

# **Managing Sediments in the Watershed: Bringing Dredged Material and Watershed Managers Together**

**Portland, Oregon  
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# What's the problem?

- Silt is the most common pollutant in Ohio.
- Impacts both water quality & habitat.
- Low levels of contaminants.
- Increases turbidity & resuspends.
- Degrades coarser substrates (sand & gravel).
- Good for carp, bad for walleye.

# 401 Water Quality Certification

- USACE submitted a 401 Water Quality Certification application to Ohio EPA January 8, 2003
- Material dredged from lake mile 2 and outward was to be disposed of in the open lake
- Material dredged from lake mile 2 and inward was to be disposed of in a CDF
- This represented an increase in the amount of open lake disposal

# 401 Water Quality Certification

- Ohio EPA issued a Water Quality Certification on June 3, 2003.
- This certification contained conditions to limit the amount of open lake disposal and to promote beneficial reuse of dredged material.
- USACE appealed the issuance of the certification on July 16, 2003.

# 401 Water Quality Certification

- USACE Dredging plan submitted to Ohio EPA September 29, 2003.
- This represented the same increase in the amount of open lake disposal as the previous application.
- Some of the conditions contained in the 2003 certification were not met.

# 401 Water Quality Certification

- Ohio EPA issued a Water Quality Certification on April 28, 2004.
- This certification contained 16 detailed conditions to limit the amount of open lake disposal and to promote beneficial reuse of dredged material.
- USACE appealed the issuance of the certification on May 27, 2004.

# Resolution of 401 Appeals

- The Ohio Department of Natural Resources (DNR) submits a letter intent to cooperate on a Section 204 Project (Habitat Restoration) on May 24, 2004.
- A Memorandum of Agreement was signed by Ohio DNR, Ohio EPA, and the Buffalo District of USACE on July 7, 2005.

# Resolution of 401 Appeals

- The Ohio EPA modified the 401 Water Quality Certification on May 24, 2004.
- Benefits of this resolution package:
  - Dredging can proceed
  - A specific beneficial reuse was identified
  - Specific roles for each agency were identified

# Toledo-Lucas County Port Authority Beneficial Reuse Projects

- Fertile Soils Production

Since 2000, the Port Authority has been blending dredged material with solids from the Toledo WWTP to produce a bulk material that can be used in parks and highway buffer zones for a variety of landscape features. This project has only utilized a total of 20,000 cubic yards of dredged material

# Toledo-Lucas County Port Authority Beneficial Reuse Projects

- Direct Use of Dredged Material

A local community is proposing to utilize dredged material from the CDF to restore a 57 acre industrial site.

# Toledo-Lucas County Port Authority Beneficial Reuse Projects

- Mine Reclamation Project

Funding is being sought to use dredged material for strip mine reclamation in eastern Ohio. A project is estimated to cost between \$12 and \$15 million and could utilize approximately 200,000 cubic yards of dredged material. If successful, this concept could also be employed to restore old quarry operations.

# Toledo-Lucas County Port Authority Beneficial Reuse Projects

- Building Soils Production

The Port Authority and local business have blended dredged material with ash from a local power plant to produce a high quality building material. When completely developed, this project could utilize 200,000 cubic yards of dredged material annually.

# Toledo-Lucas County Port Authority Beneficial Reuse Projects

- Other Blending Opportunities

Private individuals and local business have obtained dredged material for other blending projects. One process currently being tested is using the fine grained dredge material for brick production. These opportunities use only a very small amount of the available material.

# Challenges for Beneficial Reuse

- There is a very large volume of fine grained material produced every year (1.3 million cubic yards).
- Transportation costs of the dredged material drive can dictate affordability.
- Government approval processes are not always very transparent and can be very slow.
- Building good working relationships between all the parties involved in the issue.