Great Lakes Sediment Testing Manual: Update

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Great Lakes Dredging Team
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Unique Challenge to Great Lakes Dredged Material Management:
3% of total dredging volume with some of the greatest restrictions on disposal and placement
Issues

- Restrictions on open water placement
- Confined disposal option no longer the solution due to declining capacity and cost
- Upland beneficial use challenges:
  - Authority for permitting
  - Process not specific for dredged material
  - Liability
  - Cost for handling and transport – expensive and who pays?
EPA/CE Evaluation Framework and Guidance

- Great Lakes Testing Manual – Aquatic disposal
- Inland Testing Manual – Aquatic disposal
- Upland Testing Manual – Confined disposal

- These manuals designed to address environmental impacts from disposal of contaminated sediment.
- Beneficial use historically considered for sediments that could be classified as clean, uncontaminated.
- We realistically must be able to address low levels of contaminants in beneficial use determinations.
Why More Guidance?

- Great Lakes Beneficial Use Task Force, 2001
  - Lack of adequate regulatory guidance obstacle to BU

Risk-based evaluation needed to define suitability for BU and assist in effective least cost determination.
Testing Manual for Beneficial Use of Dredged Sediments

Purpose: Identifying the suitability of dredged material for any beneficial use in aquatic, nearshore, wetland, upland environments or for use in material production processes.
Goals

- One-Stop, Web-based Guidance
- Standardized risk-based testing methods
- Consistency in interpretation
- Updated regulatory guidance applicable to Great Lakes States
- Regional, cost-effective approach to unique sediment management needs of the Great Lakes
Suitability Quality Defined

- **Sand Quality** – Physical standard – unless certain COCs present
- **Sediment Quality** – Exposure = Acceptable Risk
  - Suitable for aquatic use – aquatic habitat, aquatic fill, beach/littoral nourishment
- **Soil Quality** – Exposure = Acceptable Risk
  - Suitable for confined or unconfined upland use – habitat, green space, landscaping, crop production
- **Unrestricted Fill** – Exposure = Acceptable Risk
  - Suitable for unrestricted fill, material use
- **Restricted Fill** – Exposure = Unacceptable Risk
  - Suitable for restricted industrial fill, landfill cover, material
- **Impaired** – Unacceptable Risk without Treatment
  - Requires treatment to render suitable
    - Landfill or confined disposal
Manual Intended to Address

- A framework for determining dredged material management based on sediment characteristics and quality.
- Aquatic placement, beneficial use, and disposal evaluations.
- Upland placement, beneficial use and disposal evaluations.
- Using current, applicable statutory authority to determine impaired status of sediment.
- Suitability classification for dredged material management decisions.
- Opportunities for beneficial use.
- Testing guidance to characterize physical, chemical and beneficial use performance attributes.
- Guidance for interpreting characterization data and relevance to existing regulatory structure.
Manual Not Intended to Address

- Impacts at the dredging site associated with the dredging activity itself.
- Physical impacts related to construction activities on placement sites.
- Measures to eliminate the introduction of invasive species.
- Microbiological impacts from dredged material placement.
- Potential impacts from natural mineral deposits.
- Treatment options to reduce adverse impacts.
- Mechanisms to rank proposed BU options.
- Climate change impacts.
- Fisheries impacts associated with dredging windows.
Application
Status

- Initial draft is in internal CE review and revision.
- Goal is to have a complete draft ready for outside review before the next GLDT meeting (Spring 2015).
Questions??

BTW: I’m riding off into the sunset on Nov 30!

RETIRED

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