



## Village of Endicott Community Meeting

7.27.16

- Two levees were discussed: one levee along the Susquehanna River and one along Nanticoke Creek.
  - These levees have overtopped in two places – west of the Vestal Bridge by apartments, and then by lower pump station. They were on earth and one was right on the concrete edge.
- Work was done right after the flooding to repair this area.
- **Overtopping**
  - Mentioned armoring, but are good sod cover and animal control programs appropriate?
    - Overtopping depends on the level and velocity of the water, and as well as the duration of the event.
    - A solid, heavy sod levee with a short level of overtopping is probably not a problem.
    - A breach occurs when something happens to speed up the flow of water, to where the water can pick up material and move it, or erode the levee.
  - Armoring could even be mesh that helps hold sod in place and keeps it from being torn out by quick erosion. There are a wide range of materials to use for armoring.
    - The lighter the armor, and the bigger the event, there's more of a chance that the levee will be "walking the tightrope," and might breach.
  - The idea time to put protection on the structure isn't during the flooding event.
- **Data Requirements**
  - U.S. Army Corps of Engineers doesn't have the Structural Design Requirements – this is one of the big data gaps in this area.
  - The USACE doesn't have the evaluation of overtopping erosion potential, but can figure out how to find the data based on the first pass analysis.
    - Could potentially look at Lee and use this for some Hydrologic modeling
  - There have been no known breaches in Endicott – will most likely skip over Structural-Based analysis
  - Overtopping could be a potential option for modeling as overtopping has occurred before in the area.
  - 2D mapping can be used in the banks and overtopping areas to provide more data than the old modeling methods.
  - Impacts will be felt from both the Town of Union and Village of Endicott, and coordination is necessary to make sure that the structure that links both areas is maintained appropriately.
  - There is an upstream levee is maintained by the county. The left side is maintained by the USACE, while the county maintains the right side.
  - The levee will have a small reach on the upper northwest area of the Village of Endicott, along Main Street, 17C, and along the golf course included in the USACE maps.
  - The levee will be along a railroad and then run along an elevated roadway.
  - It is more likely that a Natural Valley analysis will be run for this area.



# FEMA



- FEMA can pay for acquiring some of this information for the community regarding some of their risk, which can then be leveraged for other projects.
- **Question: With the methodology, is it possible to look at the 2011 flood where it overtopped? Is it possible to re-simulate that information to validate the modeling?**
  - USGS data was used to look at the 50-year record and analyze this instance. The Susquehanna rainfall and modeling data was not developed for 2011 but possibly was developed for 2006.
  - Something like this could be part of Phase II and this can be built into the contract for the community.
  - Dave Robbins is running the comprehensive study of USACE models for this area. A conference call could be set up to see who has the latest data, and we could go from there.
- A first pass analysis will begin after this meeting, and a second meeting will be scheduled very soon.
  - The first pass analysis will show the Natural Valley and what data we have, then show what data we need still to do other analysis, and then to start developing a plan forward – where the detailed modeling will take place
- A large issue is the possibility that the whole water system would have imploded due to pressure inside the system. There was increasingly lower and lower pressure in the water tanks.
  - This is identified in the Hazard Mitigation Plan for the Village of Endicott.
  - Vestal, Endicott have a connection for the maintenance of the water system
  - Endicott is aware of the structures and areas that have to have potable water (i.e. nursing homes) that are affected by this issue