



# NORTH WALNUT TOWNSHIP STORMWATER CONVEYANCE STUDY

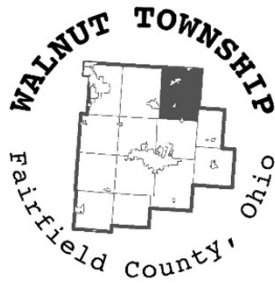
August 25th  
7:00pm -8:30pm



## **AGENDA**

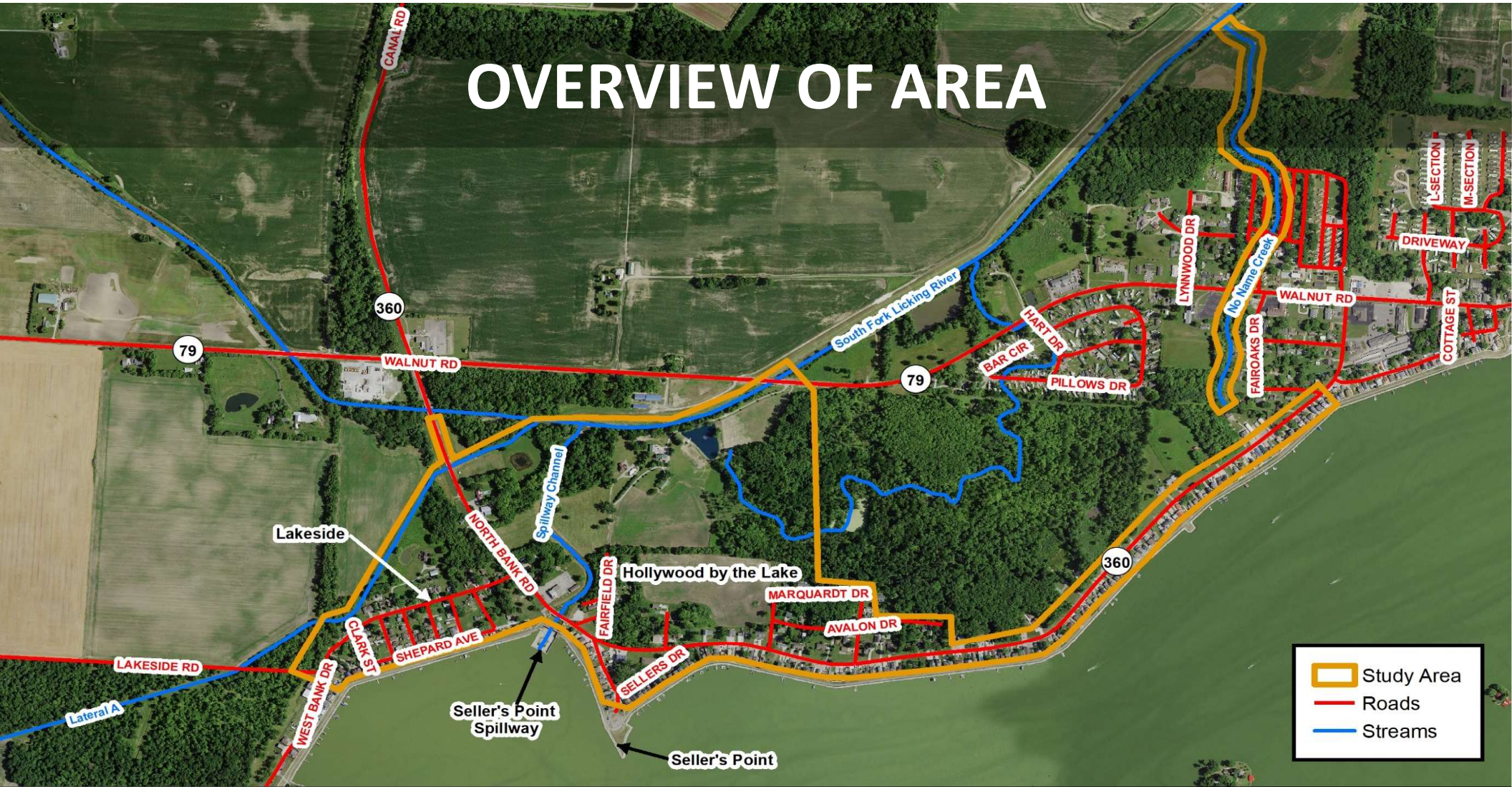
- Introductions
- Overview of Area
- Overall Study Expectations
- Model Runs
- Additional Information Gathered
- Initial Discussion on Solutions and Funding
- Public Comments and Questions
- Wrap-up of formal discussion
- Informal Public Review of Maps and Diagrams on Stage

# ATTENDEES





# OVERVIEW OF AREA

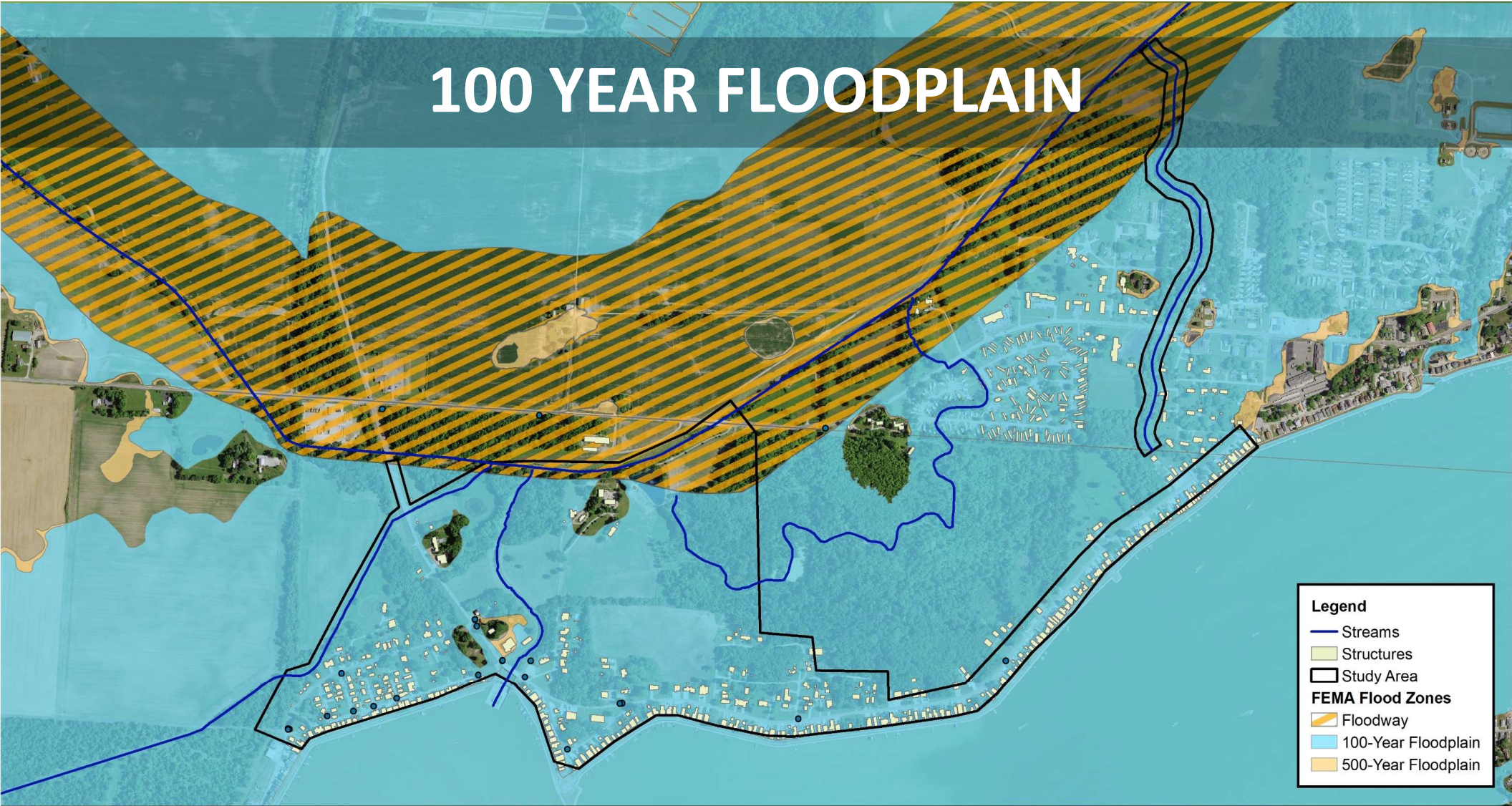


- Study Area
- Roads
- Streams





# 100 YEAR FLOODPLAIN



**Legend**

- Streams
- Structures
- Study Area
- FEMA Flood Zones**
  - Floodway
  - 100-Year Floodplain
  - 500-Year Floodplain



# 100 YEAR FLOODPLAIN VS. 25 YEAR FLOODPLAIN

- The hazard area or, Special Flood Hazard Area (SFHA), shown on the flood map is known as the 100-year floodplain. It is more precisely defined as **the floodplain associated with a flood that has a 1% annual chance of being equaled or exceeded in any given year.**

**100-year flood**-there is a 1% chance of having that flood in any given year  
**vs.**  
**25-year flood**-there is a 4% chance of having that flood in any given year

Reoccurrence in years	Probability of occurrence in any given year	Percent chance of occurrence in any given year
500	1 in 500	.2%
100	1 in 100	1%
50	1 in 50	2%
25	1 in 25	4%
10	1 in 10	10%
5	1 in 5	20%
2	1 in 2	50%



# HISTORIC & RECURRING FLOODING

The area has known flooding issues and photographs of past flood events:

- 1997
- 2002
- July 11<sup>th</sup> & 14<sup>th</sup> 2017
- February 17<sup>th</sup> 2022

The 2017 and 2022 flooding events were due to approximately 2-year to 5-year rainfall events with ~1.8 to 2.7 inches. This suggests the current level of is the 2-yr event or less.



Sellers Drive

February 17, 2022



SR360 near No Name Creek



SR360 near  
No Name Creek



Sellers Drive

July 14, 2017

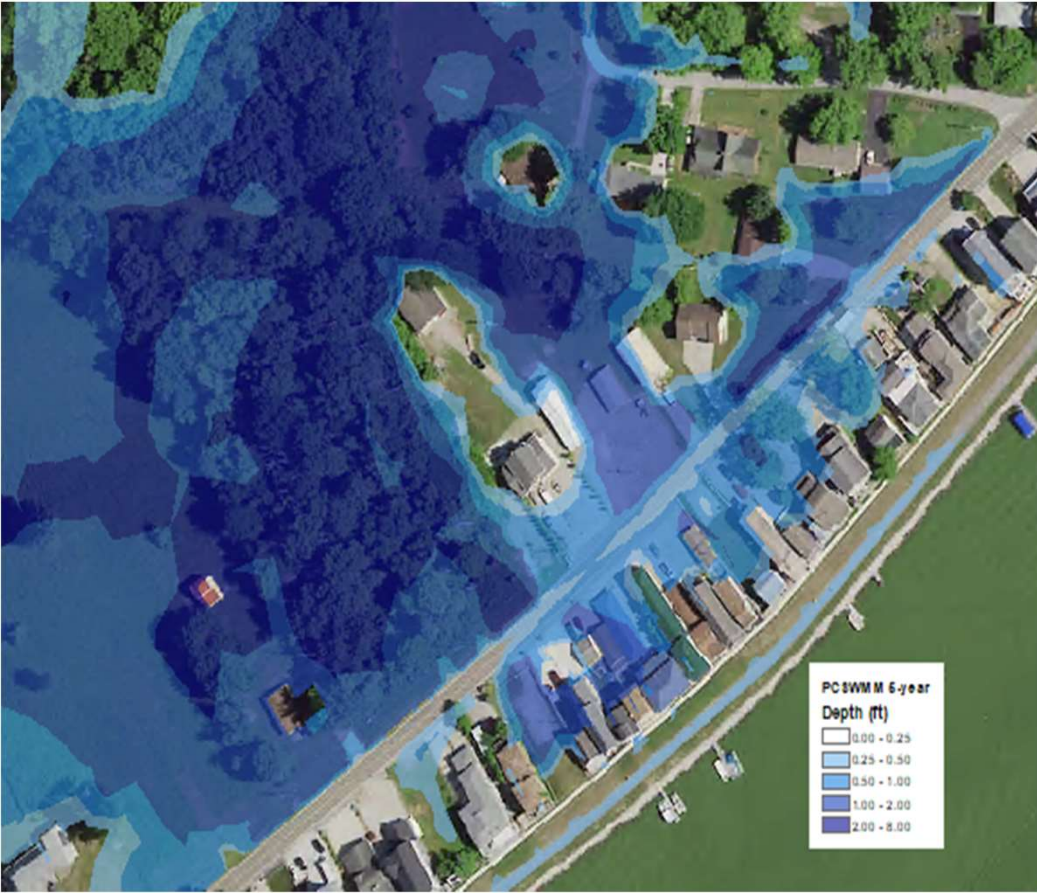
# STUDY EXPECTATIONS

- Typical stormwater design level of service in central Ohio
  - Local Roads: 2-year
  - Minor Arterial Roads: 5-year
  - Major Arterial Roads: 10-year
- North Walnut Township stormwater design level of service
  - Goal: 25-year
  - Minimum: 10-year
- The study will develop alternatives to improve interior flooding and drainage but will not address flooding from the South Fork Licking River.

# PRELIMINARY MODEL RUN: 25-YEAR STORM



# 5-YEAR MODEL RUN vs. JULY 14, 2017 PHOTOGRAPHS





# 5-YEAR MODEL RUN vs. JULY 14, 2017 PHOTOGRAPHS



# ADDITIONAL INFORMATION GATHERED

## Tasks Completed:

- Data Collection
- Survey and Field Mapping
- CAD Base Mapping
- Evaluate Existing Flooding Issues (Photos & Gages)
- Preliminary H&H Model Construction





# ADDITIONAL INFORMATION GATHERED

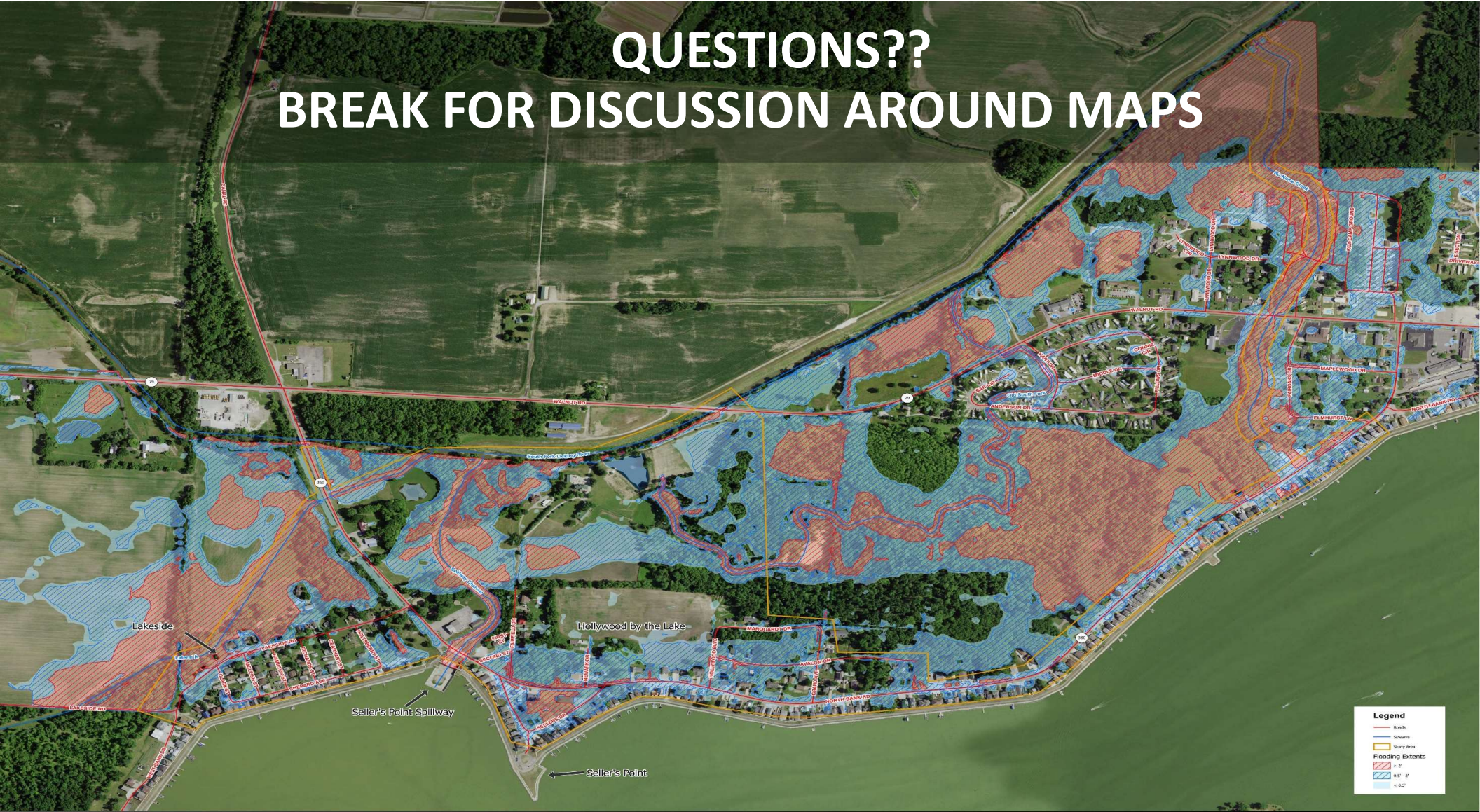
## Next Steps:

- Alternatives Analysis
- Project Phasing
- Opinion of Probable Construction Cost Estimate
- Stormwater Master Planning for the project area
- Funding Strategies- OPWC, HMGP etc.





# QUESTIONS?? BREAK FOR DISCUSSION AROUND MAPS



**Legend**

- Roads
- Streams
- Study Area
- Flooding Extents
  - > 2'
  - 0.5' - 2'
  - < 0.5'