

Herkimer Levee System, Herkimer County, NY
Local Levee Partnership Team (LLPT) 2 Meeting Notes
November 10, 2016
9:00 to 10:00 a.m. (ET)

Attendees

Albert Ash, NYSDEC
Mayor Brindisi, Herkimer
Julia Chen, FEMA Region II RSC
Tony Carlisto, Village of Herkimer
Dominic Frank, Supervisor, Town of Herkimer
Jim Franco, past Director of Public Works, Village of Herkimer
Pat Ling, NYSDEC
Bill Nechamen, NYSDEC
Stephanie Nurre, STARR II
Paige Mandy, CERC
Kerrie O'Keffee, DEC
Thomas Song, CERC
Alan Springett, FEMA

The conference call and webinar began with a welcome and confirmation of attendees and included the following discussion. A copy of the presentation is included with the meeting notes.

- S. Nurre - Reviewed the status of the data collection for the Herkimer Levee system. FEMA did not receive any plans for the levee system. Will collect any data and provide it to the group as applicable. She also inquired about a meeting the NYSDEC considered having with the community college and village to discuss any storm water plans/analysis for the community college.
- A. Springett - Inquired about obtaining the O&M for the Herkimer Levee system in this area. Rich Coriale (NYSDEC) is leading this effort and Al Ash will check with him regarding the plans from the USACE.
 - Maybe January at the earliest to get some of these datasets –
- NYSDEC inspection of the Mirror Lake Dam was informal – looking for anything off and didn't find anything. Was not a formal inspection like USACE does. Not sure when the next USACE inspection will occur.
- A. Springett - Old clay sewer line was previously discussed that may not have been fixed yet/will be an area of concern along the Mohawk. Village noted that area has been fixed.
 -
- FEMA is evaluating seclusion for areas landside of levee, which would maintain the current identification of flood risk to move Herkimer countywide maps through. Make it more difficult, if there is a flood disaster, to ascertain who should have had insurance and who didn't. The FIRM updates to incorporate LAMP waiting until we can get the funding to manage how we're going to modify the panels as a result of the LAMP project and other comments.

- The application of LAMP to the Herkimer Levee system was then reviewed.
 - Natural Valley Procedure – Applicable
 - Structural Based Inundation Procedure – Applicable
 - Model of potential breach scenario. Near Bellinger Brook, there was potential vulnerability along levee near High School
 - Freeboard Deficient Procedure – Potentially Applicable
 - West Canada Creek upstream end
 - Would require additional documentation to show the levee could meet all of the requirements of 44 CFR 65.10, except that the top of levee would be elevated above the base flood elevation, but not meet minimum freeboard
 - For the community, the least costly alternative is the Natural Valley Procedure, because no additional data is required for the evaluation. The results of the applicable procedures will be discussed today.
- Looking to schedule LLPT 3 meeting in early January at first board meeting of the year for the Town and Village of Herkimer.
- The Herkimer Levee System was evaluated based on reaches shown in slide 10 and the results of the First Pass LAMP analyses for the Herkimer Levee system were reviewed.
- Bellinger Brook – a source of much nuisance flooding.
- “With Levee”/Existing Conditions Analysis
 - S. Nurre - Included First Pass 2-Dimensional hydraulic analysis of “with levee” condition. This is due to a low area near West German Street and Maple Grove where flow overtops channel and is conveyed to the south and east into the Village during the 1-percent-annual-chance event. Reports from the June 2013 indicated that the Village was inundated as far south as the railroad. The Mayor affirmed that most of the flooding associated with the June 2013 flood occurred on the southwest side of the village consistent with the inundation shown in the presentation.
 - The First Pass analysis did not include structures in the model did not model flow leaving through an existing opening under the railroad. The resulting inundation map is a conservative representation but a fair analysis without doing a more detailed study.
- Natural Valley Procedure – The Natural Valley Procedure is completed to estimate the flood risk and inundation area under the condition of the levee not providing protection/not there. There is slightly more flood plain identified with the natural valley procedure compared to “with levee” condition. During high water conditions with the levee in-place, flow already overtops the channel upstream of the levee, allowing water to inundate the landward side of the levee, so there is not a large difference between these two cases.
- Structural Based Inundation Procedure – The Structural Based Inundation Procedure models a hypothetical breach of the levee. The breach was modeled in the area near the south footbridge near the High School.
 - Tony: The levee held the water into the Village in all likelihood.
 - Stephanie: The breach procedure is completed to identify the flood risk should the levee breach and is not intended to represent a historical breach. The location of the modeled breach was estimated based on

potential reports of erosion in this area. The resulting inundation was not significantly different than the results of the other analyses where flow also accessed both sides of the levee.

- Stephanie: Doesn't have data to show that the levee can be accredited. Without data, the LAMP process are used evaluate the risk behind the levee and one of the analysis techniques you can use is to show a breach. Trying to see if there is a benefit by doing other analysis that could show less impact than the Natural Valley Procedure.
- Alan: Doing a series of analysis to see what are the impacts that are better or worse than Natural Valley. Trying to see if there is a better scenario.
- Tony: Concerns that he has about the downstream levee and the water that comes down and floods the village. What will be done about this?
- Alan: This is the community's responsibility; however, the information being provided to the community through the LAMP process can help support their Hazard Mitigation Plan so they can apply to different grants for potential funding support.
- West Canada Creek
- West Canada Creek – Herkimer Levee
- Natural Valley Procedure
 - There is a small impact on the landside of the levee just south of State Street, where the levee ties into the street.
- Structural Based Inundation
 - The modeled breach was located near the center of the levee. The results of the First Pass analysis yielded a larger inundation area compared to the Natural Valley analysis.
- West Canada Creek – Petri Levee
 - Gated structures near East German Street do not appear to have much impact even for the Natural Valley procedure. Probably more related to the Mirror Lake/old hydrologic structure than impacting flow from West Canada Creek.
 - Low inundation levels in this part as well. Have very little concern of a flood coming out into the community unless that flood would exceed the 1-percent-annual-chance flood.
 - Appears that both gates could be closed but additional information would help clarify this.
- Composite exhibit from first pass analysis for West Canada section of the USACE levee and the Petri Levee
 - Best case from the sensitivity analysis.
 - These two inundation areas on the land-side of the levee are from the Natural Valley procedure
 - The area just east of State 28 and North of State Street is a potential area for flooding and could have higher risks than other areas of the community and could consider flood insurance.
 - Just to the northwest of a small building development, there is a small area of the Petri levee that not analyzed – the levee keeps going into the little creek and that is known as a Petri Levee as well.

- What is labeled in the presentation as the Petri is called Rails to Trail. The Petri Levee starts where the Rails to Trail stops, which is above the image on Slide 20 in the top left corner.
- Will have three reaches: Petri; Rails to Trail; West Canada portion of the Herkimer levee moving forward.
- Rich Coriale of the NYSDEC should have the alignment for the Petrie Levee.
- Mohawk River – Herkimer Levee
 - Not identifying a flood zone for Bellinger Brook so you can see what is identified for Natural Valley along the Mohawk River only.
 - There is flooding north of the levee and railroad which may experience greater inundation near roads that have underpasses under the railroads, as flow will tend to concentrate at those areas.
- Structural Based Inundation
 - Three modeled breach locations - one east of Washington, one to the West, and one West of Mohawk Street.
 - Area in yellow (Zone D) is what the Natural Valley demonstrated. Structural Based showed less potential inundation area than the Natural Valley scenario.
 - Between South Washington Street and towards West Canada is a good place to focus education and outreach and help property owners consider purchasing flood insurance.
- **Continued conversation with Dominic Frank (Town of Herkimer) after the meeting**
 - The Town of Herkimer has experienced erosion issues along West Canada Creek, near Shells Bush Road, where East German Street and the Petrie Development are located. East German Street was damaged because of the 2013 storm event where the West Canada Creek bank was eroded away and the road failed. Received USDA funding to restore the west stream bank and floodwall to protect nearby structures. Since the maintenance project, the town received a grant through NY State to perform a study of this area. Studying it from that point North.
 - There is a floodwall on the west bank of West Canada Creek south of Shells Bush Road. Information on this could be obtained from the Town of Village Supervisor.
 - Town's consultants can provide information about the Petrie Levee and wall that was reconstructed to FEMA.