



PHASE II B REVISED REPORT

Comments and Responses

DISCUSSION

- Background – Phase I
- Flood Authority – Phase II
- Summary Comments and Responses
 - Revised Phase IIB Report
- Project Development Process
- What is Next



BACKGROUND – HOW DID WE GET HERE?

PHASE I

- After 2007 Flood - High Level Reconnaissance by Lewis County PUD - PHASE I
 - PUD contracted with EES Consulting
 - Could water retention be part of basin wide flood solution
 - Looked at Several sites on Newaukum and upper Chehalis Rivers
 - South Fork and Upper Chehalis sites 100,000 ac-ft of storage
 - Multipurpose projects
 - flood control
 - summer flow augmentation
 - hydro
 - Concluded the two sites could be cost effective



- Presented Results of PHASE I to Flood Authority
February 2009
 - Received important feedback on this initial study
 - Recommended that Flood Authority include water retention in the Basin wide planning effort



FLOOD AUTHORITY – PHASE II

- Flood Authority Contracted with EES Consulting for Additional Study of the two Sites
 - Flood Authority divided the effort into two phases
 - PHASE II A Geological and Geotechnical study (subcontractor Shannon and Wilson)
 - Presented results to Flood Authority November 2009
 - Determined that there were no major impediments for the sites that couldn't be addressed through engineering
 - Also prepared an environmental scoping document which outlined future environmental studies



- Flood Authority Authorized PHASE II B refinement of preliminary work from Phase I, Scope:
 - Update engineering and benefit / cost information
 - Flood Authority also asked for single purpose, flood control only, option
 - Flood Authority decision to defer environmental
 - Instead contracted with Anchor QEA for fisheries
 - Incorporated Feedback on Economic and Engineering from previous studies
 - Dept. of Ecology and Dept Fish and Wildlife use of the doty gauge
 - Meeting with Corps of Engineers B/C methodology
 - WSDOT provided avoided cost of raising Interstate 5



○ PHASE II B Report Presented to Flood Authority in November 2010

- Engineering conceptual drawings and cost estimates based on geotechnical
- Updated benefit / cost according to Corps NED Methodology
- Concluded the South Fork site was not cost effective
- Concluded Upper Chehalis site was cost effective based on information to date, subject to further studies



SPREADSHEET SUMMARIZED COMMENTS AND RESPONSES IN THE REVISED REPORT

- Received numerous comments on the Phase II B Report
 - Revised Report based upon the comments
 - Submitted to Flood Authority April 2011



○ Some Specific Revisions:

- Executive Summary

- notes preliminary nature of the report
- notes high level reconnaissance study
- notes more information acknowledged and need for further research as project matures



○ Some Specific Revisions:

- Added Section on Assumptions

- Development process is an iterative process
- Phase II B provides additional information but notes need for more study
- uses Corps methodology, which does not monetize environmental benefits or costs
- does not include costs and benefits in Thurston and Grays Harbor (no model)
- fish studies being conducted separately by Anchor QEA, so fish mitigation is place holder
- detailed environmental work would occur in permitting and SEPA/NEPA phase of project development



○ Some Specific Revisions:

- Added Introduction and Scope
 - notes the restricted scope study
 - uses methodologies following Principles and Guideline of NED benefits and costs
 - NED only considers strictly defined set of parameters, not all conceivable topics
 - study is preliminary in nature and uses best available information
 - updates will be needed as more information becomes known like the fish study
 - notes the results determine if other or further studies should be conducted



- Some Specific Revisions:

- Added Citations

- more documentation
- throughout the report

- Numerous Areas of Clarifications

- throughout the report
- Scope of study
- Executive summary
- Engineering report



- Not every comment or question addressed directly
 - handled generally in clarifications
 - outside the scope
 - would follow in future studies if project moves into next steps



○ Follow up letter from Ecology

- support the best possible future studies, especially refined benefit / costs
- mitigation costs deferred to the Anchor QEA study, and place holder maybe low
- State budget provides for updating the benefit / costs when fish report is complete
- recognize that future broad based studies on the impact and benefits to wetlands and of created wetland is needed.
- recognize additional study for lake / reservoir value is necessary
- existing cost includes the cost of materials from the vicinity of the reservoir along with processing and hauling. (S&W letter 7/22/10, Att. A)



PROJECT DEVELOPMENT PROCESS

- Any Project Development Involves an Iterative Process
 - Phase I was high level reconnaissance effort
 - Phase II also high level reconnaissance, however, much more in depth than Phase I
 - Each step answer more questions, but not all questions



WHAT IS NEXT?

- Further Work Needed - State Budget by July 2012
 - fisheries study extension to be completed by December 25, 2011
 - benefits and impacts to fish and potential mitigation of impacts of water retention
 - complete lower river hydraulic model
 - evaluate alternative projects to protect I-5, airport, and medical facility access
 - other alternatives that could provide flood relief and protection in the basin
 - update economics and benefits / costs with new information



○ Future Development Phases

- More detailed design / engineering
- More detailed geotechnical
- Updated Economics
- Permitting, environmental SEPA, NEPA, ESA

