

## Questions & Responses May 24, 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, May 24, 2017 at the Winebrenner Auditorium on the campus of the University of Findlay. 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 dry storage basin concepts presented within the Final Proof of Concept Report at its Annual Meeting on May 5, 2017).***

### Geotechnical Information

- Where do you plan to get the soil from to build the 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.*

### Facility Description & Maintenance

- Describe high hazard dam? \$160 million will not be worth the loss of life.
  - *The classification as a "High Hazard Dam" is a function of the overall height of the facility and total potential volume stored, when the impoundment is full. Such a classification provides requirements and intensive standards for design and construction, as well as regular inspection and maintenance of the facility to ensure the safe operation of the facility.*
  - *Note that this facility would be normally dry and would not retain a wet pool behind it, except during wet weather events.*
- What will the ground covering be along the river benches within Findlay?
  - *The anticipated ground cover will be combination of native grasses and plantings that are capable of withstanding longer periods of submergence. A proposed landscaping plan will be developed as the detailed design progresses and will be presented for consideration with the community.*
- Who will control the flood gates? What if the gates are plugged? Where are the emergency spillways?
  - *If authorized to proceed to construction, the recommended dry storage facilities would be designed such that the outlet culverts would automatically control the allowable discharge rates. These facilities would be regularly inspected and maintained by MWCD staff.*
  - *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.*
- In Mt. Blanchard area, why not call the 3 earthen structures all dams?
  - *The embankments for the dry storage basins would be classified as dams.*

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- It seems that the diversion channel still might be better phase 2 option – it only affects 200 acres and avoids induced flooding. Would it provide an equivalent benefit?
  - *The Western Diversion Channel alternative originally proposed by the Army Corp of Engineers (USACE) would affect approximately 960 acres and 75 parcels. This alternative also provides flood risk reductions for up to a 4% ACE (25-year) flood for only the Eagle Creek watershed and would not provide flood-risk reductions for events centered on Lye Creek or the Upper Blanchard River.*
  - *The Western Diversion Channel concept has been revised by Stantec to enable conveyance of a 1% ACE (100-year) flood, with an extension through Lye Creek to the Blanchard River. This revised diversion channel alternative is a technically feasible solution that can be implemented to provide benefits similar to the dry storage basins.*
  - *However, the capital and life-cycle costs associated with the diversion channel alternative are significantly higher than the dry storage basins. The diversion channel alternative would also rely on a series of mechanical gates and weirs that will require regular maintenance and would have shorter operating lives than the dry storage basin static systems. The diversion channel would require extensive roadway modifications and the construction of several new bridges that will need to be maintained.*
- What is the role of trees in the design of the flood plain river benching within Findlay?
  - *Design efforts for the hydraulic improvements will attempt to minimize the removal of trees from within the existing wooded wetland areas of Swale Park. Several varieties of plantings will be integrated into the landscape plan for the proposed improvements.*
- What ideas related to aesthetics and improvements to the parks have been discussed?
  - *The design of the Hydraulic Improvements is being coordinated with Greenspace Planning efforts and bikeway plans from the City and County.*
  - *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.*
- On 5<sup>th</sup> page of colored page handouts, what do yellow lines around various homes mean?
  - *The yellow lines represent parcel lines.*

### **Hydraulics & Hydrology**

- Regarding the Eagle Creek Dry Basin: in a previous meeting, you described that dirt would be obtained by “regrading” the acquired land (~1000 acres), was this “re-grading” represented in the computer simulated flood models? If not, how do you know that the flood models are accurate?
  - *The volume of excavated material required to create the proposed dams is factored into the conceptual modeling and will provide additional storage.*
- Why not use Rawson Park as retention area similar to the way Swale Park is planned for benching/widening?
  - *The areas within Rawson Park are currently within the 1% ACE (100-year) floodplain and currently contribute storage. Significant underground utilities traversing Rawson Park would not permit excavations to create appreciable volumes of additional storage.*

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Hancock County Flood-Risk Reduction Program

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- Will the widening from Cory St. to Broad Ave. cause more flooding to Swale Park, Glenn Ave., and Defiance Ave.?
  - *The proposed design for the hydraulic improvements includes excavation to create more storage within the floodplain and will induce additional flooding within Swale Park. Provisions will be included within the design to reduce the risk of flooding on the adjacent properties.*
- If you can build dams for Eagle Creek, the Blanchard River, and Potato Creek, how can you say you can't build floodwalls in downtown Findlay? You claim the Findlay area is too flat for walls. Well, the other areas that you propose to build dams are just as flat.
  - *The construction of floodwalls of sufficient height and capacity to contain the flows during a 1% annual chance event (ACE) would result in a raised hydraulic gradient causing significantly increased induced flooding elsewhere within and upstream of the city of Findlay.*
- Speaker's statement that basins drain in days not weeks is NOT correct. Drainage time depends on how water saturated soil is at time of rain event. Please correct.
  - *The ground within the basins will be graded to drain to the outlet structures. It is not intended for the stored water to be absorbed into the ground.*
  - *The basins will drain quicker further upstream, away from the embankment and store water for longer durations closer to each embankment. Based upon preliminary modeling, the following approximate durations of storage for the 1% ACE (100-year) 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) flood 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.*
- So, the flood basins or diversion is going to hold 80 billion gallons?
  - *No. Based upon the conceptual design, if authorized for construction, the recommended storage areas would detain the runoff generated by storm events that occur within the southerly portions of the watershed and provide additional time and opportunity for runoff collected farther to the north to be transported by the stream.*
  - *The estimated total flood storage in the three (3) recommended detention basins, if constructed, would be:*
    - *Eagle Creek Basin – 326,700,000 cubic feet (7,500 ac-ft) (2.44 billion gallons)*
    - *Blanchard River Basin – 239,600,000 cubic feet (5,500 ac-ft) (1.80 billion gallons)*
    - *Potato Run Basin – 130,700,000 cubic feet (3,000 ac-ft) (0.98 billion gallons)*
- You stated that if the 2007 storm shifted north the diversion channel would not have benefited anyone. If the storm shifted north how will the dry basin south of 103 help anyone?
  - *The most intense portions of the 2007 storm event occurred to the south and west of Findlay and significantly within the watershed for Eagle Creek. The point being made in the presentation is that, if the Western Diversion Channel for Eagle Creek were constructed on its own and the center of the storm shifted significantly to the north or east, the peak runoff generated from the relocated storm would not have occurred on Eagle Creek and would not enter the diversion channel. For the diversion channel alternative to provide flood risk reduction equivalent to the*

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Hancock County Flood-Risk Reduction Program

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*recommended program, the diversion channel would need to be extended easterly to connect to Lye Creek and the Blanchard River south of St. Rt. 15.*

- *A rain event happening completely to the north and east of the recommended facilities would typically be a much smaller, isolated event than the August 2007 rainfall and would not result in the same flooding experienced in 2007. A large, widespread event such as the 2007 storm causes runoff at a wide range of rates and volumes. The recommended storage areas would detain the runoff generated by storm events that occur within the southerly portions of the watershed and provide time for runoff collected farther to the north to be transported by the stream.*
- How do the dry basins help if rain is not south of Findlay? No better than the diversion missing other rains.
  - *If authorized for construction, the recommended storage areas would detain the runoff generated by storm events that occur within the southerly portions of the watershed and provide time for runoff collected farther to the north to be transported by the stream.*
- Is the Main St. bridge a pinch point?
  - *Based upon the hydraulic modeling, widening of the bridge opening at Main Street does not provide measurable benefit in reducing the water surface elevation (WSE) during the 1% ACE (100-year) event.*
- Has there ever been a study done on possibly cleaning the river and how much it would cost? If no, why not?
  - *Analyses were performed for several options involving the hydraulics 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 “permissible” measures that would provide meaningful benefit in flood-risk reduction.*
  - *Widening and cleaning of the river can provide some nominal improvement for smaller flooding events that remain within the top of bank. Larger, overbank events that exceed the capacity of the stream are not generally caused by smaller obstructions within the streambed.*
- In your flood model, where did you get the statistics to predict the rain will fall south of the dry basins? What is the probability it happens north of them?
  - *The conceptual designs presented by Stantec were developed in a similar manner as the evaluations completed by USACE to retain an “apples to apples comparison.” The concepts presented by both USACE and Stantec were developed based upon an assumed SCS Type II 1% ACE (100-year) Rainfall Distribution of 5.26” of rain over the entire watershed. This is a conservative assumption that is acceptable for the purpose of conceptual planning.*
  - *Further statistical analysis of actual storm data is underway for use in defining a more realistic hypothetical storm event. If authorized by the Maumee Watershed Conservancy District, the updated hypothetical storm data may be utilized for future simulations and refinement of the conceptual designs.*
- The dam at Findlay Park. Remove + replace with a new dam that can be opened + closed.
  - *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.*

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Hancock County Flood-Risk Reduction Program

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- How will removal of the riffle structures affect the river's water quality in low water conditions? Will the river stagnate or dry up in August?
  - *The detailed design of the proposed Hydraulic Improvements will include the implementation of means to retain natural stream characteristics and a nominal pool depth within the low flow channel.*
  - *Removal of the low-head dams and riffle structures, coupled with appropriate design features will improve water quality within the stream and allow for passage of fish.*
  
- Explain why can't make Blanchard wide beyond Broad St. (+ deep-if willing to blast rock for a diversion) even if have to go miles.
  - *Analyses were performed for several options involving the hydraulics 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 "permissible" measures that would provide meaningful benefit in flood-risk reduction.*
  - *A critical consideration in the development of technically feasible solutions is that the proposed solution does not create additional flooding issues downstream.*
  - *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 were analyzed but none were found that provide benefits that exceed the cost of potential improvements.*
  
- Some place, perhaps in New Orleans, two gigantic pumps were installed in the river. When high water occurred, these pumps were activated and [sucked] the water through the river at a highly accelerated rate. This was designed to lower the water level depth that overflowed the river banks, and reduced damage that would have occurred without these pumps. The terrain along the river was never altered to accommodate the river's overflow. Along the Blanchard River there is probably 50' on either side of the main stream that is full of washed out low woodless area. Take the logs, trees, brush, etc. out of these areas all along the river, and widen the stream extensively.
  - *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 flow constriction points. The recommended program includes cost-effective and environmentally "permissible" measures that would provide meaningful benefit in flood-risk reduction.*
  - *Widening and cleaning of the river can provide some nominal improvement for smaller flooding events that remain within the top of bank. Larger, overbank events that exceed the capacity of the stream are not generally caused by smaller obstructions within the streambed.*

*Hancock County Commissioners and Maumee Watershed Conservancy District  
Hancock County Flood-Risk Reduction Program*

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- Will these hydraulic improvements send water downstream faster, increasing Ottawa’s flooding problems?
  - *A critical consideration in the development of technically feasible solutions is that the proposed solution does not create additional flooding issues downstream. The proposed hydraulic improvements will not result in an increased risk of flooding west of the City of Findlay.*

**Floodplain Management**

- Could the storage areas be farmed when not in flood stage?
  - *The use of the lands within the anticipated footprint of the dry storage basins is to be determined with extensive input from the project stakeholders. Options may include continued agricultural use.*
  
- How was the flooding of homes south of 568 across from Brinkman’s and B.V. schools?
  - *River gage data in the vicinity of SR568 at Bright Road was not available during the 2007 flood event. Based upon anecdotal information provided, available surface elevations and modeling of the system, the water surface may have reached an elevation of approximately 779.4 feet at this location. Based upon the preliminary modeling, if the recommended program were authorized to proceed, the water surface elevation may be reduced by approximately 2.3 feet in this area during a 1% ACE (100-year) flood event.*
  
- Did you assess the dry basin areas during the 2007 flood? They already flood somewhat now – how much more will it be expected to hold?
  - *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.*
  
- Expected amount of flooding in Findlay will still be how much?
  - *The areas of induced flood shown are conceptual and were developed based upon aerial imagery available publicly, but are limited to 2-foot contours. Additional refinement of induced flooding areas would be required if the recommended plan were to be authorized to proceed beyond the conceptual design phase.*
  - *The purpose of the technically feasible program of improvements is not to eliminate flooding, but to reduce the risk of potential impacts related to flooding. All parties associated with the recommended Flood Risk Reduction Program acknowledge that the suite of improvements will not prevent flooding resulting from all possible rainfall events within the watershed, but will reduce the water surface elevation (WSE) under most events and reduce the risks for flood-related damages that may occur.*
  
- You have targeted the Swale Park area for river benching/widening, etc. Why not identify and target other fill sites within and just outside Findlay for the same mitigation solution?
  - *The benefits of reduction in the water surface elevation (WSE) derived from the hydraulic improvements at Swale Park 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.*

Hancock County Commissioners and Maumee Watershed Conservancy District  
**Hancock County Flood-Risk Reduction Program**

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- *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 were analyzed but none were found that provide benefits that exceed the cost of potential improvements.*

#### **Additional Outreach & Engagement**

- For such a big expensive project, why do voters not get to vote on this project?
- Does the public get a vote on the final project decisions or is it all up to the Maumee Conservancy?
  - *The statutory processes for the Maumee Watershed Conservancy District are outlined within Section 6101 of the Ohio Revised Code. The processes and procedures outlined within Section 6101 afford significant opportunity for public engagement and input at each critical stage of the process.*
  - *The Maumee Watershed Conservancy District and Hancock County Commissioners have taken the approach of creating a series of specific memoranda of agreement (MOA) for each project element to maintain complete transparency in the process and provide input from stakeholders. These MOAs occur at small, individual steps in the development of the larger program.*
  - *If the recommended program is authorized to proceed by the Conservancy Court and Hancock County Commissioners, additional stakeholder input will also occur throughout the design development and permitting efforts.*
- When will public comments be taken? You need comments now to decide what options should be selected. You are taking comments on the 1<sup>st</sup> phase after you already decided to do it. You may be spending \$160 mm on this and I have seen nothing whether there be less flooding in my east side neighborhood w/ 100 yr flow.
  - *Graphics were developed to show the anticipated reductions to the 1% ACE (100-year) floodplain downstream of each recommended storage facility and within the City of Findlay. The extents of the estimated reduced flooding can be seen on Slide 51 of the Public Presentation from May 24<sup>th</sup>.*
  - *A PDF image of the slides from the meeting on May 24<sup>th</sup> can be seen on the Program Webpage at [www.HancockCountyFlooding.com](http://www.HancockCountyFlooding.com).*
  - *The areas of reduced flood shown are conceptual and were developed based upon aerial imagery available publicly, but are limited to 2-foot contours. Additional refinement of reduced flooding areas would be required if the recommended plan were to be authorized to proceed beyond the conceptual design phase.*
  - *If the recommended program is authorized to proceed, additional opportunity for public comment and input will in accordance with the requirements of Section 6101 of the Ohio Revised Code.*

#### **Community Benefit**

- Why did the Conservancy Board and/or judges decide not to hear any information about the dry basins?
  - *The proposed Hydraulic Improvements are currently included within the Official Plan of the Maumee Watershed Conservancy District. The conceptual dry storage basins upstream are not currently included within the Official Plan.*
  - *The conceptual dry storage basins cannot be added to the Official Plan until several administrative steps, as outlined within Section 6101 of the Ohio Revised Code related to Conservancy Districts, have been completed.*

*Hancock County Commissioners and Maumee Watershed Conservancy District  
Hancock County Flood-Risk Reduction Program*

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- You refer and use the word “community” to encompass the total project that has been presented. Why don’t you explicitly refer to each community, i.e. – Findlay, Eagle Township, Mt. Blanchard, and how this project will affect or help each community? The communities should be made aware of what could happen if the dams fail or the basins overflow, etc. Communities should also know how these projects are going to be funded!
  - *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.*
- How do you view these projects benefitting Southern Hancock County?
- What benefit is it to rural Mt. Blanchard?
  - *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**

- Agriculture is the #1 industry in Ohio. Who is going to pay for the cost of the increased crop insurance to the induced flooded land?
  - *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.*
- Will the homeowners behind the Eagle Creek dam who will newly be in the floodplain be reimbursed for the loss to their property 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 an agreement by the MWCD Board of Directors and Conservancy Court judges in place.*

Hancock County Commissioners and Maumee Watershed Conservancy District  
Hancock County Flood-Risk Reduction Program

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- How many farmland acres will no longer produce real estate tax?
  - *Based upon the conceptual design and analysis, approximately 2,430 acres of land would be included within the areas of impact for the three dry storage basin facilities, including within the dam construction and the areas of anticipated induced flooding. The above figure also includes up to 19 residences that may be impacted.*
  - *Modeling and analysis indicates that, if authorized to proceed forward to implementation, the full program of improvements would result in approximately 5,060 total acres of land covering 2,850 parcels being removed from the regulatory floodplain. Of the 5,060 acres removed from the floodplain, 2,850 acres of agricultural land would be removed from the regulatory floodplain.*
- It has still to be proven that extending the hydraulic improvements won't benefit the downtown. How much would it cost to finish purchasing the already flooded downtown properties and extend the improvements?
  - *Hancock County is continuing to pursue additional properties for purchase and removal. Additional areas along the Blanchard within Findlay were analyzed for similar hydraulic improvements but none were found that provide benefits that exceed the cost of potential improvements.*
- If the proposed dry basin project recommended by Stantec is approved, how much money will each property tax payer be imposed if no state or federal funds are available? This would include all taxpayers in the watershed, including those who live in the city of Findlay. This of course implies that property tax funds the project.
  - *A portion of the project may be paid for by the existing flood mitigation funds, generated by the 2009 local sales tax. Several alternative options for funding exist for the recommended program; however, the overall funding strategy cannot be developed until several administrative steps, as outlined within Section 6101 of the Ohio Revised Code related to Conservancy Districts, have been completed. Additional information related to project funding will be provided in the future.*
- Living at Dry Basin Region will we be required to now purchase flood insurance?
  - *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.*

#### **Benefit to Cost Ratio (BCR)**

- Why does BCR drop to 1.5-1.0 with dry basins? What is BCR of dry basins only?
  - *The proposed suite of improvements was developed to provide flood-risk reduction for as much of the watershed as possible and to work as a system.*
- Has the loss of operating income for Riverdale from the drop in property values been considered in the BCR calculation?
  - *Costs for purchase of properties directly impacted by the recommended plan were included within the conceptual estimate for the program. Parcels not directly impacted by the recommended improvement were assumed to retain existing property values.*

Hancock County Commissioners and Maumee Watershed Conservancy District  
Hancock County Flood-Risk Reduction Program

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- *If authorized to proceed to construction, the recommended plan for the areas on the Blanchard River and Potato Run would impact approximately 80 parcels, including five residences and about 1,290 acres of land. The estimated result of the improvements would be the removal of 390 parcels and 2,280 acres removed from the regulatory floodplain.*
- *For the purpose of this analysis, the net impact of revenues to the Riverdale School District was assumed to not change.*
- Did the benefit calculation for flood mitigation explicitly include the value of Marathon not moving out of Findlay?
  - *The economic analysis completed for this effort factors the impacts that could be seen from eight (8) different potential flood events: 50% ACE (2-year), 20% ACE (5-year), 10% ACE (10-year), 4% ACE (25-year), 2% ACE (50-year), 1% ACE (100-year), 0.4% ACE (250-year) and 0.2% ACE (500-year).*
  - *Each of the above ACE events may occur multiple times during the life of the recommended facilities and would result in damages and costs incurred each time. The estimated cumulative cost impacts that may occur over a 50-year period are compared to the conceptual cost estimates to result in a benefit to cost ratio (BCR) greater than 1.0.*
  - *Information gathered and utilized to develop estimates of cost impacts to the community from the local business survey was collected anonymously.*

#### Transportation Impacts

- Isn't raising roads just creating more dams? What about removing the illegal dam at Cooper Park in Findlay where the city is filling in with dirt and mulch?
  - *The raised berm area at Cooper Park was the protective barrier for the Findlay wastewater water treatment plant that was on the site from 1927 to 1998. The berm and the area inside it contain several critical utilities that cannot be cost-effectively relocated.*
  - *The areas within Rawson Park are currently within the 1% ACE (100-year) floodplain and contribute storage. Significant underground utilities traversing Rawson Park would not permit excavations to create appreciable volumes of additional storage.*
- Are new road cost figures in the Cost Estimate for Delaware + Eagle Townships?
  - *The conceptual cost estimates for the recommended facilities include costs for the construction of new roads and modification to existing to accommodate traffic in areas impacted by the proposed dry storage basins.*
- Looks like TR 187 will be totally closed? TR 187 was straightened to avoid replacing a bridge. How much taxpayer money was used to create the "new" TR 187 that will not be accessible?
  - *The construction of the TR187 improvements was completed for approximately \$470,000 and was funded through a Federal Highway Administration grant.*
  - *Preliminary modeling indicates that, if authorized to proceed forward to implementation, the recommended dry storage basin on the Blanchard River would include portions of TR 187, between TR 152 and SR 103. The areas of induced flood shown are conceptual and were developed based upon aerial imagery available publicly, but are limited to 2-foot contours. Additional refinement of induced flooding areas would be required if the recommended plan were to be authorized to proceed beyond the conceptual design phase.*
  - *If the recommended program is authorized to proceed, additional consideration for the final disposition of impacted roadways, including TR 187, will be undertaken as the recommended program is refined.*

### Proof of Concept Final Report

- How can we see a detailed report of the actual numbers used in cost to determine the cost to benefit ratio? (public funds)
  - *Information pertaining to the conceptual cost estimating, including the alternatives analyzed for the recommended program, are included within the Final Proof of Concept Report and available for review online at [www.HancockCountyFlooding.com](http://www.HancockCountyFlooding.com) or a hard copy may be reviewed upon request by contacting the MWCD.*
- How can you estimate the true cost without knowing the expense of permits, land purchase, equipment needs, and implementation?
  - *The cost estimates included within the Proof of Concept Report are conceptual in nature and were developed based upon recent experience on other, similar improvement projects. The estimates include a 30% contingency that is appropriate for planning-level estimating.*
  - *If authorized to proceed, further refinement of the conceptual designs and associated cost estimates will occur.*

### Other Questions and comments

- What liability does Stantec have if the full plan is implemented and Findlay floods (aka, your models are wrong)?
  - *The purpose of the technically feasible program of improvements is not to eliminate flooding, but to reduce the risk of potential impacts related to flooding. All parties associated with the recommended Flood Risk Reduction Program acknowledge that the suite of improvements will not prevent flooding resulting from all possible rainfall events within the watershed, but will reduce the water surface elevation (WSE) under most events and reduce the risks for flood-related damages that may occur.*
- Has Stantec actually traveled the Blanchard River – not by aerial photo? Have the county commissioners actually traveled the river? The mayor?
  - *The County Commissioners and Mayor of Findlay have visited the project sites and areas along the Blanchard River and its tributaries.*
  - *Stantec staff have visited the project sites and areas along the Blanchard River and its tributaries, as well.*
- What did Stantec learn from the recent levee failures in Missouri?
  - *The levees along the various portions of the Mississippi River and its local tributaries were constructed several decades ago, under different design requirements. Additional provisions for modeling and analysis, detailed design, construction materials utilized, construction means & methods, testing and observation are required for current practices.*
- Would completing the hydraulic program and setting a sinking fund protection farm land and provide the farmers impacted farm land?
  - *The intent and focus of this question is unclear.*
  - *Modeling and analysis indicates that, if authorized to proceed forward to implementation, the full program of improvements would result in approximately 5,060 total acres of land covering 2,850 parcels being removed from the regulatory floodplain. Of the 5,060 acres removed from the floodplain, 2,850 acres of agricultural land would be removed from the regulatory floodplain.*