### TOWN OF LINCOLN BOARD OF SELECTMEN AND PLANNING BOARD JOINT WORK SESSION MEETING MINUTES LINCOLN TOWN HALL - 148 MAIN STREET, LINCOLN, NH MARCH 9, 2015

Board of Selectmen Present: O.J. Robinson, Patricia McTeague, and Tamra Ham.

Planning Board: John Hettinger, Paula Strickon, and Jim Spanos.

**Staff Present:** Town Manager Burbank, Planning & Zoning Administrator Carole Bont, and Recording Secretary Brook Rose.

Agency Officials Present: Jaspreet Randhawa, STARR Representative (mapping contractor for FEMA), Jennifer Gilbert from the State of NH Office of Energy & Planning, Michael Bachand from the US Army Corp of Engineers, Richard Verville (Branch Chief) Karl Anderson (Flood Plain branch), and Brigitte Ndikum-Nyada (Hazard Mitigation branch) all from FEMA District 1 (Boston), Mike Scala from Senator Ayotte's office.

**Public Present:** see attached sign in sheet. Also present: Paul Beaudin, Wendy Tanner, and Walter Rogers.

### I. CALL TO ORDER

The Planning Board and Board of Selectmen called a joint work session to order at 11:05am. It was explained that there would be no opportunity for public comment at this work session.

### II. FEMA FLOOD MAPPING AND LEVEE ANALYSIS PROJECT MEETING

### Levee Analysis and Mapping Intro

Jaspreet Randhawa began the meeting by introducing herself as the Project Manager representing STARR, the mapping contractor for FEMA. All agency, State and local officials introduced themselves.

Jaspreet explained that this is a project kickoff meeting for the FEMA Overview of Levee Analysis and Mapping Procedure project (LAMP) and that the project is funded by FEMA. Richard Verville stated that this is the first of many meetings on the levee and the flood plain mapping. Jaspreet provided handouts with all of the project contacts as well as a fact sheet outlining the Local Levee Partnership Team (LLPT). All have been attached to the meeting minutes. She added that this project can be found on the FEMA website.

Jaspreet explained the four phases of the mapping process and levee analysis. She explained the difference between the process FEMA conducted historically and the new LAMP process. She explained the criteria for levee accreditation and how that affects the mapping. The LAMP analyzes the risk behind the levee, whether it's accredited or not, and determines how the flood plain mapping should look.

The following suite of new LAMP procedures have undergone an extensive process of scientific review and public input:

1. Natural valley (always applied initially and for entire system)

- 2. Sound Reach
- 3. Freeboard Deficient
- 4. Overtopping
- 5. Structural Based Inundation

One or more of these procedures will be used to analyze the risk of the levee.

Jaspreet explained the levee location and schematic (attached). She reviewed the project schedule which began in early February and should conclude in December 2015. Throughout the course of the year data collection, initial data analysis, revised data evaluation and selection of mapping options will all be done with the final summary report and database to be the final deliverable. STARR will use existing data from the State, FEMA, the Town, and the USACE to do the initial data analysis. Another meeting will be held in June with the LLPT in Lincoln to discuss the outcome of the initial analysis and what criteria STARR is using to conduct it. Once the final report is done, the first phase of the LAMP will be complete and FEMA will decide what/when the next phase will be. At this time, Jaspreet opened up the conversation to questions or comments from the panel of officials.

Town Manager Burbank questioned whether the project is funded. Mr. Verville replied that the first phase of the project is funded from the 2014 budget. He explained that FEMA receives annual funding for the risk map program however they do not yet know if they have funding in 2015.

John Hettinger questioned whether this project includes mapping of the flood plain. Jaspreet replied that it does not, it is only mapping behind the levee. John questioned what STARR is using for flood plain data. Jaspreet replied that they use the current map, hydraulic model, aerial photos, etc. Local input from the Town, State, and USACE is requested to keep STARR on the right track in their study. John added that two years ago, the Town pointed out a large error in the current mapping which is that the southeast corner of the Lodge at Lincoln Station is 40-50ft off the water level but is shown to be in the flood plain. Jaspreet replied that STARR should be able to mitigate this error using high level topographical maps.

O.J. Robinson questioned whether LAMP is taking into account what currently exists as what is there now is in disrepair. Mr. Verville replied that this is a long process. The currently existing structure will be analyzed as is. However, if the Town votes to repair the levee thus recertifying it with the USACE and/or seeks FEMA accreditation of the levee, all of this would be considered during the final mapping of the levee.

O.J. replied that the Town is bringing a warrant article to Town Meeting to repair the levee to the 1960's standards in order to recertify it with the USACE. O.J. added that he is concerned because FEMA has never mentioned the Town bringing the levee to FEMA standards in order to accredit the structure. Michael Bachand stated that there are two federal programs. The USACE did construct the levee and then turned it over to Town to maintain. If the Town votes to repair and recertify the levee with the USACE, the Town is eligible for the rehab program which means the USACE will make future repairs to the levee at no cost to the Town. He added that FEMA is in charge of the National Flood Insurance Program which requires levee accreditation. His understanding is that the Town is planning to address the Operations and Maintenance of the levee but not the hydraulic issue at this time. O.J. confirmed this was the case.

Mike Scala questioned what would it take to get a revaluation of the levee done. Richard Verville replied that the mapping project was put on hold back in 2004 when FEMA was doing mapping throughout the County. FEMA is now analyzing current data on the levee. If FEMA has to reevaluate the levee when the actual mapping is done, they will. Any work done or additional data collected will

Mr. Verville explained that at any time, the Town or a single property owner has the opportunity to file a letter of map change to reflect current situations. This can be done at any time throughout the process and even after the maps are finalized.

Town Manager Burbank clarified that the levee structure has never been accredited by FEMA thus FEMA assistance in repairing the levee could not take place until the structure is brought to an accredited status. Mr. Verville replied that this is an accurate statement.

Jaspreet thanked everyone for attending the meeting.

### III. ADJOURNMENT

The Planning Board and Board of Selectmen adjourned the meeting at 12:05pm.

Respectfully Submitted,

**Brook Rose** 

Approval Date 3 / 30 / 2015

O.J. Robinson

Jim Spanos

Patricia McTeague

John Hettinger

Paula Strickon



# Levee Analysis and Mapping Intro Town of Lincoln, Grafton County, New Hampshire

March 9, 2015



Increasing Resilience Together



### Agenda

- Introductions
- Overview of Levee Analysis and Mapping Procedure
- (LAMP)
- Review of Project Schedule and Timeline of Activities
- . Questions & Answers
- Next Steps





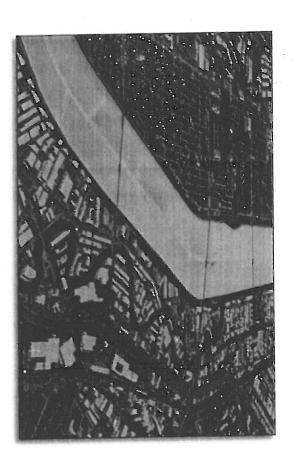
### Attendees

- State Jennifer Gilbert
- FEMA Kerry Bogdan, Richard Verville, Karl Anderson, Brigitte
- USACE Michael Bachand
- STARR Jaspreet Randhawa

## Flood Hazard Mapping and Former Approach

### Accredited levee system

For levees in compliance with 44 CFR 65.10, the flood hazard was mapped to be contained within the levee system.



### Non-accredited levee system

For levees not in compliance with 44 CFR 65.10, the protected area was mapped as if the levee system provided no flood hazard reduction ("without levee" approach).





# AMP Procedures

an extensive process of scientific review and public input: The following suite of new LAMP procedures have undergone

- Natural Valley (always applied initially and for the entire system)
- 2. Sound Reach
- Freeboard Deficient
- Overtopping
- Structural-Based Inundation





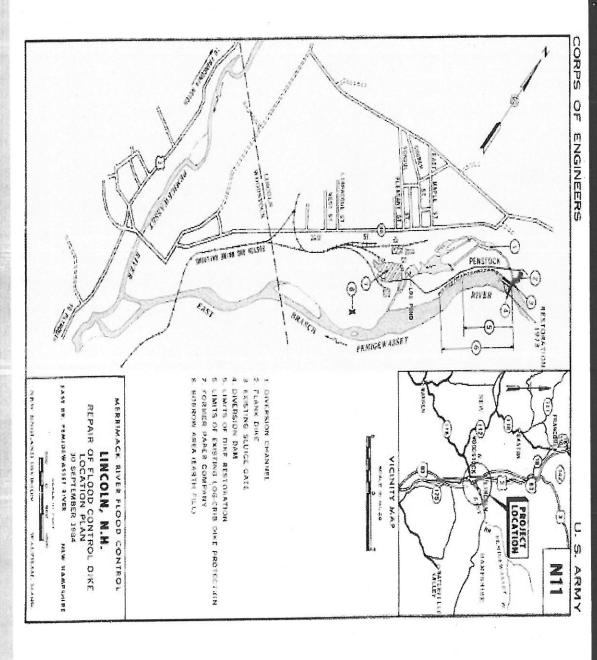
# LAMP Procedures

- With the exception of Sound Reach, any of the LAMP would apply if the entire system is considered hydraulically definition. For example, Structural-Based Inundation alone system if the entire system meets the procedure-specific requirements of 44 CFR 65.10. procedures can be applied individually to the entire levee significant, but does not meet any of the structural
- More than one procedure can be applied if the system can procedure-specific definition. be separated into reaches meeting more than one





# evee Location and Schematic







Stakeholder Engagement Levee Data Collection &

January 1 - March 31

Initial Data Analysis

March 1 - June 30

August 1 - October 31

### February 3, 2015

**Core Team Call** 

### by February 28, 2015

Mail Meeting Invites to Levee Stakeholders

Initial Stakeholder Meeting

### March 2015

**July 2015** 

**LLPT Meeting** 

& Selection of Mapping Revised Data Evaluation

December 2015

Deliver Summary Report & Database

## Project Contacts

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STARR

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STARR

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### The Local Levee Partnership Team

Recently, the Federal Emergency Management Agency (FEMA) released its updated Levee Analysis and Mapping Procedures for Non-Accredited Levee Systems. (See the process chart on page 3). The collaborative engagement with local stakeholders, including a smaller group called the Local Levee Partnership Team (LLPT), will assist FEMA with (1) acquiring and evaluating appropriate information and data; and (2) identifying appropriate technical analysis procedures. The procedures will be used to analyze and depict flood hazards on updated Flood Insurance Rate Maps and other related products.

### Levee Analysis and Mapping Process

The figure on page three provides an overview of the new levee analysis and mapping process in a workflow. This figure identifies both the historic approach tasks (in grey) and the tasks which have been added (in blue) to enhance the collaboration between FEMA, federal, tribal, territorial, state and local partners throughout the update process. The figure has phases identified to allow further understanding of the process.

Phase 1 - Flood Structure Identification and Review

Levee systems are identified and verified to be built, operated and maintained as flood control structures. The Local Levee Partnership Team is established during this phase.

Phase 2 - Analysis and Mapping Plan Preparation

LLPT meetings are periodically held to review available data, documentation and information. Discussions assist in the preparation of an Analysis and Mapping Plan with suggestions for analysis and mapping procedures based on the data, documentation and information available.

Phase 3 - Analysis Preparation and Results Review

Analysis is performed by FEMA and shared with the LLPT to validate results against available data, documentation and information. Results are reviewed against effective Flood Insurance Rate Map (FIRM) panels to update scope of work, if necessary.

Phase 4 – FIRM Update, Due Process and Effective Issuance

FIRM panels are updated with analysis and mapping results. Communities and FEMA proceed through all due process procedures and updated FIRM panels are adopted for local floodplain management purposes.

### Definitions\*

Levee: Man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control or divert the flow of water so as to provide protection from temporary flooding.

Levee System: Flood protection system that consists of a levee, or levees and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

Non-Accredited Levee System: Levee system that does not meet the requirements documented in Section 65.10 of the National Flood Insurance Program regulations (44CFR65.10).

\*As defined in 44 CFR 59.1

### **Resources & Related Links**

### Levee System Accreditation:

The Code of Federal Regulations can be accessed at: http://ecfr.gpoaccess.gov
Levee System Accreditation is outlined in 44CFR65.10.

### Living with Levees:

For more information on levees, please visit: http://www.fema.gov/living-levees-its-shared-responsibility

### New Analysis and Mapping Procedures for Non-Accredited Leves:

To review the suite of procedures, please visit: http://www.fema.gov/library/vie wRecord.do?id=7841

### The Local Levee Partnership Team (LLPT)

FEMA will coordinate with tribal, territorial, state and local officials and levee owners to convene a LLPT when appropriate. The primary function of the LLPT will be to provide feedback, additional data and other input about the levee system in question. FEMA's role will be to listen and gather the necessary information to effectively analyze and map the flood hazards in the area landward of the levee. The other partners will

provide input on local conditions and situations.

This engagement will enable FEMA to make a better-informed final decision, using local input on how the levee system will be analyzed and how the flood hazards in the area landward of the levee will be mapped. There will be flexibility in how meeting(s) are executed including either in-person or by phone, depending on the complexity and need. FEMA or one of its representatives will participate and act as the group facilitator. The LLPT will assist FEMA to:

- Identify non-accredited levee systems within a community
- Collect existing local data & system knowledge
- Determine additional data communities plan to submit
- Review information to segment a levee system into multiple reaches for further assessment, if required
- Review of data available for identified levee reaches to determine the applicable levee analysis and mapping procedures for each
- Review of intermediate hydrologic and hydraulic (H&H) analyses results

### **LLPT Participants**

FEMA will contact tribal, territorial, state and local officials and levee owners once a project has been identified for funding to begin coordination with the local entities to form a LLPT. The following is a list of considerations for tribal, territorial and local officials to reference as they work with FEMA to identify potential members:

- Where appropriate, FEMA will contact its federal, state, local, ,tribal and territorial partners
- LLPT members should be able to contribute to the discussion on potential analysis and mapping options
- Local officials from each affected community should be included in the membership
- LLPT would benefit if it included someone who can address local funding requirements that may be necessary to perform the work required or identified by the LLPT
- Local technical or levee system operation knowledge may provide necessary information and understanding to appropriately categorize a levee system (or levee reaches) for further analysis
- Discussions will be benefited by a mix of both technical and political participants
- It may prove beneficial to include a large industry/employer that may be affected by the LLPT recommendations and ensuing updates to the FIRM

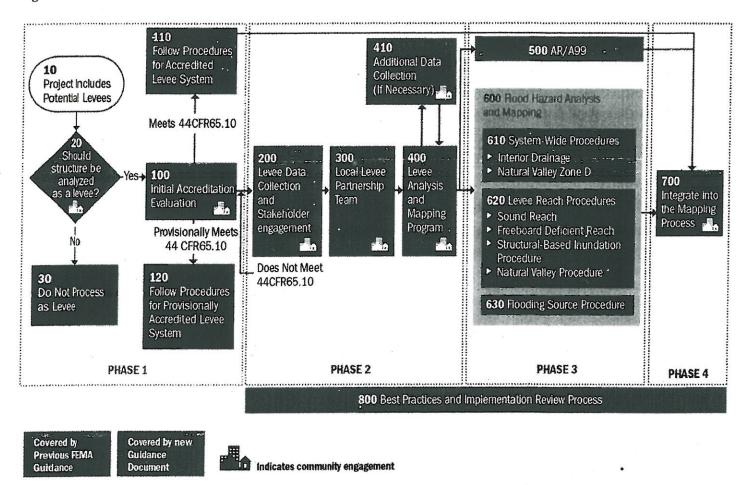
### Important Considerations for. Communities who Live Behind a Levee

- Levee owners will still be required to provide the documentation and certifications as outlined in 44CFR65.10 for levees and levee systems to be shown on the map as accredited. FEMA has not made any regulatory changes to 44CFR65.10 during this process.
- Non-Accredited Levee systems cause great concern for community elected officials, emergency management staff and federal agencies like FEMA due to the possible damage that could be realized due to failure of a portion or component of a levee system during a storm event, overtopping of a levee system or both.
- No levee can completely eliminate flood risk. Living with levees is a shared responsibility. Local community officials and communities as a whole should remain engaged in flood risk management activities.
- It's important for all to know the risk, know their role in helping to reduce that risk and what specific
   actions they can take, including the purchase of flood insurance to further reduce the financial risk associated with living and working in levee-affected areas.

### Meeting Frequency and Type

Coordination between FEMA and the LLPT members will include face to face meetings at appropriate junctures in the process. However, the LLPT will also meet more frequently via conference calls, web-based meetings or other forms of two-way communication. The number and frequency of meetings will be determined for each project. Members can expect FEMA to work with them to establish a schedule for coordination once the LLPT has been established.

Figure 1: New Levee Process Workflow





### LINCOLN LEVEE INITIAL STAKEHOLDER MEETING, MARCH 9TH, 2015 SIGN-IN SHEET

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