

Asian Carp Beyond the Great Lakes and Mississippi River Interbasin Study

April 29 2014

Tim Eder, Great Lakes Commission

Great Lakes Panel on Aquatic Nuisance Species



Great Lakes Commission Activities Related to Asian Carp

- Restoring the Natural Divide Study
- Critique of GLMRIS
- March 5 Resolution

The Pivot....

- Chicago Area Waterway System
Advisory Committee

RESTORING THE NATURAL DIVIDE

SEPARATING THE
GREAT LAKES AND
MISSISSIPPI RIVER BASINS
IN THE CHICAGO AREA
WATERWAY SYSTEM

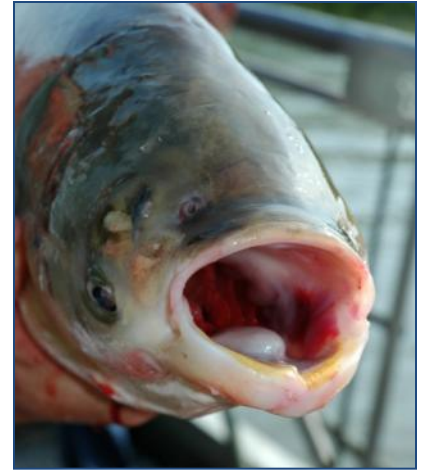
JANUARY 2012 // GREAT LAKES COMMISSION
GREAT LAKES AND ST. LAWRENCE CITIES INITIATIVE



Restoring the Natural Divide Study

Develop alternatives to separate the Great Lakes and Mississippi River watersheds in the Chicago Area Waterway System (CAWS) that will:

- Prevent movement of all aquatic invasive species between the watersheds
- Improve water quality
- Improve flood protection
- Improve commercial transportation



Separation Alternatives

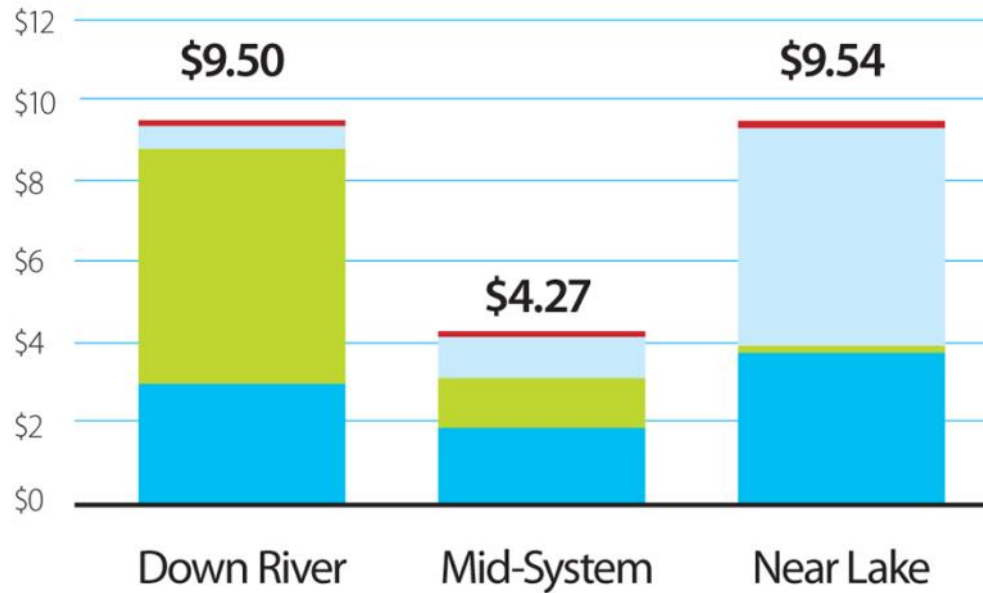
- Down River 
- Mid-System 
- Near Lake 



Mid-System Alternative



Total Costs* (\$ Billions)



 Flood Protection

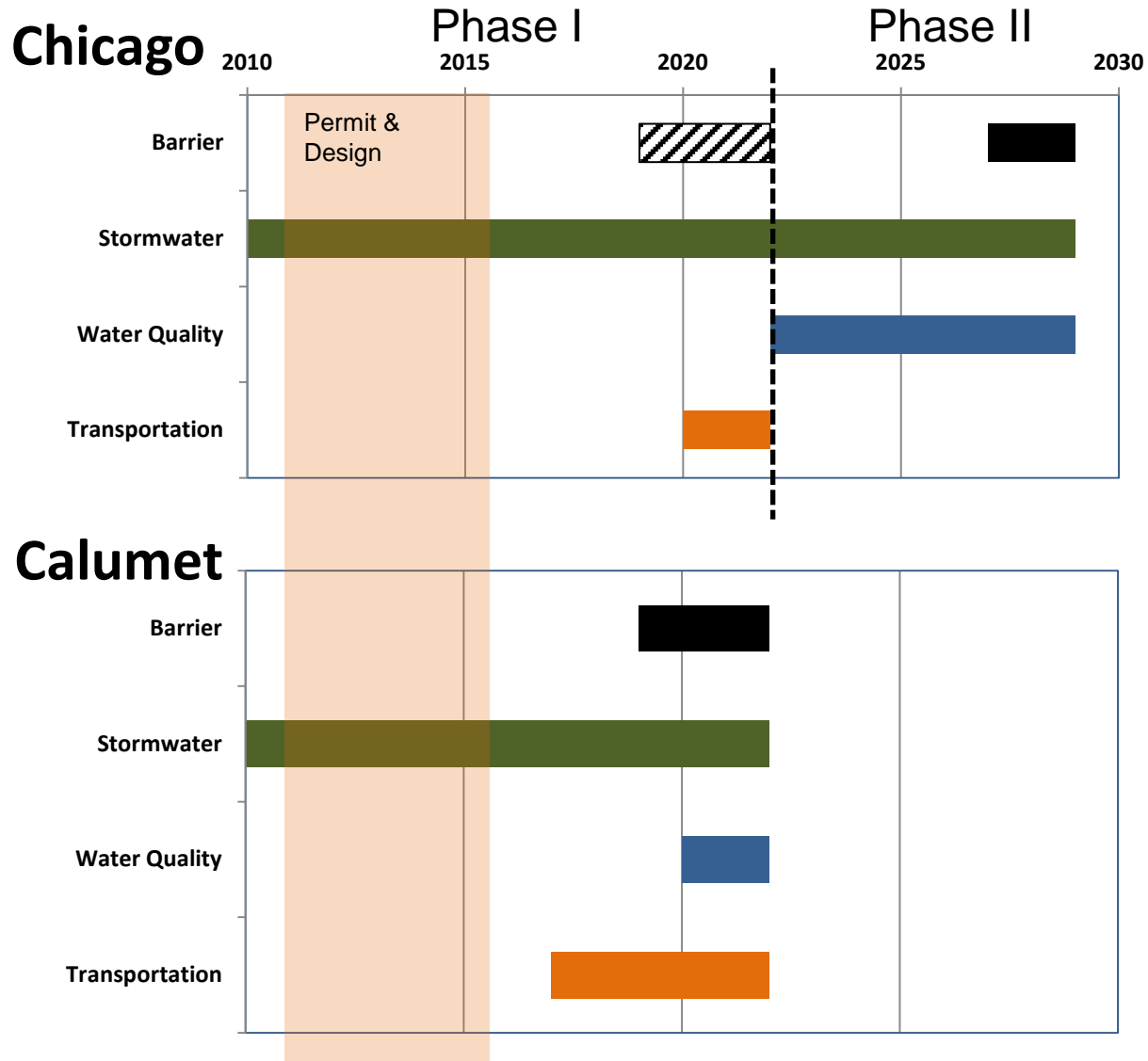
 Water Quality *(Assuming stringent standards)*

 Transportation

 Barriers

* *Present value*

Mid-System Alternative Timeline



Project Benefits

- **AIS costs avoided**
 - \$150M to \$500M annually; \$400M to \$9.5B long-term
- **Transportation**
 - New cargo potential, better intermodal connections
- **Water quality**
 - Expanded recreation and increased property values
- **Reduced flooding damage**
- **Employment impact**
 - 2,900 to 7,500 jobs per year

Critique of GLMRIS

- Comprehensive evaluation of alternatives for preventing interbasin transfer of AIS
- Recognizes hydrological separation as most effective
- Recognizes that mid-system alternative has least impact on flooding
- Identifies useful technologies to explore (electric barrier in engineered channel, GLMRIS lock, etc.)
- Key assumptions increase costs and implementation time
 - Water quality and Lake Michigan
 - Stormwater, Contaminated Sediments

Key Assumptions in GLMRIS

- No flows to Lake Michigan
- Alternatives designed to 500 year storm for purposes of capturing stormwater and CSO flows
- Chicago's TARP system expanded to route all drainage and WWTP flows to river side of barriers
- Highly treated water used to make up flow in CAWS
- Current challenges remediated *as a cost of separation* (flooding, CSOs and contaminated sediments)

Now what...?

GLC Policy and Advocacy Actions

Policy resolution

- Continue Asian carp control strategy and implement additional control measures
- Implement control measures at Brandon Rd. lock and dam
- Design and test GLMRIS lock as demonstration project
- Develop long-term solutions with input from Advisory Committee
- Prevent fish movement caused by commercial shipping
- Study commercial transportation in the CAWS
- Discuss financing approaches for AIS control

CAWS Advisory Committee

Goal: Prevent Asian carp and other AIS from moving between the Mississippi River and Great Lakes basins through the CAWS

Strategy:

1. Continue current actions
2. Initiate additional actions
3. Evaluate and implement lock treatment options
4. Evaluate and implement near-term control measures at Brandon Rd. lock and dam
5. Evaluate long-term solutions
6. Develop cost-sharing partnerships

Near-Term Measures at Brandon Rd. Lock & Dam



- Electric barrier in engineered channel
- Lock treatment
- Fish deterrents
- Modifications to dam
- Other measures?

