Toledo Harbor Sediment Management and Use Solutions

Great Lakes Dredging Team Annual Meeting
Maumee Bay State Park
May 17-18, 2012

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Toledo-Lucas County Port Authority

Ohio | Lake Erie Commission

TOLEDO | LUCAS COUNTY PORT AUTHORITY

Toledo Harbor Sediment Management and Use Planning

- The Ohio Lake Erie Commission was awarded a GLRI grant to create a sediment management strategy/plan for the Toledo Harbor that identifies and addresses:
  - recommended short-term (1-5 years) options
  - recommended long-term (30 year) options
  - funding needs/sources/mechanisms
  - timelines for implementation of recommended approaches

Toledo Harbor Dredging

THE COLOR-CODED AREAS REPRESENT AN ESTIMATE OF THE CUMULATIVE VOLUME OF SEDIMENT DREDGED FROM THE TOLEDO HARBOR FEDERAL SHIPPING CHANNEL BETWEEN 2001 AND 2010 AS FOLLOWS:

LEGEND

- 0-MINIMAL DREDGING (UNDER 15,000 CUBIC YARDS)
- 15,000-400,000 CUBIC YARDS
- 400,000-1,040,000 CUBIC YARDS

SOURCE:

DATA PROVIDED BY THE US ARMY CORPS OF ENGINEERS BASED ON ESTIMATED VOLUME OF DREDGED SEDIMENT BETWEEN 2001 AND 2010 USED TO QUANTIFY THE CONTRACTOR'S WORK EFFORT.

OPEN-LAKE PLACEMENT AREA

LAKE MILE 18

N

0 2000 4000 8000
SCALE IN FEET

LAKE MILE 11

LAKE ERIE

TOLEDO HARBOR FEDERAL SHIPPING CHANNEL

WOODTICK PENISULA

MICHIGAN

OHIO

ISLAND 18 CDF

OVERALL CENTER OF GRAVITY

LAKE CHANNEL CENTER OF GRAVITY

MAUMEE BAY

CDF #3

LAKE VIEW

CEDAR POINT N.W.R.

MAUMEE BAY STATE PARK

RIVER MILE 0

RIVER MILE 1

RIVER MILE 3

TOLEDO

OREGON

RIVER CHANNEL CENTER OF GRAVITY

RIVER MILE 7

75 280 475

- Federal Channel spans RM 7 to LM 18 (25 miles, 400-500 ft. width)
- Projected 1M CY Dredged Annually, includes federal and non-federal channels
- 30-year total of 30M CY

Toledo Harbor Sediment Management and Use Plan Status

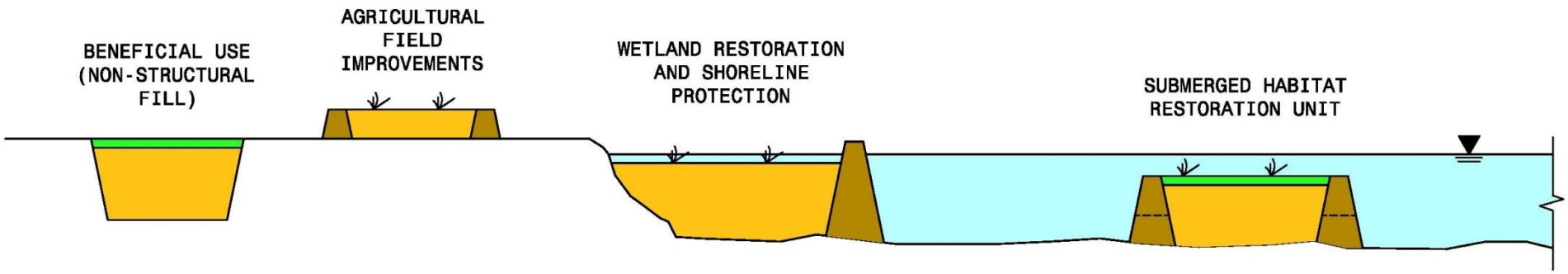
- Solicited input on potential options and gathered value judgments from stakeholders on the importance of relative criteria to evaluate options
  - Completed Public Forum for Stakeholder Input (June 2011)
- Evaluation of short term (1-5 years) and long term (5-30 years) options
  - Compiled relevant data and information
  - Estimated dredge capacity needs
  - Completed conceptual cost estimates

Potential Sediment Management and Use Options

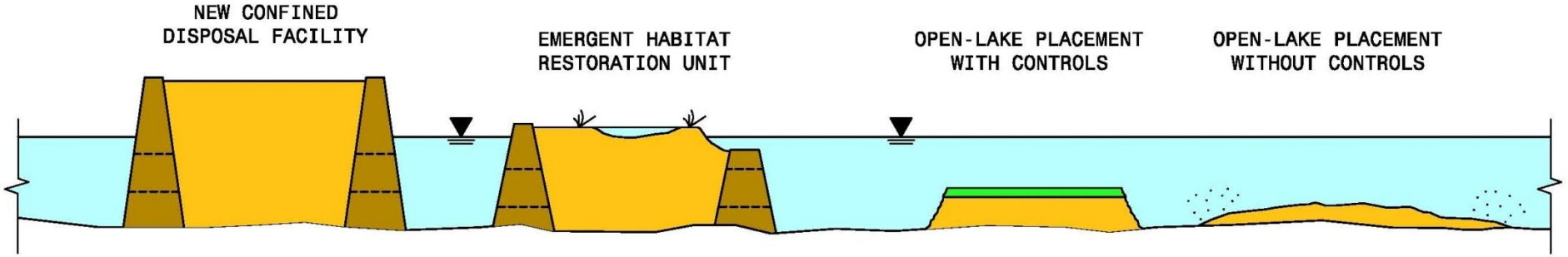
Upland

Nearshore

In-Water



In-Water



Toledo Harbor Sediment Management and Use Plan Status

Weighted Matrix Approach

- Identified major categories of technical criteria identified
  - Feasibility
  - Ecological Benefits
  - Environmental Impacts
  - Human Benefits
  - Economic Benefits
  - Implementation Cost

Toledo Harbor Sediment Management and Use Plan Status

For each Technical Criteria category:

Weighting Factors

- Assigned by Task Force members
- 1-100, for each technical criteria category

Technical Criteria

- Assigned by Hull Technical Team
- 1-5, for multiple technical criteria for each option

Avg. Weighting Factor

x

Avg. Technical Criteria Score

=

Score for Each Option

Toledo Harbor Sediment Management and Use Plan Status

- Presentation of Results
  - Public Forum on June 19th from 2-5pm
  - Location: *TBD*

- City of Toledo GLRI Application