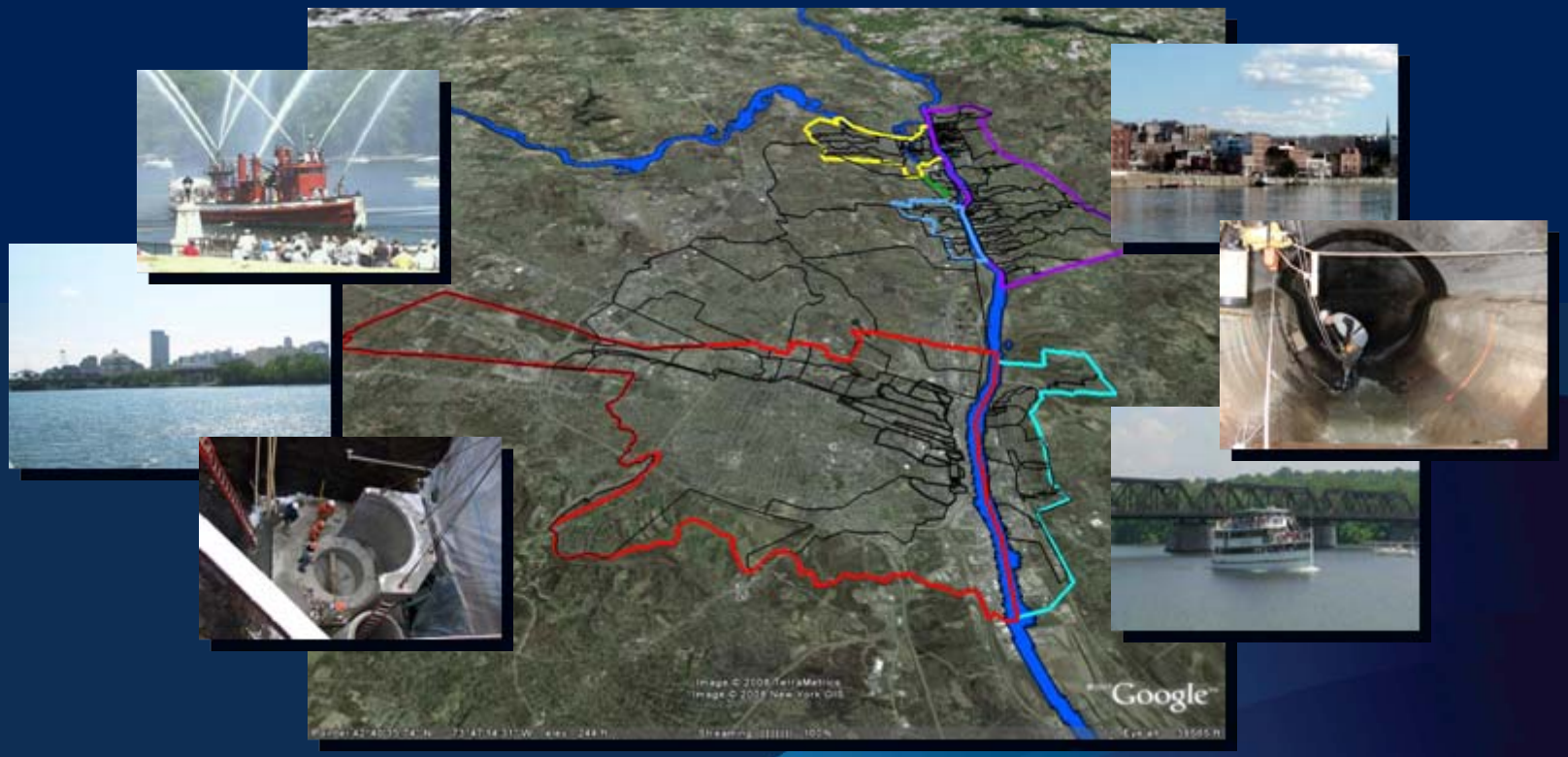
Albany Pool Combined Sewer System
Long-Term Control Plan Development



Public Informational Meeting
March 31, 2008

Joint Venture Team
albany pool
CDM MALCOLM PIRNIE CHA

Albany Cohoes Rensselaer Troy Watervliet Green Island

Agenda for March 31, 2008
Public Informational Meeting

- Introductions - *CDRPC*
- CSOs and Regulatory Compliance
  Cheryle Webber, P.E. - NYSDEC
- Long-Term Control Plan Development - *APJVT*
  - Project Organizational Framework
  - Public Participation Process
  - Scope of Work
  - Project Schedule
- Closing Remarks - *Mayor John McDonald, City of Cohoes*
- Questions and Comments

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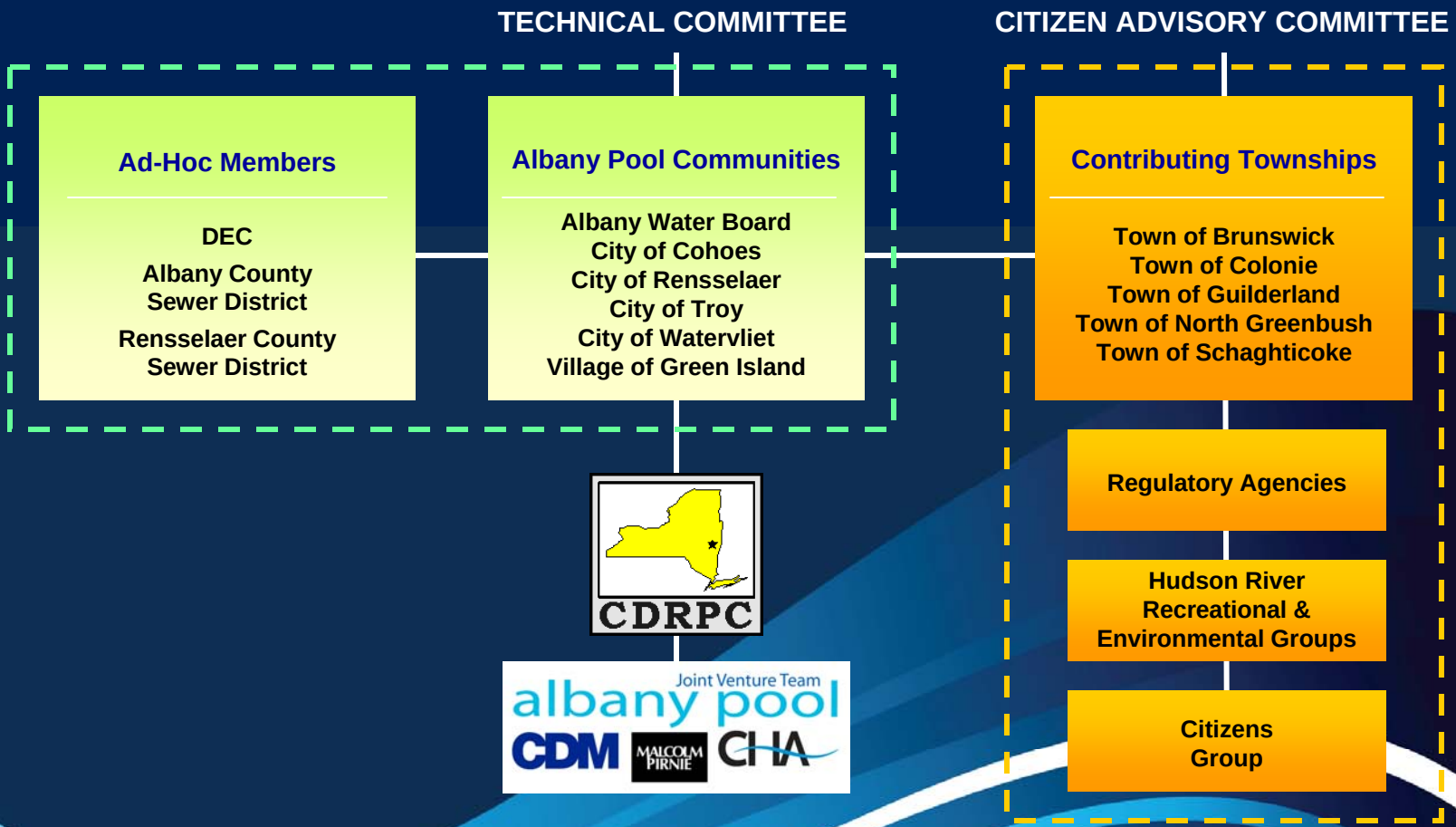
Project Organization Framework



Overview of the Technical Committee

- Directs the Development of the LTCP
- Makes Recommendations to Municipal Leadership
- Six Members - 1 Appointed by each Community
- Ad-Hoc Members from DEC and County Sewer Districts

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Overview of the Citizen Advisory Committee

- Advises the Technical Committee on Issues Important to the Public
- Advises/Assists with Public Outreach Process
- Composed of Representatives of:
  - Albany Pool Communities' Citizens
  - Hudson River Recreational and Environmental Groups
  - State and County Agencies
  - Adjoining Municipalities

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Area of Watershed: 8,419 square miles

Area of Agriculture: 1,447 square miles
(17% based on USGS Data)

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Watershed Based Approach

Overview of the LTCP Development Process

PUBLIC PARTICIPATION

CSS CHARACTERIZATION

Mapping, Database & Digitizing

Receiving Waters Condition Assessment

CSS Monitoring & Sampling

CSS Modeling

WWTP Wet-Weather Capacity Study

LTCP DEVELOPMENT

Develop & Evaluate CSO Control Alternatives

Funding, Financial Impact & Affordability

Implementation Schedule

Preparation of the LTCP Report

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Project Update…

Public Participation Plan

- Goals and Objectives:
  - Provide the Albany Pool Municipal Officials with Public Input
  - Establish Early Communication with the Public
  - Encourage Dialogue Between NYSDEC and the General Public
  - Solicit Public Concerns During the LTCP Development
  - Make the Technical Aspects of the Project Clear
  - Build Awareness of the Issues Associated with CSOs

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Public Participation Plan

- Target Audiences:
  - Albany Pool Communities' Ratepayers/Taxpayers and Residents
  - The Elected and Appointed Leadership of the Albany Pool Communities
  - Environmental Groups and Recreational Users Associated with the Hudson River
  - The Leadership and Residents of Communities Contributing Flows to the Albany Pool CSS
  - Riverfront Business Operators

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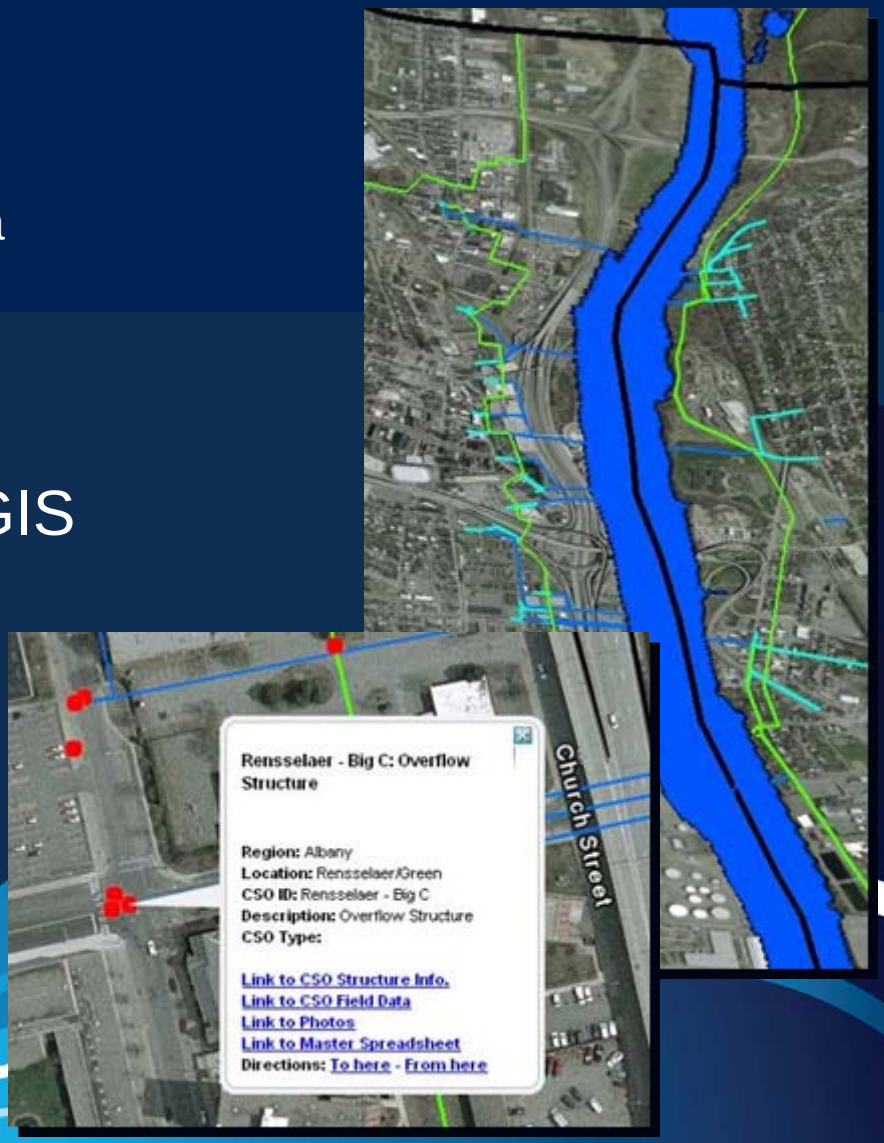
CSS Mapping, Database and Digitizing

- Data Collection
  - CSS Pipe Data
  - CSS Structure Data
  - Sewershed Data
- Field Verification
- Development of GIS Database



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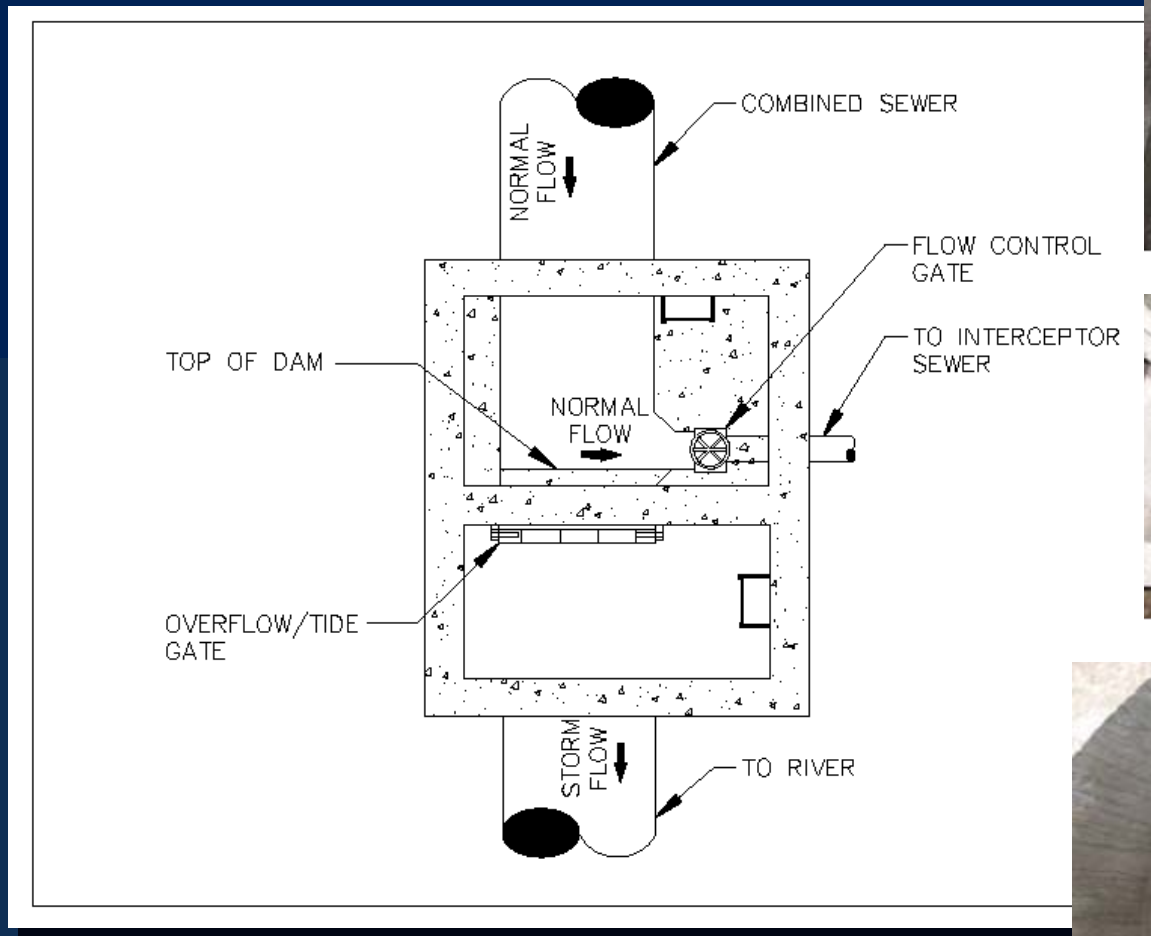
Gravity Overflow with Manual Gate



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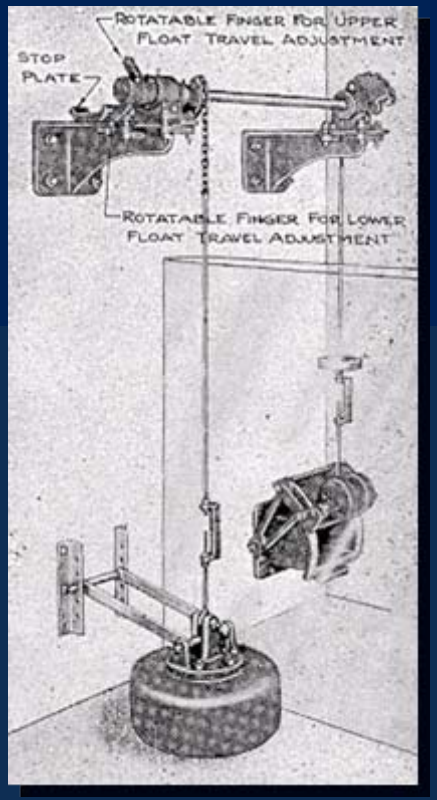
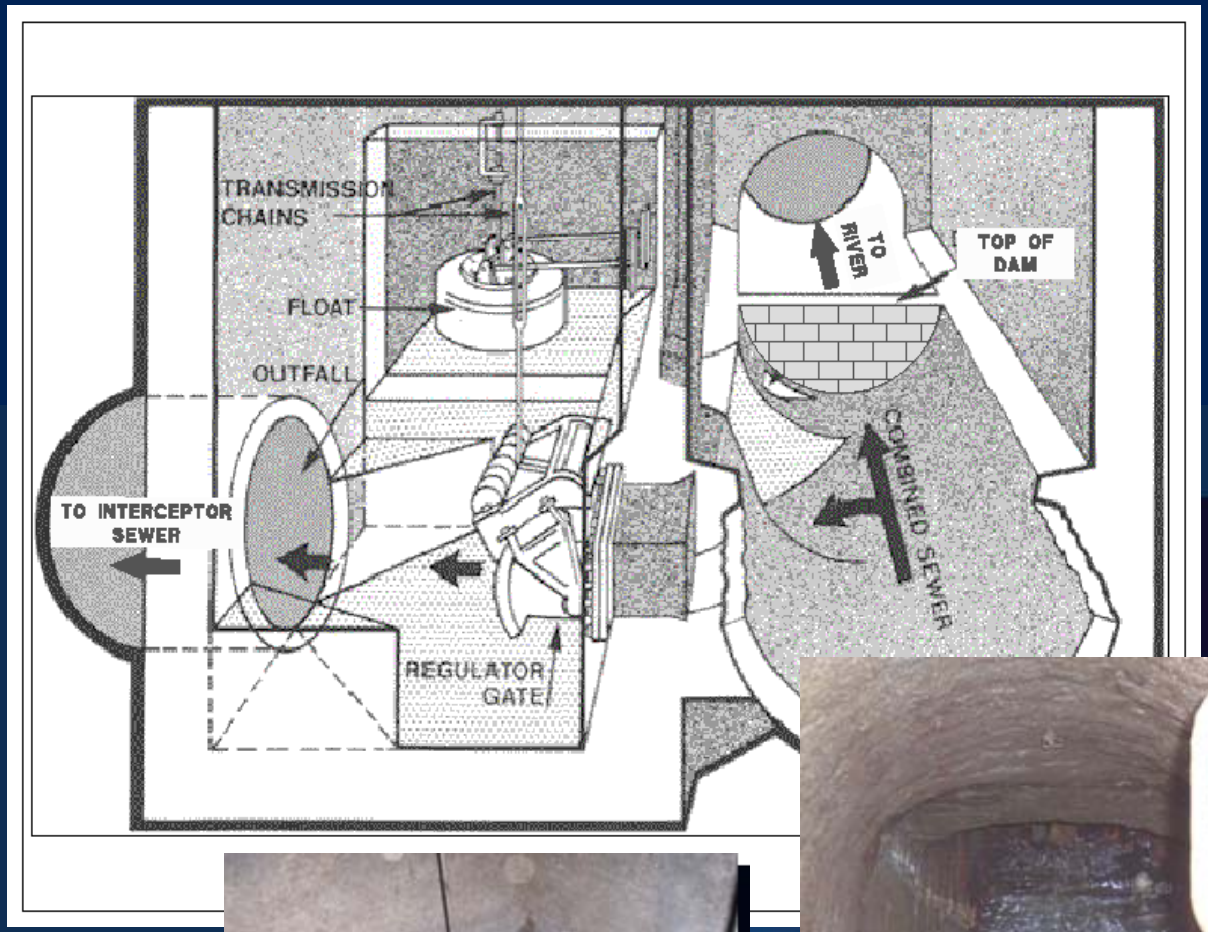
Overflow Regulator Gate





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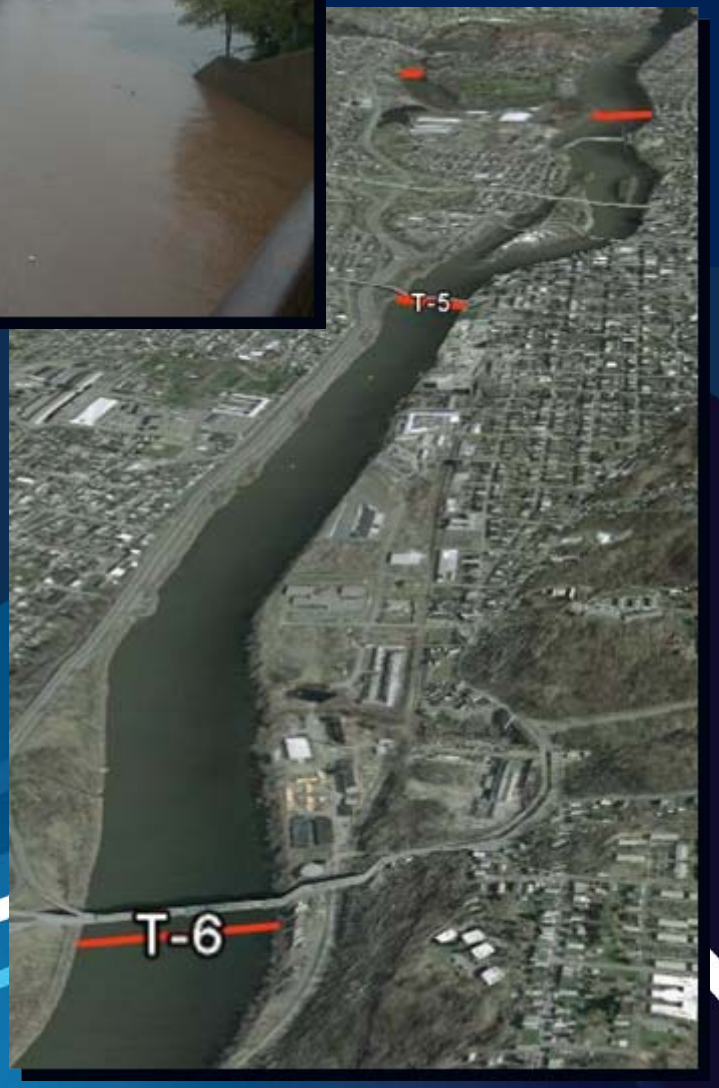
Receiving Waters Conditions Assessment

- General Approach:
  - Initial Assessment with Existing Data
  - Collection of Additional Sampling Data
    - Dry-Weather
    - Wet-Weather



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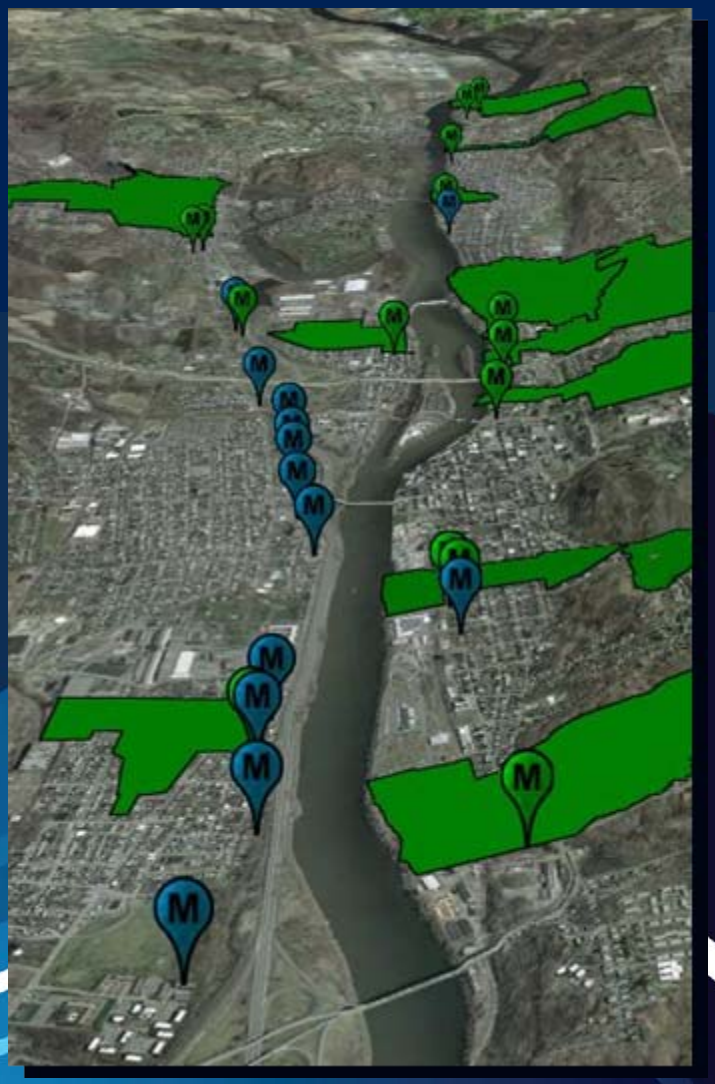
Combined Sewer System Monitoring

- Precipitation Data
- Sewer Network Monitoring
  - Flow Rate
  - Hydraulic Grade Line
- CSO Outfall Monitoring and Sampling
  - Overflow Rate/Volume
  - Characterize Overflows



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Combined Sewer System Modeling

- Model Development
- Calibration
- Application
  - Existing Conditions
  - Evaluate Control Alternatives
- CSO Control Benefits
  - CSO Frequency, Volume and Load Reductions
  - Water Quality Conditions

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WWTP Wet-Weather Capacity Study

- Evaluation Objectives:
  - Document Existing WWTP Capacity
    - Process
    - Hydraulic
  - Evaluate Alternatives to Increase WWTP Capacity
    - Secondary Capacity
    - Primary Capacity

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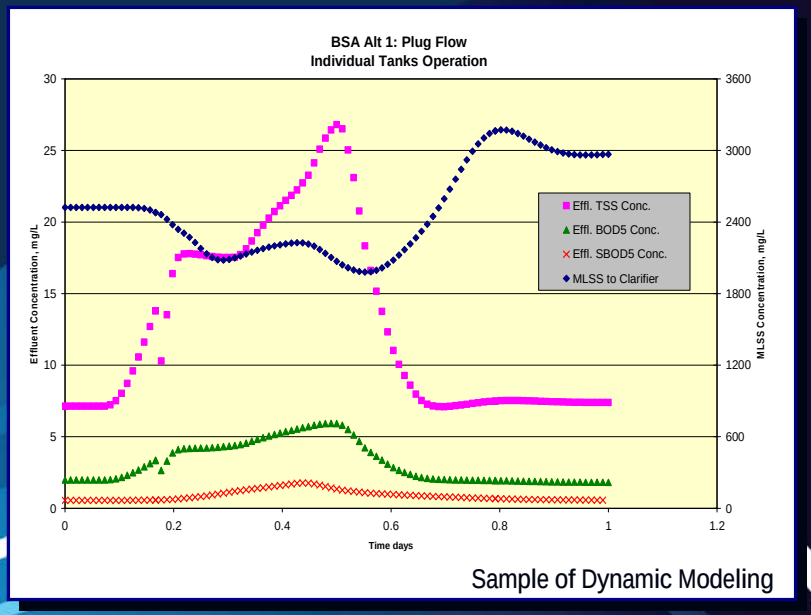
WWTP Wet-Weather Capacity Study

- Major Activities (for each plant):
  - Review Original Design Data
  - Review Historical Performance Data
  - Establish Future Flows and Loadings
  - Dynamic Process Modeling
  - Hydraulic Modeling
  - Brainstorming & Evaluation of Capacity Alternatives
  - WWTP Capacity Report



Sample of Dynamic Modeling

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Overview of the LTCP Development Process

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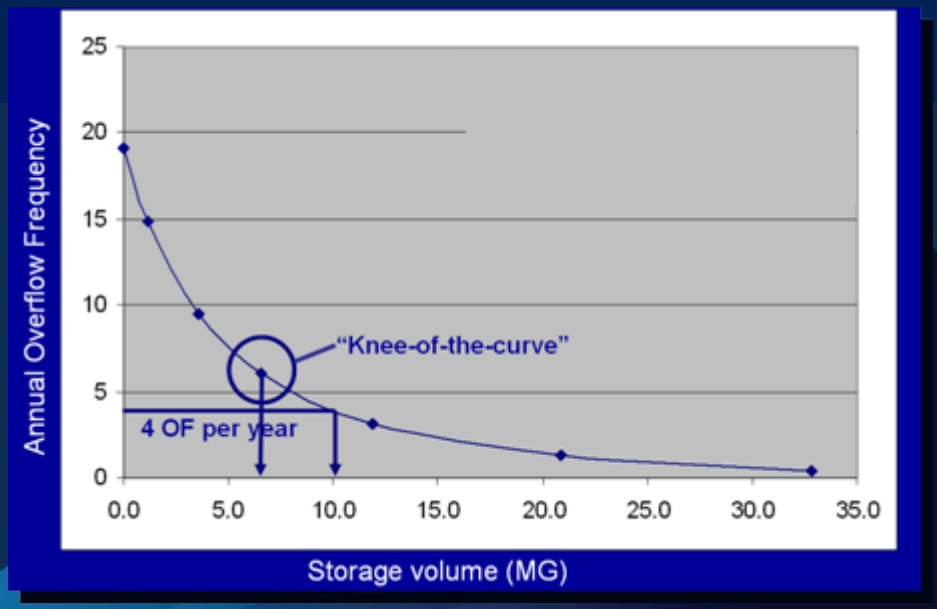
Develop and Evaluate CSO Control Alternatives

- Select Appropriate Compliance Strategy
- Shortlist Viable CSO Control Technologies
  - Screening/Floatables Control
  - High Rate Treatment
  - Real Time Control
  - Storage
  - Partial Separation
  - Green Infrastructure
- Develop Recommended
- CSO Control Alternatives
- Establish Cost-Effective
- Controls (“Knee-of-Curve”)



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Financial Impact and Affordability Evaluation

- Use EPA Guidance Document
- Adjust to Future Conditions
  - Property Tax Revenues
  - Unemployment
  - Business Environment
  - Debt Relative to Property Value
- Reflect “Real” Capital Improvement Needs of the Systems
- Use Rates Model to Evaluate Cost-Schedule Options

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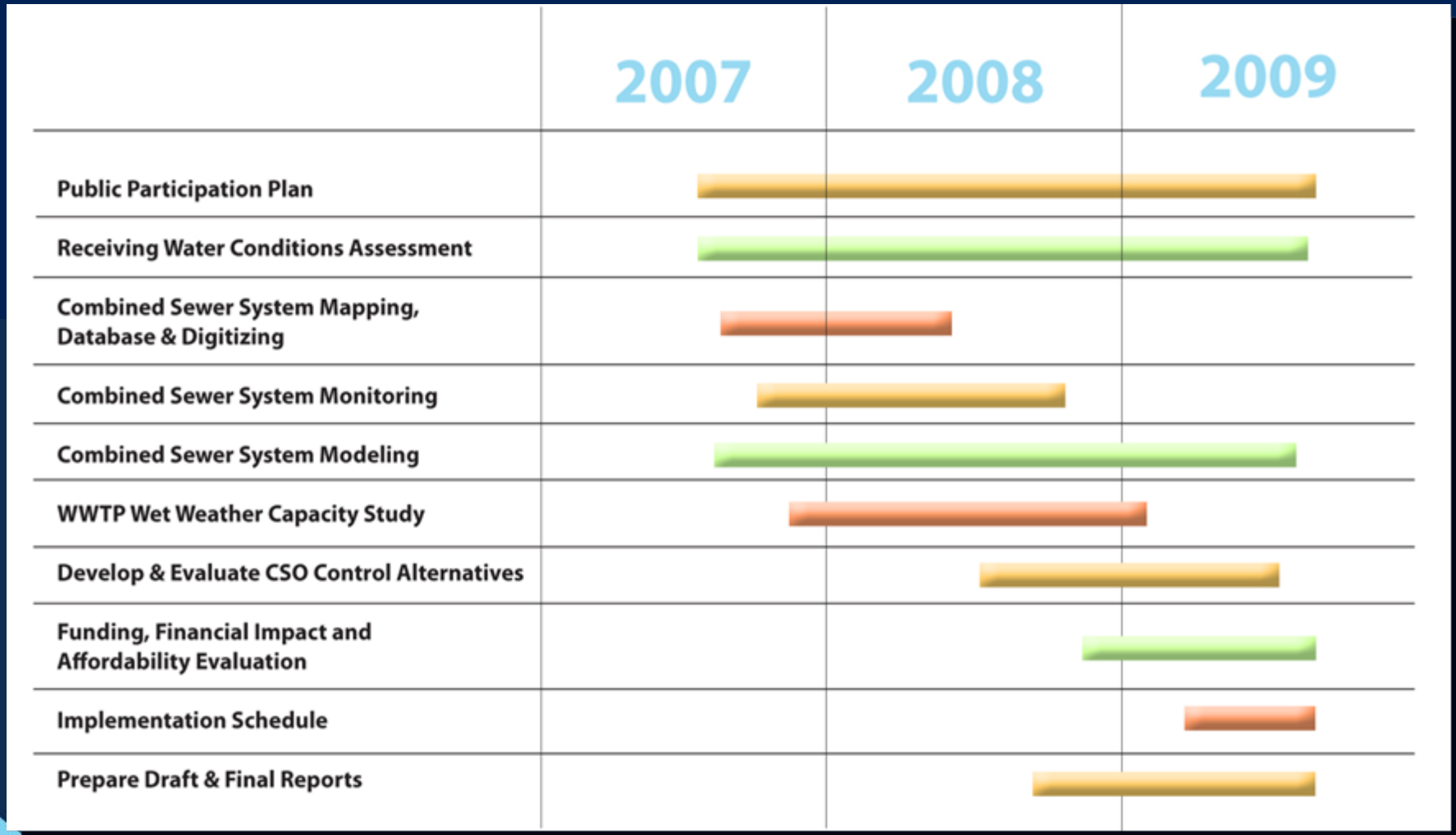
Project Schedule



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Moving Forward…

Public Informational Meeting Schedule

- **Round 1 - Project Introduction and Overview March 31, 2008 @ HVCC**
- Round 2 - Overview of CSS Characterization Findings 4th Quarter of 2008
- Round 3 - Evaluation of Mitigation Alternatives 2nd Quarter of 2009
- Round 4 - Presentation of LTCP Final Draft 3rd Quarter of 2009

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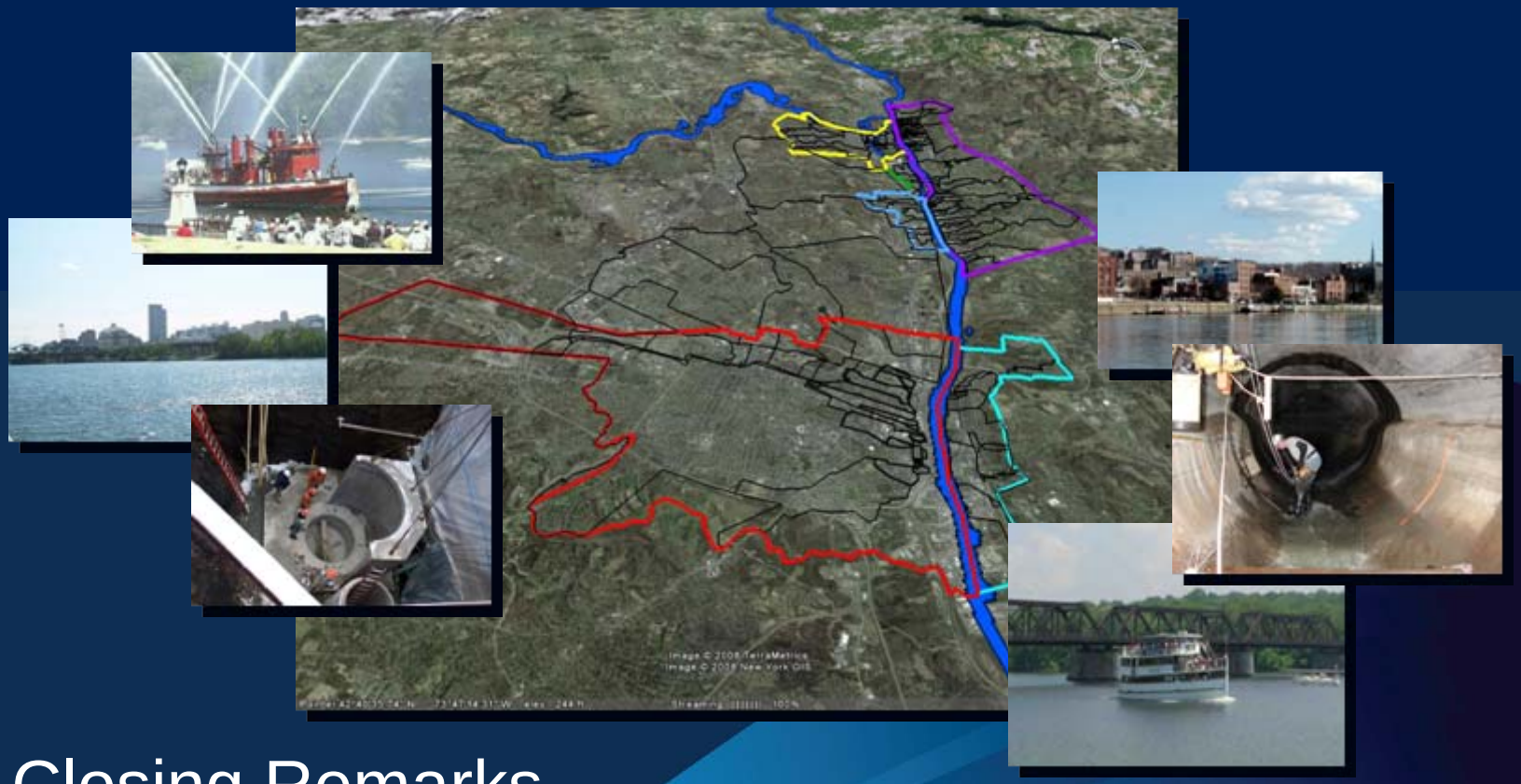
Albany Pool Combined Sewer System Long-Term Control Plan Development



Closing Remarks

Mayor John McDonald, City of Cohoes

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Albany Pool Combined Sewer System
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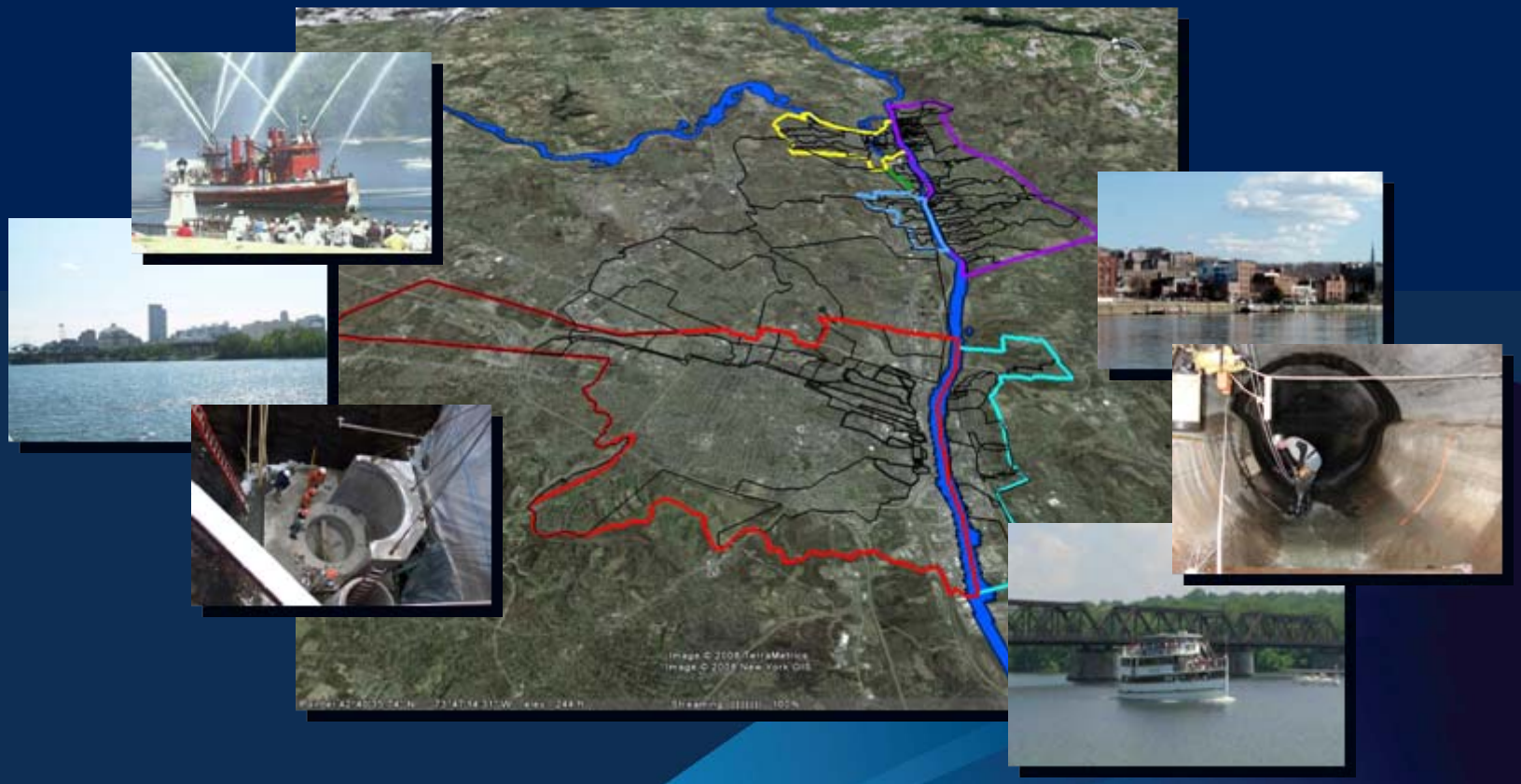

Questions or Comments

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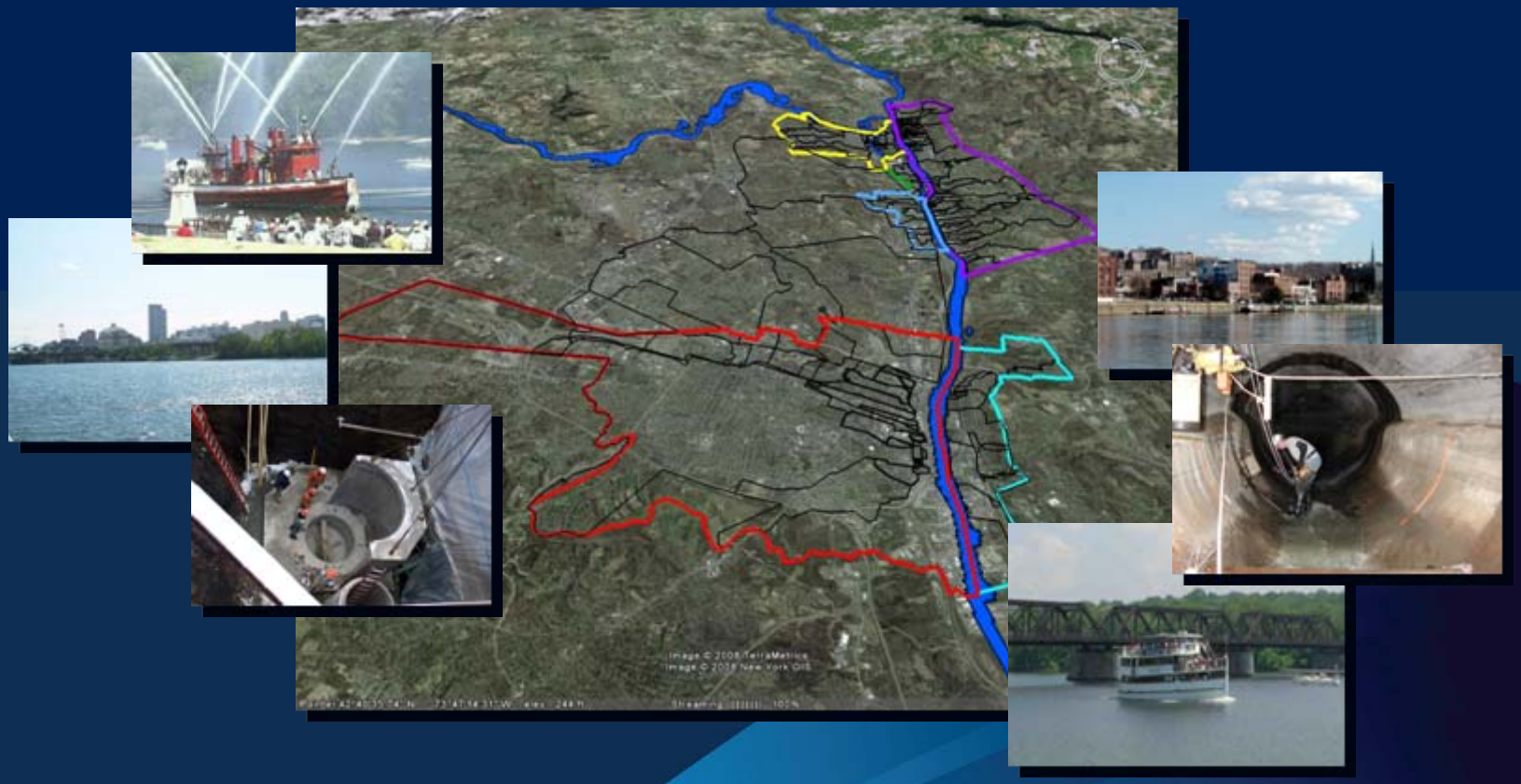

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