



FEMA

Levee Analysis and Mapping Procedures (LAMP) for Non-accredited Levees

Town of Union
Broome County, NY

February 15, 2017



Agenda

- Introductions
- Review of LAMP and LLPT Meeting #1
- Discuss Results of First Pass Analysis
- Discuss Finalization of LAMP study methods for Phase 2 Analysis
- LAMP Path Forward

Introductions & Contact Information

■ FEMA Project Monitor

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■ Outreach Leads

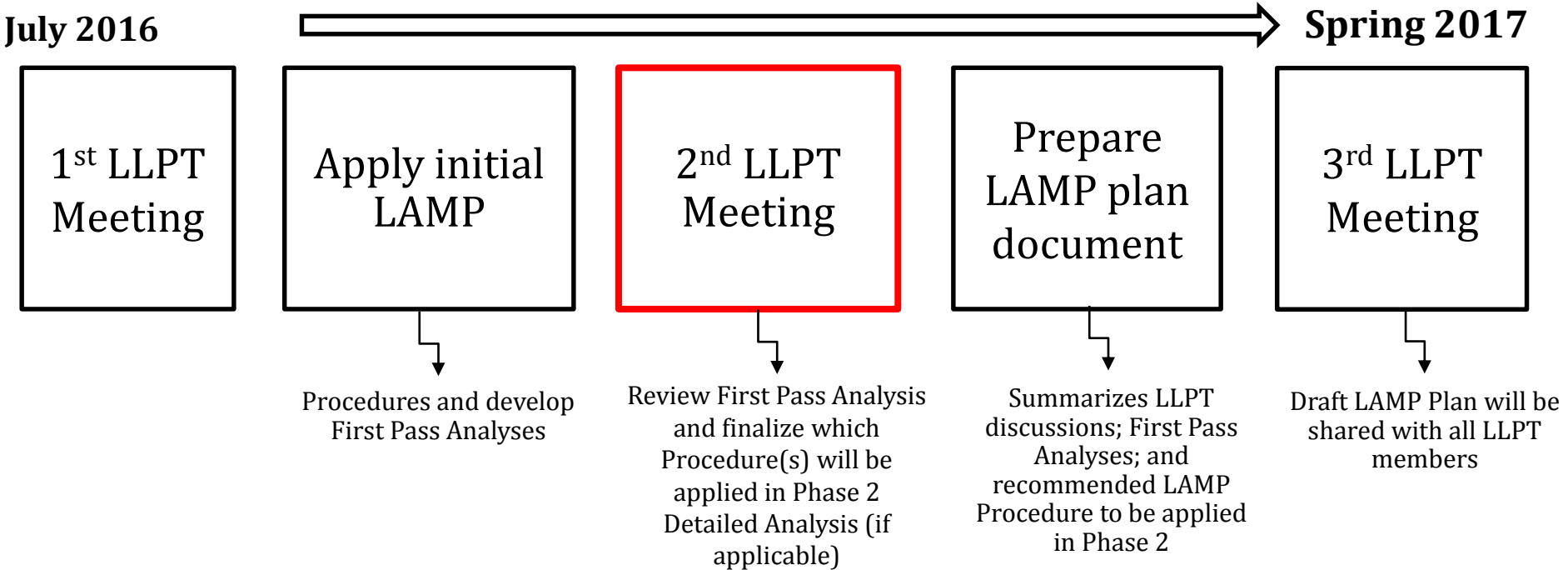
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■ Project Engineers

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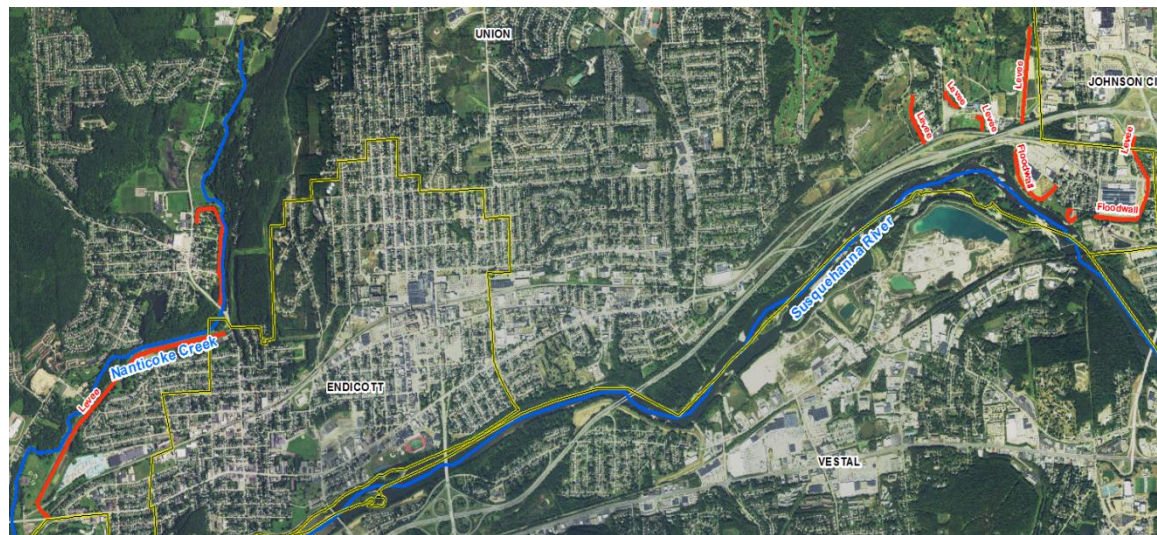
LAMP Path Forward

■ LAMP PHASE 1



Review of LLPT Meeting #1

- Discussion on the Levee Analysis and Mapping Procedure (LAMP) and Objectives
- Overview of the Levee System
- Outlined First Pass Analysis Methodology: Natural Valley
- Established a preliminary timetable



Application of LAMP to Levees in the Town of Union

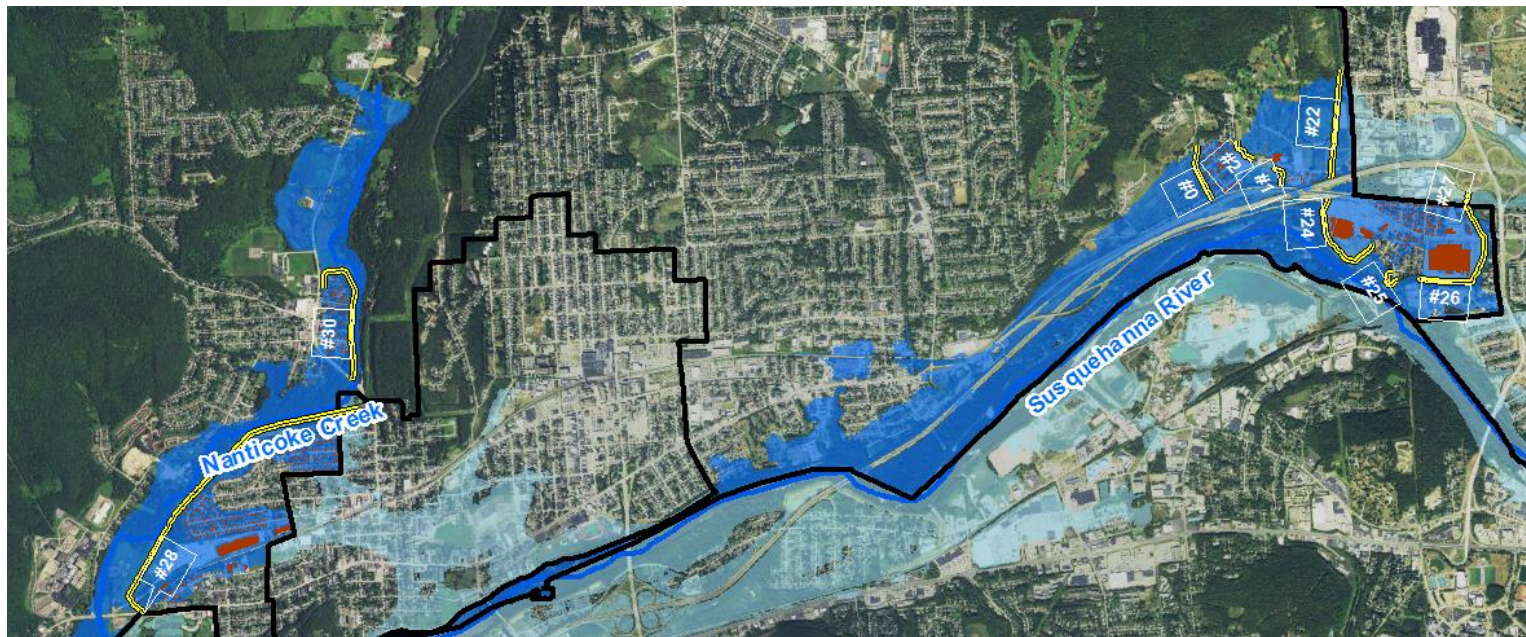
■ LAMP Procedures:

- **Natural Valley Procedure (Applicable)***
- **Structural Based Inundation Procedure (Not Applicable)****
 - Levee does not have known vulnerabilities or history of breaching
- **Overtopping Procedure (Potentially Applicable) ****
 - BFEs are above top of levee / floodwall, but can be managed
- **Freeboard Deficient Procedure (Potentially Applicable)****
 - Will require documentation that levee meets 44CFR§65.10 except for freeboard
- **Sound Reach Procedure (Not Applicable)****

Will require documentation that levee meets 44CFR§65.10

 - * - No cost to community
 - ** - Potential additional cost to community

First Pass Results Natural Valley Analysis



Hydrology

- Updated Gage Analysis (Including T.S. Lee)
- 3.59% increase in Susquehanna Flow (relative to Prelim)

Hydraulics

- HEC-RAS 1D Steady State Model
- Approximately 1,380 Structures impacted

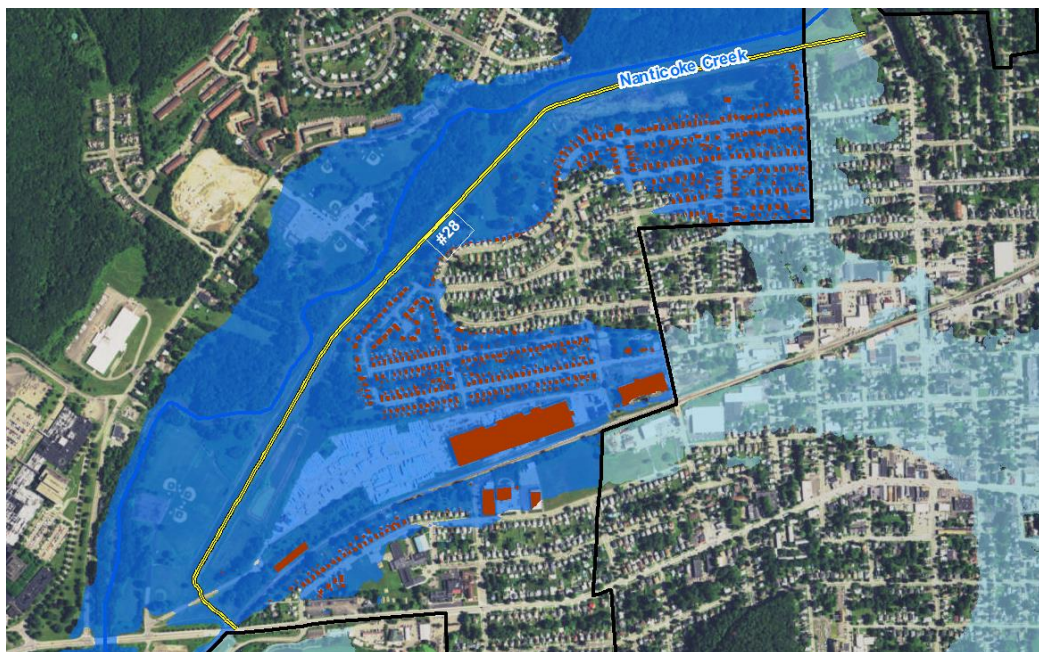
First Pass Results Natural Valley Analysis



- Approximately 698 Structures impacted

Levee System Components: Natural Valley

Levee #28 (Nanticoke Creek)

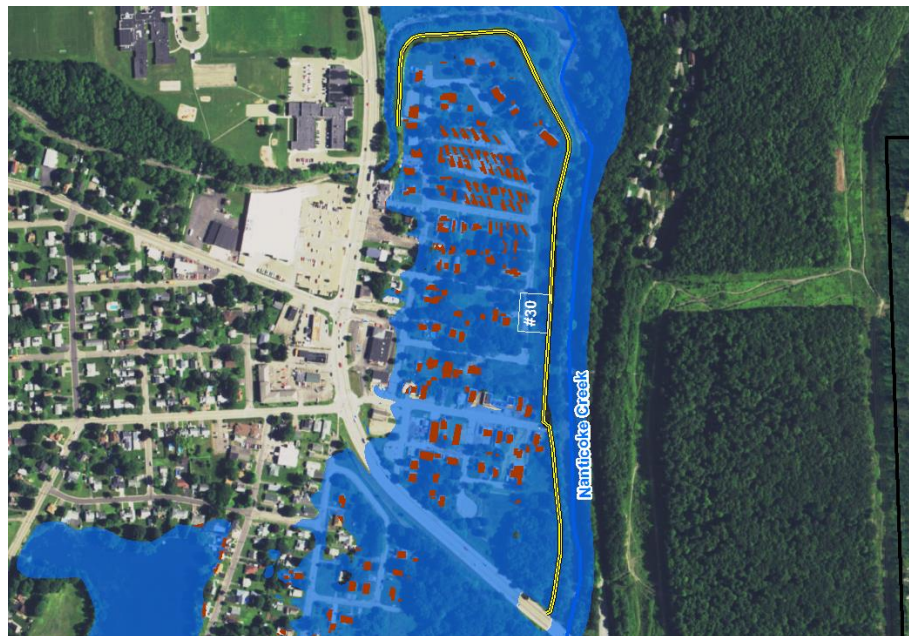


First Pass Results Natural Valley Analysis



- Approximately 205 Structures impacted

Levee System Components: Natural Valley Levee #30 (Nanticoke Creek)



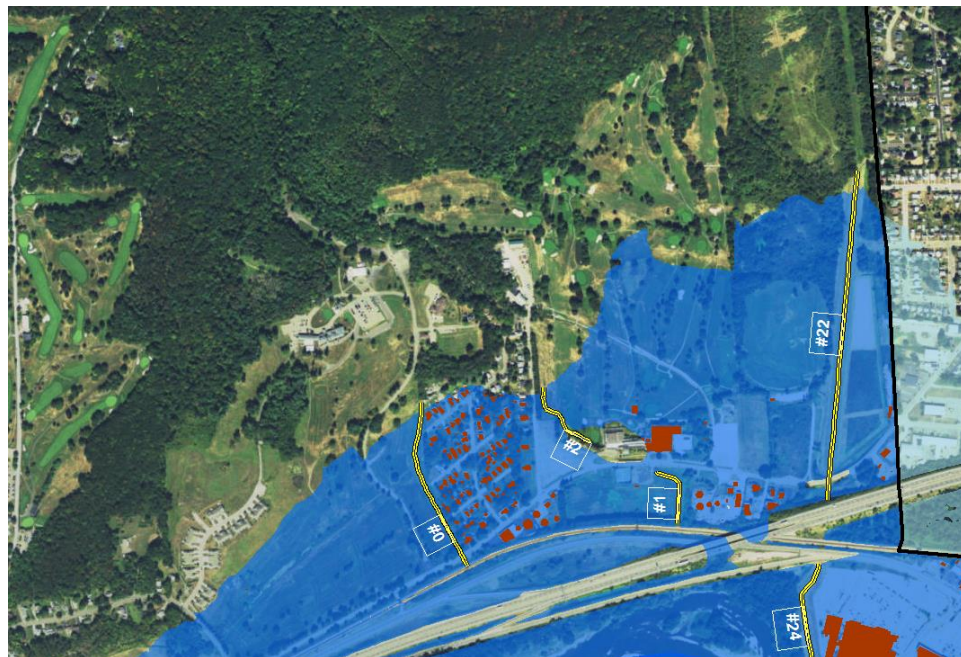
* Discussed during the meeting: need to update structure count based on current conditions.

First Pass Results Natural Valley Analysis



- Approximate Number Structures impacted:
 - #0 – 119
 - #1 – 1
 - #2 – 21

Levee System Components: Shared Natural Valley Levee #0, #1, #2, and # 22 (Susquehanna River)

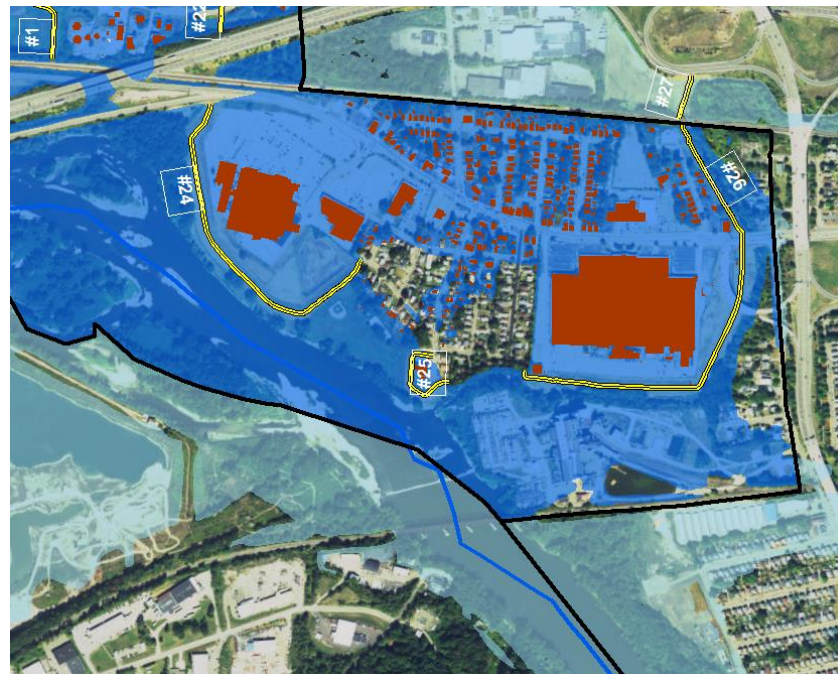


First Pass Results Natural Valley Analysis

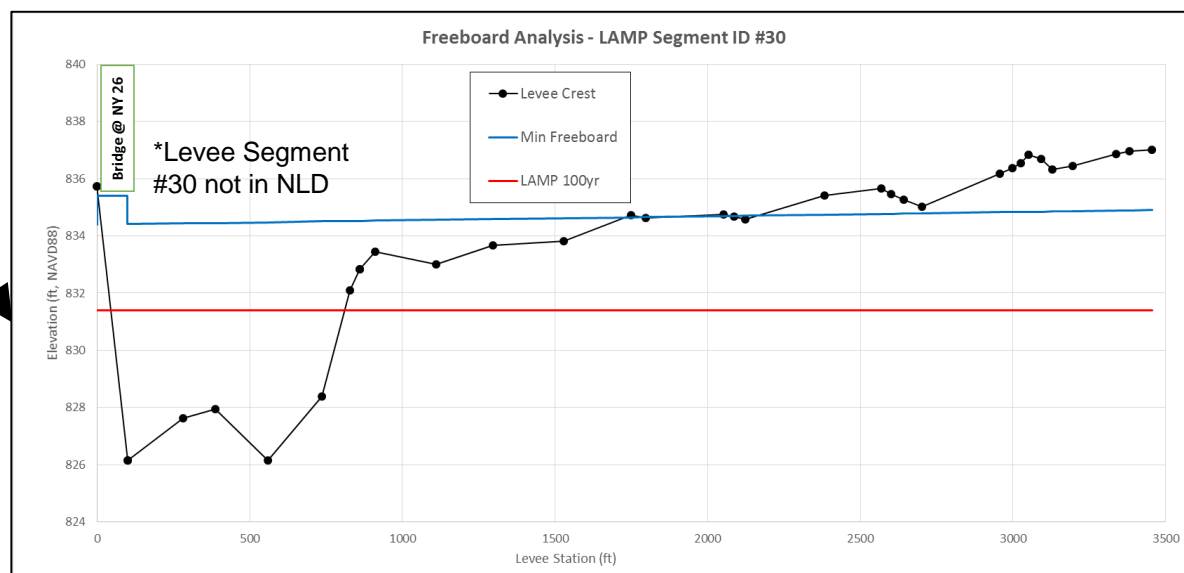
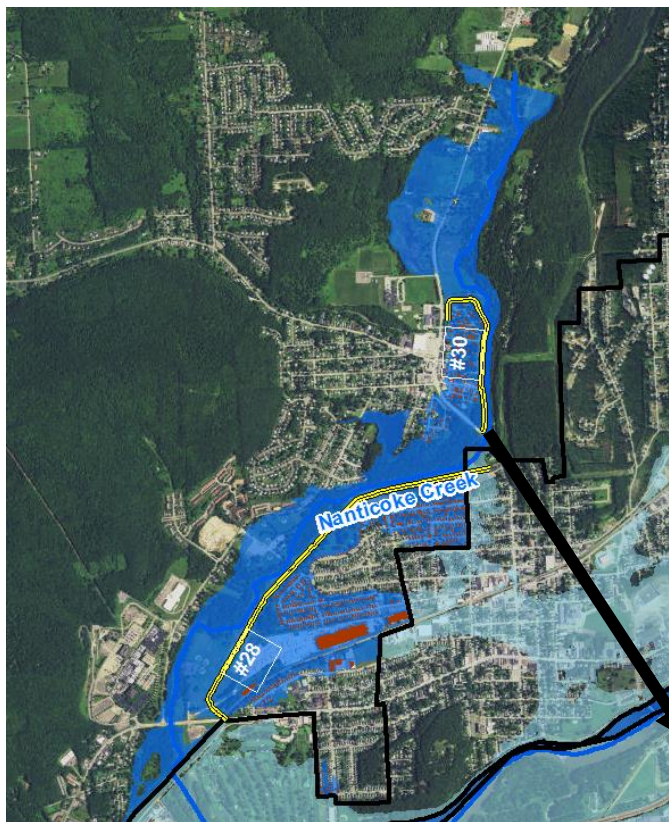


- Approximate Number Structures impacted:
 - #24 – 11
 - #25 – 5
 - #26 & #27 – 285

Levee System Components: Shared Natural Valley
Levee #24, #25, #26, and #27 (Susquehanna River)



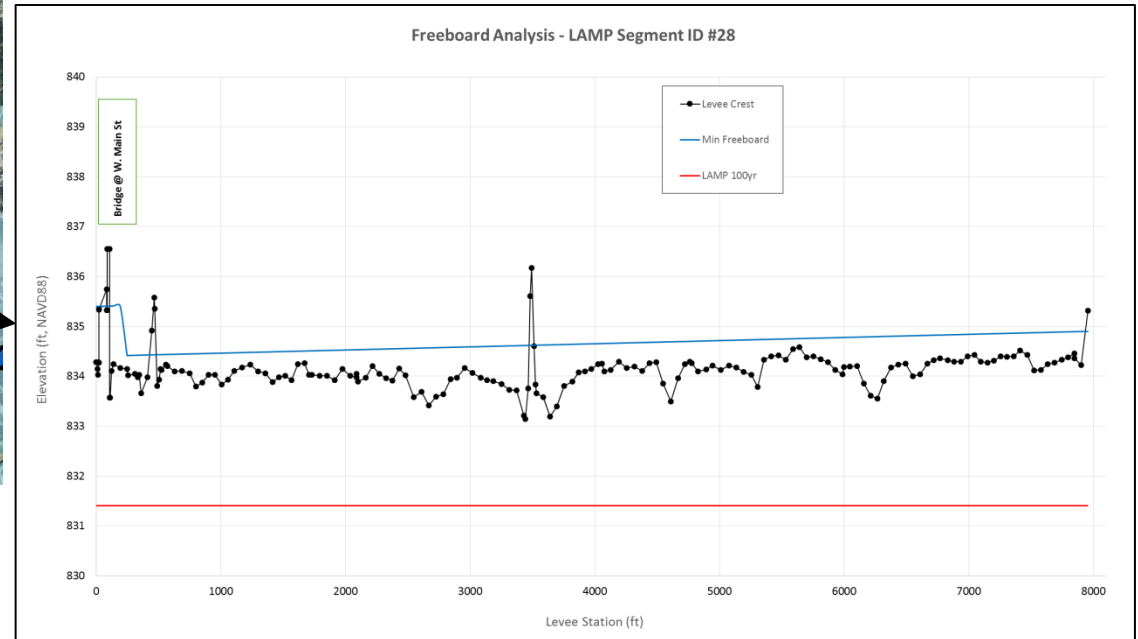
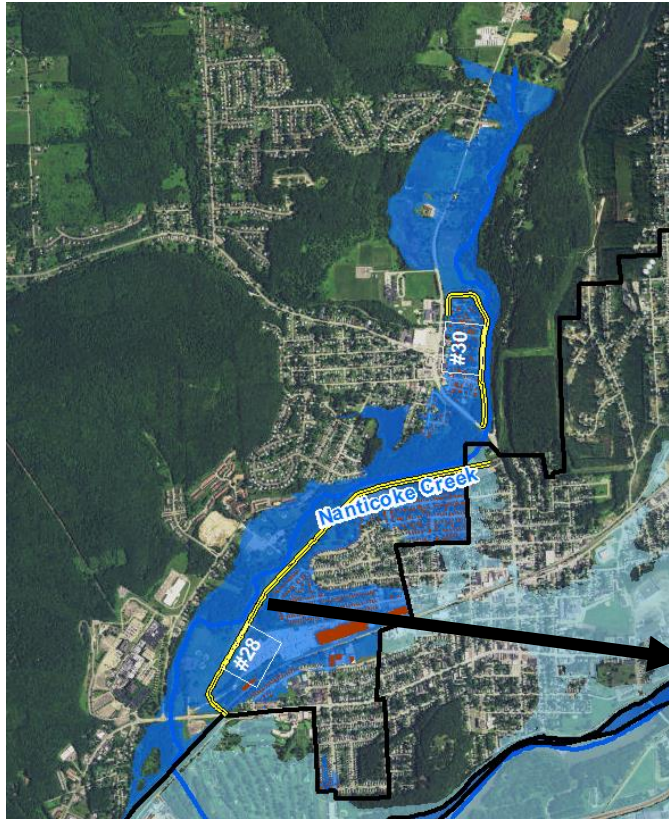
First Pass Results Free Board Analysis



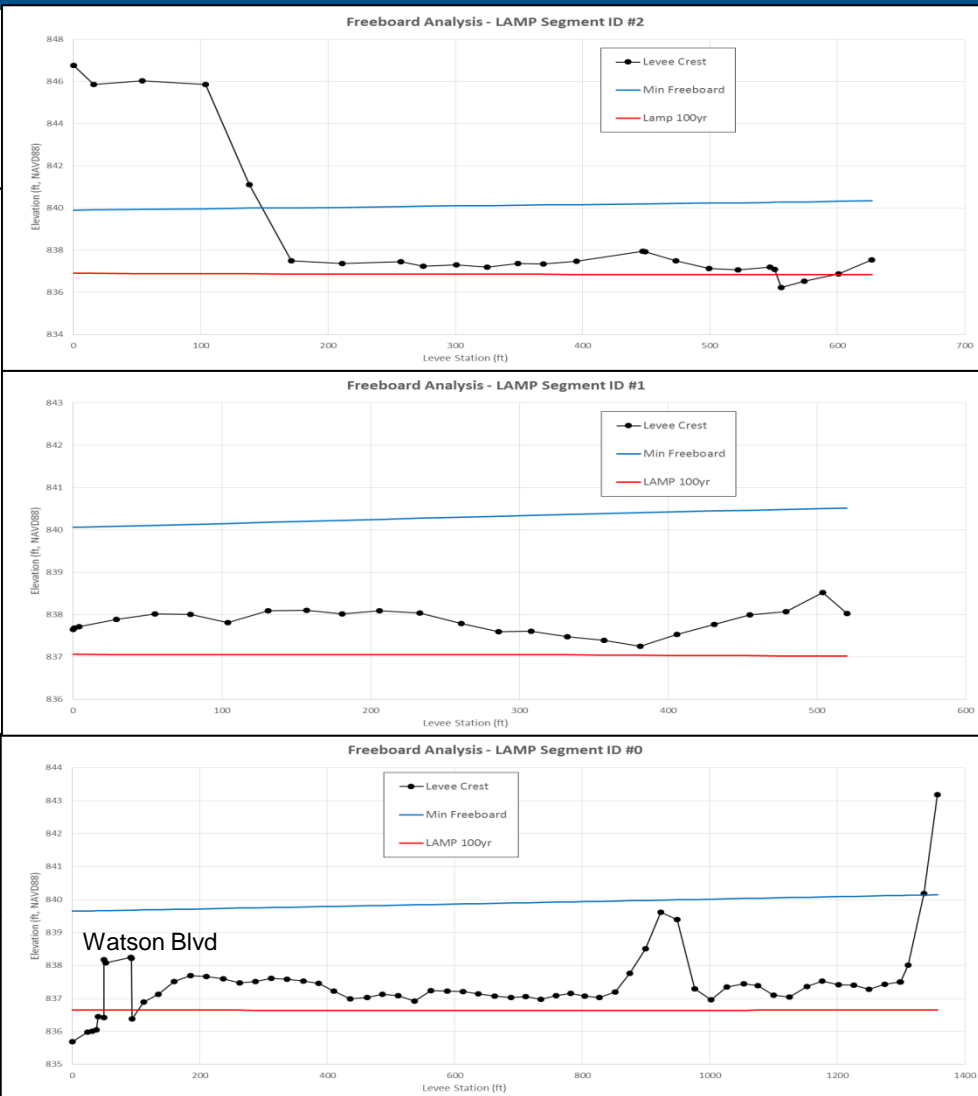
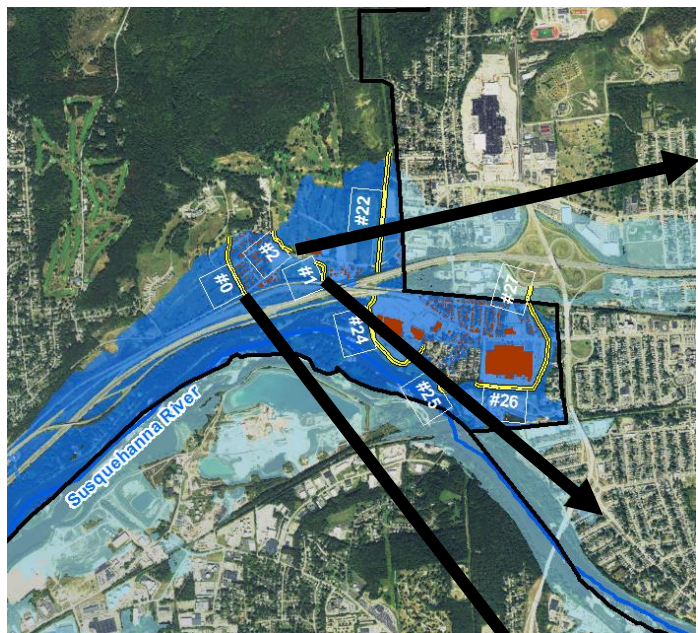
*Discussed during meeting: levee owner not known.

** Follow-up (2/17/2017) – County identified as owner.

First Pass Results Free Board Analysis

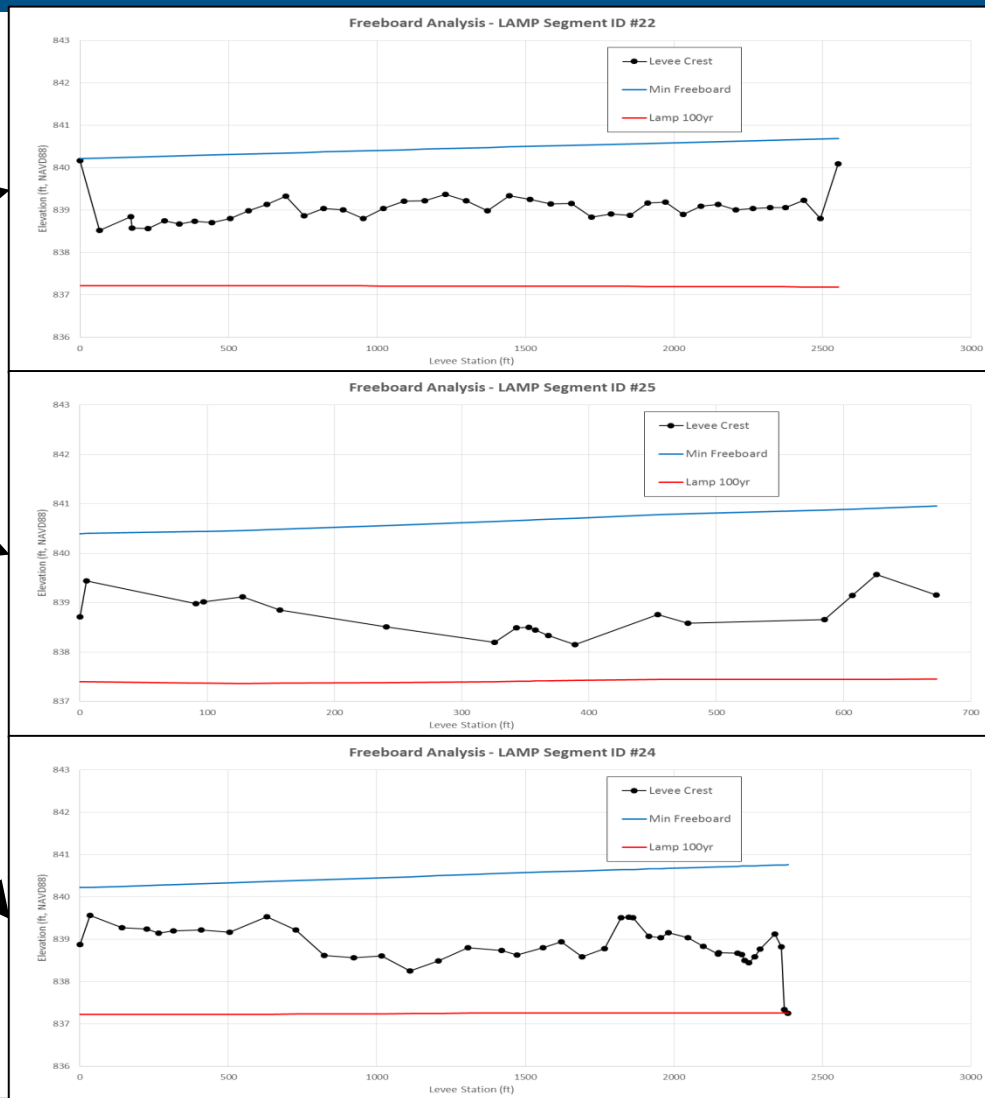
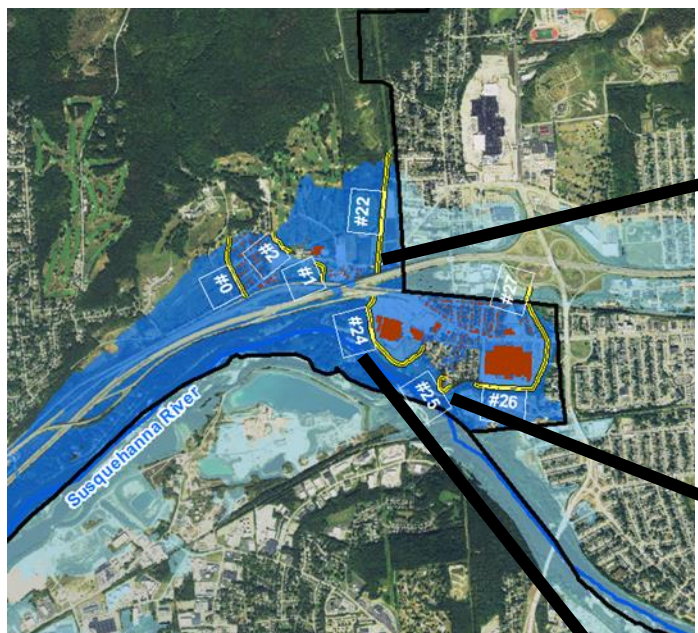


First Pass Results Free Board Analysis

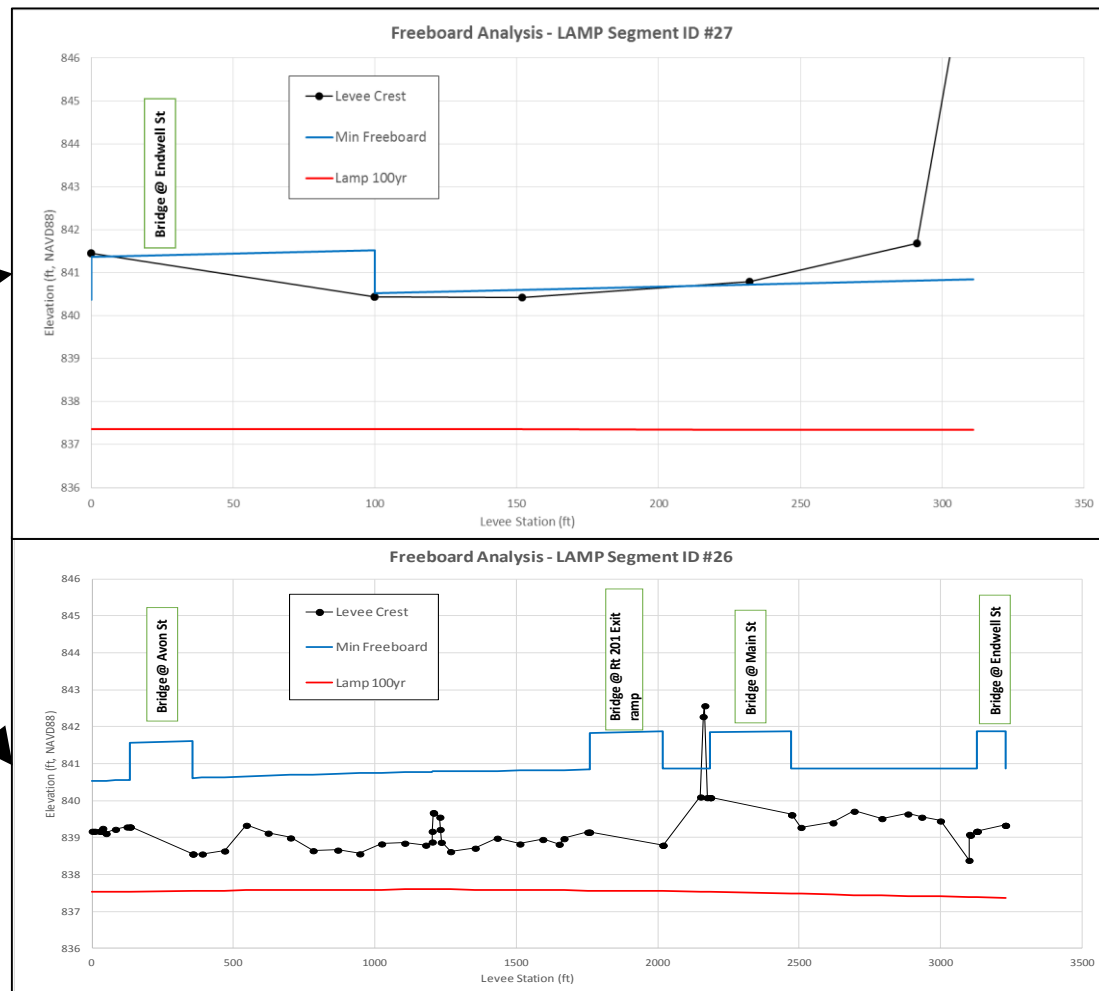
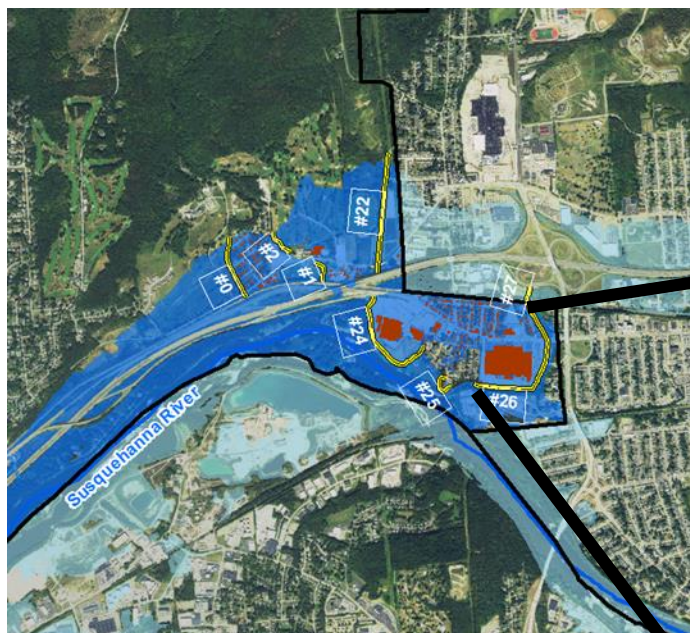


* Discussed during meeting: plans for a closure structure are in place for Watson Blvd.

First Pass Results Free Board Analysis



First Pass Results Free Board Analysis

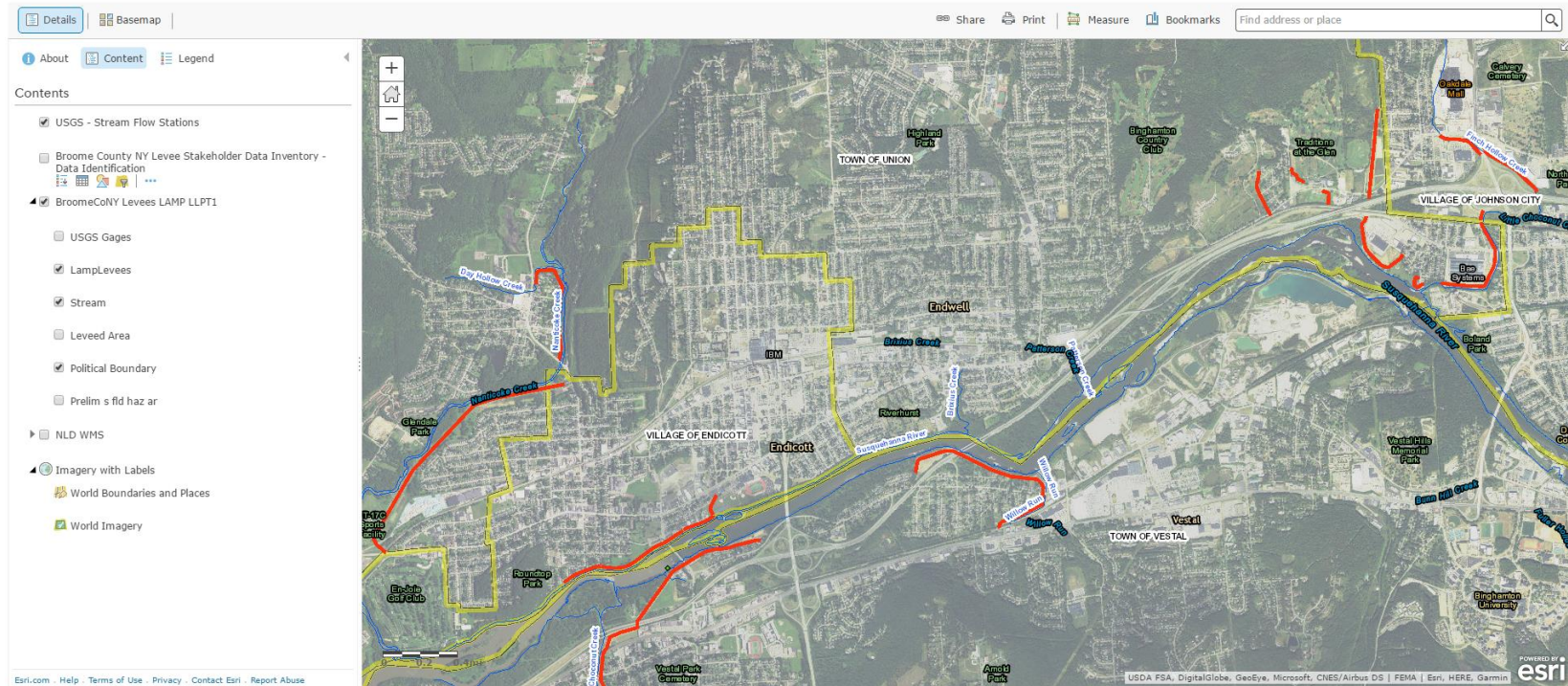


Local Levee System

Access LAMP Data Here: <http://arcg.is/2hXqGBB>

ArcGIS - FEMA Region 2 Levees - Broome County, NY

Modify Map Sign In



Data Requirements

	Natural Valley *	Structural-Based Inundation **	Overtopping Approach**	Freeboard Deficient **	Sound Reach**
Elevation Information for the Levee Crest	-	Required	Required	Required	Required
Operations and Maintenance Plan	-	Recommended	Required	Required	Required
Structural Design Requirements	-	Recommended	Required	Required	Required
Inspection Reports	-	Recommended	Required	Required	Required
Evaluation of Overtopping Erosion Potential	-	-	Required	-	-
BFE Less than Levee Crest	-	-	-	Required	Required
BFE + Freeboard Less than Levee Crest	-	-	-	-	Required

* - No cost to community

** - Potential additional cost to community

LAMP: Current Step

■ LAMP – Current step in Phase 1

1st LLPT Meeting

Apply initial LAMP Procedures and develop First Pass Analyses

2nd LLPT Meeting

Review First Pass Analysis and finalize which Procedure(s) will be applied in future Phase 2 Detailed Analysis (if applicable)

Prepare a LAMP Plan document that summarizes LLPT discussions; First Pass Analyses; and recommended LAMP Procedure to be applied in Phase 2

3rd LLPT Meeting

Draft LAMP Plan will be shared with all LLPT members

Finalize LAMP Plan.

Share Final LAMP Plan with all LLPT members

July 2016

Spring 2017



FEMA

Know, plan for, mitigate against and communicate about the risks in your community.