



## Town of Vestal Community Meeting

7.28.16

- Flood reoccurrence levels can change quickly
- **LAMP Analyses & Methodology**
  - Natural Valley explanation
  - Structural-based inundation
    - This doesn't really matter here. There is no evidence that it will occur here.
  - Overtopping
    - It is a possibility due to water coming over the top of the earthen levees from the previous floods
  - Freeboard deficient
    - There is not enough freeboard in this area
  - Sound reach
    - If you have enough freeboard and everything else is good, then this could apply.
- Levees typically aren't accredited as long as water that comes from another area doesn't flow behind this due to the hydrologic reach.
- **Data Requirements**
  - The data requirements grow when moving from Natural Valley to Sound Reach on the analysis scenarios
  - Most difficult part of this list is the Structural Design Requirements. Has to show that the levee is structurally sound
  - Just because a levee does not meet freeboard requirements now doesn't mean that it is far from accreditation
- **Questions**
  - **Whose responsibility is it to get the data requirements?**
    - It is up to the City to give FEMA the data sets available
    - FEMA and partners will give the community what they have available
  - **How do you know there isn't enough freeboard here? In 2011, water was at least 39 inches above what the 100-year flood level projects. Why does the data that the town has in real life not trump the computer models?**
    - Freeboard requirements are based on the base flood level and the current effective maps had the 500-year level
    - Prelim maps in 2010 had done a full top of levee analysis and identified that there was no levee reach that had more than 2 feet (most were less than 2 feet). One levee came in at the 1-percent flood elevation
    - Using the new data, there was more flow in the Susquehanna watershed, with more water coming into this area than had previously been modeled
    - The number has changed because the conditions in the watershed change over time
- Some of the areas hit by these events represent some of the highest increases in precipitation in the entire country for increases over average
- Tropical Storm Lee was larger than what we anticipated but it showed that there was a risk
  - Levee structures were built to the 1936 flood; it was a 100-year plus 10% rule of thumb



# FEMA



- The community will either take Natural Valley choice, or spend a significant amount of money to have structural evaluations done on these levees
- If another federal agency/engineer believe it is structurally sufficient, then FEMA can accept that data. FEMA is not an engineering agency, so if an engineering agency says yes then they don't need to do Structural Design Requirements
- Potential scenario for overtopping procedure depending on the documentation/requirements
- Any modification can go through review by the USACE
- **Question: Are levee inspections just surface?**
  - The three levees in Vestal are all USACE built so there are structural records available
  - Will see the results of the Natural Valley and then start discussing what other testing need to occur/help create recommendations if they want to move to something more involved than Natural Valley
- Potential back and forth to submit data
  - Because prelim study was already in place, most all of the data needed was developed. They'll look and identify if there's anything new.
- Top of Levee survey will be one of the new requirements