

Aaron Smith (USACE): Mr. Smith welcomed the attendee's and went through the purpose and agenda of the meeting. Mr. Smith then gave an update on the project status, discussing the upcoming Vertical Team Meeting scheduled for 1 August 2011. Mr. Smith then went over the draft goal, problem and opportunity statements. The floor was then turned over to Jami Buchanan, project economist.

Jami Buchanan (USACE): Ms. Buchanan then went over how economics affect the outcome of the study. Ms. Buchanan explained that the Corps is very strict how we calculate costs and benefits – and it is based on guidelines set forth in Engineering Regulation 1105-2-100.

Ms. Buchanan then went over the required Data is Included in Economic Analysis.

Total Project Costs:

- 1) Study Costs – what we are spending to get to construction, feasibility and detailed design
- 2) Construction Cost – how much it will take to build each alternative
- 3) Contingency – inflated for set-backs, unanticipated conditions, inflation
- 4) Mitigation Costs: Pay for the harm we cause to social, cultural, and natural resources.
- 5) Operations & Maintenance Costs. Most things we build require O&M
What will those costs be over 50 years, which is our standard period of analysis period
- 6) Interest during construction.

John Ekasser (ZCA): What level of cost analysis does each alternative get?

Jami Buchanan (USACE): Preliminary array of alternatives costs are estimated at a venture level. Those carried forward go are estimated at feasibility level. For the final array of alternatives, special software called MCASES is used for the cost estimate.

John Ekasser (ZCA): How do Dover's project benefits apply to Zoar?

Jami Buchanan (USACE): That fraction of Dover's benefits that sits behind Zoar Levee are applied, but it will depend on how we define the future without project condition.

Jami Buchanan (USACE): The Corps calculates benefits (or damages prevented) to buildings, vehicles roads, utilities, as well as, lost income and revenue from businesses

Holly Thouvenin (Resident): Can you count the loss of income from not being able to get work?

Jami Buchanan (USACE): Unsure, but will check into that question.

FOLLOW UP: YES, BUT WE HAVE TO MAKE REASONABLE ASSUMPTIONS ABOUT INGRESS, EGRESS AND AVAILABILITY OF OTHER MODES OF TRANSPORTATION

John Elsasser (ZCA): Without the levee Rte 212 would be inundated more frequently and impact school closings more frequently. How is that accounted for total projects and benefits?

Jami Buchanan (USACE): Relocation costs would be counted – but will double check.

FOLLOW UP: THE ONLY ACURED COST FROM RTE 212 WOULD BE IF THE ROAD NEEDED TO BE MOVED SPECIFICALLY TO FACILITATE SOME ALTERNATION TO THE LEVEE. THE COST OF RELOCATION OF THAT PORTION OF RTE 212 IMPACTED WOULD THEN BE INCLUDED IN THE COST ESTIMATE.

Question: Is there something we can do to raise Rte. 212 outside the levee Michael Lane?

Rodney Cremeans (USACE): The Corps has no authority to study that.

Mayor Bell / George Kane (OHS): How would the loss of wages from income in Zoar associated with working in Zoar – or loss of income from not being able to have festivals, or school tours be accounted for?

Jami Buchanan (USACE): Potentially these could be counted in the Economic Analysis, but need to check into that.

FOLLOW-UP: ALL OF THESE COSTS WOULD BE SUMMARIZED FOR THE QUALITATIVE ANALYSIS, BUT NOT WHEN CALCULATING NET BENEFITS, BECAUSE IT IS ASSUMED THAT THIS INCOME WOULD BE TRANSFERRED ELSEWHERE IN THE NATION.

David Bennett: Will the economic analysis be graduated by pool event?

Jami Buchanan: Yes and will tie into the probability of failure by pool event.

Question: Would the loss of ability to work virtually because of service interruptions associated the internet and phone services during flooding count as damages prevented?

Jami Buchanan (USACE): I will have to follow-up on that question.

FOLLOW-UP: NO, USACE GUIDANCE DOES NOT ALLOW US TO ACCOUNT FOR THIS AS AN ECONOMIC DAMAGE THAT COULD BE PREVENTED OR A BENEFIT, WHEN CALCULATING NET BENEFITS.

Jami Buchanan (USACE): The last broad category of benefits is preventing emergency costs, including: Flood-fighting; emergency actions from Federal, State, Local Police / Fire or other responders, as well as clean-up costs.

John Elsasser (ZCA): Do you have to consider a no action alternative?

Jami Buchanan (USACE): Yes, by law we have to consider No Action. We account for that when establishing a future without project condition.

Rodney Cremeans (USACE): In 2005 and/or 2008 – what utilities or services (boil water) were lost?

Holley Thouvenin (Resident): Utility companies came out to check, but no services were lost.

Question: There will be multiple alternatives. Will the Committee have chance to look each?

Rodney Cremeans (USACE): Yes, we will be sharing our progress as we go.

Question: Before having to look at non-structural solutions, how would this project be ranked in terms of priority?

Rodney Cremeans (USACE): That has no effect on the priority. Zoar is a DSAC 1, although it is probably at the bottom of the DSAC 1 list, because there is a low probability of loss of life. However, the project is still ranked higher than a DSAC II.

John Elsasser (ZCA): Is there a cost adjustment for historic value of structures?

Jami Buchanan (USACE): Typically we utilize a depreciated cost value, but these buildings have historic material types that are not typical. We will still use the depreciated replacement cost for structural and non-structural analysis, but we want to be sure that cost takes into consideration the uniqueness of the original building materials.

John Elsasser (ZCA): What is the level of work that would be required for mitigation?

Aaron Smith (USACE): Mitigation and mitigation costs are negotiated when alternatives are considered and need to be developed to establish total project costs.

Jami Buchanan (USACE): There is other economic data that we can't count toward project costs, but we have the discretion to capture qualitatively, including, but not limited to:

- Income from festivals;
- Income from museums;
- Income from businesses (B&B – Restaurants- Shops);
- Dollarize volunteer hours in a year; and
- Capitol improvement projects.

John Elsasser (ZCA): Could you include fund raisers by the Zoar Fire Department?

Jami Buchanan (USACE): We can discuss them, but they wouldn't count toward the economic analysis.

Question: How do you account for investments made in public infrastructure, like improvements to the fire department building through grants and fundraisers?

Jami Buchanan (USACE): Like most capital improvements, these would not count as economic benefits, but we do have discretion to capture this data as it shows continued investment in the community.

Mayor Bell: Do our newly planned sidewalks fall into the same category?

Jami Buchanan (USACE): Yes.

Question: What study radius would you employ when considering economic benefits from Zoar Levee?

Jami Buchanan (USACE): The scope of the economic analysis may change depending on the topic but for the most part, Bolivar would likely be as far as we go upstream.

Jami Buchanan (USACE): Other qualitative costs we can capture, but not count as economic benefits, include costs of historical signage and kiosks, parking lots, archeological digs, books on Zoar, educational texts, films, etc.

Jami Buchanan (USACE): Is any revenue generated by Little League?

Answer: No.

Jami Buchanan (USACE): Is there an increased property value due to historical significance?

John Elsasser (USACE): Who would be qualified to determine that? Is a specific expertise required?

Jami Buchanan (USACE): Local realtors.

Jami Buchanan (USACE): Does anyone else have ideas of qualitative economic data we could collect?

John Elsasser (ZCA): Perhaps the investments made in the Toe Path and Zoar / Dover Road Bridge rehabilitation?

George Kane (OHS): OHS has costs associated with advertising and marketing, as well as maintenance.

Jami Buchanan (USACE): Good ideas.

John Elsasser: So how does supporting data or that data that cannot be quantified for economic analysis affect decision making?

Aaron Smith (USACE): In terms of identifying economic analysis the NED plan, the costs associated with avoiding, minimizing or mitigating for significant effects to community, cultural, and natural resources have to be calculated and included in total project costs. On a decision making level, the effect of supporting economic data discussed tonight can be subjective.

Mr. David Bennett: What is the time-table for the study?

Rodney Cremeans (USACE): Our current schedule shows a draft report submission to our Division Office in Cincinnati in May of 2013.

John Elsasser (ZCA): How does the economic analysis account for lost wages and taxes collected from a scenario where the community is acquired?

Jami Buchanan (USACE): I don't believe that is counted, but I will check into that.

FOLLOW-UP: THE ECONOMIC ANALYSIS DOES NOT ACCOUNT FOR THESE THINGS DUE TO THE ASSUMPTION THAT THESE LOST BENEFITS WOULD BE TRANSFERRED INTO THE ECONOMY ELSEWHERE. WE ASSUME THAT LOST TAXES AND WAGES WILL BE COLLECTED IN OTHER AREAS, WHICH LEAD TO NO NET CHANGE IN THE NED.

Holley Thouvenin (Resident): Do you do economic analysis on the no action alternatives?

Jami Buchanan (USACE): Yes – we must account for the costs of doing nothing, including failure.

Question: What happened earlier this week with the Pump Station and Diversion Dam, when water back flowed on to the ball field side?

Rodney Cremeans (USACE): The breaker tripped when the pumps were being ran on commercial power. The emergency generator was then used to run the pumps. The issue is currently be evaluated.

Chris Powell (Resident): Is there a check valve under Rte. 212 to prevent back flow from the Goose Run ponding area to the ball field side?

Rodney Cremeans (USACE): Not at this time.

THE MEETING WAS ADJOURNED