

Lower Puyallup River Executive Task Force
 Summary Notes
 July 18, 2008

Meeting Purpose and Overview

Pierce County convened the Lower Puyallup River Executive Task Force in Fife, WA on July 18, 2008. This first meeting focused on communicating Pierce County project goals, outlining Executive Task Force goals, and providing background information on the project. Approximately 25 people attended the first meeting, held at the Fife City Council chambers in Fife.

Meeting Summary

Lyle Quasim, Chief of Staff for the Pierce County Executive's Office, welcomed participants. He acknowledged that the right people were at the table for a successful task force. He highlighted the recreational, historical and cultural importance of the Puyallup River, and the important interaction between the Puyallup Tribe of Indians and the rest of the community. He warned of the dangers of mismanaging the flood protection process. He outlined the high level mission of the task force and reminded participants that there is a lot of work to do. Finally, he introduced Penny Mabie as the meeting facilitator and thanked participants for their time, attention and expertise.

Penny started the round of introductions and asked participants to state their names and hopes for the task force process. The following is a list of participants and a summary of their comments.

Executive Task Force Members:

Organization	Representatives in Attendance	Unable to Attend
Pierce County Executive Office	Lyle Quasim, Executive's Office Harold Smelt, Public Works Debby Hyde, Special Project Coordinator George Walk, Director of Government Relations Brynn Brady, Government Relations Office	
Pierce County Council	Hugh Taylor, Senior Legislative Analyst	Calvin Goings, Councilmember
Puyallup Tribe of Indians	Bill Sullivan, Director of Natural Resources Russ Ladley, Environmental Biologist Rory LaDucer, Director of Public Safety Lisa Brautigam, Attorney	
City of Tacoma City of Fife	Mike Lonergan, Councilmember Steve Worthington, City Manager Russ Blount, Public Works Director Jim Reinbold, Assistant City Manager	Barry Johnson, Mayor
City of Puyallup Port of Tacoma	John Knutsen, Councilmember Ted Bottiger, Port Commissioner Robert Brenner, Port staff	
WSDOT	JoAnn Schuler, Project Development Engineer	
US Army Corps of Engineers	Patty Robinson, Project Manager Jeremy Wong	

Lower Puyallup River Executive Task Force
Summary Notes
July 18, 2008

Kristen Kerns

Other Participants:

Mike Englishman, Office of Senator Maria Cantwell
Chad See, K&L Gates
Jeff Johnson, Northwest Hydraulic Consultants
Penny Mabie, facilitator, EnviroIssues
Rachel Garrett, note taker, EnviroIssues

Hopes and other remarks:

Harold Smelt –

- Hopes for guidance on the draft Executive Task Force work plan
- Would like suggestions for an alternatives analysis
- Hopes for help selecting the right options
- Hopes for a discussion on funding strategies

Steve Worthington –

- Hopes to identify a successful process to achieve the outcome of fixing the Puyallup River levee system

Patty Robinson –

- Mentioned that Colonel Michael McCormick is leaving for New Orleans
- Hopes to get an understanding of all of the players in the process.

Bill Sullivan –

- Hopes to find a resolution to a complex set of problems
- Hopes to look upriver as well, and include communities such as Sumner and Buckley in the process

JoAnn Schuler –

- Hopes to collaborate and coordinate with task force members
- Is working on the Highway 167 extension project

Ted Bottiger –

- Interested in finding solutions
- Hopes to look upriver

Hugh Taylor –

- Process is important to Councilmember Goings
- County Council developed a resolution to form this executive task force and explore the issue of the lower Puyallup River

Lower Puyallup River Executive Task Force
Summary Notes
July 18, 2008

- Seeks an outcome of recertifying the levee

Debby Hyde –

- Hopes to bring to the table her knowledge of economic, environmental and cultural issues

John Knutsen –

- Hopes to find a solution to delay or prevent inevitable flooding

Mike Lonergan –

- Greatest concern is the paralysis of economic development that could occur in the preparation for a future flood

David Graybill –

- Concern over economic development issues in the area
- Concern over region's ability to address and complete large scale projects including transportation projects

Penny Mabie –

- Hopes for inclusive, respectful and goal-oriented process

Mike English –

- Willing to help with funding strategies and Congressional support

George Walk –

- Hopes to acknowledge cultural and biological issues involved in the process
- Would like the task force to acknowledge this process as an opportunity as well as a problem

Russ Blount –

- Concerned about the revised floodplain map
- Interested in cooperative solutions

Jeff Johnson –

- Would like to help improve the task force's understanding of technical issues

Penny Mabie explained that the first task force meeting is organizational and informational. She suggested draft ground rules for group, which included:

- Start/end on time
- Silence cell phones
- Come prepared
- Listen respectfully

Lower Puyallup River Executive Task Force
Summary Notes
July 18, 2008

- Speak from interests, not positions.

The following ground rule was added by the group:

- Participate in the process.

The following process related questions were asked by task force members. Answers (from Penny) are indicated in italics:

- Should questions be asked during presentations, or held until the end? *This depends on the context, but will be made clear at the start of each section of the agenda.*
- Is everyone in the room invited to participate, or is participation limited to people at the table? *For the purposes of this meeting, everyone is welcome to join the discussion. For future meetings, which will most likely be more heavily publicized and attended, we will revisit this process.*

Work Plan

Penny gave an overview of the draft work plan. The following questions and comments were heard about the draft work plan goals. Answers (from Harold) are indicated in italics:

- The floodplain map of the Puyallup River should be oriented with a north arrow.
- Does “recertify the levee” refer to the existing levee, or imply the construction of a new levee? *Perhaps it would be more accurate to say “recertify the flood control system.”*
- It would be beneficial to identify the problem and potential causes, potential solutions, and roadblocks.
- There was some debate over whether “recertify the levee system” should be reworded and replaced with a phrase such as “improve the flood control system.” It was mentioned that the area affected by flooding needs to look more like what it looked like in the past. There was agreement that this goal needs to be reworded and that task force members would review the notes and offer suggestions.
- It is critical that those involved on the task force have a thorough understanding of the issue and be able to articulate the process to those who are not involved.
- It is important to involve upriver jurisdictions, such as Sumner and Orting, early in the process to ensure long term success. Sumner has been doing some planning (e.g. for construction of a wall along the river walk) that would impact the lower Puyallup. Liability should also be shared with upriver

jurisdictions. *Pierce County has a comprehensive management plan for the entire river which is outdated and will be updated through a separate process. The lower Puyallup River is the area where the flood control maps have changed most drastically, and where development has been most aggressive. Generally, adding capacity is started downstream then extended upstream. Also there is a movement away from levee systems, as levee failures can be catastrophic. Although Pierce County was hoping to focus the task force on the lower river, we will take these comments into consideration.*

It was mentioned that a long-term solution is needed, with a consideration of long term development potential in the watershed. It was agreed by the group that more work needs to be done around the question of how to involve upriver jurisdictions, and whether to include them on the task force or in receiving correspondence.

Project Background and Overview

Harold gave a presentation on the project background, including a rationale for the task force, review of Federal Emergency Management Agency (FEMA) maps, description of impacts to the community, overview of what it will take to change the maps, key issues, summary of what has been done so far and what needs to come next. He described the FEMA floodplain maps and their relationship to the Federal flood insurance program.

The following details were mentioned as a part of Harold's presentation:

- Floodplain dynamics are highly complex
- FEMA maps for Pierce County were developed in 1970
- FEMA levee certification standards were changed in 1986
- Pierce County's maps issued in 1987 did not meet the new FEMA standards
- Maps were supposed to be updated on a 5 to 10 year cycle
- Hydraulic and hydrology studies done by FEMA
- The Puyallup no longer meets the required three feet of freeboard
- Although flood events in 1996 and 2006 brought water levels close to the top of the levees, most high water events will not result in a breach of the levees.

Harold went over the revised floodplain map and explained the change from the old floodplain (dark green zones) to the new flood plain (blue zones). The blue areas assume that the levees would fail, since the required amount of freeboard (3 feet) is not being met. He mentioned that the floodplain maps are currently in draft form, and revised FEMA maps will be formally issued in September or October of this year. Fife and unincorporated Pierce County are now using the new maps for permitting purposes. The new maps are a politically sensitive issue in Pierce County.

The main impact of the new maps on an individual property level is that it is more difficult and costly to develop. South of the river, much land is shown as floodway,

Lower Puyallup River Executive Task Force
Summary Notes
July 18, 2008

resulting in limited development. North of the river, where flooding is more shallow, new development is happening but developers are being forced to build higher, and there are impacts on roads and infrastructure. The economic development group from the Pierce County Executive office is concerned about customers of the Port choosing to relocate out of flood prone areas. As properties are remortgaged, federal insurance requirements have become more expensive. The new FEMA maps have brought flood awareness forward in neighboring communities, with both positive and negative implications; however, this awareness has resulted in a certain amount of frustration.

The following questions and comments were heard following Harold's presentation. Answers (from Harold) are indicated with italics:

- There is a change in the standards in FEMA maps, but also an increase in floodplain elevations. *Yes, this is a double whammy – the increase in standards and floodplain elevations.*
- Will the area on the north side of the levee be treated as a floodplain or could it eventually be designated as a floodway if the problem is not solved? A floodway designation could be a bigger problem down the road. *A floodway is a regulatory term and generally centers around the channel of the river. The floodway area is an extreme hazard and is treated by FEMA essentially as a no-build area. However, a floodway is a regulatory term and the area can generally be negotiated. Originally, FEMA had designated portions of downtown Fife and the Port of Tacoma as floodway, but Pierce County negotiated to restrict the floodway definition to the river channel and the Riverside area. FEMA approved this compromise temporarily but asked for commitment from Pierce County to fix the problem over the next 10 years.*
- I am having trouble understanding how the floodway would be moved from the north side of the river to the south side of the river? *Communities can generally negotiate by saying that one side of the river is commercial and the other is agricultural, and restricting development on one side to preserve the capacity of the river.*
- There is a portion of the north side of the levee in Fife that is still considered a floodway and has not been developed.
- *As a clarification – the residents on the south side of the river are not carrying an undue burden. Most of the south side of the river would have been in the FEMA floodway anyway. The floodway delineation was refined to include areas that Pierce County regulates locally. The concession from FEMA was to grant a 200 foot offset to the river. This offset was required by FEMA both to allow an area for widening or improving the levees, and to ensure that no one would be building right up next to the levee in case it should breach.*
- If we come up with a solution, what will it take to recertify the levees and how long will it take? *There are two key steps – certification and accreditation.*

Lower Puyallup River Executive Task Force
Summary Notes
July 18, 2008

Two sets of certification standards must be met – FEMA and Army Corps of Engineers. We are currently in the process of certifying the new Puyallup River levee upstream of Orting. Next comes the Federal process of accreditation, which can be very time consuming. For example, the City of Sacramento built levees 9 years ago and they have not yet been accredited.

Harold explained that mitigation will be required in the process. We may not be able to afford a brand new levee that is set further back, but this might be a good option. Some potential conflicting interests relating to the lower Puyallup include flood protection and economic interests versus natural resource protection, and reliance on levees versus regulatory methods for reducing flood risks. There is no guarantee of a risk-free solution. Flood insurance requirements may increase. Risk has components of both probability and consequences which must be weighed. Instead of relying on levees, for the past twenty years, Pierce County has practiced non-structural flood protection through regulations and the purchase of development rights.

- Just north of River Road, there is a large amount of new development since these maps came out. *That area is in Fife. Because a large portion of the City is now floodplain, there are limited development options.*
- All houses north of the levee in Fife have their habitable space above the 100 year flood elevation, and above the level that water would ever reach. Many homeowners cannot get adequate insurance. Also, most of these houses were platted before the maps came out. Some houses are set back 60 feet from the levee, but some are 200 feet from the levee since they were completed later. *Although Pierce County has a document entitled Comprehensive Floodplain Management Practices, this document does not affect cities that have their own plans and their own needs.*
- When a city provides a development above the 100 year flood plain, what happens to the water that would have been sitting there and how does that affect the county's management plan? *City of Fife – This is called compensatory storage. The former oxbow of the Puyallup River was expanded outward; the soil was raised up and a large, low zone adjoining that area was created so there is no displacement of water beyond that immediate area. This process also created wetland habitat area.*
- *All communities that want to participate in the national flood insurance program must have minimum development standards in place in order to avoid flood hazards.*
- Whatever solution we find needs to be symbiotic and include resource protection as well as flood protection. The Puyallup Tribe has strong programs and has ownership of seven miles of the lower river below the high water mark. There are also millions of dollars of existing projects on the lower river, which should be looked at if we come up with a fix that doesn't compromise existing areas.

Lower Puyallup River Executive Task Force
Summary Notes
July 18, 2008

- The City of Puyallup has problems with water retention, even given elevated construction and use of retention ponds.
- There are some terms/concepts that would be helpful:
 - Define “compensatory storage”
 - Example of a setback levee
 - Concept of vesting in Washington
 - Understanding of how much water we’re dealing with (we are trying to figure out where to put an amount of water that’s about equal to what is flowing through the Puyallup River right now. What are we going to do with another Puyallup river? This analogy may be easier to visualize than technical references).

Thank you. Please bring informational needs to our attention so we can be sure to provide information needed.

Harold explained that there has been significant progress so far. So far, work completed includes a \$800,000 Phase 1 economic analysis, with details to be presented by Jeff Johnson from Northwest Hydraulic Consultants. In order to qualify for Federal funding, the project plan must ensure that benefits of the project will exceed costs. Work done throughout the planning process should be looked at through the Army Corps of Engineers lens.

- How do we get involved in the study process? I am concerned that the cost-benefit analysis conducted by Pierce County may not align with cost-benefit studies performed by the Puyallup Tribe. *The process used so far followed US Army Corps of Engineers standards, since we will need to use these standards to qualify for Federal funding. It is timely for this group to weigh in on how to proceed.*
- There may be a disconnect between what Pierce County perceives as economic benefit and what other groups, including the Puyallup Tribe, would perceive as economic benefits. I would like to make sure that the Tribe participates in the process of assessing costs and benefits.

After a short break, Patty Robinson from the Army Corps of Engineers explained that the Corps is working on a reconnaissance report using information from Northwest Hydraulic Consultants. She mentioned that Federal funding for the upcoming year looks optimistic for supporting technical study needs. The Corps will be working with the County and making sure that moving forward they are meeting study needs. The Corps will also do government to government coordination work with the Puyallup Tribe to gain an understanding from their perspective of the issues.

Lower Puyallup River Executive Task Force
Summary Notes
July 18, 2008

The following questions and comments were heard following Patty's talk. Answers (from Patty) are indicated with italics:

- Are there other places in the country with similar issues that we could look at to model our efforts after? *We are no longer referring to this matter as flood control, but "flood risk management" to ensure that people have a good understanding of what the risk is. There is also the matter of integrating setback levees wherever possible. The area that we are looking at is constrained, but we should consider other opportunities as well.*
- One potential solution is dredging. Is this a red flag to the tribe?
- Tribe: This is not a preferred alternative. It is not a permanent fix, as it's expensive and ongoing.
- Corps: *From a hydraulic perspective, dredging must be done in a system that keeps cleaning itself out. Otherwise it is a costly alternative with high environmental impacts.*
- Harold pointed out that Corps flood protection terminology has evolved from "flood control", to "flood damage reduction", and is now referred to as "flood risk management." This terminology reflects current thinking about planning for floods.

Jeff Johnson from Northwest Hydraulic Consultants gave an informational overview on lower Puyallup river flood protection and the economic analysis performed by the Pierce County project team. Information from this presentation is contained in the PDF file entitled, "PuyallupRiverFloodProtection-SWAB.pdf."

Background:

Recently FEMA determined that the levees on the lower eight miles of the Puyallup River do not meet their new standards. FEMA had to assume that levees do not exist, which resulted in the new floodplain delineation. FEMA's technical group held a meeting with key representatives, including Pierce County and the City of Fife. The technical group alerted stakeholders of the repercussions of map changes, and opened up the process for developing a solution.

Overview of the Economic Analysis:

The Pierce County consultant team developed a scope of work for the Phase 1 study (economic analysis), designed to answer the question "why are we in the situation that we're in?" The study, which cost \$800,000, took place within a year. Other consultants working on the study included Tetra Tech (project management, technical coordination, economic analysis); ESA Adolfson (environmental); and Shannon & Wilson (geotechnical).

The Phase 1 study follows Army Corps of Engineers standards and protocols, so that technical information can be easily transferred and work can move forward quickly.

Lower Puyallup River Executive Task Force
Summary Notes
July 18, 2008

Researchers looked at the hydrology of the system and developed a new model to predict flooding patterns. A positive outcome of the study was the finding that existing levees are structurally sound and in good shape. Researchers also conducted a sediment transport analysis on the lower Puyallup River, projected how sediment would impact flooding, and found that sediment is a primary reason for the river having less freeboard. The study shows that freeboard is lowest between 3 and 8 miles upstream from the river mouth. In addition to freeboard requirements, geotechnical (structural soundness) requirements must also be met for the levee to be certified.

The Corps also requires a look at structure inundation damage (structures and contents, agriculture, railway), for traffic delays/rerouting, flood cleanup, temporary relocation, and public assistance. The study's analysis determined that on the north side of the river alone, depreciated replacement value is over \$1.15 billion. If a storm event came along, and the levee failed according to the Corps map, damage to structures and their contents would be about \$55 million for a 10-year event, \$70 million for a 100-year event, and more than \$80 million for a 500-year event. A 10-year event would have a higher total potential for damage due to the high probability of occurrence. Adding on public assistance, crop losses, traffic delays and railroad losses makes the total loss figures higher. In summary, without an adequate flood control project, there is the potential for very significant costs should a flood occur.

Next Steps:

The Phase 1 study justifies federal interest in protecting the area, and provides a launching pad for the consideration of alternatives. The Corps protocols and standards must be used for economic analysis if federal funding is to be requested. FEMA's approach assumes the levee does not exist since it is not certified, whereas the Corps allows for a more detailed analysis that identifies where the levee is most likely to fail. The next step is deliberation about how to solve this problem: determining objectives, selecting alternatives for consideration, and conducting an economic cost/benefit analysis on alternatives, and choosing a proposed project.

The following questions and comments were heard following Jeff's presentation. Answers (from the Corps and Northwest Hydraulic Consultants) are indicated with italics:

- Was there an historical analysis done of river bed levels? *Yes, starting back in the late 1970s / early 1980s.*
- What is the source of the flooding in Riverside that shows up both on the FEMA maps and Corps maps? *The bulk of the flooding in Riverside comes from Clear and Clarks Creeks. That floodplain does extend due to potential overtopping of the highway.*

Lower Puyallup River Executive Task Force
Summary Notes
July 18, 2008

- What is the impact of high tide influence? *Up to about I-5.*
- FEMA looks more at the worst case scenario, whereas the Corps looks more at what is most likely to happen
- Could we have a copy of the PowerPoint presentation? *Yes, it will be sent out.*
- Could we also have a copy of the Economic Analysis? *This will be posted on the Pierce County Web site shortly.*
- *For a 500 year flood event, over the 50 year duration, the total economic costs to our communities would be \$140 million. Therefore, this is the maximum amount our project can cost in order to have a positive cost/benefit analysis.*
- What about bridges, are they included? *These are not included but they would be an additional amount. Damages to the roadway would be more likely.*
- What happens if a flood reaches a sewage treatment plant? *This would mean additional costs. Tacoma's plant is behind an area of the levee where it is the strongest, but water could flow through facilities. The prescriptive study methods used probably did not capture all possible economic costs.*
- Is there a possibility to take into account other economic benefits, such as those mentioned by the Puyallup Tribe? *Corps: Yes, other economic benefits are being considered by the Corps in their national economic development initiatives. This list includes regional economic development benefits, environmental quality, and other social benefits such as public safety and cultural resources.*
- Would those benefits figure into the overall cost-benefit ratio? *They would help tell the story but at this point are not factored in.*
- Northwest Hydraulic Consultants is involved in advising Lewis and Skagit Counties on similar projects. In these communities, collaboration has broken down as communication has not continued, and project status is tenuous. Be careful because process can break down quickly.
- The economic analysis was led by Ridge Robinson who used to work for the Seattle District office of the Corps.

Lower Puyallup River Executive Task Force
Summary Notes
July 18, 2008

- Will we get some sort of summary or feedback of this process? Will the Corps scoring will be reflected and documented? *Yes, this information will be included in the summary notes.*
- Is the Corps process used in existing permits? *Patty was unsure about that, since permits are managed out of another area of Corps work.*

Closing questions and comments were as follows. Answers (from Penny and Harold) are indicated with italics:

- It is important that the wheels not come off this process. This could happen if we don't understand all potential economic impact issues. Also we need to address what mitigation itself might do. *Would this be covered by our scheduled conversation on individual stakeholder issues and concerns?* This might merit a separate conversation.
- What other things would make sense to add to the list of considerations to be analyzed?
- The study done just used required Corps criteria. Our opportunity now would be to add things to the list of economic benefits and costs.
- It might be good to have Ridge at the table to talk about how to include other perceived costs.
- We need to meet the Corps standards, but those are not necessarily the only considerations.
- There is probably more information that we as a region would like to gather, to help inform this group's work.
- There are many other sources of Federal funding: habitat improvement, salmon recovery, recreational funding. By broadening our analysis we can qualify for other sources of funding.
- What about the concern about environmental costs, such as impacts of raising levees?
- Both are relevant. Costs and benefits are defined differently by different parties.
- All parties need to be able to say which options do or don't work for them. We should also be involving other parties and jurisdictions, especially

upstream. *We will take this into consideration. Obviously, what happens upstream needs to be factored into the final solution.*

- Need to consider as a group who is involved in the process and best ways to proceed

Follow-up and Next Steps

For the next task force meeting, Penny and Harold asked each person to do the following:

- Develop a list of problems and roadblocks
- Come prepared to describe the implications of Puyallup River flood risk on their city, Tribe, agency, or organization
- Read the economic analysis (there will be time for further questions and comments)

The group agreed that the following informational needs and outstanding questions should be addressed before the next meeting:

- PowerPoint presentation in PDF format
- Economic Analysis
- Definition of key terms
- A list of possible alternatives for the group to look over at the next meeting
- Decision on involvement of upriver jurisdictions, including Sumner, Buckley and Orting

It was agreed that the next meeting would happen on a Friday or Monday, preferably in late August.

The group agreed to include a section to the next meeting's agenda on "other impacts" that would go beyond a traditional economic analysis.

Harold thanked the City of Fife for use of the space. Ted Bottiger offered space at the Port of Tacoma for the next meeting and the group agreed this would work. EnviroIssues agreed to follow up with scheduling space at the Port of Tacoma.