

ENVIRONMENTAL EVALUATION AND MANAGEMENT OF DREDGED MATERIAL FOR BENEFICIAL USE: A REGIONAL TESTING MANUAL FOR THE GREAT LAKES

AKA “GREAT LAKES BENEFICIAL USE TESTING MANUAL”

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Great Lakes Beneficial Use Testing Manual

- ✓ Objective is to support beneficial use of dredged material by **developing a standard approach to evaluating the environmental suitability** of dredged material for beneficial uses.
- ✓ Recognize that **beneficial use of dredged material projects support regional remediation and restoration efforts** throughout the Great Lakes.



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Disclaimer!

The Manual is not intended to direct the public, but rather to **provide a framework for a recommended approach** and evaluations.

It is not binding, nor does it regulate or change any authority in determining environmental suitability for the management of dredged material.



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Manual time line



- **October 2016:** Initial draft manual released to GLDT
- **2017:** GLDT agencies provide comments
USACE responds and discusses comments with GLDT
- **March 2019:** USACE provides revised document for backcheck
- **Fall 2019:** Additional feedback received from GLDT agencies
- **2020:** USACE team (Buffalo, Chicago, Detroit, and ERDC) considers feedback and makes further revisions to manual
- **September 2020:** Draft final manual provided to ERDC and GLDT
 - ✓ ERDC reviewing the manual for national perspective and consistency
- **2021 (targeted):** ERDC publishes as technical guidance

Agencies which reviewed and provided input



Lots of thoughtful comments!



- Desire for more Great Lakes-specific considerations in dredged material management
- Consideration of emerging contaminants (microcystin toxins, neonicotinoid insecticides, etc.)
- Considerations of relative risk & “ambient” background
- Guidance on long-term monitoring?



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But, some agency comments contradicted or conflicted with other agency comments



❖ Inclusion of newer scientific tools or evaluation protocols?



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Major changes since March 2019 version

- **Short title:** Great Lakes Beneficial Use Testing Manual
- **Cover Page** removed GLDT logo, will be a USACE/ERDC document.
- **Preface** now replaces the Executive Summary.
- **1. Introduction**
 - ✓ Development of dredged material frameworks.
 - ✓ Clarifies scope of manual.
 - ✓ Added section on Great Lakes-specific dredged material management issues.



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Major changes since March 2019 version

➤ **2. Statutory/Regulatory Overview**

- ✓ Included other federal regulations (e.g., NHPA, NRDAR).
- ✓ Expanded discussion of NEPA.
- ✓ Acknowledges new state-specific regulatory programs.



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Major changes since March 2019 version

➤ **3. Beneficial Use Categories**

- ✓ Re-written to be consistent with rest of manual.
- ✓ Now has 2 main categories (aquatic, upland) with Great Lakes-specific examples.
- ✓ Removed detailed discussion of potential microcystin toxin exposure for upland placements.



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Major changes since March 2019 version

➤ **4. Principles for evaluations**

- ✓ Clarified the risk-based framework.
- ✓ Added cross-walk between aquatic and upland tiers and risk-based processes.



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Major changes since March 2019 version

➤ **5. Aquatic placement evaluations**

- ✓ Additional explanations and justifications for recommended evaluation approach provided.
- ✓ The previous “attachment” for interpreting bioaccumulation assay results was expanded into an appendix to the manual (Appendix F), providing fuller presentation of data and citing recently published studies.



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Major changes since March 2019 version

➤ **6. Upland placement evaluations**

- ✓ Clarified the risk-based framework.
- ✓ Acknowledges new regulatory frameworks developed in NY and Ohio.
- ✓ Updated presentation of background values and risk-based screening levels which are presented in Appendices A and B.



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Major changes since March 2019 version

➤ **7. Risk Management**

- ✓ Minor clarifications incorporated

➤ **Appendices**

- ✓ Changes noted earlier for
 - Appendix A (background concentrations)
 - Appendix B (state-specific regulations/guidance)
 - Appendix F (interpreting bioaccumulation assays)



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How do I get a copy?

- The draft final manual along with responses to 2019 comments will be emailed to those who provided comments / agency points of contact (Fall 2020).
- The draft final manual will be posted to the GLDT website while ERDC is performing their review and technical editing prior to publication.
- Once final (2021), GLDT will be notified that the manual is available at ERDC website <https://dots.el.erdcdren.mil/>.
- USACE authors are available to discuss state-specific questions regarding the manual and how it may be applied to a specific project



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Use of the Great Lakes Beneficial Use Testing Manual

- Refer to this manual when your beneficial use **project** is developing a **Quality Assurance Project Plan** for sampling and evaluations.
- **Harmonize** the recommendations in this Manual with your agency's perspectives on environmental evaluations.



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