

Meeting #2 – September 8, 2008
City of Tacoma, Central Wastewater Treatment Facility

Meeting Attendees

Organization	Representatives in Attendance	Unable to Attend
Pierce County Executive Office		Lyle Quasim, Executive's Office Debbie Hyde, Executive's Office
Pierce County Council	Hugh Taylor, Senior Legislative Analyst	Calvin Goings, Councilmember
Pierce County Chamber of Commerce	David Graybill, CEO	
Puyallup Tribe of Indians	Henry John, Councilmember Bill Sullivan, Director of Natural Resources Rory LaDucer, Director of Public Safety Lisa Brautigam, Attorney	
City of Tacoma	Mike Lonergan, Councilmember	
City of Fife	Barry Johnson, Mayor	
City of Puyallup	John Knutsen, Councilmember	
City of Orting	Ken Wolfe, Building Official	
City of Buckley	Pat Johnson, Mayor	
City of Sumner	Bill Pugh, Director of Public Works	
Port of Tacoma	Robert Brenner, Port staff	Ted Bottiger, Port Commissioner
WSDOT	John Wynands, Assistant Regional Administrator for Project Development	JoAnn Schueler, Project Development Engineer
US Army Corps of Engineers	Patty Robinson, Project Manager Lan Nguyen, Project Manager Kristen Kerns, Project Manager	

Other Attendees:

Harold Smelt, Pierce County Public Works
 George Walk, Pierce County, Director of Government Relations
 Steve Bailey, Pierce County, Director, Department of Emergency Management
 Chris Schutz, Pierce County, Government Relations and Special Projects
 Steve Worthington, City Manager, City of Fife
 Jim Jenkins, Patrol Commander, Pierce County Sheriff
 Lorin Reinelt, Watershed Coordinator, Pierce County Stormwater Management
 Tony Fantello, Stormwater, Maintenance and Operations Manager, Pierce County
 Lisa Jones, Citizen
 Tony Melone, Project Manager, Tetra Tech
 Lou Dooley, Project Coordinator, Pierce County
 Luke Meyers, Project Coordinator II, Pierce County

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Jeanne Stypula, Supervising Engineer, King County River and Floodplain Management

Penny Mabie, facilitator, EnviroIssues

Heidi Sowell, note taker, EnviroIssues

Meeting Purpose and Overview

Pierce County convened the second meeting of the Lower Puyallup River Executive Task Force in Tacoma, Washington on September 8, 2008. This meeting focused on finalizing a work plan for the group, and outlining and discussing pros and cons of possible solutions to flood management in the Lower Puyallup River. Approximately 30 people attended the second meeting, held at the City of Tacoma's Central Wastewater Treatment Facility.

Meeting Summary

Introductions & Welcome

The meeting started at 9:35 am with Penny Mabie, meeting facilitator, welcoming the group.

Brief Introductions

Penny directed meeting attendees around the room to provide a brief personal introduction.

Review Meeting Agenda and Ground Rules

The group reviewed the meeting agenda. It was agreed that the agenda should be revised to address possible solutions prior to a group discussion of roadblocks and problems. After agreement on the agenda, Penny reminded the group of the ground rules established at the first meeting. They are as follows:

- Start/end on time
- Silence cell phones
- Come prepared
- Listen respectfully
- Speak from interests, not positions
- Participate in the process

Review first meeting notes

Penny asked the group if they had an opportunity to review the draft notes from meeting one and followed by asking if the notes were detailed enough. The group approved of the first meeting notes.

Finalize work plan for the Task Force

Meeting one included an in-depth discussion of the work plan. The plan was updated to include comments and the group had the opportunity to review it prior to the

second meeting. There was agreement on finalization of the work plan by the task force.

Discuss Phase I Flood Protection Investigation study and economic analysis

The group discussed the Phase I Flood Protection Investigation study and economic analysis; more specifically the definitions that Harold Smelt was tasked with drafting. A definition handout was provided to the group with the following terms: Compensatory Storage, Setback Levee and Vesting. In addition to the definitions provided in the handout, Harold provided supplemental information (in italics):

Compensatory Storage – means new excavated storage volume equivalent to the flood storage capacity eliminated by filling or grading within the flood fringe.

Equivalent shall mean that the storage removed shall be replaced by equal volume between corresponding one foot contour intervals that are hydraulically connected to the floodplain/floodway through their entire depth. Whenever fill is placed in the floodplain and compensatory storage is incorporated, a Zero Rise analysis for storage and conveyance is required. This is a hydraulic analysis that checks to ensure that no adverse impact to the floodplain Base Flood Elevation (BFE) results. The requirement for Zero Rise is that fill in the floodplain cannot cause an increase to the BFE greater than 0.001-Ft. The analysis also checks to ensure that no adverse impact to flow conveyance capacity of the stream or river will result. Note that fill within the floodway is not allowed.

Compensatory Storage / Excavation. Pierce County requires compensatory excavation happen on the site; this is not true in all municipalities.

Setback Levee – a setback levee is created by moving an existing river-side levee landward or building a new levee structure away from the river channel. The setback levee structure may still incorporate bank armoring for erosion control. Setback levees essentially create a channel widening effect during higher flow magnitudes. They provide for an increase in floodplain storage capacity, reduce damaging flow velocities. Setback levees can also provide high quality fish and wildlife habitat.

Setback levees often require that additional property be acquired in order to setback the levee. This is because the additional land or floodplain area that is opened up will be subject to more frequent flooding and channel migration.

Setback levees. During a flood event the full area between the levees can be utilized by the river. Although this is not always the case, a benefit to wildlife can occur. There are 30 or so potential sites being looked at along the Puyallup River, the main determination in location is cost. Typically, lands have to be acquired. This can be a costly solution because of real estate.

Vesting – means the establishment of a date that is used to determine which development regulations Pierce County and the Hearing Examiner will apply to the review of a completed permit application or approved development permit. The Planning and Services Department (PALS) determines which regulations are applicable for any given permit application.

Vesting occurs since regulations change or are amended over time. Certain developments including land subdivisions are grandfathered to regulations which are or were in effect at the time a permit application was made.

Vesting. The vesting laws are specific to Washington. Projects are “grandfathered” to use laws that are in place when the project is submitted. This gives the developer predictability. This is unique nationally—only 10 of 50 states have “vesting”. In locations without vesting, the projects must follow the current regulations and revise the project if more stringent regulations are implemented during permitting. Pierce County has “sunset language” to require developments to move forward in a timely manner.

The group agreed on the provided definitions of these terms. There were no questions or concerns regarding the study or definitions handout.

Possible Solutions

Harold had drafted a list of possible solutions based on capital projects. He noted that once the group identifies which of the possible solutions to explore further; there will be a separate discussion on specifics of constructability. Harold also touched on an additional topic: level of service. He commented that the 100-year level of service may be considered a misnomer; it is a 1% flood chance a year. Although this is the current federal standard, many communities are agreeing that this is not enough. Some communities have moved to a 500-year level of service when critical facilities are located near the river (a treatment plant would be considered a critical facility). California now uses 200-year as a minimum standard. An extreme example is Holland, which uses a 25,000-year level of service.

Patty Robinson asked the group to consider that the Federal Emergency Management Agency (FEMA) and the U.S. Army Corps of Engineers (Corps) would look for an optimization of benefits versus costs. Harold mentioned that as higher level projects are built and costs rise, it is important to find a cost-benefit balance. The choice of possible solutions will inform the next phase of the study, in which real costs and implications are explored.

Bill Sullivan noted that any future modeling must include a matrix of three to four of these possible solutions.

List of possible solutions

Penny briefly went through the list of possible solutions with the group:

- No Action
- Dredge the river
- Enhance existing levees (levees remain in current location)
- Enhance the River Road levee and construct a new setback levee on the north side
- Setback levees on both sides
- Construct an alternate high-flow channel to Commencement Bay
- Moderate peak flow through:
 - Major facility similar to Mud Mountain Dam
 - Distributed projects like setback levees upstream

Henry John commented that solutions must address the river in its entirety (not just the lower river). The group must also consider the financial costs. Henry commented he would rather see setback levees, or something that costs less than a dam.

Bill Sullivan requested clarity on the high-flow channel to Commencement Bay solution. Is it a separate channel to hold flood waters? If so, it would have to be very large. Harold clarified that it is based on the idea that flood protection needs to be able to accommodate almost another Puyallup River-full of water. He also clarified the option of building a new dam facility, and stated that the required capacity would be comparable to Mud Mountain Dam.

John Knutsen suggested the group might need additional information to help in the discussion process, including the elevation from the bottom of the river in front of the wastewater treatment plant. Harold added that this information was included in the existing report. Harold also commented that the group needs to consider projects that are good for 50 years. John Knutsen followed with an idea of considering natural river water separate from manmade water (for example, stormwater and run-off).

Lisa Brautigam asked if the cost analysis includes a forecast of future development, or if it is based only on existing development. She also questioned if the group was also considering non-capital improvements. She mentioned that land use solutions could look at modifying the approach to development near the river. Harold was not sure of the economic analysis; Patty clarified that the analysis assumes that future development would occur above the flood-plain so there would be no additional loss. Lisa stated that a longer term solution is needed so we don't end up back at the table in 20 years having to have the same conversations again because of increased development. She suggested that careful consideration of future land use in the flood plain might be an important element of these discussions. John Knutsen stated that the

Puyallup River already floods periodically. Most problems come from a combination of the river (creeks and storm drains) and development. During flooding events the City of Puyallup can have eight inches of water on the road and manholes popping because of flooded drains. Flood events are getting worse each year.

Three additional options were suggested by task force members:

- Look at the whole river to find more room
- Non-structural approach (land use regulations)
- Increase holding capacity of Mud Mountain Dam

Discuss pros and cons of each possible solution

Penny requested that the group consider the pros and cons of each possible solution: Each comment was designated a con (C) or a pro (P).

- **No action**

C: Doesn't meet goal

P: Affordable

C: Potentially costly (should a flood event occur)

C: Safety issues

P: It's possible good things can occur after a flood event (i.e. changes after a levee break). In other words, the event may stimulate positive forward motion that could result in improved flood protection, improved habitat, or other improvements.

- **Dredge the river (below Meridian)**

P: Low cost option?

C: Dredging is a long-term repeated commitment (mitigation money)

C: Environmental concerns

-Endangered Species Act (ESA)

-Restoration projects

-Compensatory mitigation

C: Complex regulatory / ownership concerns

C: Permitting terms / timelines (repetitive)

P: Potential value in spoils

There was additional discussion regarding value in the spoils. John Knutsen brought up the idea of excavating on the high side of the river and selling the fill; this could be a 40-50 year fix. Tony Fantello stated that the material was valuable. It is state-owned material to the confluence and then private ownership. Excavating may remove materials that are needed by fish. Harold added that silt is continuously backfilling and

may need to work upstream to get at this problem. This brought up the possible solution of combining approaches: removing materials in the upper and lower reaches of the river, as well as constructing setback levees. If work is not done upstream, dredging will have to occur more often.

- **Dredging Combo (Dredge below Meridian and some excavation upriver, plus setback levee)**

- P: Improved habitat upriver

- C: Could undercut levees in the main stem

- P: Upstream work may reduce need for or depth of dredging downstream.

- P: May be less costly.

- P: Money from upriver spoils may help fund other work.

Barry Johnson questioned the cost/benefit with state-owned spoils. It may be possible to dredge in areas that would have a lesser environmental impact. Could the money gained through spoils fund other mitigation work along the Puyallup? Robert Brenner noted that the group must have the Department of Natural Resources at the table to talk about using funds from spoils. The state may not agree to this idea.

- **Enhance existing levees (levees remain in current location)**

- P: Cheapest initial costs

- C: Doesn't help Puyallup

- C: Depending on height needed, may be additional costs for land purchase

- C: Bridges- total replacement? Raise roads?

- P: May be fewest mitigation impacts

- C: Unknowns about existing levee

- P: A height that doesn't require new bridges could meet short term target of recertifying levees

- **Enhance the River Road levee and construct a new setback levee on the north side**

- P: Homes are already set back 200 feet in Fife

- C: Is 200 feet enough?

- C: Major bridge replacement at lowest 3 miles (levees are higher there, though)

- C: Higher right-of-way acquisition costs and difficulties

- **Setback levees on both sides**

- (See pros and cons for previous option)

- C: Additional property acquisitions

- C: Considerable historic development

- C: SR 167 would need to be moved

- P: May help address Puyallup's issues

- C: Impacts to Puyallup's built environment

- **Construct an alternate high-flow channel to Commencement Bay***
 - C: Required size/ cost
 - C: Siting
 - C: Port infrastructure

- **Moderate peak flow through:**
 - **Major facility similar to Mud Mountain Dam**
 - C: Siting
 - C: Not timely solution

 - **Distributed projects like setback levees upstream**
 - P: Might benefit more than immediate project area
 - P: Could benefit more than just flood issues (climate change, etc.)
 - P: Could enhance funding options by enhancing ability to seek funding from different sources
 - C: Shifts burden upstream
 - P: Could improve water quality
 - P: Addresses problem- not symptoms
 - C: Difficult to prove effectiveness
 - C: Getting funding for multiple projects in a timely fashion
 - P: More governments all working together gets more success
 - P: Lower acquisition costs
 - C: Not a total solution

Mike Lonergan commented that this seems like a correct way to address the cause. Patty/Harold commented that it would be difficult to demonstrate to FEMA and prove effectiveness. Harold discussed timeliness for projects and commented that some solutions should be seen within seven years.

- **Non-structural approach (in combination with other solutions)**

Non-structural solutions can include: types of land use regulations, relocation, flood proofing, disaster recovery policies, looking futuristically at how the land will develop

 - P: Longer-lasting solution
 - C: Every jurisdiction moving ahead equally (difficult)
 - P: Prevents lost opportunity: locking in place today's landscape
 - C: Could cause economic developments to "cloud" depending on how applied
 - C: Changing land use generally is a forward-benefit tool

Hugh Taylor commented that changing land use only benefits future development; there is a great degree of development already on the ground. There was also a note from the

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group to use caution when using the term land use. Harold commented that in general, land use is the preferred solution. In agreement with FEMA, there is a national consensus to move away from flood control through levees. There was also support from the group to look closely at disaster recovery policies (not rebuilding flood areas after a significant event).

- **Increase holding capacity of Mud Mountain Dam**

- C: Pretty expensive
- C: Time consuming
- C: Effectiveness
- C: Marginal benefit

Harold and Patty agreed that this would be an action item that they would look at further. Maybe it could be a conditional alternative?

The group collectively agreed that two options did not merit further consideration due to the cost and complexity, and the length of time it would take to implement them as a solution. These two options were: constructing an alternate channel and moderating peak flow via a major facility.

Next steps

Penny asked if the task force was interested in attending a tour of the project area. There was no clear answer from the group and Penny decided to table the idea until a later date.

The next meeting will be scheduled in three to four weeks. The group agreed that the Tacoma Central Wastewater Treatment facility conference room was a good location. EnviroIssues agreed to work with the ETF to schedule the next meeting date.

Follow-up information:

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

Discussion of stakeholders: Mike Lonergan suggested that railroads are critical to the process. Additional possible stakeholders mentioned included the Department of Ecology and the Department of Natural Resources.

Harold committed to bringing a display that addresses the original specifications of the levee. There was also a request for aerial maps to assist with discussions.

Agenda topics next meeting:

- Possible solutions with pros and cons
- Catalog potential roadblocks and problems
- Discuss Level of Service (100-year event or greater)

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Public Comment

Penny opened up the discussion to the public. The following comments were heard:

Lisa Jones (Riverside resident, containment tank side of river) “The group is talking about short term and long term. You need to break down priorities. The unincorporated areas of the county are not represented. We need fairness and parity when working with the unincorporated areas.”

Bud Mesker (Puyallup) “Thanks for having this meeting.”

Adjourn

The meeting was adjourned at 12:16 pm.