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# Overview of the Dredged Materials Management Tool (DMDT)

Katie Williams, PhD
*Center for Computational Toxicology and Exposure*
*Great Lakes Toxicology and Ecology Division, Duluth MN*

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# Categories of Criteria

| Category | Description |
|---|---|
| **Biophysical environment** | The habitat restoration applications of dredged materials |
| **Economic** | Funding details, placement costs and options, and transportation |
| **Governance** | The rules, regulations, and organizational decision factors |
| **Social** | Benefits to the community including improving ecosystems services |
| **Built environment** | How dredge is utilized for construction |

## Project and Site Information

| | |
|---|---|
| **Name of Site:** | Interstate Island |
| **Type of Site:** | Shoreline erosion or recession |
| **Owner:** | State |
| **Name of Owner:** | |
| **State:** | WI, MN |
| **Purpose of project:** | Terrestrial habitat restoration, creation, development |

## Dredging Information

| | |
|---|---|
| **Dredging location (lat/long):** | 46.749175, -92.110075 |
| **Volume (c/y):** | 60,000 |
| **Dredged material source:** | Operation and Maintenance |
| **Primary soil type:** | Sand |
| **List other soil types:** | Organic fines |
| **Cost:** | $ 1,000,000.00 |
| **Funding source:** | Harbor Maintenance Trust Fund, US Army Corps, Great Lakes Re |
| **Mode of transportation** | |
| **Barge:** | ☑ |
| **Pipeline:** | ☑ |

## Governance

**Maintain navigations channels:**

| | | | |
|---|---|---|---|
| **Yes** | ☑ | **Likelihood (of action):** | High |
| **No** | ☐ | **Magnitude (impact of action on alternative):** | High |
| **Unsure** | ☐ | **Direction (how does action impact alternative feasibility):** | More feasible |

**Consideration of liability (past, present and future for project/ project site):**

| | | | |
|---|---|---|---|
| **Yes** | ☑ | **Likelihood:** | High |
| **No** | ☐ | **Magnitude:** | High |
| **Unsure** | ☐ | **Direction:** | More feasible |

**Enrolled in a voluntary program (often assessment/clean-up support):**

| | | | |
|---|---|---|---|
| **Yes** | ☐ | **Likelihood:** | Low |
| **No** | ☑ | **Magnitude:** | Low |
| **Unsure** | ☐ | **Direction:** | Neutral |

**Able to be completed inside of relevant environmental windows:**

| | | | |
|---|---|---|---|
| **Yes** | ☑ | **Likelihood:** | High |
| **No** | ☐ | **Magnitude:** | High |
| **Unsure** | ☐ | **Direction:** | More feasible |

**Referred to or included in existing guidance documents:**

| | | | |
|---|---|---|---|
| **Yes** | ☑ | **Likelihood:** | High |
| **No** | ☐ | **Magnitude:** | High |

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# Scorecard A: Likert Scale

| | | Impact Characterization (likelihood, impact, feasibility) | | | | | |
|---|---|---|---|---|---|---|---|
| | | 5 Definite | 4 High | 3 Moderate | 2 Somewhat | 1 Low | N/A |
| Social | Improve access to parks or natural spaces | | X | | | | |
| | Potential for indirect job creation | | | | X | | |
| | Improve aesthetics | X | | | | | |
| | Community engagement | X | | | | | |
| | Reduced human exposure to contaminants | | X | | | | |
| | Improved access to ecosystem services | | X | | | | |
| | Improved infrastructure condition | | | X | | | |
| | New/improved infrastructure services for community | | | X | | | |

| | | Impact Characterization (likelihood, impact, feasibility) | | | | | |
|---|---|---|---|---|---|---|---|
| | | 5 Definite | 4 High | 3 Moderate | 2 Somewhat | 1 Low | N/A |
| Governance | Maintain navigation channels | X | | | | | |
| | Enrollment in voluntary program | | | | | X | |
| | Able to complete within Environmental Windows | | X | | | | |
| | Included in existing guidance documents | | X | | | | |
| | Permitting timeline conducive with project timeline | | | X | | | |
| | Meets zoning requirements | X | | | | | |
| | Flexible timeframe | | | | X | | |
| | Replicable | | | X | | | |
| | Site ownership | X | | | | | |

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# Scorecard B: Binary Choice

| Scorecard B: Yes/No | | | |
|---|---|---|---|
| Economy | Funding pathway identified | yes | |
| | Funding application prepared | yes | |
| | Partnerships established | yes | |
| | Potential partnerships identified | yes | |
| | Feasible transportation of dredged materials to the placement site | yes | |
| | Accept materials (5 years) | | no |
| | Accept materials long-term (20 years) | | no |
| | Lead to creation/growth of viable business | | no |
| | Secondary benefits created | yes | |
| | Long-term maintenance required | | |
| Social | Improve access to parks or natural spaces | | |
| | Potential for indirect job creation | | |
| | Improve aesthetics | | |
| | Community engagement | | |
| | Reduced human exposure to contaminants | | |
| | Improved access to ecosystem services | | |
| | Improved infrastructure condition | | |
| | New/improved infrastructure services for community | | |
| | Maintain navigation channels | | |

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# Scorecard C: Ranking

| Scorecard C: Ranking | | |
|---|---|---|
| | **Criteria** | **Rank** |
| **Biophysical** | Rivers and streams habitat quantity gain/loss | |
| | Lakes and ponds habitat quantity gain/loss | |
| | Near coastal marine/estuarine habitat quantity gain/loss | |
| | Open water habitat quantity gain/loss | |
| | Wetlands habitat quantity gain/loss | |
| | Urban/Suburban habitat quantity gain/loss | |
| | Barren/rock and sand habitat quantity gain/loss | |
| | Rivers and streams habitat quality improved/diminished | |
| | Lakes and ponds quality improved/diminished | |
| | Near coastal marine/estuarine quality improved/diminished | |
| | Open water quality improved/diminished | |
| | Wetlands quality improved/diminished | |
| | Urban/Suburban quality improved/diminished | |

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# Enter project data

| | A | B | C | D |
|---|---|---|---|---|
| 1 | Duluth-Superior Harbor Working Draft | | | |
| 2 | 12/11/2020 | | | |
| 3 | | | | MAINTEN |
| 4 | | | | |
| 5 | Port | Duluth-Superior Harbor | | |
| 6 | Project No. | ABC-123 | | |
| 7 | Dredge Location (lat/long) | | | |
| 8 | Volume (cy) | Alternative 1: 50K; Alternative 2: 50K; Alternative 3: 50K | | |
| 9 | Soil classification | | | |
| 10 | Elevated contaminants | | | |
| 11 | Weighting factor adjusted | No adjustment | | |
| 12 | Trial | 001 | | |
| 13 | Scorecard No. | Du-2020-2-19-001 | | |
| 14 | Prepared by | <Enter Name> | | |
| 15 | Prepared on | <Enter Date> | | |
| 16 | Checked by | <Enter Name> | | |
| 17 | Checked on | <Enter Date> | | |

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# Enter data in DMDT

| A | B | C | K | L | M | N | O | P | Q | R | S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| **Category** | **Criterion** | C Rank | *U* | *W* | *C* | *U* | *W* | *C* | *U* | *W* | *C* |
| Biophysical Environment (16) | Aquatic habitat gain/loss | 2 | 1 | 1.0 | 38% | 4 | 3.9 | 62% | 3 | 2.9 | 59% |
| | Shoreline habitat gain/loss | 20 | 4 | 2.4 | | 5 | 3.0 | | 5 | 3.0 | |
| | River habitat gain/loss | 12 | 1 | 0.8 | | 3 | 2.3 | | 4 | 3.1 | |
| | Wetland habitat gain/loss | 25 | 1 | 0.5 | | 1 | 0.5 | | 1 | 0.5 | |
| | Terrestrial habitat gain/loss | 42 | 5 | 0.9 | | 3 | 0.5 | | 5 | 0.9 | |
| | Aquatic habitat improved/harmed | 3 | 1 | 1.0 | | 3 | 2.9 | | 3 | 2.9 | |
| | Shoreline habitat improved/harmed | 21 | 4 | 2.3 | | 5 | 2.9 | | 5 | 2.9 | |
| | River habitat improved/harmed | 13 | 1 | 0.8 | | 3 | 2.3 | | 3 | 2.3 | |
| | Wetland habitat improved/harmed | 26 | 1 | 0.5 | | 1 | 0.5 | | 1 | 0.5 | |
| | Terrestrial habitat improved/harmed | 43 | 5 | 0.8 | | 3 | 0.5 | | 5 | 0.8 | |
| | Priority habitat | 35 | 5 | 1.5 | | 5 | 1.5 | | 5 | 1.5 | |
| | Species of management concern | 31 | 5 | 1.9 | | 5 | 1.9 | | 5 | 1.9 | |
| | Restore or manage native vegetation | 48 | 1 | 0.1 | | 5 | 0.4 | | 1 | 0.1 | |
| | Reduce invasive vegetation | 16 | 1 | 0.7 | | 3 | 2.0 | | 1 | 0.7 | |
| | Stormwater control or protection | 45 | 1 | 0.1 | | 1 | 0.1 | | 1 | 0.1 | |
| | Reduce contamination | 6 | 1 | 0.9 | | 1 | 0.9 | | 1 | 0.9 | |
| | Funding pathway | 10 | 5 | 4.1 | | 4 | 3.2 | | 5 | 4.1 | |
| | Application information prepared | 23 | 5 | 2.7 | | 3 | 1.6 | | 5 | 2.7 | |
| | Established partnerships | 29 | 5 | 2.1 | | 5 | 2.1 | | 5 | 2.1 | |

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# More Information

- Additional informational resource
  - Database of examples

- Materials available

  https://www.epa.gov/research/dredged-material-decision-tool-dmdt

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# For more information

Katie Williams
williams.kathleen@epa.gov

## Project team

Karla Auker
Rosita Clarke
Joel Hoffman
Sebastian Paczuski