

Identified Opportunities and Potential Solutions

Ohio's Digging Up Ideas Workshop

Summary of Flip Charts from the Brainstorming Sessions

May 11, 2016



Note: This was the first state-wide workshop held in Ohio to kick-off discussions for finding uses for the 1.5 million cubic yards of material dredged annually from Ohio's eight Lake Erie federal navigation channels. In just two hours, workshop participants identified potential solutions for some of the identified challenges and barriers. We are grateful for the energy, enthusiasm and creative spirit of those who participated. This document summarizes the ideas developed in each group. During the initial brainstorming session, the groups were asked to identify new opportunities for using dredged material. They were told to ignore any perceived or real challenges or barriers that might inhibit the new opportunity. During the final brainstorming session, the groups were asked to explore solutions for each of the following identified challenges and barriers categories:

- ❖ Regulatory
- ❖ Material Handling/Transportation
- ❖ Perceptions/Markets
- ❖ Funding/Financing

❖ Regulatory

- ✓ **Develop risk-based standards for use**
 - Use Voluntary Action Program standards when dredged material is used on brownfield sites
 - Develop background levels for Polycyclic Aromatic Hydrocarbons (PAHs)
 - Allow adjustments to risk assessment exposure assumptions based on weather conditions
 - Include standards for recreational uses
- ✓ **Permits/Authorizations**
 - Have several general permits for different uses
 - Include standard test methods and sampling protocols
 - Include general permit for landfill uses (Alternative Daily Cover, Final Cover, etc.) instead of current rule-based process for authorizing use at landfills
 - Allow sampling of finished product instead of raw material (dredged material) to demonstrate standards are met (like the compost rules)
- ✓ **Develop Ohio Department of Transportation rules to require use of dredged material when available and suitable**
- ✓ **Include provisions for beneficial use of all dredged material (not just federal navigation channel dredged material) in the Ohio EPA Beneficial Use rules**
- ✓ **Streamline permitting of beneficial use projects** (eliminate duplication, joint evaluation of projects)
- ✓ **Create timeframes for permit review/issuance**
- ✓ **Establish immunity in statute/rules for end users**
- ✓ **Create public/private partnership legislation**
- ✓ **Change definitions of solid waste and other waste to exclude dredged material from regulation as a waste**
- ✓ **Allow exceptions to certain regulatory requirements because of the benefit provided**

❖ Material Handling/Transportation

- ✓ **Encourage large-scale dredging companies to perform navigational maintenance dredging**
 - More technology
 - More capacity
 - Change U.S. Army Corps of Engineers (USACE) small business dredging policy for the Great Lakes
- ✓ **Move material from eastern Lake Erie to other Ohio ports** (for example, sand from east could be marketed in Toledo)
- ✓ **Pump and pipe materials to locations where material will be used**
- ✓ **Use filter presses**
- ✓ **Use conveyors**
- ✓ **Move materials using ships/barges**
- ✓ **Process and dewater material at point of generation**
- ✓ **Upgrade rail system**
- ✓ **Speed up dewatering process**
 - Aeration
 - Seeding with plants for enhanced evapotranspiration

❖ Perceptions/Markets

Product Development/Material Quality

- ✓ **Work with industry groups to develop product specifications/market requirements**
 - American Society for Testing and Materials (ASTM) – develop testing method(s) for dredged material (an official product)
 - Ohio Contractor’s Association

Market Development

- ✓ **Marketing and Branding – Take advantage of the “buy local” movement and market it as “Local Dirt;” use social media and marketing (People’s Choice Award)**

#ItsDirt
#ItsJustDirt
#419DIRT
#216DIRT
#440DIRT

- ✓ **Marketing and Branding - General**
 - Rename it
 - Stop calling material toxic waste; be careful of language used when referring to the dredged material (newspaper, media, reports)
 - Explicitly label dredged material products
 - Compare dredged material to conventional materials
- ✓ **Create incentives** (see the SOLUTIONS: Funding/Financing Challenge)
- ✓ **Work with watershed groups**
- ✓ **Make dredged material products cheaper than material it’s competing with**
- ✓ **Take advantage of the public/private interest in sustainability**
 - LEED certified dirt
 - Market to green building industry
- ✓ **Educate users and others about the material**

What

- *Material safety*
 - * Answer=Data
 - * Standardized and documented testing
 - * Independent panel of scientists
 - * Open forum
 - * Vegetable garden safe
 - * U.S. EPA safe
- *Potential uses*
 - * Targeted brochures based on vertical markets
- *Compare dredged material to conventional materials*

Audience

- *Students*
- *Consumers/gardeners*
- *Users/site development consultants/engineers*
- *Elected officials*

How

- Publish data; be transparent
- Exhibitions
- Tour facilities (Confined Disposal Facilities (CDFs) and soil processing facilities)
- Tour pilot projects/demonstrations
- Develop product specification sheets like the Notice and necessary information (NANI) sheet used for biosolids (www.epa.ohio.gov/portals/35/sludge/WWTPNANI.pdf)
- Target outreach to bring people in
 - * Open house
 - * Believable message
 - * Videos + pictures

Who

- Universities and colleges [extension offices]
 - Farm Bureau/U.S. Department of Agriculture/Natural Resource Conservation Service/Soil and Water Conservation Districts
- ✓ **Address liability issues**
- Certification to reduce risk
 - Environmental insurance to cover risk
- ✓ **Create “clearinghouse” to link users with generators; allow outside to contribute**

❖ Funding/Financing

- ✓ **Treat it like a commodity and auction it off**
- ✓ **Use existing government grants/loans**
- Ohio Lake Erie Commission
 - Great Lakes Restoration Initiative
 - National Oceanic and Atmospheric Administration
 - JobsOhio Money
 - Product Development
 - Research and Development
- ✓ **Establish new government grants/loans**
- Get turnpike funding back
 - Get State of Ohio funding for implementing Senate Bill 1 (www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-SB-1)
 - Bond?
 - General Revenue Fund?
 - Legislature should identify sources - put back on them
 - Marijuana legalization tax
 - Land acquisition grants for dredged material processing facilities (Ohio Development Services Agency - Job Ready sites bond money?)
 - Ohio EPA/USACE grant for marketing
- ✓ **Develop partnerships with federal, state and local park systems**
- National Park Service (Cuyahoga Valley National Park)
 - Furnace Run Trail (Summit Metro Parks)

- Cleveland Metro Parks
- Metroparks Toledo
- ✓ **Establish public/private partnerships**
- ✓ **Develop tax breaks and regulatory incentives/breaks**
 - Tax Increment Financing (TIF)
 - Sales or other tax break on equipment purchases
 - Income or other tax break for labor costs
 - Income or other tax break on services
 - Property or other tax break on facilities
 - Establish purchase pools for government use of dredged material products
 - Reduce solid waste disposal fees in exchange for using dredged material
 - Tax breaks for users, processors, etc.
 - Cost offset for submerged land leases
 - Mitigation credits – similar to wetlands mitigation
 - Extra points on grant application if using dredged material (for brownfield redevelopment grants or other similar applications for funds)
- ✓ **Establish mandates**
 - Require ODOT or other agencies using fill material for public works projects within 25 miles of federal navigation channel harbor to use a percentage of dredged material (make it a RFP/contract requirement)
- ✓ **Create watershed area and determine impact of each to distribute cost/liability**
- ✓ **Create income-generating tourism destinations (islands) to offset costs**
- ✓ **Establish inter-state agreement/arrangements to facilitate dredged material use**
- ✓ **Redirect existing state fees/revenues toward projects for beneficial use of dredged material**
 - Ohio Department of Natural Resources – Wetland Restoration: use portion of license plate fees or tax money
 - Storm water fee – use part of fee toward funding projects
 - Enforcement settlements (state and federal)
 - Allow 100 percent credit for Supplemental Environmental Projects related to dredged material use
 - Farm Bill money
 - Subsidize product development because agricultural activity is the source of some sediment
 - Shift R&D funds from other areas until 2020
 - Seed money for startups to use/manufacture material
- ✓ **Establish new fees/revenues**
 - Lake Erie Restoration Lottery Program
 - Fee to pay for water from lake
 - Based on quantity of water extracted
 - Use money collected for in-water projects only
 - Charge rate per gallon – all users
 - Fee for using impervious pavement (impacts storm water runoff)
 - Offsets – rain gardens, gray water collection

- Fee/penalty for excessive erosion in the Lake Erie watershed rivers and tributaries that causes sediment loading
- Require authorization for land development
 - Pay fee for sedimentation/contamination
 - Use equivalent sediment load onsite in construction/development
- New storm water fee; use part of fee toward funding projects
- Evaluate funding options like the state of Maryland uses
 - Consolidated Transportation Fund
 - Capital Improvement Projects
- State fee/toll for using lake to pay for navigation maintenance
- Increase landfill disposal fees
- ✓ **Services-for-fees exchange option**
- ✓ **Privatization of dredging operations**
- ✓ **Seek funding for projects from non-profits**
 - World Wildlife Nature Fund
 - Nature Conservancy
- ✓ **Advocate for Federal changes**
 - Change Federal Standard/Beneficial Use
 - Increase uses of Harbor Maintenance Trust Fund
 - Renegotiate ecological services value with USACE (to lower cost share or raise federal money in project)
- ✓ **Pay land rental for dredged material amendment**
 - Three years until farmable again (?? this does not generate income)

New Opportunities Identified at the Workshop

Agricultural: use to replace eroded topsoil, elevate the soil surface or improve the physical and chemical characteristics of soils

- Use to construct berms for controlling nutrient run-off on farm fields
- Use to construct earthen/visual barriers at Confined Animal Feeding Operations (CAFOs)
- Use to create ditch habitat for agricultural field "outfalls"
- Use to elevate farm land specifically in Wood and Ottawa Counties
- Use on tree farms (i. e., vertical enhancement)
- Use for reforestation

Construction and Engineering

- Road Construction (Iron & Calcium Neutralized AS)
- Blend with slag fines (less than 3/8") to create structural fill
- Use for underground storage tank cleanups
- Use to redevelop Whiskey Island in Cleveland
- Use to construct above ground/grade cemeteries
- Use for road median fill

Manufactured Products: use as replacement for other materials in a manufacturing process or to make a product

- Use for emergency preparedness sand bags
- Use to make Gabion blocks
- Use to make 'rip-rap'
- Use in mortar mixes

Environmental Enhancement

- Create open water wetland mitigation banks
- Use to reconstruct bathymetric changes caused due to water level changes
- Use to construct dikes as coastal protection structures
- Fill underground salt mines
- Use for shore structure creation/improvements like covering all of the dumped concrete along Lorain's coast

Multi-purpose

- Create off-road vehicle parks
- Build hang gliding hills
- Use to construct noise barriers/berms
- Use for constructing flood protection/levees
- Build islands with dredged material and Coal Combustion Residuals (CCR)

Previously Identified Opportunities

Agricultural: use to replace eroded topsoil, elevate the soil surface or improve the physical and chemical characteristics of soils

- Grow crops and raise livestock in traditional farming
- Grow food in urban agriculture
- Create compost products
- Use for forestry, horticulture and aquaculture

Construction and Engineering

- Use for daily or weekly cover for landfills; odor control blanket on landfills. Cap or protect landfills
- Use to construct earthbag structures/houses
- Use to support commercial or industrial activities (including brownfield redevelopment); for example, expanding or raising the height of the land base or providing bank stabilization
- Use for structural and non-structural fill
- Use for earthen structures (berms, mounds, visual screens, etc.)
- Use for low strength backfill (structural fill, foundation support, pavement base, conduit bedding, etc.)
- Use for infrastructure backfill (electric, sewer, water, gas, etc.)
- Use for parking lot and road base material
- Use for aggregate replacements (bricks, blocks, concrete, etc.)
- Use for low permeability soil liners

Manufactured Products: use as replacement for other materials in a manufacturing process or to make a product

- Use to make decorative landscape materials
- Use to make compressed brick or lightweight aggregate
- Use to make products with a sustainable/green building emphasis

Environmental Enhancement

- Restore beaches – using primarily sandy material
- Build and restore wildlife habitat, especially wetlands or other water-based habitat (e.g., nesting islands and offshore reefs)
- Reclaim brownfields and turn them into a park or natural
- Use as a foundation for parks and recreational facilities; for example, littoral/riparian parks providing amenities such as swimming, picnicking, camping or boating
- Reclaim strip mines

Multi-purpose

- Use to make topsoil/vegetative cover/growing medium and other custom soil blends
- Use to construct bike paths or multi-use trails
- Use to construct golf courses – sports fields
- Use to construct ski hill/artificial landmass
- Use to close coal ash impoundments