



FEMA

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

Village of Endicott
Broome County, NY

January 11, 2017

RiskMAP
Increasing Resilience Together



Agenda

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

Introductions & Contact Information

■ FEMA Project Monitor

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■ Outreach Leads

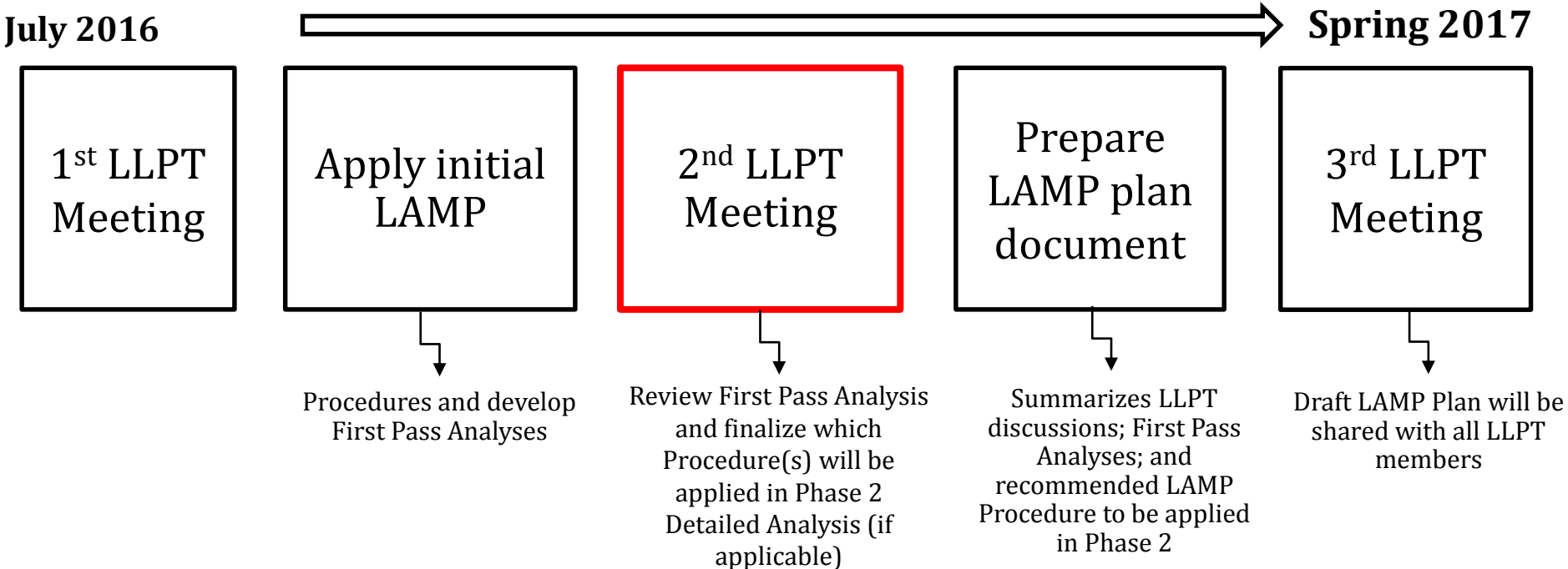
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■ Project Engineers

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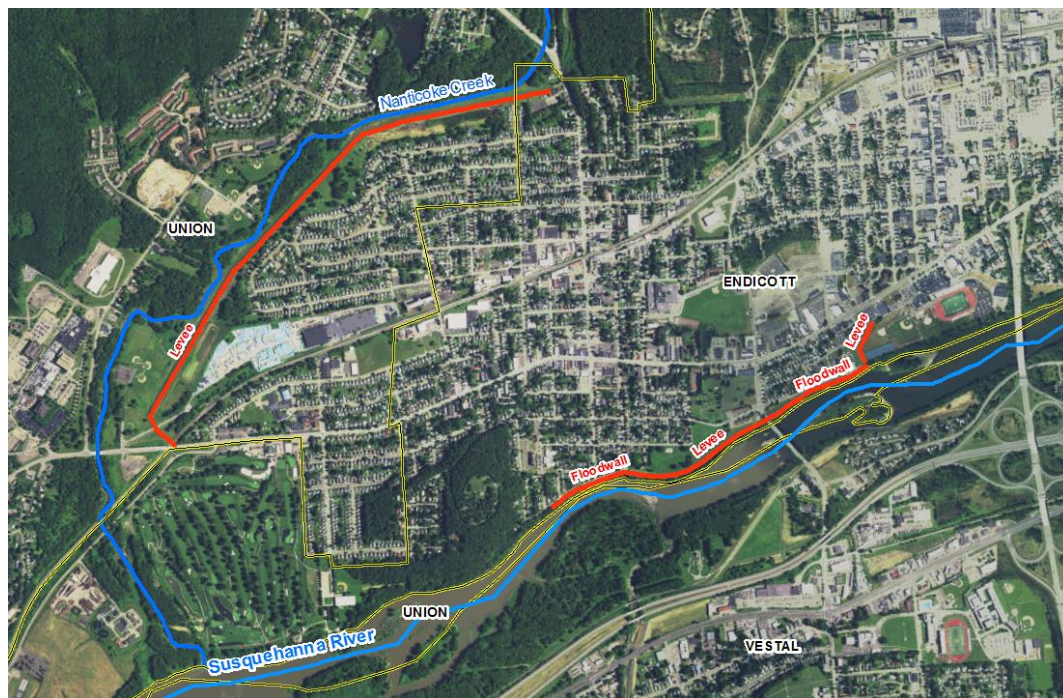
LAMP Path Forward

■ 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 Village of Endicott

■ 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 lower than top of levee / floodwall
- **Freeboard Deficient Procedure** (Not Applicable)**
 - Will require documentation that levee meets 44CFR65.10 except for freeboard
- **Sound Reach Procedure** (Not Applicable)

Will require documentation that levee meets 44CFR65.10

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

First Pass Results Natural Valley Analysis

Hydrology

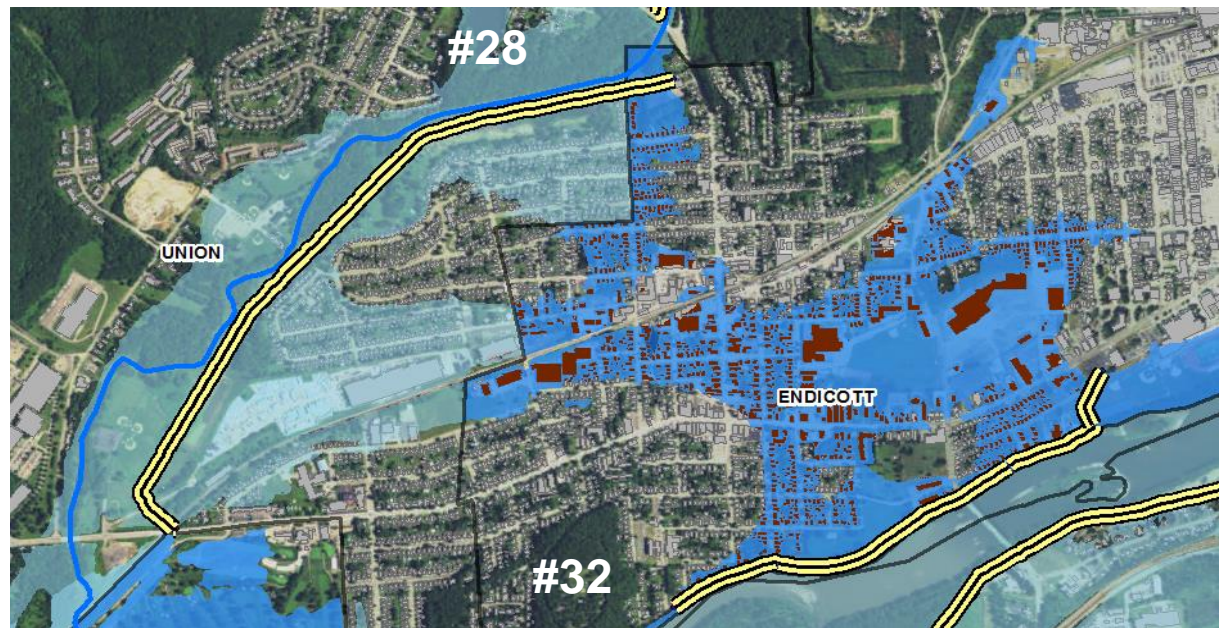
- Updated Gage Analysis (Including T.S. Lee)
- 3.59% increase in Susquehanna Flow (relative to Prelim)

Hydraulics

- HEC-RAS 1D Steady State Model
- Approximately 1225 Structures impacted

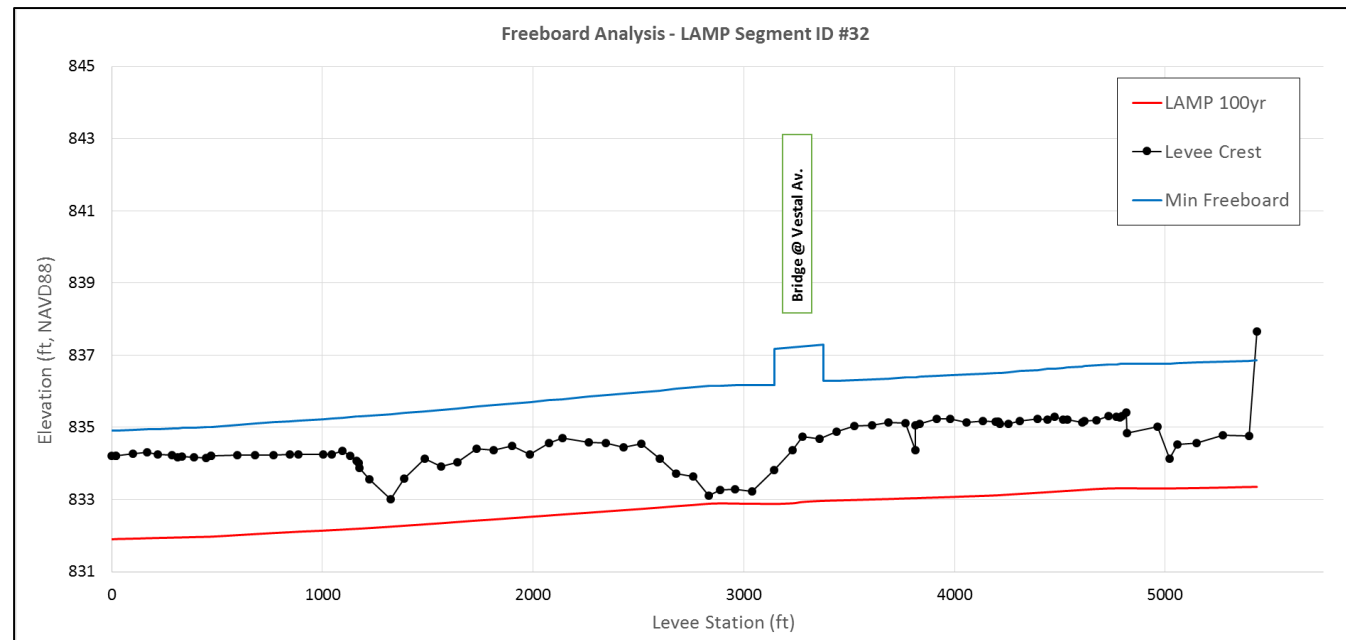
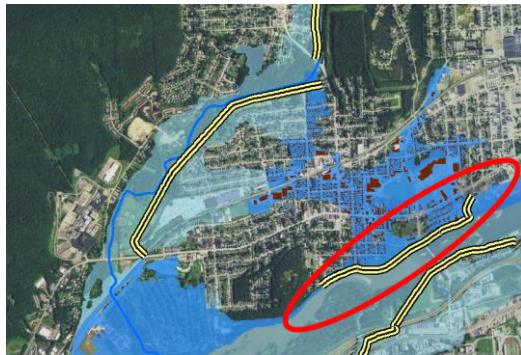
Levee System Components: Shared Natural Valley

Levee #28 (Nanticoke Creek)
Levee #32 (Susquehanna River)



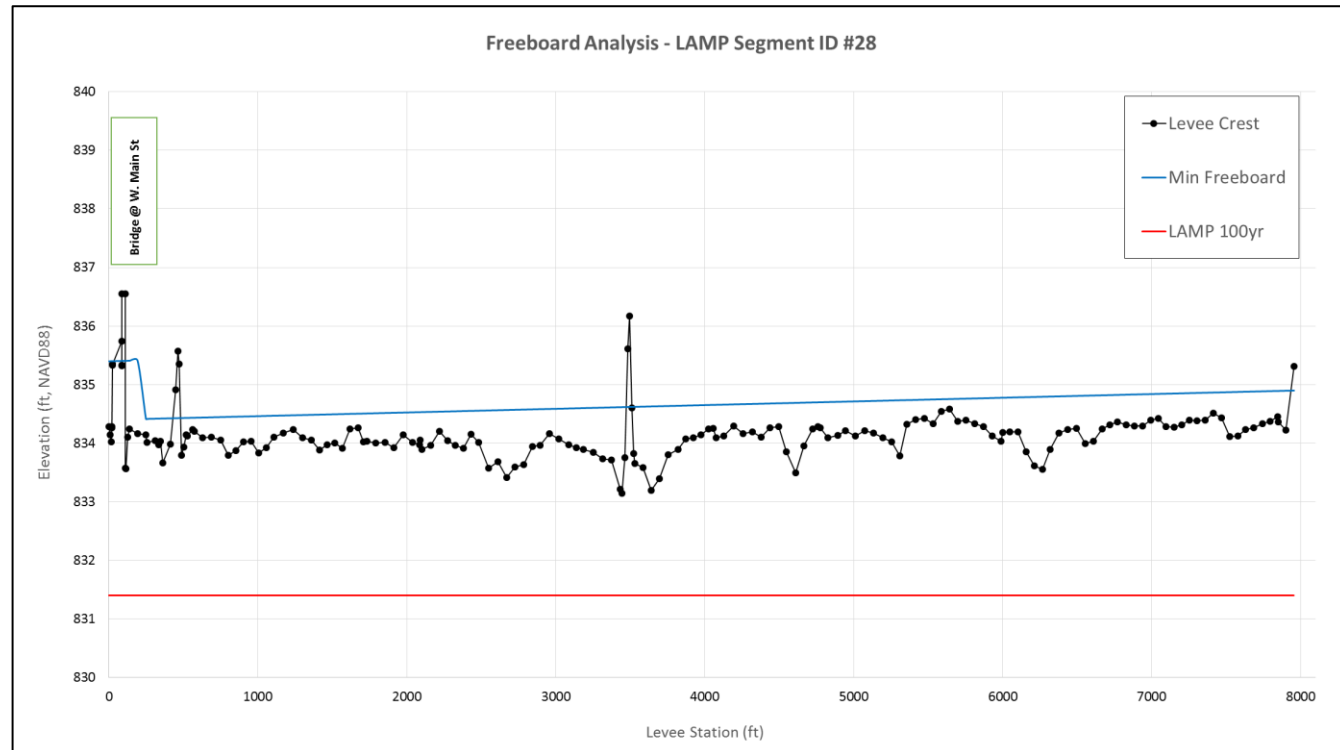
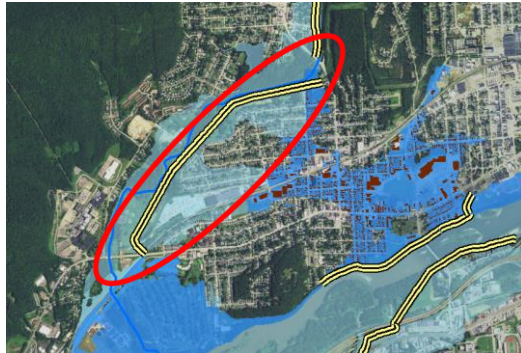
First Pass Results Freeboard Analysis

Levee #32 at Susquehanna River



First Pass Results Freeboard Analysis

Levee #28 at Nanticoke Creek

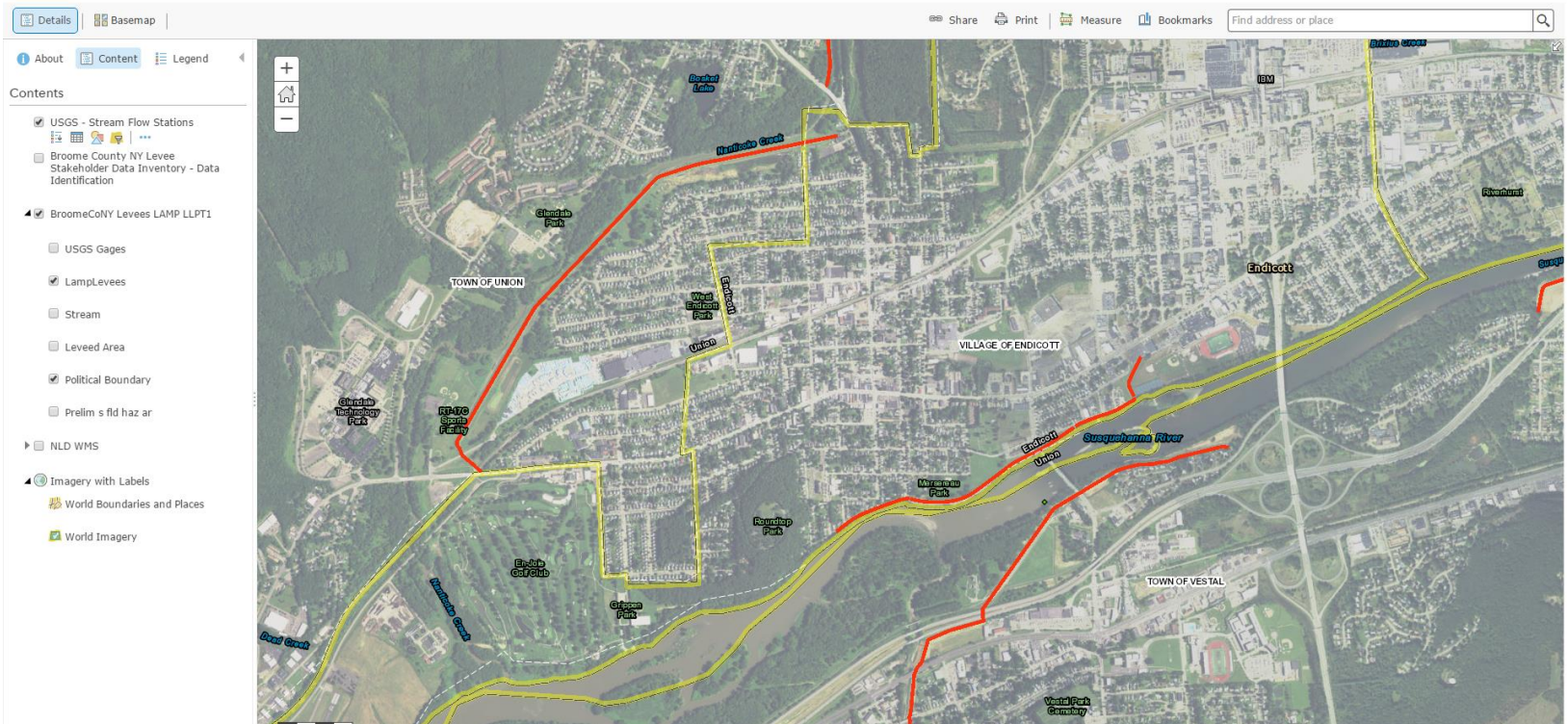


Local Levee System

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

LAMP: Next Steps

■ LAMP – Final Steps 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 (virtual)

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.*