SUSTAINABLE SEDIMENT MANAGEMENT AND DREDGING SEMINAR
6-8 MARCH 2019
SAUSALITO, CA

Dredging Operations Technical Support (DOTS) Program
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DOTS Overview

- Primary technology transfer mechanism for dredging and navigation since 1978
- Provides “one-door-to-the-Corps” access to comprehensive information on technology related to navigation O&M functions
- Program functions include:
  - Rapid, short-term technical responses for field offices
  - Technology demonstrations
  - Training
  - Database management
  - Publications
  - Development and dissemination of technical guidance
Technology Transfer Scope

Despite “Dredging” in the title -

NOT LIMITED TO DREDGING!

But Rather to the Broader Navigation Mission
Direct Technical Support

A response can...

• be initiated by submitting a request through the DOTS web site [https://dots.el.erdc.dren.mil/](https://dots.el.erdc.dren.mil/)
• consist of up to 2 weeks of scientist or engineer time & travel expenses
• range from a phone call “one stop”, to a technology demo, to a site visit
• result in products such as technical documents or reviews

• In FY18, 73 technical responses were fielded
Current Trends

- One-stop Assistance
- Technical Writing Assistance
- Sustainable Management of Dredged Materials (e.g., EWN, NNBF)
- Modeling Support (e.g., STFATE)
- DOTS Webinars
- Specialized Training Sessions
- Emerging Threats
Technical Writing Assistance

- **Purpose:** To document good navigation and dredging practices to be shared across the Corps

- **Products:**
  - Technical Note - *Evaluation of Hydraulic fracturing (Fracking) Plays for Potential Impact on USACE-Managed Waterways* [Link](http://acwc.sdp.sirsi.net/client/search/asset/1041202)
Guidance and Standards Development

- Update and combine ITM/OTM to include addressing testing requirements and use of management techniques (e.g., capping)
- ASTM Sediment-RBCA (in progress)
- Great Lakes beneficial use manual (in progress)
International Representation

- Purpose: To support technology transfer functions by demonstrating USACE expertise and problem-solving capabilities on international levels
  - World Association for Waterborne Transport Infrastructure (PIANC)
    - Environmental Commission
  - International Maritime Organization
    - London Convention/London Protocol
Strategic Business Development

- **Purpose:** To identify needs and opportunities where the dredging community and ERDC can work collaboratively
- **Product:** Informative Seminars
  - Great Lakes Dredge & Dock
  - Manson Construction Co.
  - Gutteridge, Haskins and Davey (GHD)
  - Tonkin + Taylor (New Zealand)
Databases

- Ocean Disposal Database (ODD)
- Biota-Sediment Accumulation Factor (BSAF)
- Environmental Residue-Effects Database (ERED)
- USACE Threatened, Endangered, and Sensitive (TES) Species Cost Accounting System
Websites

- **Purpose**: An increasing interest in thin layer placement of O&M dredged sediments for environmental enhancement

- **Product**: A comprehensive website to provide information on current placement technology, applications, permitting issues, and case studies

[https://tlp.el.erdc.dren.mil/](https://tlp.el.erdc.dren.mil/)
Web-Based & Academic Training

- FY18 Webinars = 4
- Reached Hundreds Participants
- PDHs Received
- Submit a Webinar Topic

48th Dredging Engineering Short Course

- USACE subject matter experts and instructors
  - Dredged Material Evaluations
  - Engineering With Nature® and Beneficial Use of DM
  - Fate of Dredged Material in Open Water and Numerical Models for Predicting Fate of Dredged Material
  - Mechanical Dredges, Residuals, and Resuspension
Face-to-Face Seminars

- Dredged Material Assessment and Management (DMAM) Seminars
  - San Francisco, 2002
  - Denver, 2003
  - Cleveland, 2004
  - Boston, 2005
  - Sacramento, 2008
  - Detroit, 2009
  - Jacksonville, 2011
  - Charleston, 2015
  - Galveston, 2018
  - West Region, 2019
Strategic Directions

- Continued expansion of technical response support to field offices encountering problematic navigation and dredging issues
- Proactive updating of existing tools and databases to maintain functionality and compatibility with emerging IT requirements
- Vital investments in training of Corps and regulatory agency staff in dredging and other navigation mission processes
- Mentoring strategy (senior/junior researcher pairings)
- Strengthen collaborations/partnership with federal agencies, academia, etc.
- Increase synergy across Navigation R&D Programs