

# Sediment Sampling and Testing in Support of Environmental Assessment, Royal River FNP, Yarmouth, Maine

## Project Characteristics:

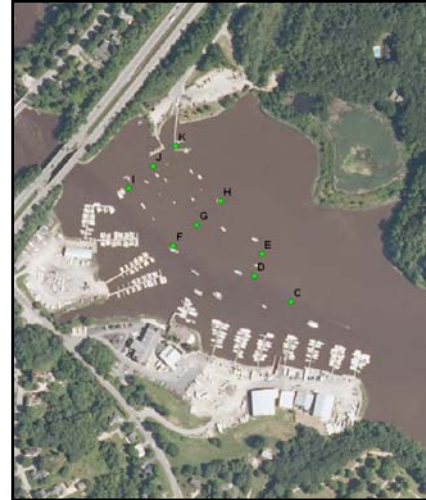
- *Dredge Planning & Design*
- *Project Management*
- *Sediment Coring*
- *Sediment Grain Size Analysis*
- *Sediment Chemical Analysis*

Woods Hole Group is the prime contractor for an IDIQ contract with the U.S. Army Corps of Engineers New England District. Under this IDIQ contract, a major data collection Task Order was contracted in support of a dredging project in Yarmouth, ME. Environmental testing completed by Woods Hole Group provided the necessary environmental data to obtain the required permits and approvals for the dredging project.

The objective of this project was to acquire data for the analysis of environmental impacts associated with the proposed maintenance dredging of sediments from the Royal River Federal Navigation Project (FNP). Additionally, samples were obtained at the offshore Portland Disposal Site (PDS) to assess suitability of disposing the dredge material at the PDS.

Sediment cores were obtained from 11 locations and water samples from two locations within the Royal River FNP. Additional sediment grab and water samples were obtained from the PDS reference location.

The project required detailed Sampling and Analysis Plans (SAP) and Accident Prevention Plans (APP). These plans were approved by the USACE-NAE prior to the start of data collection. The data collection and chemical analyses procedures and protocols were checked by the USACE to ensure that the project would be conducted in compliance with the USACE/EPA Regional Implementation Manual (RIM).



The Woods Hole Group was able to reduce the total number of cores analyzed for bulk chemistry from 11 to 4 by using the RIM guidelines that allow combining sediment of similar characteristics for analyses.

Sediments were analyzed for metals, PCBs, pesticides, PAHs, Total Organic Carbon, grain size, and percent moisture. Additionally, a full suite of toxicity tests were conducted to assess the suitability of sediment disposal in the PDS. These tests included Suspended Phase Acute Toxicity, 10-day Whole Sediment Acute Toxicity, 28-day Bioassay/Bioaccumulation, and Tissue Analysis.

All analytical and project deliverables were submitted in electronic and hard copy. Sediment grain size and chemistry data were delivered in RIM-compliant electronic format. All reports were delivered both as PDF's and as MS Word documents.

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