated with the State of Connecticut required removal of the lead shot found in the inter-tidal zone and upland areas of the site where feeding waterfowl could ingest the shot.

HE&C worked with American Marine Constructors to prepare work plans and design a system for dredging the sediment containing the lead shot and processing the sediment to remove the lead shot with restoration of the sediment to the beach. The design included the preparation of a mass removal criterion for assuring the success of the project in meeting the restoration goal of 99.8% removal of lead shot from the processed sediment.

The system was installed and tested in the spring of 2000 with processing of the sediment occurring in fall 2000 and spring 2001. The equipment treated approximately 65,000 cubic yards of sediment and produced approximately 300 tons of lead shot. The treated sediment exceeded the lead shot removal goal by a factor of two.

---

## **Primary Activities Performed by HEC Personnel**

- Prepared detailed project operations planning documents, including a Comprehensive Project Work Plan, a Process Plant Design and Operation Plan, a Construction Operations Plan, a Process Plant Verification Plan, and a Quality Control Plan.
- Prepared the conceptual and detailed engineering design for the dredging.
- Developed programs to protect the environment during site operations and prepared an Erosion and Sedimentation Control Plan, a Fuel Storage and Spill Containment Plan, a Waste Management Plan, a Noise Control Plan.
- Managed the detailed design and fabrication of an innovative treatment system to remove lead shot from the dredged sediment.
- Developed programs to protect site workers and the public during dredging and treatment operations and prepared a comprehensive Site-Specific Health and Safety Plan.
- Provided support to the owner in obtaining state and federal environmental permits required for dredging.
- Provided oversight for the dredging of sediment, the processing to remove lead shot by gravity separation, and the backfilling of clean sediment.