Questions & Responses from April 26, 2017 Public Presentation

Questions and comments were gathered on index cards collected at the Public Presentation by the Maumee Watershed Conservancy District and Stantec on Wednesday, April 26, 2017 at the Hancock County Engineer's Garage. Several of the questions and comments presented below were similar in nature and content. The following is a summary of the comments and questions that were asked at the meeting. Similar comments and questions have been grouped and summarized for ease of reference. Questions resulting in identical responses have likewise been consolidated.

The content of the information below is not verbatim text from the index cards collected, as some were illegible. Other comments were not included as they were not in good taste and unsuitable to share publicly.

(Note that the Maumee Watershed Conservancy District Board and Conservancy Court did not take any formal action regarding the concepts presented at the Public Presentation on April 26th at its Annual Meeting on May 5, 2017)

Geotechnical Information

- Have old oil and gas wells been identified and factored into the estimated costs?
 - The Program Team is aware that several abandoned oil and gas wells are located throughout the County and these locations have been researched.
 - These items were considered during the preliminary opinion of probable cost review. The costs associated with addressing the abandoned oil wells in the area will be further refined during detailed design.
- How will private wells and septic systems be affected by the proposed dry storage basins?
 - If authorized to proceed into design, private wells and septic systems within the footprint of the proposed dry storage areas will be identified and properly abandoned in accordance with applicable Health Department, Ohio EPA and ODNR requirements. Wells and septic systems outside the footprint of the dry storage areas will be evaluated during the detailed design to determine if they will be adversely impacted by the proposed construction.
- What is the depth to bedrock in the area of the Eagle Creek basin?
 - Depth of bedrock varies within each location. If authorized to proceed forward into preliminary design, several soil borings to confirm the depth and type of bedrock will be required for each facility.

Facility Description & Maintenance

- How will drainage tiles already in place be affected? What is the expected cost to maintain and repair the tile systems and damaged caused by induced flooding?
 - Known field tiles that may be beneath or upstream of the proposed dams will be identified to the extent possible and addressed during the detailed design phase to determine cost of replacement and maintenance, if the program is authorized to proceed.
 - The runoff collected within the drainage tile upstream of the proposed dams would be retained upstream of the proposed flow control outlet for each dry storage facility.

- What if water stays in the basins longer than the estimated time? Will they start to deteriorate and become a safety concern?
 - Based upon preliminary modeling, the following approximate durations for storage for the 1% ACE event were observed: Eagle Creek (3-5 days), Blanchard River (1-2 days) & Potato Run (4-5 days).
 - The duration of storage will be less for storms less than the 1% ACE (100-year) event. Additional efforts to reduce the extent and duration of inundation resulting from the proposed solutions, including potential adjustments to allow for a more rapid drawdown of the stored floodwaters, will be considered during the advancement of preliminary design concepts, if authorized.
 - If authorized for construction, regular operation and maintenance efforts will be conducted by staff of the Maumee Watershed Conservancy District (MWCD). Additionally, current dam safety regulations require annual inspections of each facility.
- How does the structure that will induce the flooding west of Eagle Creek operate: automatic or manual? Who would operate warning system that water is coming?
 - If authorized for construction, the operation of the recommended facility and detention of the accumulated runoff would be automatic.
 - Monitoring stations, similar to the river gages currently in use along the Blanchard, would be incorporated at each site to provide measurements of storage events when they occur. Final concepts for advance warning and monitoring would be developed with project stakeholders if the project is authorized to proceed.
- How wide will the dyke be at its widest ground-level point? What will happen if a breach occurs in the dam?
 - Final dimensions of the proposed dams will be determined if the detailed design is authorized to proceed. Based upon preliminary information available, the maximum width of the base of the dam at Eagle Creek would be about 212', at the Blanchard River 218' and on Potato Run 152'.
 - An emergency spillway is provided should the normal outlet structure become blocked. The water passing over the spillway would continue down the receiving stream similar to the flows through the normal outlet structure.
- If Hancock Water & Soil is responsible for cleaning the river, why would I believe that the dams would be maintained when Soil & Water does not remove log jams?
- How do you stop debris from clogging in the culvert during a flood which will devastate a lot more land than you are admitting to?
 - If authorized for construction, the proposed facilities would be regularly inspected and maintained by the MWCD staff. An auxiliary spillway is provided should the normal outlet structure become blocked.
 - Operation and maintenance plans, including frequent inspections and removal of log-jams and other potential areas of accumulated debris, will be undertaken as part of the maintenance of the proposed facilities.
- How do you plan to empty the proposed Eagle Creek holding area of its induced flood waters? What data was utilized to establish its capacity.
 - If authorized for construction, the recommended facilities would be automatically controlled by a static culvert designed to release the water at a rate of approximately 500 cubic feet per second each to Eagle Creek and Aurand Run. Hydraulic modeling calibrated to river gage data indicates that each stream can convey these volumes and capture the runoff entering from downstream of the dams without causing induced flooding downstream.

- Where will the dirt come from to build these dams?
 - If authorized for construction, soils required for construction of the proposed dams would be generated from excavations within the proposed impoundments upstream of the dams.

Hydraulics & Hydrology

- Have you considered cleaning and widening the Blanchard River as was previously suggested? Please explain in detail.
 - Analyses were performed for several options involving the hydraulic capacity of the Blanchard River. The recommended program incorporates some of these improvements in the form of floodplain bench widening, inline structure removals and modifications to a railroad bridge identified as a flow constriction. The recommended program includes cost-effective and environmentally "permittable" measures that would provide meaningful benefit in flood- risk reduction.
- Are Stantec and the City of Findlay using the Official Plan Flood (OPF) of August 2007?
 - The 2007 event is analogous to the flood of record from 1913 and exceeds the 1% ACE (100-year) event for the Blanchard River. The analysis completed for the development of the conceptual plan is based upon meeting flood reduction goals based upon the 1% ACE (100-year) event. Additional benefit of flood risk reductions would be seen for larger events, as well.
- Why would the dam at Riverside Park be more expensive to take out than the others?
 - The cost to remove the dam at Riverside Park is not generally costlier to remove than the other dams to be removed.
 - The dam at Riverside Park is upstream of the confluence of Lye Creek and the Blanchard River. Because of this location, removal of this dam does not appreciably improve the hydraulic capacity within the channel. The water stored above the dam at Riverside Park is also utilized for recreational purposes.
- What about backflow if a dry basin is used? Cause flooding north of basin? On Eagle Creek.
 - We have developed graphics to show the anticipated inundation upstream of each recommended storage facility. The extents of the estimated induced flooding upstream of the dams can be seen on Slides 32 and 33 of the Public Presentation from April 26th.
 - If authorized for construction, flooding downstream on Eagle Creek during the 1% ACE (100-year) event would be reduced significantly. The change in flooding areas can be seen on Slide 49 of the Public Presentation from April 26th.
 - A PDF image of the slides from the meeting on April 26th can be seen on the Program Webpage at <u>www.HancockCountyFlooding.com</u>.
- Aurand Run runs through my property. How will this be effected?
 - If authorized for construction, the proposed dry storage basin on Eagle Creek would utilize Aurand Run as at outlet point for the larger events contained within the basin. Flows from this facility to Aurand Run would be limited to a peak of 500 cubic feet per second.

Floodplain Management

- Have you looked into the retention ponds that are holding water? We know they are "pretty" but need drained.
 - Due to their location, removal of the aesthetic retention ponds does not considerably improve the hydraulics within the channel.

- Looking at your proposal for the Potato Run. The backed-up water from the dam flows back to Wyandot County. Are you or have your worked with Harden and Wyandot County?
 - Initial contact has been made to the Wyandot County Commissioners and County Engineer by MWCD
 Staff. No contact has been made to Hardin County, as they will not be directly impacted by this program.

Additional Outreach & Engagement

- When will you start having the workshops for public input that you refer to in the February 22nd FAQs?
 - A local design and outreach meeting for the first phase of Hydraulic Improvements is planned to occur in first quarter of 2018 to provide opportunity for community to see the proposed plan and provide input prior to finalizing design. Further outreach may occur with the development of detailed design of the recommended railroad bridge modifications.
 - The remaining components of the recommended program are not currently within the Official Plan of the Maumee Watershed Conservancy District. If these improvements are authorized for additional design development, additional opportunity for public comment and input would be provided.

Community Benefit

- What is our benefit from the Eagle Creek Dry Storage? This helps the City of Findlay but what about agriculture?
- Why should we in the County give up valuable farm ground and homes so Findlay can continue to build where they shouldn't be building in obvious flood areas?
 - Several major arterial roadways throughout the County are impacted by significant flooding events, including limiting access for emergency services related to safety-services/mutual aid and Blanchard Valley Hospital. Additional inconvenience can occur by limiting resources for daily and weekly needs such as access to places of employment and shopping throughout the area.
 - Long-term adverse impacts caused by flooding may create an environment that is not conducive for job and business retention or creation within Hancock County. The effect of losing employment and/or businesses within the County would impact everyone within Hancock County, including all levels of government, schools, townships and villages, all of whom rely on the income and property tax base for operating and capital improvement funding.

Real Estate Impacts

- The Eagle Creek Dry Basin may require insurance for homeowner, landowners/farmers. Why spend all the funds required to build this dam? If you need to insure do this for Findlay and leave the farm community alone. They are not the people that build in flood prone areas.
- Home/Land Acquisitions. How will home acquisitions occur? The building of the dams will result in loss of farm ground which generates money. How does Arlington and Riverdale recoup the loss of money?
 - Opportunities and protections will be afforded for impacted property owners, as outlined within Section 6101 of the Ohio Revised Code related to Conservancy Districts. Purchase of lands required to implement the final recommended program will be negotiated with individual property owners as further development of the detailed designs progress. Decisions related to property purchase negotiations would be made following detailed design.
 - Following each stage of implementation, a conditional letter of map revision (CLOMR) will be filed with FEMA to indicated changes within the 1% ACE floodplain. A final letter of map revision (LOMR) will be filed following completion of all stages of the program.

- What happens to the farm ground that becomes land locked?
 - For purposes of conceptual estimating, property values were determined by review of the public information available through the Hancock County Auditor's Office, as well as information from local real estate transactions. The conceptual estimate assumes that agricultural and/or residential property, if acquired, would be purchased at or above current market value.
 - Opportunities and protections will be afforded for impacted property owners, as outlined within Section 6101 of the Ohio Revised Code related to Conservancy Districts. Purchase of lands required to implement the final recommended program will be negotiated with individual property owners as further development of the detailed designs progress. There are several options under consideration, including continued agricultural use. Decisions related to property purchase negotiations would be made following detailed design.
- Who will restore property values if the basins don't go through?
 - For purposes of conceptual estimating, property values were determined by review of the public information available through the Hancock County Auditor's Office, as well as information from local real estate transactions. The conceptual estimate assumes that agricultural and/or residential property, if acquired, would be purchased at or above current market value.
 - Opportunities and protections will be afforded for impacted property owners, as outlined within Section 6101 of the Ohio Revised Code related to Conservancy Districts. Purchase of lands required to implement the final recommended program will be negotiated with individual property owners as further development of the detailed designs progress. Decisions related to property purchase negotiations would be made following detailed design.
 - Timing of the recommended program is to be determined. Continued refinement of the conceptual design of the full flood-risk reduction program cannot advance until after there is concurrence by the MWCD Board of Directors and Conservancy Court judges.

Benefit to Cost Ratio (BCR)

- What is the cost-benefit ratio of the Findlay floodplain bench widening proposal?
 - The anticipated BCR for the Hydraulic Improvements is approximately 4.6 to 1, in other words, \$4.60 in total economic benefits are estimated to occur for every \$1.00 of net present worth, including maintenance, for implementing the proposed improvements.
- If the new bench for \$20 million can create a 4 to 1 BCR, why not put several benches in many other pinch points in the river?
 - The benefits of reduction in the water surface elevation (WSE) derived from the hydraulic improvements come from the combination of several items, including the proposed floodplain benching. The existing low head dams and riffle structures are impediments to flows within the river. The existing railroad bridge west of Cory Street is a hydraulic constriction and its modification will improve capacity within the river during flood events. The floodplain widening downstream of the railroad bridge will provide additional storage and stream capacity to mitigate concerns of increased flooding downstream. The properties that will be affected by these proposed improvements are currently publicly owned.
 - Additionally, the location of the proposed improvements is such that it will provide benefit to roughly 97% of the Upper Blanchard Watershed for all events
 - The above combination is unique and other similar locations are not available for similar reductions in WSE.

Transportation Impacts

- The bridge on McManess and County Road 139 is being rebuilt this summer. Will it be widened? Elevated? If not, why?
 - There will be no significant change in the configuration of the Osborn (McManness) Avenue bridge.
 When the original bridge was built in 1965, the bottom of the bridge beams was placed slightly above the 1% ACE (100 year) flood elevation. The new structure will be built at the same elevations and span as the existing.
 - The bridge at Osborne Avenue (McManness) is upstream of the confluence of Lye Creek and the Blanchard River. Because of this location, modification of this structure does not appreciably improve the hydraulic capacity within the channel.
 - The bridge on County Road 139 will have the existing bridge deck removed and replaced and no changes will be made to the span of the bridge or the approach roadways.
 - Analyses were performed for several options involving the hydraulics of the Blanchard River, including related to the bridge and embankments at CR139. While removing the embankment of this bridge would reduce the water surface elevation for several hundred feet immediately upstream, the benefit is reduced to less than 0.1 feet where major flooding along the Blanchard River occurs.

Other Questions & Comments

- If this Flood Reduction Program needs more study to answer our questions WHY are you going to present this to the Conservancy District in May?
 - The scope of work for the efforts thus far included a review of the prior efforts completed by USACE, as well as developing other technically feasible concepts for reducing the risks associated with flooding on the Blanchard River. The additional flood risk reduction program concepts were developed based upon similar data and information utilized for the development of the past efforts completed by USACE, including river gage data and aerial imagery available publicly. Additional refinement of the conceptual designs would be required if the recommended plan were to be authorized to proceed
 - Information related to the dry storage basin concepts was not presented to the Conservancy Court for consideration at the Annual Meeting and no action was taken on these concepts by the Court.