

Tittabawasse River, Saginaw River & Bay Site

Controlling Contaminant Movement at Island MM

Informal CAG Feedback

CAG Meeting February 28, 2011

Outline

- Review objectives for controlling potential contaminant movement
- Current status of Island MM project
 - Background
 - Proposed alternatives
- Informal feedback from CAG on options being developed
 - Potential community concerns

OBJECTIVES

Major Work at the Site

Three critical activities:

- Early exposure controls at high-use properties
- Controlling significant contaminant movement early
- Segment-by-segment comprehensive cleanup

Controlling Contaminant Movement

Key Objectives

- Develop early options to address contaminant movement
 - Focus on areas with highest potential for significant contaminant movement
 - Develop approaches to stabilize contaminants
- Additional actions considered as part of segment-specific evaluations

ISLAND MM PROJECT BACKGROUND & OPTIONS

Background

- Island in Reach MM identified to contain high concentrations of furans
- Island is showing erosion over time
- Stability assessment and sampling
 - Historical aerial photography
 - Bathymetry & topography
 - Chemical sampling

Project Location

- Island MM is about 17 miles downstream of the beginning of site and about 7 miles upstream of the confluence
- Island MM is in Segment 5



Aerial Photographs



Reach MM Center Island Deposit



Response Goal and Options

- Goal: Reduce potential contaminant movement associated with the sediments located at the Reach MM island
- Options:
 - Alternative 1 – Stabilization
 - Alternative 2 – Dry removal, cap and deposition enhancement
 - Alternative 3 – Removal of all targeted sediments

Reach MM Island – Options

- Alternative 1: Stabilization
 - Logs, armor stone, etc. placed to minimize erosive forces on existing Island
 - Post-stabilization monitoring
- Cost: \$250,000

Reach MM Center Island Deposit



Reach MM Island – Options (cont.)

- Alternative 2: Dry removal, cap and deposition enhancement
 - Removal down to about the low water elevation – work done in the dry
 - Cap – to stabilize remaining deposit and provide deposition enhancement to build up island
 - Post-cap monitoring
- Cost: \$500,000

Reach MM Center Island Deposit



Reach MM Island – Options (cont.)

- Alternative 3: Removal of all targeted sediments
 - Turbidity control
 - Sediment removal and management (dewatering and disposal)
- Cost: \$1,100,000 to 2,000,000

Reach MM Center Island Deposit



Common Elements for Options

- Hydrodynamic assessment
 - To evaluate potential impacts on nearby areas
- Additional pre-construction sampling
 - To better define footprint of work area
- Temporary access roads
- Movement of clean fill to work area
- Alts 2 and 3 – removal and disposal of contaminated soils/sediments
- Project Health & Safety Plan

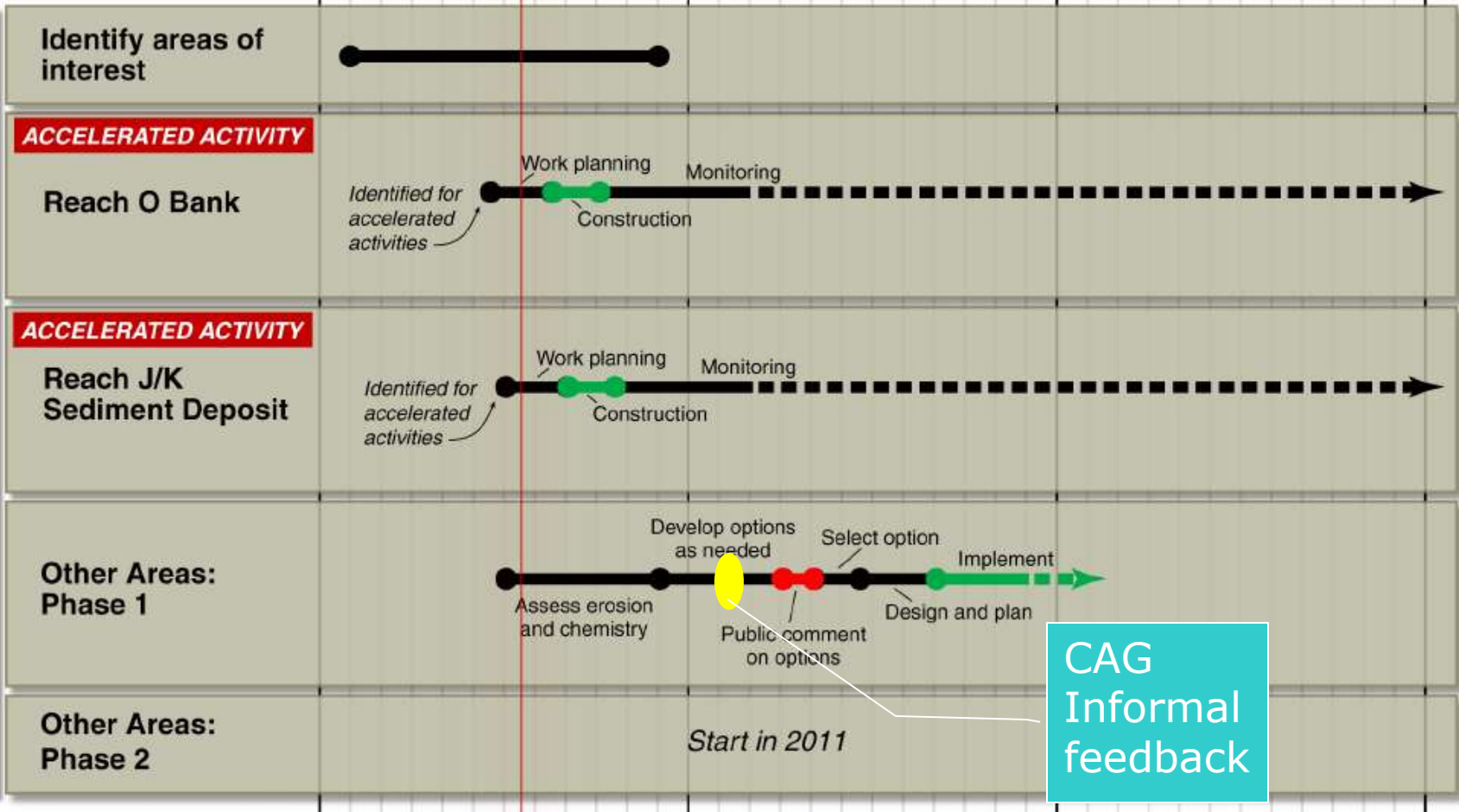
CAG FEEDBACK

Addressing Movement of Highly Contaminated Soil and Sediment

2010

2011

2012



CAG Informal feedback

Timeline – Stabilizing Contaminant Movement

Evaluation Criteria

EPA must consider:

- Effectiveness: Will option prevent significant contaminant movement until comprehensive cleanup is complete?
- Implementability: Can option be put in place easily? Are materials and services readily available? Will community accept option?
- Cost: What are the costs of each option?

Effectiveness Considerations

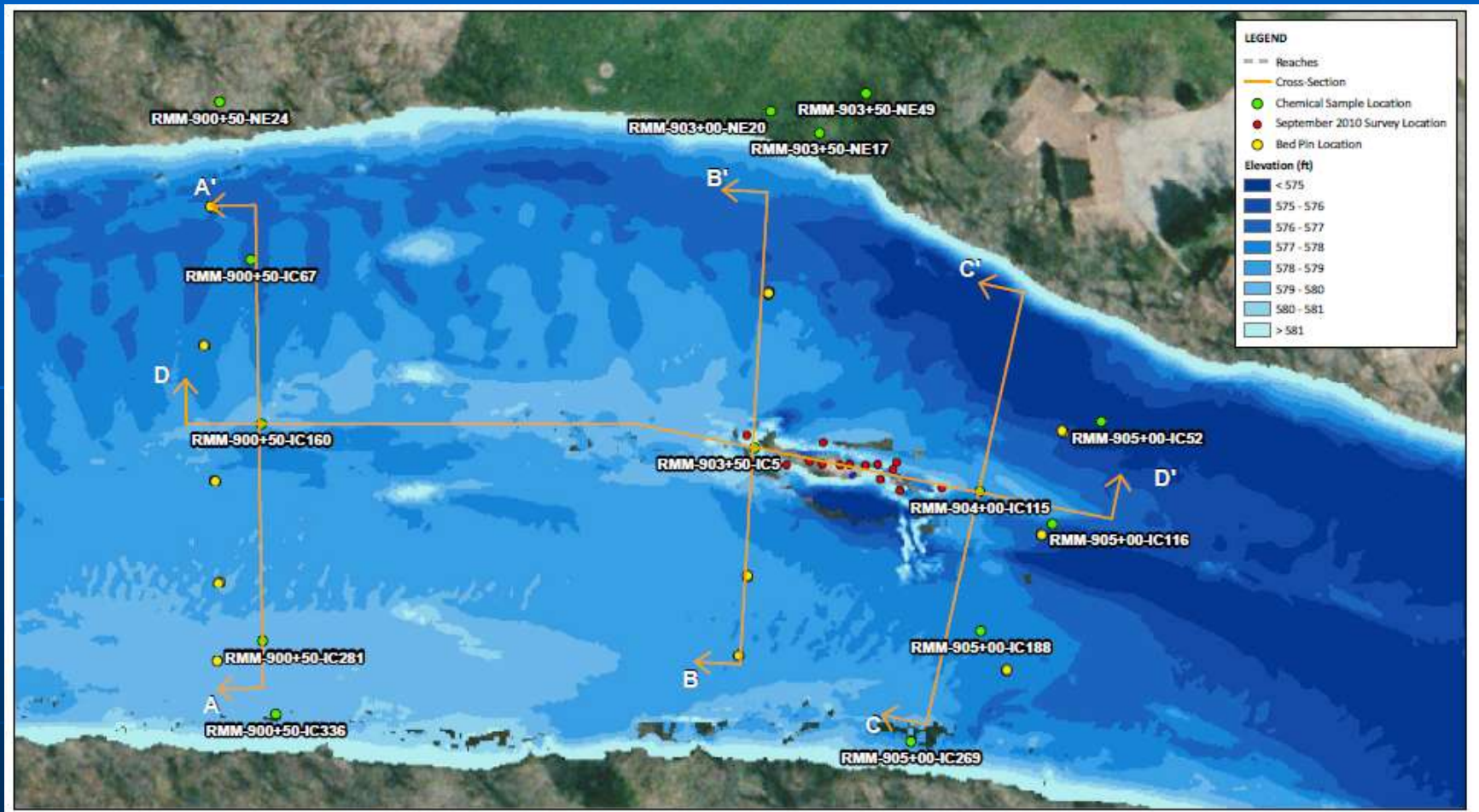
- Overall protectiveness
- Compliance with laws and regulations
- Short-term effectiveness
- Long-term effectiveness
- Reduction of toxicity, mobility or volume

CAG Informal Feedback

- CAG break out session
- What will come from feedback:
 - EPA, DNRE, and Dow will consider feedback
 - New concepts may be incorporated into the ongoing work
 - We will report back at future meetings

QUESTIONS?

Reach MM Center Island Deposit



Cross Section D-D'

