





Memorandum of Understanding Between Office of Solid Waste and Emergency Response U.S. Environmental Protection Agency And Office of Research and Development U.S. Environmental Protection Agency And Engineer Research and Development Center U.S. Army Corps of Engineers And Space and Naval Warfare Systems Center, San Diego Department of the Navy

SUBJECT: COLLABORATION ON CONTAMINATED SEDIMENTS RESEARCH

ARTICLE 1 – PURPOSE

The purpose of this Memorandum of Understanding (MOU) is to facilitate increased cooperation and collaboration between the Engineer Research and Development Center of U.S Army Corps of Engineers (USACE), the Space and Naval Warfare Systems Center, San Diego (SSC San Diego), and the U.S. Environmental Protection Agency's (EPA) Office of Solid Waste and Emergency Response and Office of Research and Development with respect to ongoing and planned research on characterizing, managing, and monitoring contaminated sediment.

Implementation of this MOU is designed to facilitate coordination and collaboration among the parties to ensure that research and development investments made in contaminated sediments produce maximal benefit. Collaboration is intended to lead to the development of better tools, methods, and models, and should facilitate field-testing of these products at a variety of contaminated sediment sites. Early involvement of scientists and users from each agency is designed to result in broader acceptance of the products by all end users.

ARTICLE II - BACKGROUND AND NEED

Each party has an ongoing research program that funds and/or conducts research that may include: characterizing site conditions, assessing the risks of contaminated sediment, developing and evaluating new remediation technologies, and monitoring the effectiveness of remedial approaches.

EPA's Office of Research and Development has conducted research related to contaminated sediment in support of EPA's Office of Water and Office of Solid Waste and Emergency Response for many years. This has involved providing dermal and ingestion exposure factors for assessing risks, developing methods and tools to characterize, sample and analyze contaminated sediments, evaluating bioaccumulation potential of contaminants, developing and validating sediment and contaminant fate and transport models, evaluating remedy performance related to monitored natural recovery, capping, and dredging, and evaluating in-situ and ex-situ treatment methods for contaminated sediment.

The USACE conducts research at the Engineer Research and Development Center on a broad range of scientific and engineering issues related to contaminated sediment. This research has been performed in support of the Corps' navigation mission as well as work for others, including the U.S. Navy and USEPA. Research activities have concerned the chemistry, bioavailability, and toxicology of contaminated sediment, methods and models for evaluating environmental risks posed by contaminated sediment, factors controlling the stability of bedded sediments, resuspension and transport processes and modeling, dredging equipment and methods, and sediment management technologies and the means for evaluating the performance of those technologies.

The Department of the Navy (DON) historically conducts sediment research and development (R&D) at Navy laboratories through sponsorship of the Office of Naval Research (ONR), the Naval Facilities Engineering Command (NAVFAC) Pollution Abatement Ashore (0817) Program, and Strategic Environmental Research and Development Program/Environmental Security Technology Certification Program (SERDP/ESTCP), often in collaboration with direct funded cleanup projects for demonstration and validation. The Navy's sediment technologies and methods have ranged from sediment site characterization, sensor development, modeling, risk assessment, feasibility studies, monitoring and site management. Throughout the Navy's R&D efforts, there is a strong emphasis on meeting priority needs, leveraging, and successfully integrating technologies and methods into the user community.

ARTICLE III - SCOPE

Nothing in this MOU in any way alters the specific statutory or regulatory authorities or responsibilities assigned to the EPA or the USACE, or the DON, or alters existing statutory roles and responsibilities of other agencies, or statutory requirements. This MOU establishes a mechanism for coordination and collaboration, and expresses the intent of the signatory agencies to work together to increase our knowledge concerning contaminated sediment assessment and management. Success of this MOU may be evidenced by the efficient accomplishment of initiatives that include the following:

- 1) Communicate programmatic needs in assessing and remediating contaminated sediment in order to focus research efforts to address the most important common questions,
- 2) Exchange ideas about recent, ongoing and planned contaminated sediment research across federal agencies in order to reduce unnecessary duplication of efforts,
- 3) Communicate and document existing areas of inter-agency collaboration,
- 4) Identify areas and projects for active collaboration, and discuss potential mechanisms for executing collaborative projects, including field demonstrations,
- 5) Develop joint initiatives to implement research projects and leverage funding across agencies,
- 6) Establish a mechanism to share preliminary research findings among all federal programs,
- 7) Establish a mechanism to facilitate technology transfer of completed products and tools, and
- 8) Establish a procedure for convening future meetings.

ARTICLE IV – INTERAGENCY COMMUNICATIONS

To provide for consistent and effective communication between the parties, each party will appoint no more than three representatives to serve on a Steering Committee. The Steering Committee will be the focal point for ensuring coordination between agencies, for disseminating information, and for scheduling and managing conference calls on individual projects and broader meetings or workshops for researchers and other interested parties.

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ARTICLE V – QUALIFICATIONS AND LIMITATIONS

This document is neither a fiscal nor a funds obligation document, nor does it supplement any agency's existing statutory authorities. Any endeavor involving reimbursement or contribution of funds between parties to this MOU will be set forth in Interagency Agreements (IAAs). This MOU does not create any right or benefit, substantive or procedural, enforceable by law or equity against USACE, DON or EPA, their officers or employees, or any other person.

ARTICLE VI - AMENDMENT AND TERMINATION

This MOU will terminate on December 31, 2011. This MOU may be modified, amended or renewed only by written, mutual agreement of the parties. Any party may terminate this MOU prior to December 31, 2011 by providing written notice to the other parties. The termination will be effective upon the sixtieth calendar day following notice, unless a later date is set forth.

ARTICLE VII – EFFECTIVE DATE

This MOU will become effective on the date that all parties have signed this document.

APPROVED:

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SUSAN PARKER BODINE Assistant Administrator Office of Solid Waste and Emergency Response U.S. Environmental Protection Agency

14-00 Date

GEORGE M. GRAY Assistant Administrator Office of Research and Development U.S. Environmental Protection Agency

1-31-07

Date

JAMES R. HOUSTON, PHD Director U.S. Army Engineer Research and Development Center U.S. Army Corps of Engineers

3-5-07

Date

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F. D. UNETIC Captain, U.S. Navy Commanding Officer Space and Naval Warfare Systems Center, San Diego

Date