



## **EBC Site Remediation & Redevelopment Program Sediment Dredging at Remediation Sites**

Tuesday, September 13, 2016

McLane Middleton  
Woburn, Massachusetts

### **AGENDA**

- 8:00 a.m. Welcome: Jonathan Kitchen, Chair**  
EBC Site Redevelopment & Remediation Committee  
Senior Project Manager, Civil & Environmental Consultants
- Introduction: Kristine Carbonneau, Program Co-Chair and Moderator**  
Sediment Technologist, CH2M
- Joseph M. Jeray, P.E., Program Co-Chair and Moderator**  
Geotechnical Engineer, Geosyntec Consultants, Inc.
- 8:15 a.m. Permitting of Dredging Projects: FAQs and How-To's**
- Norm Farris, Ecologist, U.S. Army Corps of Engineers
- 8:30 a.m. Waterfront Development: Planning Guidelines for Owners with Infrastructure and Maintenance Dredging Projects on Boston Harbor**
- Bob Garrity, P.E., Principal Engineer, CH2M
- 9:00 a.m. Urban Dredging: Sediment Management on Urban Waterways**
- Jim Brinkman, P.E., Senior Engineer, Geosyntec Consultants, Inc.
- 9:30 a.m. Sediment Remediation: Using Bioavailability to Define the Scope of Environmental Dredging Projects**
- Dr. Steve Clough, Senior Environmental Toxicologist, Haley & Aldrich, Inc.
- 10:00 a.m. Networking Break**
- 10:30 a.m. Dredge Disposal: Long-Term Liability Management**
- Lew Conley, Senior Project Manager, J.F. Brennan Company, Inc.

**11:00 a.m. Panel Discussion**

**Panel Moderators:** Kris Carbonneau and Joe Jeray

**Panelists:**

- Jim Brinkman, Geosyntec Consultants
- Steve Clough, Haley & Aldrich, Inc.
- Lew Conley, J.F. Brennan Company, Inc.
- Norm Farris, U.S. Army Corps of Engineers
- Bob Garrity, CH2M

**12:00 p.m. Adjourn – Closing Remarks – Jonathan Kitchen**

**PROGRAM CO-CHAIRS**

**Kristine Carbonneau**, Sediment Technologist  
CH2M  
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Kristine has over 27 years of experience in project management for preparation of Feasibility Studies (including design and implementation of treatability studies), Remedial Designs and Remedial Action work in over a dozen states including New England states, the Middle Atlantic States and the Southeast. Her work has also included several international locations including Canada, France and Jordan. Her principal technical expertise is in sediment remediation, soil/sludge stabilization and solidification and landfill design.

**Joseph M. Jeray, P.E.**, Geotechnical Engineer  
Geosyntec Consultants, Inc.  
289 Great Road, Suite 202, Acton, MA 01720  
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Joe is a geoenvironmental engineer and project manager at Geosyntec Consultants who works on site characterization and remediation design to address contamination in soil, groundwater, sediment, and surface water.

**SPEAKERS**

**James J. Brinkman, P.E.**, Senior Engineer  
Geosyntec Consultants, Inc.  
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Mr. Brinkman's extensive experience leading large, complex sediment remediation projects includes both domestic and international projects and spans all phases of design and construction. He has developed project strategies, conducted bench- to-full scale evaluations, evaluated remedial alternatives, and performed conceptual design. He has also performed detailed design plans and specifications, estimated construction costs, and conducted scheduling, procurement, and program management. He has specific technical expertise in dredging, dewatering, stabilization, material handling, capping, and water treatment.

Mr. Brinkman's specific sediment-related experience includes managing the dredging works and sheet pile removal for the \$800 million Hunter River Remediation Project in Newcastle, Australia, one of the largest projects of its kind in the world. The project, associated with the removal of approximately 1.6

million cubic yards of sediment contaminated with polycyclic aromatic hydrocarbons (PAHs), came in approximately \$200 million under budget and ahead of schedule. His efforts on the Hunter River Remediation Project earned the project the 2012 Australian National Engineering Excellence Award.

He also served as the Engineer of Record on a Time Critical Removal Action project on the Lower Passaic River in New Jersey, where approximately 16,000 cubic yards of sediment contaminated with dioxin, PCBs, and mercury were dredged and a reactive cap was subsequently placed.

Mr. Brinkman's additional sediment-related experience includes the New Bedford Harbor Superfund Project in Massachusetts and the Fox River Project in Wisconsin. He regularly presents at U.S. and international sediment related conferences.

**Steve Clough, Ph.D.**, Senior Environmental Toxicologist

Haley & Aldrich, Inc.

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Dr. Steve Clough is a Senior Environmental Toxicologist at Haley & Aldrich in Manchester, NH. Since 1988, Steve has performed ecological risk assessments under CERCLA/RCRA, which require detailed exposure assessments that incorporate bioavailability factors and an in-depth knowledge of the physicochemical parameters that affect them. Steve specializes in assessing the impact of point and non-point sources to benthic communities in estuaries, rivers, and streams and has a wide range of experience using both active and passive pore water sampling techniques. In 1996, Steve worked for NCASI, a pulp and paper trade group, where he conducted field studies to evaluate the uptake of extremely persistent hydrophobic compounds into both aquatic and terrestrial food chains (including the calculation of site-specific bioavailability factors). Steve then joined environmental consulting and has conducted numerous multipathway ecological risk assessments that require formulating a Conceptual Site Models, which are subsequently validated in the field by sampling of sediment and biota to determine the actual exposure and risk that environmental chemicals/stressors may pose to key receptors. Steve specializes in the toxicology of metals, routinely presents at scientific conferences, and has been active in ITRC since 2007. Steve earned a bachelor's degree in pathobiology from the University of Connecticut in Storrs, Connecticut in 1976. After managing both mammalian and aquatic toxicology laboratories addressing product development under TSCA, he attended the University of Michigan in Ann Arbor, Michigan where he earned a master's in water quality in 1983 and a Ph.D. in toxicology in 1988. Steve is also certified as a Diplomate of the American Board of Toxicology.

**Lew Conley**, Senior Project Manager

J.F. Brennan Company, Inc.

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Lew is a Civil Engineer with more than 20 years of experience on large construction projects involving environmental issues including contaminated soils & sediments, groundwater, dredge material, surface water and health and safety issues. He has managed all aspects of Environmental Remediation Projects such as business development, estimating, contract negotiations, staffing, operations, financial, permitting, regulatory compliance, sampling and analysis and field operations throughout the Northeastern United States. His career started with contaminated soil excavations related to Boston's Central Artery/Tunnel ("the Big Dig"), and Landfill operations managed the excavated materials. Over the past 10 years, his focus has been on dredging contaminated sediments from well-known waterways in the Northeast, stabilization/solidification of sediment, and transportation & disposal.

**Norm Farris, Ecologist**

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Norm Farris is a member of the Policy and Technical Support Branch, USACE Regulatory Division. He oversees a number of programs associated with estimating environmental impact of marine development and navigation projects on coastal waters and habitats in His duties include evaluation of contaminated sediments and coordinating aquatic habitat mitigation efforts in New England. As Program Manager for the Dredging Compliance program, he coordinates disposal operations of contaminated sediments within the New England District.

Prior to working for The Army Corps of Engineers, Norm worked as an Ecologist for the National Park Service creating environmental assessment projects for Park Units in the Northeast Region and helped lead a major salt marsh restoration project on Cape Cod. He obtained his Masters in Marine Biology from the University of Massachusetts Dartmouth in 1991, after working as a Port Agent in New Bedford for NOAA. He then worked for NOAA in New Jersey, monitoring contamination levels at regional dump sites in New York Bight. Norm obtained his PhD in Biological Oceanography from the University of Rhode Island's Graduate School of Oceanography in 1996 before joining the Park Service fulltime and prior to his present work at the Corps.

**Robert F. Garrity, P.E., Principal Engineer**

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Mr. Garrity is an accomplished principal engineer diver with more than 18 years of experience in underwater and topside inspection (condition assessment), structural analysis, and design of marine structures and infrastructure. His experience extends from assessing piers, wharfs, seawalls and bulkheads to marine terminals, marine railways, and floating docks. He has led the supervision of repairs and construction of new marine structures as well as dredge engineering, permitting, construction monitoring, and dredge studies including hydrographic surveys, and dredge volume calculations.

He earned his B.S., in Civil Engineering, from the University of Massachusetts, 1998 and is a Registered Professional Engineer in Massachusetts, Rhode Island and New York. He is an active member of the Association of Diving Contractors International with a Commercial Diver Certification

He has managed multiple projects in the Greater Boston area including:

- Irving Oil Marine Terminal, Irving Oil, Revere, MA. 2005-present. Inspection of the marine terminal, design and construction services for a new mooring/breasting dolphin, repairs to existing product transfer pier, mooring analysis and barge mooring point design for the Irving Oil Marine Terminal located on the Chelsea Creek. Maintenance and Improvement dredging design, permitting and construction of Berth 1 in 2005.
- Sunoco Logistics; East Boston, MA. 2011-2015. Under water and topside inspection of the marine terminal, services include yearly hydrographic surveys and review of berth depths and recommendations on dredge maintenance for the facility.
- Distrigas LNG Terminal located on the Mystic River - dock rehabilitation project 2010-present
- Marine Structures Inspection; Town of Rockport; Rockport, MA. 2011. Underwater inspection of all municipal owned marine structures including a breakwater located 1.5 miles offshore.
- Conley Terminal Berth 12 Inspection; Massport; South Boston, MA. 2011. Provided underwater inspection services as a subconsultant and was responsible for the inspection and reporting of all elements of the pier below the waterline.
- Liberty Wharf in South Boston – Project engineer for design of the pier platform