

An Electronic Newsletter of EEA's Environmental Consulting Activities Fall 2002

EEA, Inc. 55 Hilton Avenue Garden City, New York (516) 746-4400 (212) 227-3200 (800) 459-5533

with additional New York offices in: Stony Brook (631) 751-4600 <u>Altamont</u> (518) 861-8586

<u>e-mail addresses</u>: General: <u>mailto:eea@eeaconsultants.com</u>

Individual: First initial and last name @eeaconsultants.com

EEA services include Phase I ESAs, Haz-Mat Testing and Remediation, Wetlands Delineation and Creation, Natural Resources Inventories, Marine Ecology Studies, Air Quality and Noise studies, Dredge Materials Management Studies, and Environmental Management System (ISO 14000) implementation.

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INSIGHTS

HEARD THE LATEST ABOUT VIBRACORERS? Don't go to Brookstone or The Sharper Image

Due to the increased draft of the newer containers, tankers and cargo ships, many east coast harbors no longer have adequate depth to accommodate these vessels, thus the need for dredging maintenance and the disposal of the dredged sediment. Prior to disposal of the sediments, sampling and analysis of the river and harbor sediment is required. EEA has developed the necessary expertise and resources to effectively and economically perform this technically complex task.

EEA has been working with the U.S. Army Corps of Engineers and larger engineering firms to acquire the necessary data to develop cost-effective dredge material maintenance strategies. EEA is one of the few east coast environmental consulting firms which maintains a fleet of oceanographic research vessels specially designed to perform dredge maintenance studies. EEA has completed harbor and shipping channel dredge studies from Maine to St. Simon Island/Jekyll Island, Georgia.



Lowering the vibracorer in the James River near Richmond

Visit our web site at http://www.eeaconsultants.com/

For information or quotes contact:

Phase I ESAs Richard Fasciani

Phase II/III Haz-Mat Testing and Remediation Environmental drilling/ Geotechnical borings Nicholas Recchia, CPG

Dredge Management Testing Jeffrey Shelkey

EAS/EIS Studies Janet Collura

Wetlands Studies and Design Laura Schwanof, RLA

Marine Ecology Teresa Rotunno

<u>Terrestrial Ecology</u> <u>Denise Harrington, AICP</u>

Air Quality and Noise Victor Fahrer, P.E.

Environmental Management Systems (ISO 14000) Robert Clifford

EEA, Inc. founded in 1979

<u>Principals</u> <u>Leland M. Hairr, Ph.D.</u> President

<u>Allen Serper, M.S., P.E</u>. Vice President

Roy R. Stoecker, Ph.D. Vice President

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What is Vibracoring?

Briefly, vibratory coring is a physical oceanographic technique designed to collect long length core samples of the bottom sediments so that physical and chemical analysis can be completed on discrete portions of the core. Discrete chemical analysis on the sediments is necessary many times to determine which portions of the sediment is hazardous or non-hazardous so the sediments can be appropriately managed.

The vibratory corer is basically an electric or pneumatic motor in a waterproof housing which includes a high frequency oscillatory or hammer motion to drive the core barrel and core catcher into the unconsolidated marine or freshwater sediments.

Through years of project experience, EEA has developed sophisticated sampling equipment and techniques to expedite the dredge spoil testing process so design projects can proceed in a timely fashion. EEA has developed a vibratory coring technique which will collect a three-inch or four-inch diameter core up to 20 feet long as one continuous sample.



Removing the sediment core

Details of EEA's experience can be found on our website (<u>www.eeaconsultants.com</u>) by clicking on Ecological Services and then click on Dredge Management.

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Primary Reason for Vibracoring

The object of much of the vibratory core sampling performed today is to determine the chemical composition of contaminants in the sediment which may render it hazardous or unusable. On many occasions, EEA has collected sediment samples to determine which specific areas or horizons in the sediment are contaminated and which are not. If a significant portion of the dredge spoils is determined to be non-hazardous, it can be disposed of at a considerable cost savings to the client. The disposal cost of hazardous sediments is typically four to five times greater than those classified as non-hazardous. In many cases, we have used this sampling technique to determine that the dredge spoils have a use or value (i.e., sandy sediments can be used for beach rebuilding or nourishment, or wetland construction projects; coarse gravely sediments can be used for construction purposes).

Contact EEA for More Information

In addition to testing in shipping channels, EEA has used the vibratory coring equipment to collect sludge samples in hazardous waste ponds and lagoons. Our technical personnel include geologists, engineers, environmental and marine scientists and have the appropriate OSHA health and safety training to work in any sampling regime. The equipment is designed for maximum flexibility, and can be shipped or air-freighted to remote sampling sites as necessary. EEA has collected thousands of core samples throughout the eastern seaboard for clients such as the U.S. Army Corps of Engineers, Foster-Wheeler, Parsons Brinckerhoff, ENSR, Hydroqual, Inc., New York City Department of Environmental Protection, the New York City Department of Transportation and New York City Department of Sanitation. Contact Jeff Shelkey (jshelkey@eeaconsultants.com or 1-800-459-5533) for more information on vibracoring.