



# Restrictions to Dredging

Beneficial Use Impairment

# Dredging Activities

## Why Dredge?

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- To maintain safe channel depths for commercial and recreational navigation
  - For construction or repair of bridges
  - For waterfront development
  - Excavation for utility crossings
  - To maintain water supply intakes

# Dredging Activities

## What are the Types of Restrictions?

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- Restrictions on when dredging can occur (environmental windows)
- Restrictions on the type of dredge that can be used
- Restrictions on disposal options for the dredged material

**Are all restrictions on dredging  
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(BUI)?**

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**No**

Only those restrictions that are caused by sediment contamination should be considered a BUI under the Great Lakes Water Quality Agreement.

# Dredging Activities

## How to Determine Dredging Needs?

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- Existing navigation:
  - ✓ U.S. Army Corps of Engineers
  - ✓ Port authority
  - ✓ Industries with docks
  - ✓ Marina operators
- New construction
  - ✓ City or county planning/development
  - ✓ U.S. Army Corps of Engineers (permits)

# Restrictions on Dredging Activities When Dredging May Occur

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- In most cases, the impacts are caused by physical effects from the dredge (increased turbidity, noise, channel restrictions, etc)

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- In most cases, the impacts are caused by physical effects from the dredge (increased turbidity, noise, channel restrictions, etc)
- If these restrictions are not linked to sediment contamination, they should not be considered a BUI

# Restrictions on Dredging Activities

## Type of Dredge Allowed

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- In some cases, the purpose was to minimize physical impacts (turbidity)

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- In some cases, the purpose was to minimize physical impacts (turbidity)
- If the purpose was to limit the impacts of sediment contaminants on the water column, this restriction is a BUI

# Restrictions on Dredging Activities

## Disposal Options

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- The least costly, unrestricted disposal option for dredged material at most Great Lakes harbors is open water placement in the adjoining Lake
- In some tributaries, the least costly, unrestricted disposal option for dredged material is unconfined upland placement

# Restrictions on Dredging Activities

## Open-Water Disposal

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- Some restrictions on the use of open-water placement are based on adverse physical impacts:
  - ✓ burial or covering of aquatic habitat/resource
  - ✓ turbidity at disposal site
  - ✓ bathymetry impacts (making shallow)
- Restrictions based on physical impacts should not be considered a BUI

# Restrictions on Dredging Activities

## Open-Water Disposal

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- Some restrictions on the use of open-water placement are based on political policy not specifically linked to any physical or contaminant impacts
- Restrictions based on such policies should not be considered a BUI

# Restrictions on Dredging Activities

## Open-Water Disposal

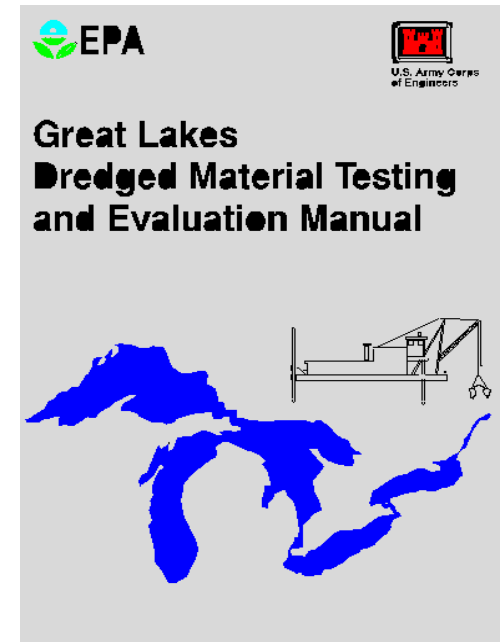
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- Some restrictions on the use of open-water placement are based on adverse contaminant impacts:
  - ✓ water quality at disposal site
  - ✓ bio-effects in water column
  - ✓ bio-effects in benthos
- These restrictions are a BUI that should be addressed in RAPs

# Restrictions on Dredging Activities

## Open-Water Disposal

- Testing and evaluation procedures established by EPA and Corps to determine if contaminants in dredged material should restrict open water disposal

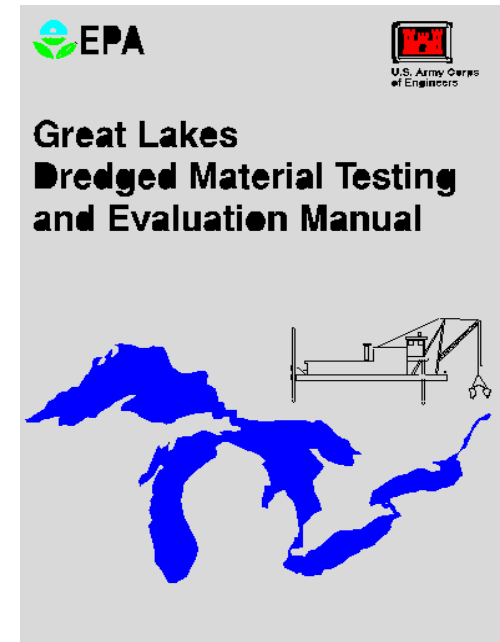


- Testing performed by dredging proponent to comply with Clean Water Act

# Restrictions on Dredging Activities

## Open-Water Disposal

- Toxicity and bioaccumulation tests are similar to those used to evaluate sediment contamination for other BUIs, but the interpretation is different
- Manual is available online:



[www.epa.gov/glnpo/sediment/gltem](http://www.epa.gov/glnpo/sediment/gltem)

# Restrictions on Dredging Activities

## Upland Disposal

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- Some restrictions on the use of upland placement are based on physical impacts or political policies:
  - ✓ aesthetics of disposal site
  - ✓ land ownership
  - ✓ zoning ordinances
- These restrictions are not a basis for a BUI

# Restrictions on Dredging Activities

## Upland Disposal

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- Some restrictions on the use of upland placement are based on potential contaminant impacts:
  - ✓ surface or ground water quality
  - ✓ contaminant uptake by plants or animals
- These restrictions are a BUI that should be addressed in RAPs

# Restrictions on Dredging Activities

## Upland Disposal

- Testing procedures developed by Corps to determine if contaminants in dredged material should restrict upland disposal
- States may have own specific testing requirements (solid waste permitting)



# Dredging Activities

## Summary

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- Not all restrictions on dredging activities are considered a BUI
- First determine existing and future dredging needs
- Next, determine if restriction is based on potential contaminant impacts
- Apply testing and evaluation procedures for appropriate disposal option