Watershed Stakeholder Meeting
May 19 and 24, 2022

SOUTH LICKING WATERSHED CONSERVANCY DISTRICT

Flood Damage Reduction Planning Study – South Fork Licking River Watershed

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SOIL AND WATER CONSERVATION DISTRICT

Fairfield Soil & Water Conservation District

LICKING COUNTY SOIL & WATER CONSERVATION DISTRICT

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

INTRODUCTIONS

- South Licking Watershed Conservancy District
- County Soil & Water Conservation Districts
- County Commissioners
- Muskingum Watershed Conservancy District
- The U.S. Geological Survey
- The Consultant Team

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MEETING PURPOSE

- Increase Awareness of the South Licking Watershed Conservancy District
- Inform Property Owners of the Study Process and Your Role in the Process
- Gain Feedback on Flooding Concerns in the Watershed
- Set the Stage for Future Meetings and the Presentation of Flood Damage Reduction Solutions

South Licking Watershed Conservancy District

Flood Damage Reduction Planning Study

Property Owner Information Form

Your Name: _____
Please print
Name property recorded under with Auditor: _____

Address, City, Zip: _____

Phone number: _____ Email: _____

River, tributary or creek name: _____

Township/Village: _____ Property in the watershed? Y / N

Description of issue or concern:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Willing to have a site visit? Y / N

Do you have pictures or documentation of flooding issues? Y / N

This Form can be completed on-line at www.SLWCD.org or completed and mailed to: The Licking County Soil & Water Conservation District at 771 East Main Street, Suite 100, Newark, Ohio 43055

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SOUTH LICKING WATERSHED CONSERVANCY DISTRICT

- Conservancy District First Established in 1968; Organized Under Section 6101 of the Ohio Revised Code
- Presided over by a Conservancy Court – one judge from Licking, Fairfield and Perry Counties
- Managed by an appointed Board of Directors (3 members)

Interstate 70 Flooding - 1959

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SOUTH LICKING WATERSHED CONSERVANCY DISTRICT

- Covers the entire South Fork Licking River Watershed (288 sq. mi.) throughout Licking, Fairfield, Perry Counties.
- Includes numerous townships, Buckeye Lake and surrounding communities, the Cities of Heath, Johnstown, Pataskala, and portions of New Albany and Newark, the Villages of Alexandria, Granville, Hebron, Kirkersville.

Major Log Jam Near Hebron

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SOUTH LICKING WATERSHED CONSERVANCY DISTRICT

- A corporation of the State of Ohio with the ability to implement projects on a watershed scale for the benefit of all communities and property owners within the watershed.
- Requires an adopted Watershed Work Plan (Official Plan) - serves as the charter for the Conservancy District to implement flood damage reduction and watercourse protection projects.
- Value of the Plan benefits must exceed the costs.
- Conservancy District can acquire easements and levy an assessment to facilitate the Plan improvements.

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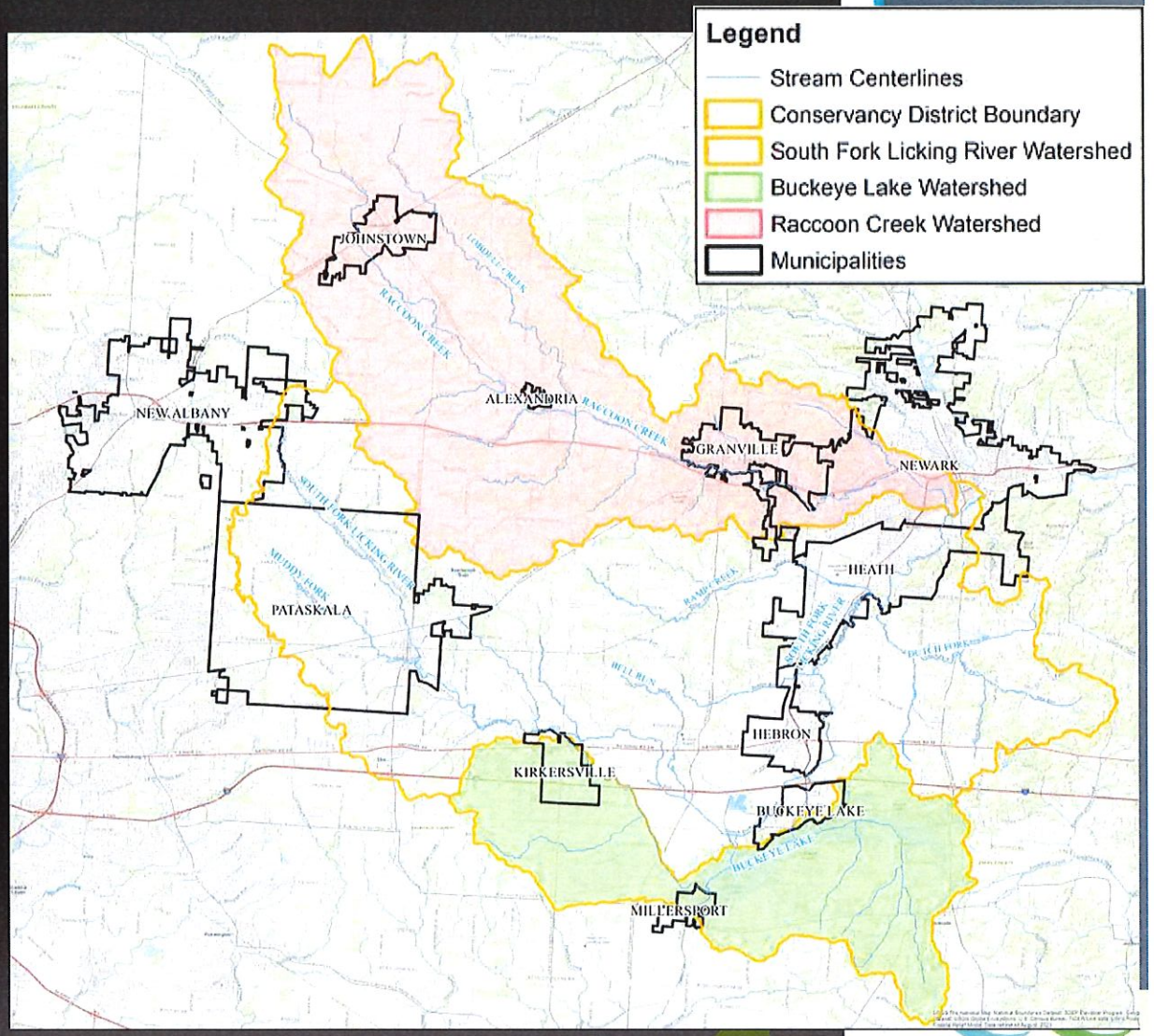
THE WATERSHED

- Major Sub-watersheds:
  Raccoon Creek (103 sq. mi.)
  Buckeye Lake (44 sq. mi.)
- A Flood Warning System has been in Place Since 2012
- Stream and rain gauges managed by the U.S. Geological Survey and the National Weather Service



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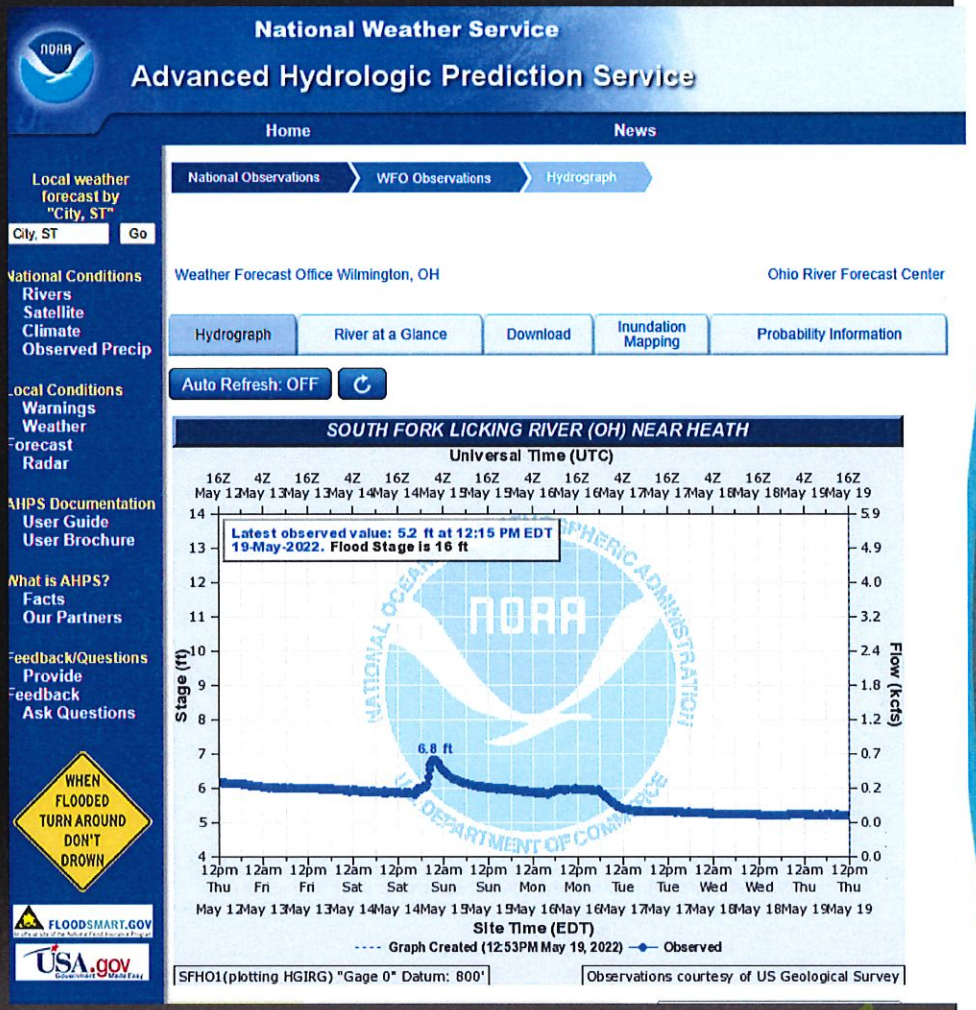
THE WATERSHED

- Flooding of I-70 occurs frequently (the most recent being May 5, 2022)
- Log-jams in major and minor watercourses causes flooding, and channel erosion leading to loss of property
- Flood damages to roadways, bridges, farm land, homes and businesses.



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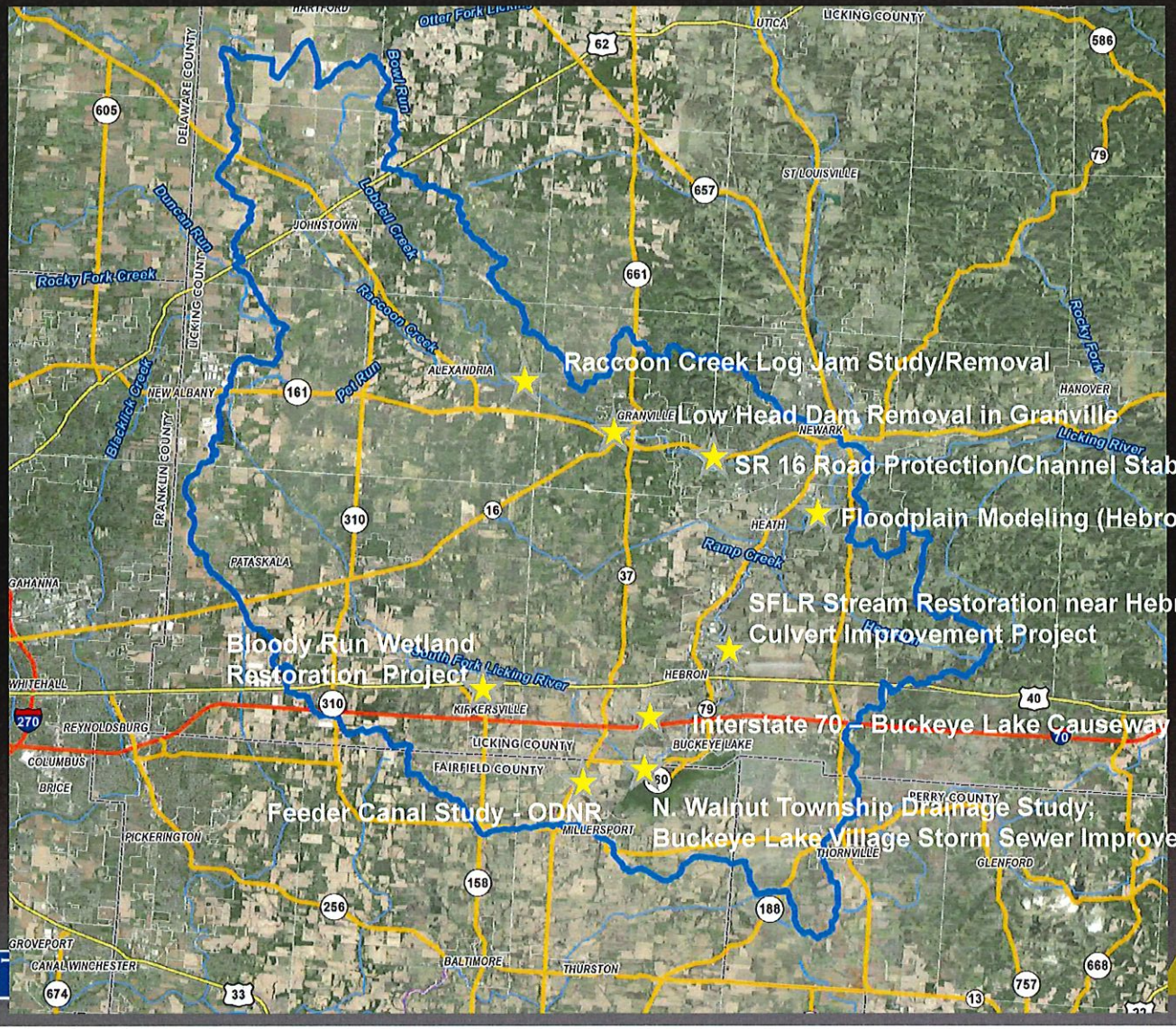
THE WATERSHED



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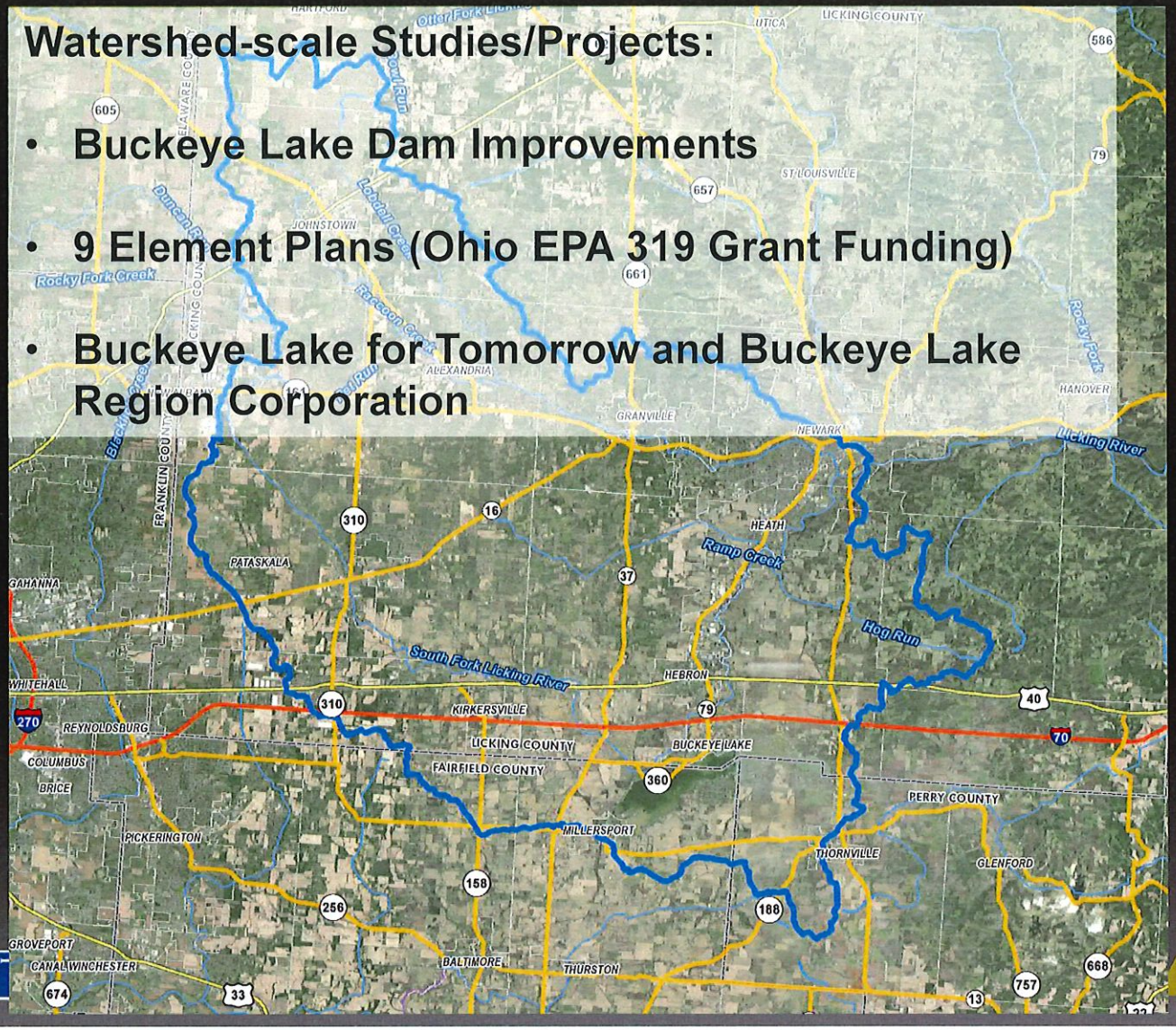
THE WATERSHED

Watershed-scale Studies/Projects:

- Buckeye Lake Dam Improvements
- 9 Element Plans (Ohio EPA 319 Grant Funding)
- Buckeye Lake for Tomorrow and Buckeye Lake Region Corporation



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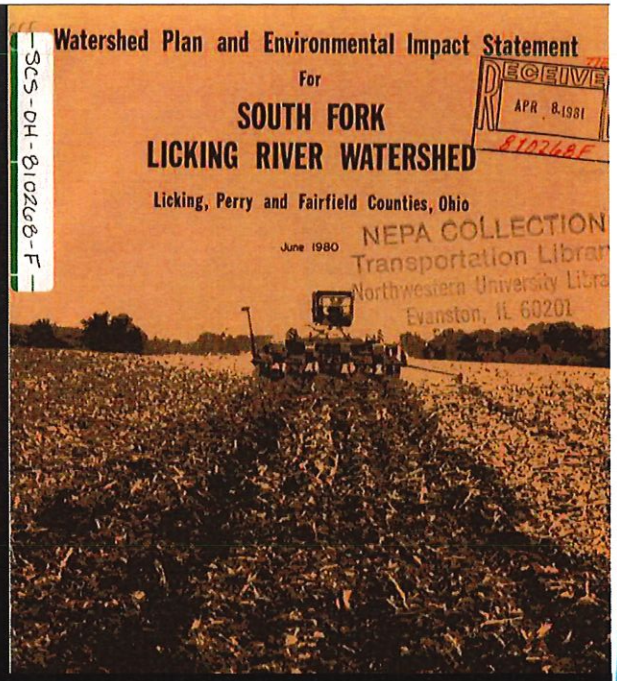
THE PROJECT

- Funded by a Partners in Watershed Management Grant from the Muskingum Watershed Conservancy District and Licking, Fairfield and Perry Counties
- Flood Damage Reduction & Channel Maintenance
  - Improvements to Lessen the Frequency and Extent of Flooding
  - In-Perpetuity Maintenance of Major Waterways
- Update the Original (1980) Watershed Work Plan



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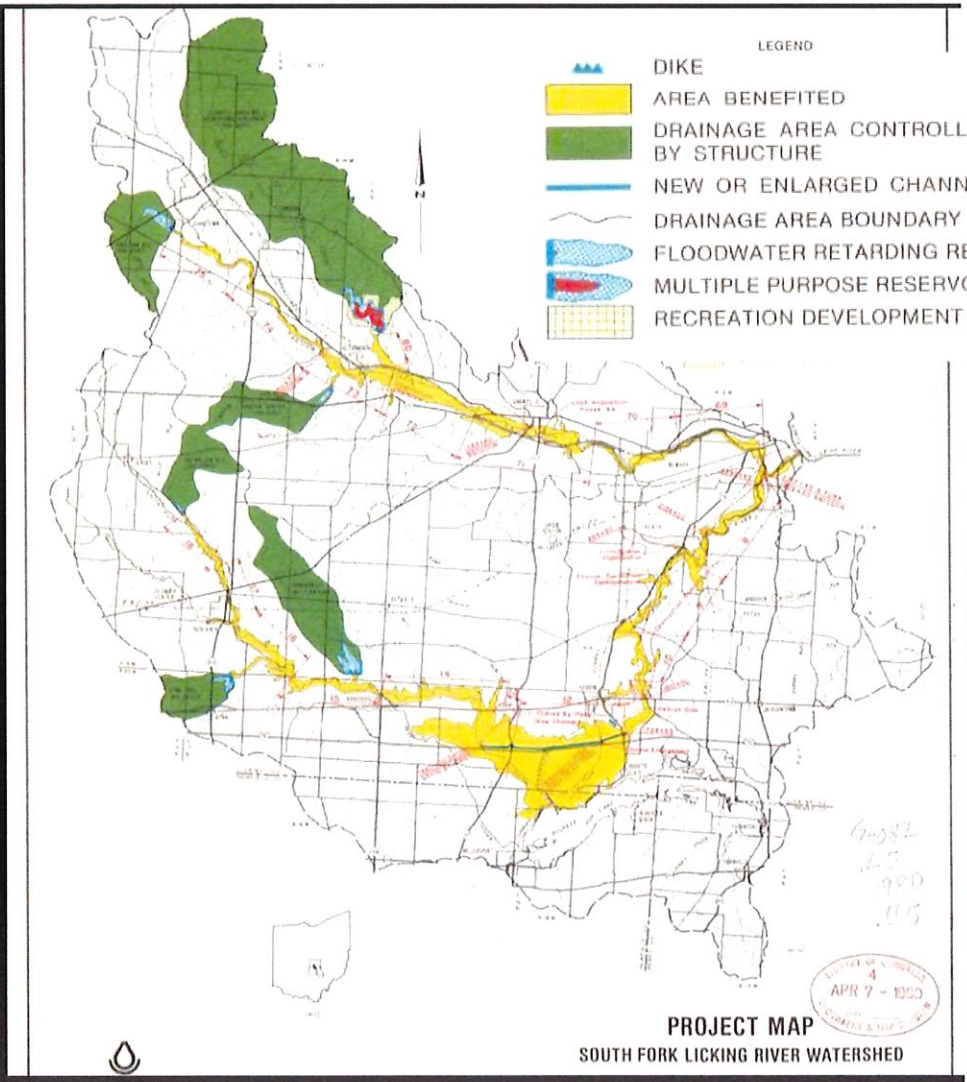
THE PROJECT

Original (1980) Watershed Work Plan

- Regional Detention Basins dispersed throughout the upper portion of the watershed.
- Dikes/levees
- Channel improvements



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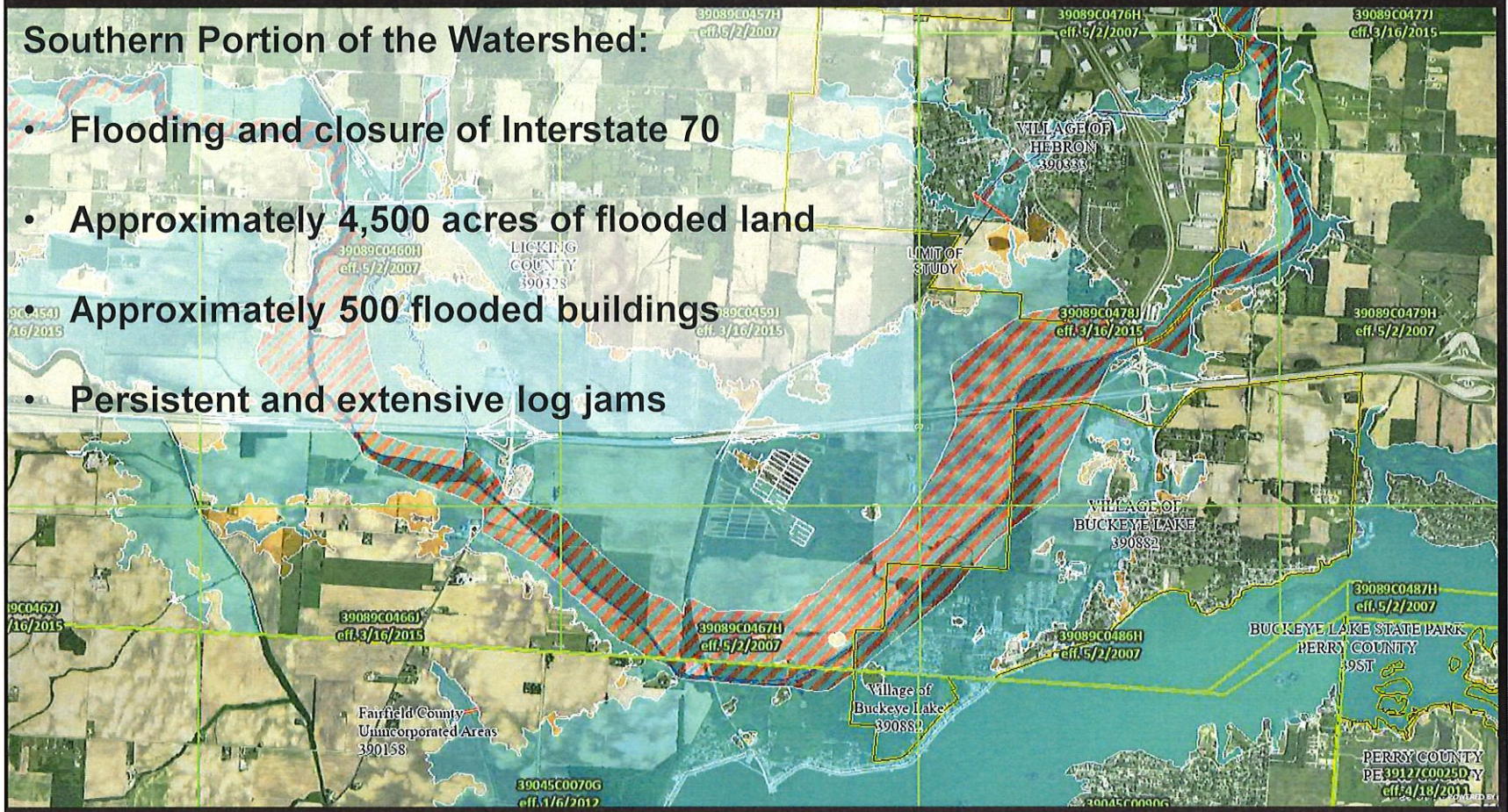
THE PROJECT

Southern Portion of the Watershed:

- **Flooding and closure of Interstate 70**
- **Approximately 4,500 acres of flooded land**
- **Approximately 500 flooded buildings**
- **Persistent and extensive log jams**



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THE PROJECT

State Route 79 Culvert Failure

Pataskala Flooding

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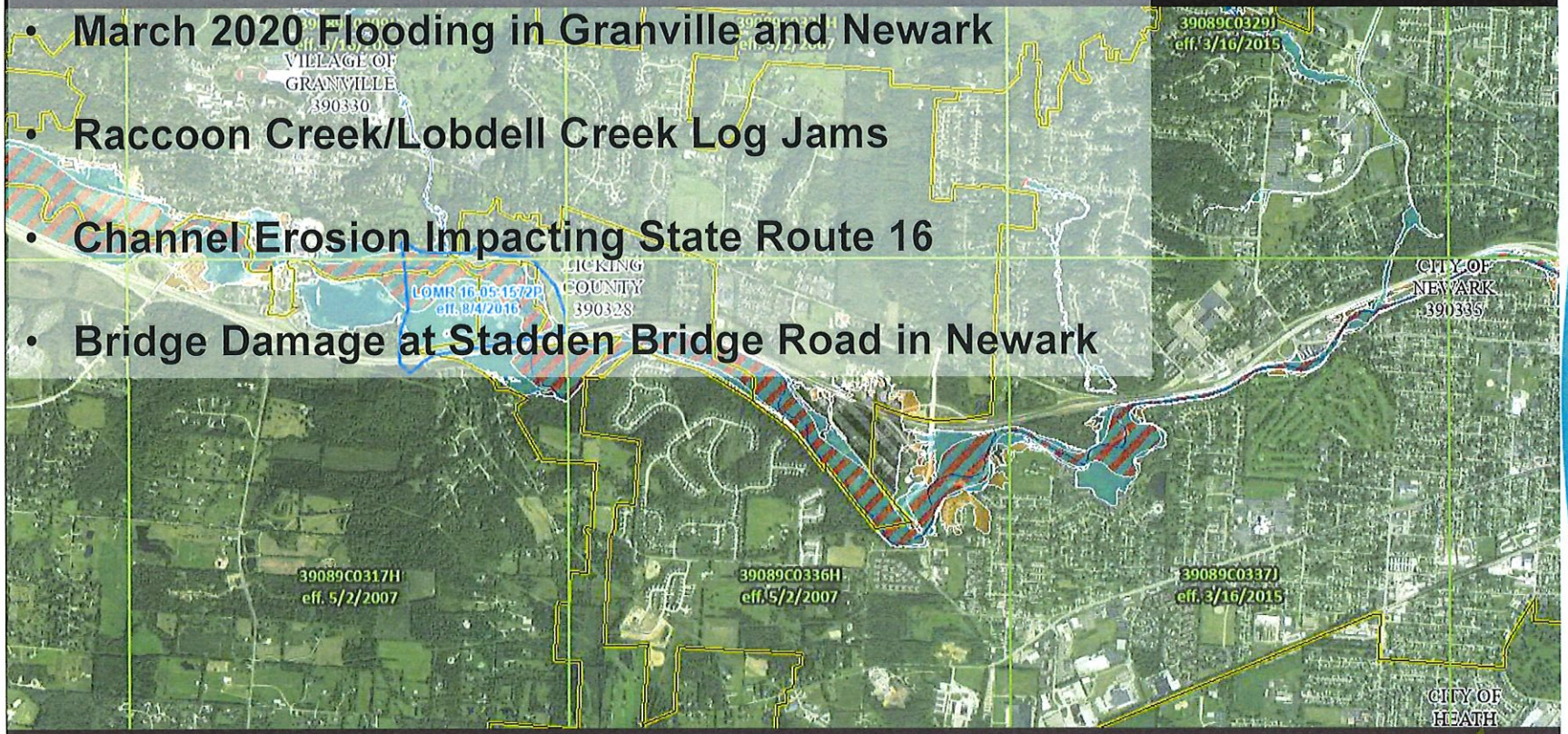
THE PROJECT

Northern Portion of the Watershed:

- March 2020 Flooding in Granville and Newark
- Raccoon Creek/Lobdell Creek Log Jams
- Channel Erosion Impacting State Route 16
- Bridge Damage at Stadden Bridge Road in Newark



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THE PROJECT

Flooding in Granville

South Second Street - Newark

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THE PROJECT

Related Studies:

- U.S. Army Corps of Engineers: Raccoon Creek Log Jam Study and Removal
- Licking County Commissioners: Pursuit of a FEMA Grant for Flood Damage Reduction Solutions

SILVER JACKETS
MANY PARTNERS, ONE TEAM

US Army Corps of Engineers ®
Huntington District

U.S. DEPARTMENT OF HOMELAND SECURITY
FEMA

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THE PROJECT

BRIC Mission Statement:

- Building Resilient Infrastructure and Communities (BRIC) will support states, local communities, tribes and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards. BRIC is a new FEMA pre-disaster hazard mitigation program that replaces the existing Pre-Disaster Mitigation (PDM) program.

- The BRIC program guiding principles are supporting communities through capability and capacity-building; encouraging and enabling innovation; promoting partnerships; enabling large projects; maintaining flexibility; and providing consistency

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STUDY TOOLS

Hydrologic and Hydraulic Models

- Complex watershed-scale model simulation of rainfall to estimate flood flows in rivers and streams
- 2-D model of the river channel and floodplain to determine flood damage areas and depths
- Calibration to U.S. Geological Survey and National Weather Service gauges

Flood Inundation Mapping

- Determine assets at risk of flooding
- Estimate annualized cost of flood damages

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Evaluation of Non-structural Flood Control Measures

Identify Buildings at a High Risk of Flooding

- Determine level of risk and consider property buy-out opportunities

Log Jam/Debris Removal and Channel Maintenance

- Prioritize locations of major log jams for removal
- Develop a long-term plan for waterway inspections and maintenance

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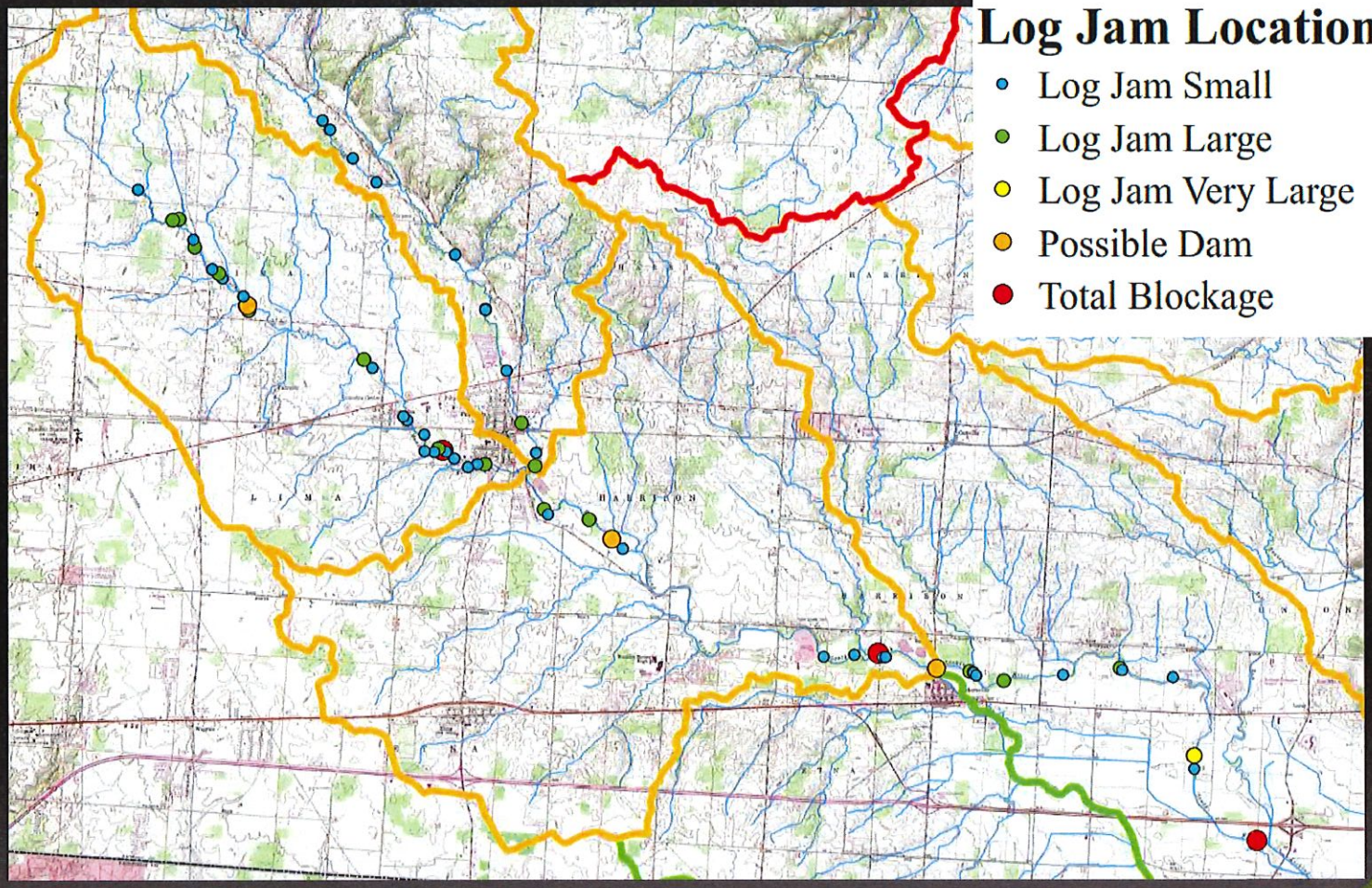
Evaluation of Non-structural Flood Control Measures



Licking County SWCD – 2020 Debris Jam Study

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Evaluation of Non-structural Flood Control Measures

Licking County SWCD – 2020 Debris Jam Study

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Evaluation of Structural Flood Control Measures

Regional Detention Basins (Dry Dams)

- Focusing on the 100-year flood event and recent large flood events
- Layout and model regional basins in strategic locations throughout the watershed

- Bridge Replacements
  - Increase flood carrying capacity
  - Reduce risk of failure due to log jams

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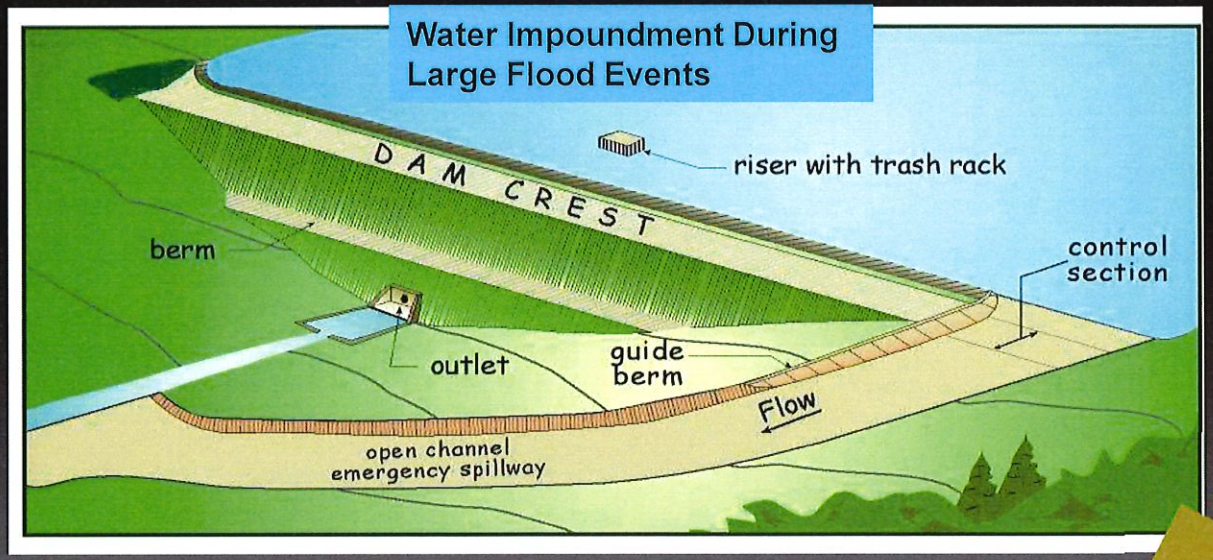
Evaluation of Structural Flood Control Measures

Regional Detention Basins (Dry Dams)

- On-line with existing channels
- Earthen embankment creates storage of flood waters
- No permanent pool (not a lake or reservoir)



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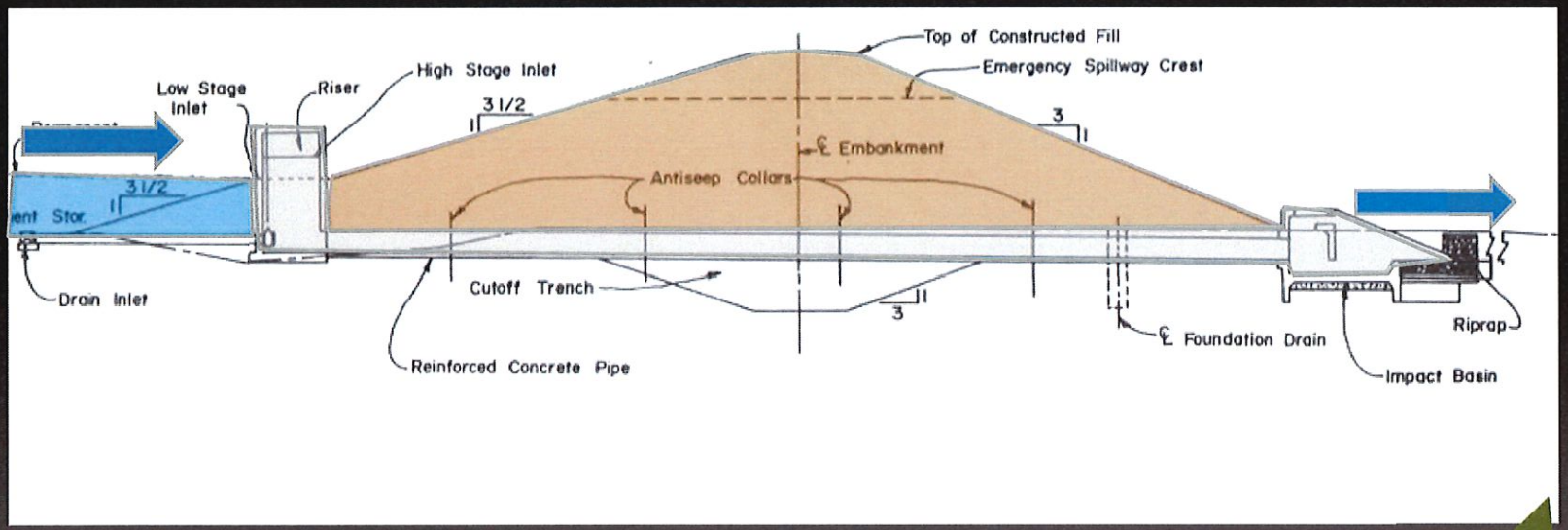
Evaluation of Structural Flood Control Measures

- Regional Detention Basins (Dry Dams)
  - Sunny day channel flows through dam unimpeded
  - Restricted outlet/spillway controls larger floods



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Evaluation of Structural Flood Control Measures

Combinations of Potential Solutions

- There is no one approach to achieving the flood damage reduction goals
- Phased implementation of projects throughout the watershed
- Determine flowage easement needs

Benefit-Cost Analysis

- Estimate project costs
- Estimate monetary value of reduced flooding benefits

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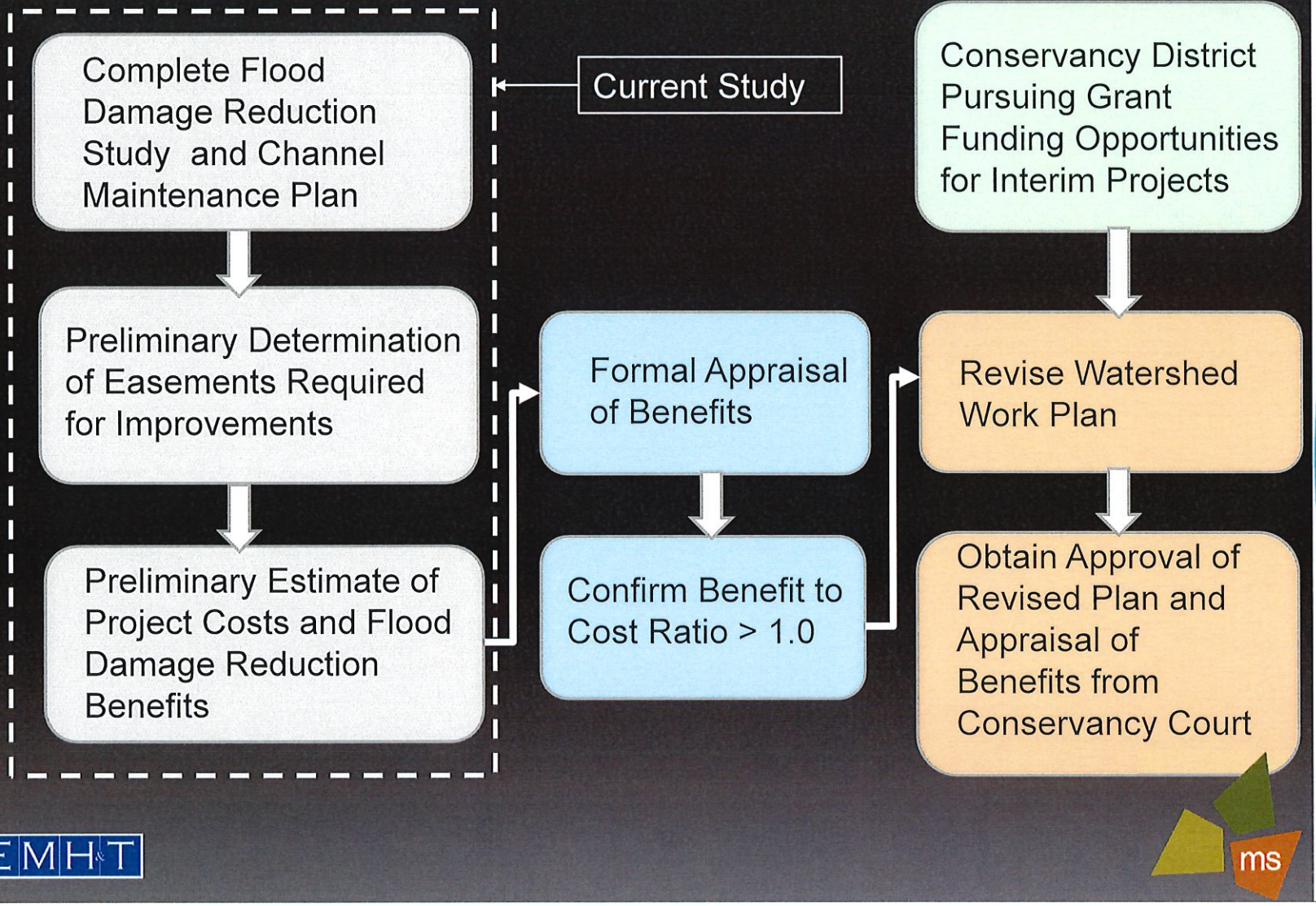
THE PROCESS



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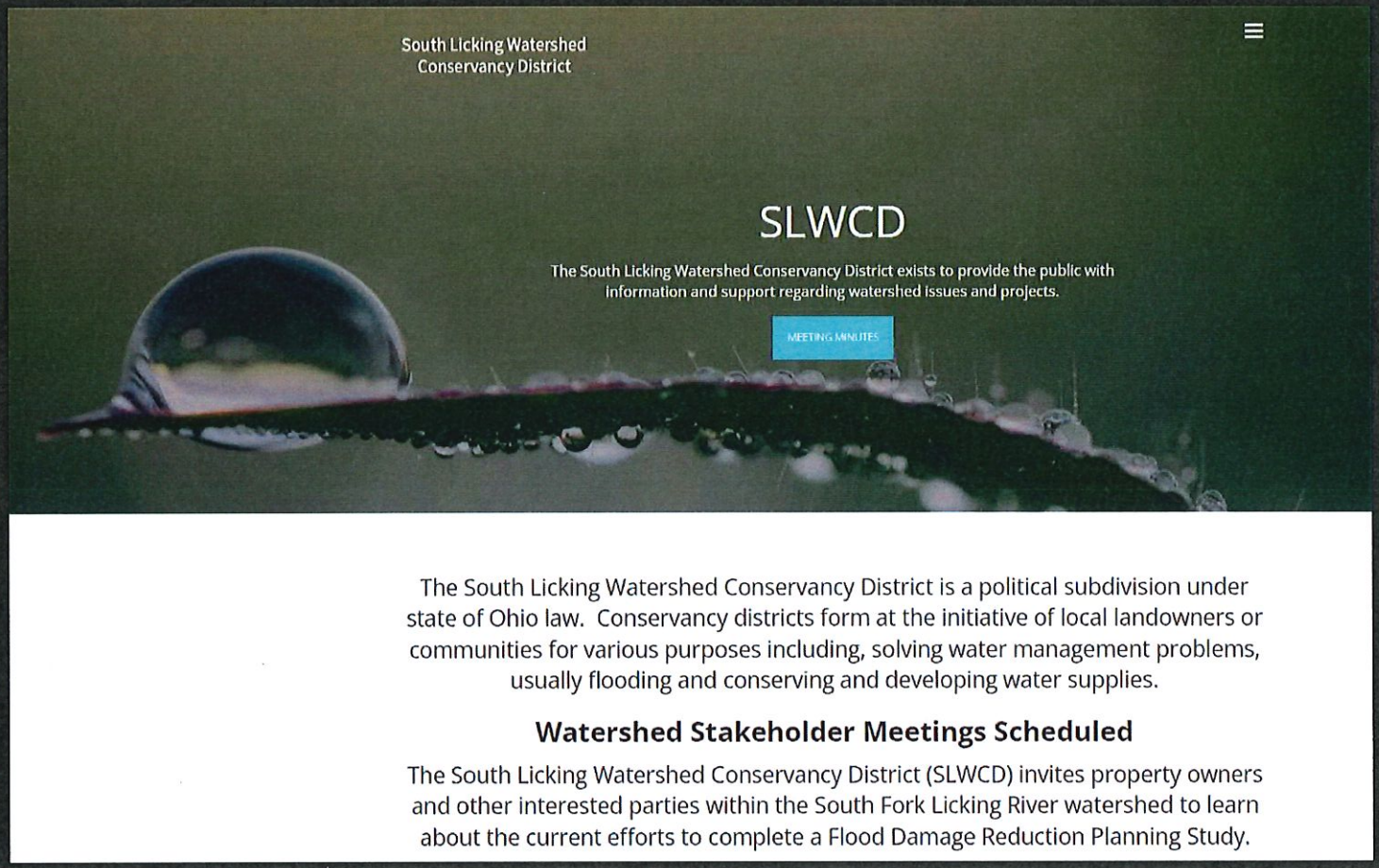
QUESTIONS



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