

CHEHALIS RIVER BASIN FLOOD AUTHORITY
PUBLIC MEETING #1 SUMMARY
Wednesday, February 11, 2009, Chehalis
Thursday, February 12, Montesano

Purpose of the Meetings

The Flood Authority has committed to providing full opportunity for the public to influence the Authority's considerations and to develop and sustain an informed population within the Basin. On February 11, and 12, 2009 the Flood Authority convened an initial set of two public meetings, one in Chehalis and one in Montesano. The purpose of the meetings was to introduce community members to the Flood Authority and its efforts, answer questions and record comments, and solicit input on flood related problems and suitable goals and objectives for the Authority.

Meeting Process and Summary

The meetings were advertised in advance through a news release sent to Authority member jurisdictions and local newspapers and radio stations. The agenda for the meetings is provided in Attachment 1. Following an introductory presentation on what the Authority is and what it is doing, there was a question and comment period and small group discussions on flood-related problems and goals.

Chehalis Meeting

The meeting in Chehalis on February 11 was attended by approximately 170 people. Meeting notes from the presentation and comment period portions of the agenda are in Attachment 2.

The flip chart comments from the Chehalis meeting discussion groups on problems and goals are included in Attachment 3.

Montesano Meeting

The meeting in Montesano on February 12 was attended by approximately 45 people.

Meeting notes from the presentation and comment period portions of the agenda are in Attachment 4.

Attachment 5 provides the flip chart comments from the Montesano meeting discussion groups.

CHEHALIS
RIVER BASIN

FLOOD AUTHORITY

Public Meeting

Wednesday, February 11th – 6:00 to 8:00 p.m.
Veteran’s Memorial Museum, Chehalis

Thursday, February 12th – 6:00 to 8:00 p.m.
Montesano City Hall, Montesano

1. **Introductions and Purpose of Meeting**
Members of the Chehalis River Basin Flood Authority, its consultants (ESA Adolfson), its Board Advisory Committee, and the State Team will introduce themselves.
2. **Overview of the Flood Authority**
3. **Questions, Answers, and Comments**
4. **Identifying Problems and Goals**
ESA Adolfson will introduce the problems and goals identification activity which will be done in small groups.
5. **Small Group Discussion**
The audience will split into groups to identify flood-related problems and goals.
6. **Reconvene and Report**
ESA Adolfson will lead the groups in reporting their findings.
7. **Wrap Up**

Attachment 2

Flood Authority Public Meeting February 11, 2009 - 6:00 PM Veterans Memorial Museum Chehalis, WA

Commissioner Averill called the meeting to order at 6:11 P.M. He stated the differences between the 2007 and 2009 floods tell us what to do for long term flood mitigation.

Tonight there would be an explanation of who the Flood Authority is; the legislation that was passed, goals and objectives; what has been done and what we will do in the future. We want your input into this process. We need to look at projects that are recommended and come up with one that works.

Introductions were made: Mark White, Chehalis Tribe and Mark Swartout, Thurston County, were present. The Flood Authority consists of Commissioner from each County and from Chehalis, Centralia, PeEll, Bucoda, Oakville, Montesano and Aberdeen. A staff member from each County and the Tribe is on the Board Administrative Committee that looks at projects and reports back to the Authority. They are Mark White, Mark Swartout, Bob Johnson, and Lee Napier. If a city has an objective it may have someone participate in that committee.

In attendance tonight from the State: Chris Hemplemann, DOE, John Donahue, Governor's office; Consulting team: ESA Adolfson: Linda Hoffman, lead tonight who introduced Spencer Easton and Ann Root. Mr. Mike Sharar and Mr. Dave Carlton were not able to attend the meeting.

How did we get here and what do we do now? After the 2007 flood it was apparent that we had several years of bad flooding and the frequency was becoming more often. We do a good job of studying but we don't do anything about what we study. We want to do something long term about the flooding issue. We recognize when it floods on the Chehalis River it does not impact just four miles of a 90 mile river – it affects everyone from the headwaters to the mouth of the river. With Lewis County looking at just Lewis County problems, we are not going to come up with a basin-wide solution. Everyone with an issue in the Basin needs to look at the best way to improve the situation.

Currently, there are not a lot of projects on the river that are at a stage where we will see results quickly. In 1996 the County hired Pacific International Engineers who did a lot of studies on the river and a project with the Corps would have provided a series of levees and provided protection to the freeway. That project never got approved by the Corps. Part of that was because of Katrina and a lot of the Corps money when there. In 2006 Congress passed over the Presidential veto and a new WRDA bill was created and Chehalis and Centralia were included in that bill as item #46. It has yet to be appropriated. They might pass a

bill but they need to provide money to implement it. It was a \$1.5 million bill on the Senate side to start the design of that project and another \$1 million to go to a Basin study. The house was less helpful - \$500,000 to the Corps of Engineers and \$250,000 to the study. The two have never gotten together so that study is still not appropriated.

Last year in the legislation two bills, 3374 and 3375, were passed. Their purpose was to provide a bonding authority of \$50 million by the State to look at flooding on the Chehalis River. Part was to be set aside for the Corps project and part was designated for a Flood Authority on the Basin to look at a basin wide solution. That money landed in the CRBFA. A new interlocal was drawn up with 11 members. The Flood Authority is to do three things: 1- Look at the Basin and determine projects needed and eventually decide and prioritize. 2- If a project is not maintained it will not do any good, so the Flood Authority is looking at a Flood Control District which would operate projects and maintain them. 3- Look at our flood hazard management plans. All 11 jurisdictions have their own plan and there is a wide variety between them. We need to look at those plans, and while there may not be one plan for the Basin, we need to know what is consistent and how can it help.

In the most recent flood, we had better information about the flood coming and had four days to get the word out but we are lacking appropriate warning devices. If there were more flow and rain gauges people downstream could predict better when water will hit them. One project we have committed to is where the gauges can best be used and to put them in place.

Lewis County is the lead agent in this agreement and it handles the funds as they go into the project.

Several years ago a group was formed to look at fish restoration projects and the rivers were divided into two Water Resource Inventory Areas (WRIA). We are in WRIA 22 and 23. The group that looks at that side of the river (fish) is the Chehalis Partnership and those committee members are Mark White, Bonnie Canaday and Bill Schulte. When we create a flood district it will probably not take in this entire WRIA area. We will look at the most frequently flooded areas and form a boundary.

Linda Hoffman stated she would provide information about the Flood Authority and then provide half an hour for Q and A and more time to gather information from you that you want the Authority to focus on.

Right now, we are creating a basin wide Comprehensive Flood Hazard Management Plan (CFHMP) and are including all jurisdictions. We are not looking to duplicate what has already been developed. We want to integrate and build on the existing plans and come to a list of priority projects to pursue and

undertake and use the process to identify the capital improvement program and other mitigation approaches to reduce the impact of flooding.

The Authority has been directed by the Legislature that it will not release the capital funding authorized last session until the Flood Authority has an agreement of a plan and a priority project list for the Basin.

Timeline: Now through June the Flood Authority is developing the CFHMP, meeting monthly and hosting work sessions, reviewing chapters of the Plan and revising and adding to it for a continuous project. In February or March the Flood Authority will be doing a random phone survey of residents in the Basin to identify their problems with flooding and to identify what approaches they would like to see the Flood Authority undertake and the projects to pursue.

Between now and June there will be ongoing shorter term projects such as identifying where additional stream and rain gauges are needed. In June the draft Plan should be completed and it will include the project list. The range of projects and approaches will be prioritized. At that point the draft will be agreed to but the adoption will take longer, probably a few months with the goal being by the end of the 3rd quarter.

Future steps will be to adopt the draft Plan and begin implementation and coordination of longer-term projects.

The Flood Authority is one piece of the response to flooding in the Basin. The Authority coordinates with other flood reduction and related water resource efforts, including the Twin Cities flood damage reduction project, Corps of Engineers levee rehabilitation; flood district formation efforts of three counties; the Chehalis River Basin (CRB) investigation by Corps is ongoing, and CRB partnership. The CRB partnership's area of focus is water quantity, quality and habitat improvements but they need to coordinate

The public process involves meetings such as those being held tonight and tomorrow night. This is the first of a series of public meetings. There will be a meeting in April on draft goals for the Plan and also a meeting in June to present the Plan to the public, take comment and talk about community reaction to the draft Plan.

There are additional opportunities for the public for input. The Flood Authority meets every month, the third Thursday, at the Lewis County Courthouse at 1:30 P.M. Anyone may speak at that meeting.

That ends the formal presentation and we will take half an hour of Q and A and then break into groups so you will have an opportunity to talk about your concerns, problem areas to focus on and what goals you think the Authority should pursue.

Q: The filling in of Galvin Rd restricted the flow of the Chehalis River. Since 1947 we never saw so much water backed up. There must be something that isn't getting through to the planners. Why are they doing it? I-5 never flooded prior to that.

Commissioner Averill stated the overflow bridge was built in the early 1990's and the rain blew it out and it needed to be rebuilt on pilings. The initial problem was lessened some; the Opus project came under the Port of Centralia and the City approved that project. That project currently is being looked at very closely by the State and others before moving on. You're correct about Adna flooding in the 2007 flood, but Adna did not get flooded during the 2009 flood. A lot of the areas inundated in 2007 were different in 2009. Rain cells hit different locations. In 2007 they were over the Willapas and the water came in the west side; in 2009 it came from the east side; more problems then with the Newaukum, the Skookumchuck and the Dillenbaugh. All of these things are being looked at by hydrologists for a long term solution.

Ms. Hoffman stated the concern is appreciated and will be shared with the scientists and technical people. There is not enough time to answer in technical detail all the questions but we will use them.

Commissioner Averill stated authorization of any project is authorized by a jurisdiction. That project was done by Lewis County in the late 80's and it went through all the SEPA, DOE and WDFW, etc and approvals were granted. It may be wrong but a group of people did look at it.

Q – How is this different than what has gone on in the past?

Commissioner Averill stated there is always the necessity of information gathering. What is the value of a project and will it do what it is designed to do? We have to go through those steps but it is our intent, and the State put money behind it, to do a real mitigation project that will work and provide protection to Centralia and Chehalis and to those people upstream and people downstream.

Q – Are the rivers flowing clean and clear and carrying the amount of water that they should? I have experienced some things we did previous to governmental intervention: We used to dredge rivers about every three years. All the sediment got dumped on the banks and it made a natural dike. A big argument in recent years is that would hurt fish. After cleaning the rivers you saw the best fish you ever had in a year or two because they could get up river and we didn't get inundated all the time.

A – Mark White stated the Tribe has concerns about fish. How far do you dredge? It costs billions of dollars to dredge and we can't come up with \$124 million for a levee. We need to look at that option. We do water testing all the

time. Years ago we went through all the streams and cleaned up debris. Then we had to put everything back. What we learn and what we know changes over time. We need to look at every aspect and without looking we don't know if it's good or bad.

Q – After the 1996 flood there were panels and groups and they could not agree. Is that going to happen this time? That was 13 years ago. It was a waste of money then, will this be a waste of money? Our President is trying to come up with a stimulus project. We have work we need done out here, let's do it.

Commissioner Averill stated there are no members that want that as an intent. We won't know if we agree until we vote and then we will know how serious we are about flooding. When the committee looked at flood control in 1996, one idea was a retention dam above PeEll that got huge resistance from citizens. Damage on the upper basin was not big until 2007 and now there is a lot of interest in the upper basin. That is what prompted the basin wide authority. There is money already appropriated and a congressional delegation working on that side. We must come up with a list of projects and prioritize them. If we all agreed that the Corps project should be done and the money came, we would not turn a shovel until 2014 because it would take that long to complete the design. Other projects and funding may be 12-20 years away before a shovel is turned. That does not mean we say it is impossible; we need to seek out those plans and work on them. In the meantime the leaders of jurisdictions must make sure we have good emergency management plans and early warning so people know far ahead of time to be able to minimize damage. Because of forewarning and sandbags, etc, there was \$22 million damage this year while last year it was \$166 million, and half of that was on the Cowlitz River, not in the Chehalis Basin.

Q – The chairman of One Voice stated One Voice was formed because of the belief that nothing would be done because of the history of the past. It is a grass roots group and has no authority but it is not going to stop bird dogging this thing. If any one or group derails this thing, we will do our best to expose whoever is doing it. The coordination efforts on the part of these people have been incredible. On the 19th the FA will be presented a plan: a study by the Lewis County PUD and consultants hired by Lewis County. The results are exciting. Next will be a study phase II which has never been accomplished. We will take proposals and drill holes to see if the geology will support retention and conduct final studies with fisheries at the base of river. That study will cost funds which are available to the Authority and we urge the Authority to take a close look at that. Our legislators they have the authority to move to phase II. Behind the scenes there is lots of consultation with the congressional delegation. Funding could come through with a stimulus package and bring jobs. We are working on a system to cut the permitting process in half. We will be holding public meetings of our own. The cost benefit ratios are incredible.

Q – Mellen St, the Chehalis sewer project and the airport, more built up everywhere. There was never any water before that. If we could open that up a lot of water will not go into Centralia and Chehalis. Unplug Mellen St – if we can open up stuff, water has a place to go. Why was it permitted to put sewer department right on the river and dump in the river. Permitting is continuing. We would like to see a new approach.

Commissioner Averill agreed that everyone wants to see something done. Lots of projects that should not have been done, one putting I-5 put in middle of a flood plain. A lot of these decisions are not made in Centralia and Chehalis or made in one year. The Basin has been continually modified since the 1840's. We used to drain wetlands and made them ag fields. There are different generations making decisions; some good, some bad. If we knew in the 40's what we know now this might not be a problem. Projects got approved at the time of the rules in place. We have been beaten up because Chehalis was allowed to put the box stores in. Those are behind an existing levee that was there since 1943. To claim that those stores caused the flooding.....there have been mistakes made. We want you to tell us what you think so we can look at them.

Q – Michael Golden stated we live in a flood plain. When east county floods, there is no money. When I-5 floods it's important and that's why there's money to fix it. Two competing concepts: levee it off or keep water from getting there. Those concepts will come before the Flood Authority on the 19th. The Corps plan is partially completed. We have hired consultants who created a mathematical model and we can take any plans and insert them into the model and it will tell us where the water goes. There will be a feasibility study on PUD proposal. We can move out of the food plain or we can do something. Because I-5 is here we have a chance to do something, either retention or levees. It will be the call of the Tri County Commissioners or we can create a multi-county flood district. The Flood Authority must not be limited to projects already on the books.

Ms. Hoffman stated the Authority is building the list through the planning process. It is starting with existing plans but it is not limiting itself to existing plans and is building a list with the help of groups and individuals. The Authority is open to proposals.

Q – The problem seems to be fish and water quality. Is there an opposition to cleaning it out? We need a maintenance program for whatever project is decided. Why not have a maintenance program to dredge rivers.

Mr. White stated his background is science and science says it is bad to clean out. He would like to see the science that proves that this won't hurt the fish or water quality. If that is found to be true, he will back it.

Q – Retention and dredging combination might be best.

Q – When you take your surveys talk to the people in this room, too. Make sure the phone calls reach people who are still re-building. Check with long term recoveries, salvation armies, etc.

Ms. Hoffman stated we will do our best to reach random samples.

Q – We must differentiate good science from junk science. There is a lot of junk science and we need to be careful what we're following.

Q – When do people come first over fish? If I want to go fishing I'd rather go where there's a dam because that's where there are better fish.

Q – There is no one on the Authority from Highway 6 between Chehalis and Pe Ell.

Commissioner Averill stated the Flood Authority members are from incorporated jurisdictions to make rules and ordinances on the river. There is no one between Pe Ell and Chehalis, but there is the County Commissioner.

Q – If something is backing water up over Hwy 6 we need to find out what it is.

Ms. Hoffman stated the room would break into groups to discuss this type of thing.

Commissioner Averill stated we have been mainly looking at the main stream of the Chehalis River but there were problems on Skookumchuck and lots of damage on the Newaukum and we are interested in hearing where there are things off the main stream that we should look at.

Q – Agree I-5 will get money in this area. I live half block from the museum and am concerned a dike will save the freeway and hurt others. You must address people who live here.

John Donohue stated we are evaluating the design of Corps project which is about 35% complete at this time. There is a requirement to evaluate the design so it is good to listen to ideas and impressions of what the design is like. He hopes for Corps cooperation at meetings. We work with specific groups and teams of elected officials who convene to look at the design as well and to understand more about Corps project in 2009.

Q – The dam that Commissioner Averill spoke of was proposed at Doty, not Pe Ell, and in the 60's the Corps proposed a dam at the Bunker Creek. The Chronicle mentioned there was objection and it was those two proposals that were the objection. We hope we could hear some specifics regarding the PUD

proposal tonight. That is the most obvious solution to protect everyone from here to Aberdeen.

Ms. Hoffman stated the PUD is making a presentation next Thursday. We don't have enough time tonight for all the presentations and encouraged every to attend the regular meeting next Thursday.

Q - Most of the people in this group support water retention and taking a few minutes to learn about this would be of great interest.

Mr. Dave Muller, stated the PUD initiated the study to look at retention, In the past we did not take a role in flood control. We looked at economic feasibility to determine if we could retain water in late winter and in the spring increase flows. The preliminary results are we can increase the flows in summer in the Grand Mound area about 50%. We don't know the details of those benefits and that will be a later study. The bar graph in the handout shows the amount of reduction from two facilities at two points along the river. There may need to be improvements at levee. Our plan is water retention combined with the Corps projects. We looked at water retention on the Newaukum and could not identify a good location to hold enough water to do any good. We need to look at the Black River and the Satsop. The Corps also has a project for storage on the Skookumchuck which would protect Bucoda and areas of Centralia.

The hydro component is about 8-10% of the value. The PUD is happy to participate in funding of hydro portion but there must be federal funding for flood control. The concern is the hydro would control operation of the facility. That can not happen because funding is provided for flood control. There must be space in the winter. We will request that the Flood Authority provide funding to assist us in funding phase II to look at engineering design, fish, etc and to get to a point that the feasibility is right, can this be done? If it looks good we will move to the permitting stage and hopefully agencies will help us move it along.

Q – Considering good science and bad science: knock out the pump and turn that into spawning riffles. It would be good for the fish.

Q – We are looking at symptoms not causes. Dredging should be turned over to people who do it for a living. We have had flooding issues since the dredging stopped. Let the farmers dredge the sandbars on their property.

Ms. Hoffman thanked everyone for their statements and concerns. Groups were formed and the flip charts used for flooding problems personally experienced, flooding problems the Flood Authority should focus on and goals of the Authority. What kind of direction should be given to the Authority for solutions, etc.

Ms. Hoffman stated there would not be time for reports back from each group but all the flip charts would be typed up and the notes will go on website.

The meeting adjourned at 8:30.

Attachment 3

Flood Authority Public Meeting in Chehalis, 2/11/09 Comments from Small Group Flipcharts

Flood Experiences:

- W. Adna / Hwy 6 has always flooded
- Residents in Centralia experienced damage in yard and under house 3-4 miles up Salzer Creek.
- Bridges washed out
 - Dryad
 - Meskill
 - Rainbow Falls State Park
- Galvin – 2 floods. In house '96, '07. 11 total floods since '71.
- Bunker Creek – extensive flooding – livestock, feed, major property damage, river changed course in '89, '96, '07 (extensive in '07, \$.5M)
- Highway 6 – flooding. House 3'. 38" above '96. '07 21" in house, none in '09.
- Schuber Road – Across from Airport. Flooded 1996 – 10". Raised after '96 – (3'). '07 – almost flooded. None '09.
- Newaukum – '09 – water like never before. Rice Road area.
- Sylvenus St. – across from Riverside. Museum. '07 – 8 inches. '09 – not in house.
- Near museum. Floods are more regular and more catastrophic. No forest duff etc. – faster runoff.
- Near museum: 4 ½" in '90 (first time flooded in house). 11 ½" in '96 – 2007 36" in house. Have now raised house. 4' under house in 2009. Concern to protect residents.
- 8 hours Doty to this area – 8 hours here to Mellen. Need gage here (museum area).
- Now development filling – now she's the low spot.
- Selling property and moving (museum area)
- South Street area of Chehalis, by Salzer Valley Creek. Floods between the landfill and tracks. Area could be closed up with dikes.
- Mud in house – 2'
- People traumatized
- 8" water in house, 5' water in barns, River St. Chehalis, 1990 was the first
- Bridge design
 - 2007 flood – Chandler. Louden House. Flat design. Rainbow Falls. Fill vs. pilings.
- HWY 6 closures – why? West of Adna toward Chehalis, R.R. tracks.
- Long Road dike area – Galvin Road (80s), South St. (2000?)
- Sanitary landfill – (dike between RR tracks)

- Water in houses
- Long Road dike – breach – 2007. Impact on houses.
- Renting through cities
- LWD – They feel it helps the fish – what kind
- Flooded in '07 very limited
- Curtis – 8' in house

Problems the Authority Should Consider:

- Look at ways to prevent flooding in China Creek
- Retail business losses 100% not in flood plain – Centralia
- Shop (construction) losses to equipment – Galvin
- Debris and mud flow contributed to the flood damage in '07.
- Flooding
- Inability to travel
- Inability to develop
- Stalled process
- Lack of responsiveness from Corps
- Levees push water to houses
- Consequences of filling runoff spots (wetlands)
- What if a dam fails?
- Lack of warning in 2007 – communications break down.
- Lots of work of business in floodplain is recovering from floods
- No stormwater drains, or they back up (museum/airport)
- Poor predictions
- Communication tool to gather information – for us to solve issues
- What “projects” approved in the past are contributing to the flooding?
Dikes, culverts, filling where there used to be pilings
- “Best” practices that aren't
- River capacity – dredging and debris removal
- Look at road repairs – does this cause additional flooding because the road acts as a dike or levee?
- Concerns with dikes, levees, and dams
- Don't do projects that contribute to what they are supposed to fix.
- Flood warning – media. How to get the message out.
- Bureaucracy
- Trauma does not go away
- Too long for solutions. Don't want / can't wait
- Steep-slop clear-cutting / logging practices. Rotation lengths too short, compacted soils.
- Problems with rebuilding permits – rules unclear.
- State sales tax on rebuilding
- Impacts on business/commerce

- Need better notification –neighborhoods
- Need to just clean up. Involve communities.
- Get environmentalists out of the way. (be reasonable).
- Some folks are trapped. If only levees, how is this addressed.
- Difficulty with government processes – billing, requirements, permitting.
- Can't use levees
- USACE cannot be trusted
- Witnessed inadequate flood fighting
- Water super tunnels
- Mellen St. was supposed to be on pilings
- Levees = Katrina
- Levees just move water
- Two levees failed
- Critical of levee repair
- Fire protection are not useful Adna/Doty/Boistfort. They need to be protection
- Levees displace people
- Levees get overtopped often

Recommended Goals:

- Lower peak flood elevation
- Protect life and property over fisheries
- Move forward
- Listen to those that are effected
- People are the highest priority
- Be more efficient in using money to solve problems – move forward
- Address the whole valley, but don't sacrifice environment.
- Work together on all projects, dikes (Corps) and others
- Focus on projects that can be done now like culvert replacement, debris & sediment management. Don't get lost on large projects.
- Use good science to improve water quality and habitat
- No water
- Will have to deal with fish issues
- Solve the problems without taking all the time
- Use common sense
- Whatever is pursued could be done in phases so people can see action an progress and believe in solutions
- People 1st
- Focus on least expensive / shorter term projects first
- Don't focus on just one solution – what everyone in County needs
- Have a goal to start something by given date

- Funding – financial burden on people – federal and state should share the burden.
- Don't just fix the freeway
- When floods occurs – make people a priority
- FEMA maps out of date.
- Debris and bridges problem
- Basinwide flood mitigation
- Needs to move now (yesterday!)
- Also need work on tributaries.
- Small projects also needed.
- People who've been affected need to be involved

Recommended Solutions:

- Remove riparian debris.
- Stop filling in the floodplain
- Build on pilings in floodplain so it does not displace water
- Modify Skookumchuck dam for flood control.
- Larger culvert under I-5 for China Creek
- Convert Old Centralia sewage treatment plant to a hatchery
- Focus on dredging and retention over levees
- Look at dredging tributaries and Chehalis mainstem
- Water Retention
- Cleaning out the rivers / dredging
- Dike improvement / adding dikes
- Diversion – to ocean, around specific areas
- Raising houses (providing grants)
- Dams
- Scheuber Road Ditch (historically diverted from Hwy 6 past the hump)
- Fund from developers to assist people who were flooded (house raising)
- Benefits to a dam near Pe Ell: Recreation, fisheries, camping sites, retirement community, bolster economy
- Doppler radar @ Aberdeen needed to help predict. Better warning, earlier this time.
- Focus on flood plain development issues.
- Finish Airport dike (South end of field)
- Straighten river and take out meanders
- Pumps where needed
- Take the Corps out of the mix
- Remove naturally forming restrictions and allow river to flow freely. Keep down-gradient.
- Sediment management including @ the mouth of the river
- Dike ideas

- 1) Flood gates and pumps for small tributaries
 - 2) Dredge river deeper and use material for dike
 - 3) Build dike at least 10'-20' above 1996 flood level, or 191'-201' elevation.
 - 4) Secure 100' – 150' river frontage to build dike on.
 - 5) Dike high enough to protect freeway
 - 6) Dike/levee at Aberdeen solved flood situation
 - 7) Levee maintenance ongoing to preserve its integrity.
 - 8) Build dams to hold runoff in lower Basin area on larger tributaries.
Then release after flooding is gone. By use of tide gates.
 - 9) Dredge river to or below level @ 1978.
 - 10) Dredge river bars.
- PUD proposal
 - Dredge the Cowlitz, Chehalis, Newaukum
 - Retention
 - Quit filling floodplain
 - Retention – multi-purpose and benefits more people in Basin
 - Dredging
 - Water retention as solution. Can we do it –technologically
 - Property owners be able to do some of cleanup including in river. Streamline process.
 - Buy-out program.
 - Need combination of levees and dams. Financial impacts to community, etc.
 - Water retention (all agree). Will protect whole river.; Could control timing of crest.
 - Dams and dredging
 - Cowlitz was dredged after 1980 – worked great
 - Rivers need to be cleaned
 - Riprap helps stabilize
 - Banks reduce sediment
 - Clean streams, creeks
 - Need a dam
 - PUD has more answers than the Corps
 - Flooding is very predictable. Timing is everything. Flood Authority should focus on speed. Do it fast. Every year you wait

Other Comments:

- Choose consultants that are knowledgeable with the Chehalis Valley history
- Advertise meetings better in paper – not legals
- Public meetings should be scheduled so people can attend

- Authority members need to be at meetings to listen – Authority members need to attend
- Authority meetings should be at night at least sometimes
- Authority needs to understand the problem. Fly over floods, go see it in person. See valley now – sand bars, trash. Log jams. Contact AIRPORT for a flight to view (this is an offer)
- People want to help
- We need more public meetings
- Flood Authority need to reach out more to the public for information

Attachment 4

**Flood Authority Public Meeting
February 12, 2009 – 6:00 P.M.
Montesano City Hall
Montesano, WA.**

Mayor Ron Schillinger called the meeting to order at 6:02 P.M. He stated he was a forester before being mayor and he represented Montesano in the Chehalis River Basin partnership.

Self introductions were made of all participants.

Commissioner Terry Willis thanked everyone for coming. There was a PowerPoint presentation to explain why we are here. The Flood Authority is authorized by the Legislature and following the December 2007 flooding two bills were enacted. Bill 3375 authorized money to go towards the Flood Authority. The Authority offers a forum for all jurisdictions regarding the flooding. .

The Authority is creating a Comprehensive Flood Hazard Management Plan (CFHMP) to determine what is out there and prioritize projects. The construction phase is funded after the list is approved.

Timeline: February through March will complete the public values survey. Now through June will be the implementation of short term projects, including stream and rain gauges. June – finish draft CFHMP. Future steps will include the member jurisdictions revising and adopting the draft Plan and begin implementation of long term projects.

The Flood Authority coordinates with others on efforts on flooding. There will be a phone survey on issues within watershed. Two additional public meetings are scheduled for April and June. Everyone is invited to the monthly meetings the third Thursday of each month, the next one is on February 19 at the Lewis County Courthouse, 1:30 P.M.

Commissioner Willis asked for questions.

Q – Are you (Ms. Willis) the voice for the draft FHMP – will you hold meetings for unincorporated Grays Harbor.

Q –Commissioner Willis was not sure if there will be a meeting for just unincorporated Grays Harbor, but anyone can get in touch with her or another district commissioner and information will be relayed.

Q- Will the caller I.D. identify who is calling so people can respond?

Ms. Lee Napier stated that is a good point and we will talk to the survey people about that. The name will be Ellway.

Commissioner Averill stated Lewis County has had impacts from the river since the turn of the century and they are becoming more frequent. There used to be 10-11 years between floods, but recently they are every two years. In a way that is good because people took protective measures and damages were not as bad as they might have been without precautionary measures.

Centralia and Chehalis decided what to do in 1996. We hired an engineer, Pacific International Engineers, collected data and got a project on the books with the USACE. Unfortunately that project came to a halt in 2003 because in order to get a project done, it must get into the Water Resources Development Act (WRDA) and the President kept vetoing the bill and then Katrina hit and all the money went away. By 2006 we were not sure we could get the project going and we told the Corps of Engineers we would withdraw support. The Corps asked if we really wanted to do that as the project ranked well to get into the WRDA bill. We agreed to put bill back in hopper. In 2006 Congress passed the WRDA bill and the project was #46 on a list of 46 projects.

In December 2007 we got the biggest flood since 1933. We needed to do something. Studying we were good at, but in doing something we made no progress. People want to see progress. Previous floods created no major damage in upper basin of the Chehalis and then in 2007 we had huge damage. We lost water systems for Boistfort and Pe Ell – Doty and Dryad were filled with mud; the whole of Boistfort filled with mud, as well as Adna with water and mud. Bottled water was taken into the Adna schools for 3 months.

We can't do just the Corps project. It is for only 4 miles on a 90 mile river. It does nothing to stop flooding above Chehalis or below the city. We went to our legislators and said we need a commitment to look at the entire basin from the headwaters to the mouth and determine the problems and not solve just one problem but have solutions to address the issues for all of us. Levees are two types: those that have failed and those that will fail and they do not stop the water, they redirect. We may keep the water out of the Twin Cities but it will still come down. What other solutions are there and what will help all of us.

We got part of \$50 million. The State comes up with some of the share, the feds come up with the rest. We passed a bill but if the Corps project does not work out we want the money to work on other projects. It is more important to do a basin wide study that ESA Adolphson is helping us put together. The Corps told us we had to maintain the project if they build it and it could be \$600,000 a year to maintain levees. The Flood Authority is made up of elected officials. The County Commissioners run the County and city electeds run the cities. There needs to be an organization for operation and maintenance on facilities we create and that would be a Flood Control District. Only the counties can create that district. We

are working on forming that district. Legislation for a flood control district goes back to 1937 and they are usually very small. The method of voting was only property owners could vote and they get two votes for every 10 acres of property. Some people could get up to 40 votes. Someone then has to pay for the election. With three counties it would take a huge amount of money to create a vote. We will ask the Legislature for that.

The law allows for only a single county flood control district and we have three counties involved. We have asked the Legislature to allow five commissioners to create this district. We are also working with the Chehalis Tribes as they have a seat on the Flood Authority. We can't force the Tribe into a contract but they are working on legislation.

What does a Flood Control District do and how much will it cost? It will not involve the entire County and will have boundaries and only include people who are affected.

Commissioner Averill stated we know what Lewis County's problems are and we know there are problems down river. We need to find out what your problems are and we are sincere about this important project and we need to do it together.

Ms.Linda Hoffman said the meeting would be in three parts. We just finished first part; the second part will be an opportunity for you to talk about your thoughts and how you have been affected by flooding; what problem areas you think are most important for the Flood Authority to work on; what goals and solutions should the Authority pursue. We will take half an hour to talk as a group and then break into smaller groups to get more detail. We are open to question or comments or suggestions for areas of focus. Some folks came to talk about particular solutions and that is fine. The Authority is gathering ideas between now and June and building the list of projects, starting with existing flood plans and supplementing those with individual ideas.

Q- The last flood was caused by mismanagement of the lake level on the Wynoochee dam. Are you going to work with the folks on the dam to work it into the flood control plan?

Commissioner Averill stated that should be a responsibility of a Flood Control District. The Authority is not a regulatory body but a cooperative body between the jurisdictions. Lewis County experienced the same thing in 1996 on the Cowlitz and they did not lower the Mossyrock and Mayfield dam soon enough. Management is a problem that we have to think about. Tacoma power runs those two dams and we got them incorporated into our EMS now and we conduct exercises with them every year.

Mr. Carlton stated in developing the plan we must understand how the dam operates so we can take it into account for downstream impacts.

Q- We can all get USGS real time data and people can clearly see that data, but no change in the level of the lake was done while that was occurring and there was no plan or intention in lowering that lake.

EMS spokesperson stated there are annual conference calls with the Corps and operators of dams and the City of Aberdeen. We talk about procedures. When the lake reaches a certain level the Corps takes control of the dam and then we are in constant contact with them. This time they were releasing it in a dribble. The impact on the Wynoochee was not from the dam. There was lots of capacity and there was no need to release water. 280 cfs is nothing. They release water all the time to relieve pressure, etc. When the Corps takes over, Tacoma power does not say how much water is being released. They took over at 1:00 Tuesday or Wednesday. The gauge was showing level.

Ms. Hoffman stated this is an area you are concerned about and saw an impact from and would like to see it incorporated into the plan.

Commissioner Willis responded to the questions about the Wynoochee. We hear that over and over. What we don't seem to know is how much water is coming into the cribs just below the dam. We need some gauges up there so we know what the cribs are contributing.

Q – One Voice was formed after the 2007 event. It believes there needs to be a basin side plan and that there needs to be a Flood Control District. There has not been a successful mitigation of a major basin flooding without the FCD. It is a municipality and the Commissioners that run it are elected and are full time and they do nothing but design, control and maintain the flooding mitigation projects for that basin. All the things you are talking about would come under the control of a FCD. They are the ones who say who does what when – you go to them if you aren't happy about what goes on. The Corps becomes part of, and coordinated under, a FCD. It's not perfect, but it's the best chance we have to bring all this work together. The Authority will eventually dissolve because they have other duties. If we get this one person one vote – the only ones voting are the people in the footprint described by the counties. The people of Centralia and Chehalis that are not inside that district will have no vote. Also don't be afraid if it's taxed – it is limited to .50 per thousand.

Commissioner Averill stated it is a junior taxing district. The State says the County can't charge more than \$1.80 per thousand and it has to be divided up. We are going to the Legislature to ask them to change the priorities because fire districts are ranked below the library.

Q – How do the commissioners go about determining where problem areas lie? You can fly the rivers but you aren't going to see what is going on. You need a sled on the river. I could take you to the problem areas: log jams in the rivers; where erosion of farm lands has occurred – mile long stretches – where has the dirt gone? Dredge the rivers, get rid of log jams, reroute channels to where they should be and the problem is solved. You hear complaints that Lewis County filled in the flood plain – 50 acres filled in and that's a small piece of pie. If they dredge the lower half of the Chehalis and started dredging at least from the Wynoochee and Satsop and got rid of log jams we'd get our channels back where they need to be. Go up the Satsop – just the last tiny flood – a cornfield 50 feet in width for a quarter mile is gone. Where did it go? Downstream. Cottonwoods used to be a buffer and they are gone now. Another field lost over 100 feet of field which is a big chunk. Another person lost 150 feet. You can build all the levees you want and you'll keep building it up. Dig it up.

Q – He heard argument about dredging and levees. It costs too much to dredge according to the Corps but what does it cost the landowners? It needs to be dredged.

Commissioner Averill stated we heard from the Chehalis Tribe last night during this same argument. There is a scientific community that says dredging is too damaging for the restoration of fish. If scientists see good evidence that dredging is not hurtful and that it is successful, they will back it. The Skookumchuck has a dam east of Centralia. That interested Grays Harbor when we looked at the Corps project as it would hold some of the water in the system until the time came for a better use for it. There are other ideas for retention to hold water during heavy flow. Mid-august to October the Mellen Street bridge is a good grower of algae and fish spawn there. It makes sense to build retention facilities to release it during the summer.

Q – In 2007 Oakville got flooded out. The City proposed three projects and they are dealing with letting the water through. We want to replace a culvert under State Street at Harris Creek to let water through and direct it to proper drainage areas instead of through town. We would like the same type of culvert for the Sigman Ford Bridge. We would like to improve and lengthen the drainage system that transports the runoff from the north side of the City.

Ms. Hoffman stated the three project for Oakville have been submitted. We have several ways of soliciting projects here. We are taking notes at public meetings, we have formal solicitations to cities and the Tribe and we will be using public meetings to take group proposals. The Authority will hear from groups for proposals. What you are saying tonight is being shared

Q – His family has been here since 1872 and recorded many floods. Dredging might be a solution in some places but we just have more water – look at the gauges. You can remove all the silt and we are still getting more water. As long

as China continues to burn coal we will get more water. He would like to hear about the PUD project. Keep water in the summer for the fish; generate some power. Where do you rebuild your next investment? Raising dikes and dredging river is not going to help.

Mr. Dave Muller, Lewis County PUD, distributed handouts. After the 2007 flood the PUD Commissioners wanted to help with flood problem. They retained a consultant to look at retaining water in the upper Chehalis. They were asked to look at the south fork of Chehalis and at the Newaukum and feasible sites to hold water to reduce flood level downstream as well as retaining water in late spring and summer when we have the low flow there are water quality issues. We asked for a benefit cost study based on economic aspects. That report was just released recently. One Voice is going to schedule some public meetings and try to get information out to the public that we have completed the feasibility study. The initial results are promising.

The bar chart on the handout shows reduction downstream. Doty/Dryad will see major a reduction in flood levels. Mellen Street will realize 3 to 4 feet depending on what flood you look at. Downstream we are looking at 2' reduction. We did not look at anything else downstream but our proposal to the Flood Authority is that this becomes a part of the basin wide plan and the Authority and Corps could do localized projects. We are going to do a presentation next Thursday at the Authority's regular meeting showing the benefits of improved fish habitat. We need to look at additional engineering regarding dam sites. We will request funding from the Authority for Phase II. We could fund the hydro portion but the rest must be federally funded. It is possible that highway transportation dollars could be used. We want to move this forward and do something. At the meeting last night people said there were lots of committees in the past but nothing got done.

Q – It might be a good idea to run same model on the 1996 flood. Look at the most recent flood and the impact on the Black River and Capital Forest. There is lots of precipitation there that you didn't have in other floods.

Mr. Carlton stated the flood model has been built and there is another request to complete it all the way to Aberdeen and then the 2007 and 2009 flood can be put into the model.

Q – Just because there is a 100 year flood doesn't mean you will wait that long again.

Mr. Muller stated FEMA says we have had more than four 100 year floods in 18 years. We agree. We need to look at individual flooding events and deal with problems in each area and we have to look at tributaries down stream.

Q – During the last flood more water came from Capital Forest, and it was a different flow pattern. You must consider where the rain is. A dam on the Chehalis won't do any good if the water is on the Skookumchuck. There is concern about dams breaking off and it takes years to get them built. What do we do in the interim? Regarding dredging, how deep do you have to dig? In 2007 from one hillside to the other there was 6 – 8 feet. When dams fill it may not be the best time to discharge. Do we have the skills to do that? One man one vote – opposed to that. It is misuse of the ballot. We need to maintain existing laws the way they are. If you carve out the flood district you can carve out the voters.

Commissioner Averill stated one man for one vote is for elections of members for your Flood Control District. They ruled for a small FCD it makes sense. This is not a small FCD. We are for it.

Q – People in the outlying areas don't see same tax benefits as those that live in the city.

Q – What about bank restoration for damage done by previous floods. Is there anything in the plan to address that?

Mr. Carlton stated there is no plan yet, so by bringing up that issue tonight it will be noted that the Flood Authority and FCD help people restore banks.

Q – There is a concern about dams. The people on the Wynoochee think the dam was letting out water and EMS representative says it wasn't. It makes sense that the dams are going to work but a lot of the water will not be held in the upper rivers. The Tolt River has had more water than since 1935. The dams can only work in the ideal situation designed by hydrologists. Also, studies on the Tolt showed that a forest that is in mature growth will retain about 20 percent of the water and the rest will go back into the air and move on. 80% of precipitation that falls will go into the watershed. Keep the water that the Chinese are sending and let the trees grow to hold the water.

Commissioner Averill stated that in 1996 the Gifford Pinchot Forest lost more trees in the mudslide than had been harvested in 5 years. Trees may or may not do what you say they will do.

Q – If you are within 80 miles of the coast you must have someone survey your property. Do not let your trees get over 30 inches in diameter. The risk factor is for over 30" and that is a 40-50 year stand of trees. The Marbled Merrelet is an endangered species and trees over 30 inches in diameter could be habitat so it becomes more difficult to cut down the tree. Loggers and property owners cut down trees before they get to 30 inches and that causes more water runoff and more soil erosion in a flood.

Q – Right now there are no sawmills that will take 30" logs. Foresters are saying there is a 35 year rotation on harvests. For the first four or five years runoff is 80% and I can verify that. Rotation change means 20% more land will be in that first five years of extra run-off. Have computers entered that into the equation? Back in 1900's forest fires burned everything off and there was no re-planting on the Black Hills until after WWII. Those lands were fern patches in the 30's. There were no trees but the salmon were coming up. The big flood then was when all the land was naked and it did not get planted until the 60's. Naked land does not soak up water and the change to a 35 year rotation will end up with a lot of water coming down the river. The Soils Conservation District used to pay farmers to stop erosion and pay for the big rock. A log jam at the Satsop forced the river to go sideways. That's what caused the erosion from the Satsop to the Chehalis.

Mr. Carlton stated we need to get pictures of the flood events and they can be sent to us if you have them. Talking about issues and solutions means of any size – one property or the entire basin – let us know.

Q – The Newaukum River hit on the east side this year. There were a lot lost animals on the west side and three dairies. Each dairy loses \$1 million a year during floods; they lost \$3 million in 2007. The Farm bureau is for water retention. GMA wants ARL (ag resource lands) and they are adding another 40k acres which locks that land up into ag. They don't get water – the Chehalis basin water rights are closed. Two year interruptible water rights are closing down which means the canneries will not look at ground that cannot get water rights. If we are locked into ARL and the Chehalis basin is closed for new water rights, how can we farm without water?

Q – On the lower Satsop bank erosion is the biggest concern. There are 250,000 cubic yards of dirt that went into the river. The treatment plant at Montesano, money spent for wellhead is at \$3-4 million. We could avoid that by going into gravel bars, digging them out, putting a dike around them, and making a hole for the fish. It might not change the flooding because you need a wider river.

Q – For people on the upper river, when you flush we get it. The dirt in his bucket came out of his house. Extra water came up the south fork and couldn't get down. There is too much water. Hold it back. We need to keep the water up at the top until the water at the bottom is down. We do watch the gauges.

Q – Years ago there were mill ponds everywhere. When it started to rain they'd let water out – with more rain they'd shut them again. Fish ladders worked in the 20's and 30's.

Q – Has the barometric pressure of water coming out of the ground been addressed– how do you to avoid that?

Mr. Carlton stated that is a long term problem and a tougher problem than rainwater. We must take sites into consideration.

Ms. Hoffman stated there was groundwater flooding work done in 1996 in Thurston Co.

Q – It would be nice to have a central location for predictions for flooding. We are affected by tides, storm surge, wind, and it is difficult for a lay person to know if it will be 2 feet or 7 feet. We cannot judge by the information we are getting.

Mr. Carlton stated there are predictions but they are not where you want them to be and without looking at one place for a long time there is no way to correlate. We are in the process to get information from the Northwest Weather Service (NWS) about where gauges ought to be. The more predictions made, and the more timely, the more expense.

Commissioner Averill stated that within the Authority if there is a recognition that there is only one project on the books and everything works wonderfully, we probably wouldn't turn a shovel until 2014. Money and time for water retention approval takes considerable time. The State has its own EMS but each county has its own team and we have not done a very good job on our basin of sharing the information. The Authority asked the consultants to look at a project because both flow control gauges and rain gauges can help us predict what is going to happen and how long the flood is going to go. In the right place we can share that information.

Mr. Carlton stated a lot of people looked at websites and the predictions were higher than what actually happened. NWS is trying to come up with a technique in real time to do exactly what you talked about. It may be out more than 5 years.

Ms. Hoffman stated the flip charts would be used to record additional specific thoughts. The information on the charts would be summarized and would be available, along with the meeting notes, for public review. They will be posted on the website. The website is www.lewiscountywa.gov and there is a link for the Chehalis Basin Flood Authority on the bottom left of the home page.

The meeting adjourned 8:20 P.M.

Attachment 5

Flood Authority Public Meeting in Montesano, 2/12/09 Comments from Flipcharts

Problems the Authority Should Consider:

- Anderson Road – Acts as dam, should be bridge on piers, or bigger culverts
- Black River Bridge acts as dam – should be opened
- HWY 12 itself acts as a dam. A lot of N/S channels need to be opened up.
- Anderson Road (widened in 02/03) acts as a dam. Needs larger/more culverts or a bridge. Work with the Tribe.
- Moon Road gets closed. Something is blocked.
- Wynoochee & Chehalis confluence: flooding caused by mismanagement of dam on Wynoochee? Gauges on tributaries just below Wynoochee dam could be helpful
- Problem areas: 1. logjams, 2. erosion of farmland
- Erosion of farmland along Satsop. 50 ft wide, ¼ mile along river. People have lost up to 150 ft. wide.
- Levees just cause someone else to get flooded
- Cost of dredging versus cost of losing land and property
- 100-year flood – they happen more often than every 100 years
- Consider where the rain is. Dam upstream on Chehalis won't help if the Skookumchuck floods. Dams break. What do you do in the mean time. When dams fill, you have to discharge.
- For District, why one man one vote? You tax land owners. Maintain existing models for District.
- Concern about dams. Wynoochee shows dams don't solve the problems. Dams only work during unique situations planned for by hydrologists.
- Boisefort. Erosion. Water here will come downstream.
- Groundwater – how do we avoid damage from that?
- Newaukum – Farmers hurt economically. Lost 3 dairies. Water rights. W/ retention, open up water rights.
- Lower Satsop – bank erosion. 250,000 cubic years eroded. Dig into gravel bars.
- Loggers log before trees get over 30-inches in diameter (Marbled Murrelet)
- 35-year tree harvest rotation. Logging leads to runoff. In past, Soil Conservation District would pay farmers to prevent erosion.

Recommended Goals:

- Don't focus attention on recent floods. Plan for a variety of types.
- Work on causes, not symptoms

- 2 feet less water would be great.

Recommended Solutions:

- Gage – downstream Chehalis. Not tidal.
- Gage on Black River – need more than one – closer to Little Rock
- Need Black Hills rain gage
- Retention would also help clean out silt
- Support retention.
- Restrict inappropriate filling
- Need to allow dredging and stop bank erosion.
- More buildings out of flood plain. Buyout.
- No more building permits in flood zone
- Elevate structures
- Floodplain restoration – storage
- Reopen water rights
- Doppler for the Coast
- Better information & more timely
- Look at historical channel depths
- Debris and silt control
- Remove log jams
- Survey of river cross-sections
- Inventory of sediment information
- A coordinated warning system for all the rivers, with special emphasis on upper Chehalis and Newaukum, but also the Harbor probably needs as well, with a warning "czar" who has authority to set it in motion. (I think Thurston County has something for the Skookumchuck and Bucoda.) Could be different in different places, phone tree, reverse 911, even a siren. needs clear chain of command and outlined roles and responsibilities.
- Dredge lower half of Chehalis, up the tributaries
- Oakville: culverts, improve drainage system
- Central website for flood predictions. Tides, wind, all combines here to create floods. Hard to judge.
- Dredging might work but we have more water.
- Want District vote to succeed.
- Run models against '96 flood, other big floods. Every flood is different. Capital Forest, Black River, how were they affected in the most recent flood?
- Bank restoration – assistance. Major issue.
- Let trees grow, they prevent water from coming down the watershed.