

Meeting Notes

ATTENDEES

GARY MULVANEY
Mayor of the Village of Moravia

GARY FICKEISEN
Village of Moravia

PATRICK DOYLE
Village of Moravia

BRUCE NATALE
Cayuga County

TOM HAAG
Office of U.S.
Representative John
Katko

BRAD WENSKOSKI
NYS Department of
Environmental
Conservation

NADINE LITTLE
NYS Department of
Environmental
Conservation

KEVIN DELANEY
NYS Department of
Environmental
Conservation

DAN FULLER
NYS Department of
Environmental
Conservation

ALAN SPRINGETT
FEMA Region II

SHUDIPTO RAHMAN
FEMA Region II

VILLAGE OF MORAVIA

LEVEE ANALYSIS AND MAPPING PROCEDURES MEETING 2

December 14, 2017, 10:00 AM-12:00 PM (ET)

Location:
Village Hall
22 Central Street
Moravia, NY 13118

Action Item	Owner
1. Include the Village of Moravia in the future coordination call planned with the Village of Nichols to get background on their levee accreditation processes.	FEMA
2. Community members to begin uploading data and relevant information to FEMA's file transfer site and email Stephanie Nurre (Stephanie.nurre@stantec.com) upon completion.	Moravia
Project FTP Site - Login Information Browser link: https://projsftp.stantec.com FTP Client Hostname: projsftp.stantec.com Port: 22 (can be used within an FTP client to view and transfer files and folder; e.g., FileZilla) Login name: MORAVIA1433 Password: 4070234	
3. Provide community general information regarding Flood Insurance	FEMA

AGENDA

- Review Dry Creek Right Bank Levee Flood Hazard
 - Local Levee System
 - Analysis and Mapping Procedures for Non-Accredited Levees
- Application of Reach Study Procedures
- Review Results of Initial Data Analysis
- Discuss Next Steps in the Process

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CURTIS SMITH
STAR II

NICK MUELLER
STARR II

DAVID HAYSON
STARR II

STEPHANIE NURRE
STARR II

SYLVIA SCHMIDT
FEMA Outreach
Consultant

TOM SMITH
FEMA Outreach
Consultant

OVERVIEW

The Federal Emergency Management Agency (FEMA) Region II levee team (FEMA levee team), the U.S. Army Corps of Engineers (USACE), and the New York State Department of Environmental Conservation (NYSDEC) engaged the Village of Moravia to identify flood hazards for non-accredited levees as they relate to the levee system located on the right descending bank of Dry Creek. The first Local Levee Partnership Team (LLPT) meeting (LLPT 1) was held on September 18, 2017. The LLPT 2 meeting focused on reviewing the results of the Initial Data Analysis. It was emphasized that coordination will provide the best results for the village. With increased understanding of flood hazards, the village can better prepare by allocating resources appropriately, understanding future needs, and planning procedures in response to flood events.

Stephanie Nurre and David Hayson provided a summary of the Initial Data Analysis for the Dry Creek Right Bank Levee system.

NOTES

On the effective Flood Insurance Rate Map (FIRM), the levee system is shown as reducing flood risk and there is no Special Flood Hazard Area (SFHA) depicted in the leveed area.

FEMA considers this levee system as non-accredited as no data have been received in support of 44 CFR 65.10 levee accreditation requirements, which include freeboard and other design criteria.

FEMA does not currently have a mapping project funded to update the Cayuga County FIRMs for Dry Creek.

The FEMA levee team asked whether there was any other information pertaining to the levee that may be available for the study. Bruce Natale of Cayuga County noted that Cayuga County was one of the first counties in the State to obtain LiDAR data. New LiDAR data processed with newer techniques may be available in the future to refine the terrain data in the area for future mapping projects.

Results of the Initial Data Analysis:

Natural Valley Procedure – flow is being conveyed on both sides of the levee and shows the potential area of inundation without the levee reducing the flood risk. For the Natural Valley Analysis, the effective 1-Dimensional HEC-RAS analysis was

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refined to a 2-Dimensional hydraulic model to better reflect the potential flood risk in the leveed area. Approximately 18 structures were estimated to be within the Natural Valley inundation area; however, a LLPT member clarified that the estimated number of potentially impacted structures should be closer to 8 residential structures and 2 commercial structures (10 structures total).

Freeboard Analysis:

The levee crest elevations were taken from the National Levee Database (NLD). The levee continues upstream of Main Street; however, the 1-percent-annual-chance flood stays in the channel and does not inundate overbank areas. The levee crest is shown as meeting the minimum freeboard requirements, except at the downstream end near the existing stream crossing. This area could be further investigated to identify why the levee crest is lower; however, LLPT members indicated that a small section of the levee might have been modified to accommodate access to the stream crossing. Additionally, the Freeboard Analysis will be revised to include the additional 1 foot of freeboard within 100 feet of Main Street.

Structural-Based Inundation:

Three hypothetical breach locations were chosen along the levee system based on FEMA's guidelines for the analysis. However, the levee could breach at any point along the levee system. The composite inundation area resulting from the three breach analyses is not significantly different from the results of the Natural Valley analysis; however, the depth of the Structural-Based Inundation area was greater.

Application of Reach Study Procedures – what are the data requirements?

- Natural Valley – no additional data are needed.
- Structural-Based Inundation – more data could be provided, but mapping is possible based on what was available.
- Sound Reach Procedure – all minimum requirements of 44 CFR 65.10 must be certified by a Professional Engineer and provided to FEMA for a completeness check.

ADDITIONAL DISCUSSION

There are multiple flood sources (Morse Creek, Dry Creek, etc.) in the vicinity of the levee; however, moving forward the discussion will focus on the streams that impact the levee system.

The Village of Nichols has recently completed the first levee accreditation in New York State. The Mayor of Nichols can share details on their experience and the work needed to meet FEMA's standards for accreditation. They used New York Rising funding to

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complete some of the effort. The process cost roughly \$125,000 per mile. The Village of Moravia expressed interest in participating in this discussion. Curtis Smith of the FEMA Region 2 Regional Service Center (RSC) can provide information on the accreditation process, as the RSC performs the completeness checks on submitted accreditation packages.

The County will be updating their Hazard Mitigation Plan in 2018-2019. The levee system should be included in the Hazard Mitigation Plan to potentially be eligible for future funding.

- **QUESTION:** Has the bridge at the downstream end of the levee system on Dry Creek changed? How is it reflected in the hydraulic model?
 - **ANSWER:** The data available for the bridge can be shared with the group. We have the ftp site as a repository for data collection associated with the project.
- **QUESTION:** Will the sound reach analysis help with accreditation?
 - **ANSWER:** Sound reach meets all needs for accreditation, but other information could come from another source. Another creek could overlap a portion of the levee that we see is protected from flooding. Sound reach analysis will reduce your accreditation by the impacts.
- **QUESTION:** The levee extends east of Route 38. Do you have information on what is going on in that area for the Natural Valley Analysis?
 - **ANSWER:** Upstream of Route 38/Main Street, the current analysis shows that the 1-percent-annual-chance flood would be contained in the channel; however, less frequent/larger storm events could potentially impact the area.
- **QUESTION:** Could we request that the Structural-Based Inundation be mapped as the flood hazard on the future FIRMs?
 - **ANSWER:** Yes, the community could request that; however, many communities would be ok with the lesser of the two (floodplain elevations between the Natural Valley and Structural-Based Inundation Analyses) and would supplement their emergency management procedures and/or floodplain management criteria with the more conservative information.
- **QUESTION:** How does the FEMA Region manage/allocate funding?
 - **ANSWER:** The Region manages the funding that FEMA Headquarters provides them. It looks to maintain funding for projects, but there is always additional funding with any disaster or hazard.

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- **QUESTION:** If something happens and the levee is at risk, how can the community determine what should be done?
 - **ANSWER:** Because the NYSDEC is involved with the levee system, they will have a good idea of what should be done if damage were to occur.
- **QUESTION:** What will be the most beneficial thing for the Village to do?
 - **ANSWER:** FEMA will move forward and update the FIRMs; however, the community will be advised in advance of the map update. Discussing the levee system and the potential flooding impact scenarios in advance of any mapping project allows time for the community to consider its options, potential benefits, and costs.

The Village emphasized retaining minimal flood risks in order to retain commercial investment in the community.

- **QUESTION:** Would participation in the Community Rating System (CRS) lower rates for everyone in the village?
 - **ANSWER:** Yes, it would offer higher standards of floodplain management as well, which would ensure your community is more resilient to flood risks. The village currently has a CRS rating of 7 or 8.
- **QUESTION:** Is the Village interested in finding out more about accreditation?
 - **ANSWER:** Yes, if it would make a difference to their flood risk and funding is available.

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Department of Homeland Security
Federal Emergency Management Agency
Region II – Mitigation Division



FEMA

MORAVIA MEETING SIGN-IN SHEET

Meeting Date/Time: Thursday, December 14, 2017
10:00 AM – 12:00 PM

#	Name – PLEASE PRINT	Title	Organization/Town	E-Mail
1	Gary Fiebriger	Trustee	Village of Moravia	Gary@ChronicleGuidance.com
2	PATRICK DOYLE	CODE ENFORCEMENT OFFICER	VILLAGE OF MORAVIA	jpdoyle11@hotmail.com
3	Gary Mulrow	Mayor	VILLAGE MORAVIA	villageofmoravia@sccinternet.com
4	David Hayson	Project Engineer	STARR II	david.hayson@stantec.com
5	Stephanie Nune	Regist Mgr	STARR II	stephanie.nune@stantec.com
6	Kevin DeLaney	NYSDEC Engineer	NYSDEC	Kevin.DeLaney@dec.ny.gov
7	Tom Haag	Field Rep.	Rep. John Katko	Tom.Haag@mail.house.gov
8	Bruce Natale	Flood Engr.	CAYUGA COUNTY	bnatale@cayuga-county.us
9	Alan Springett	Senior Engineer	FEMA	Alan.Springett@Fema.dhs.gov
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