

Chehalis River Basin Flood Authority

**Meeting 9:00 A.M.
Montesano City Hall**

November 13, 2014 - Meeting Notes

Board Members Present: Ken Estes, City of Montesano; Karen Valenzuela, Thurston County Commissioner; Ron Averill, City of Centralia; Alan Vanell, Town of Bucoda; Julie Balmelli-Powe, City of Chehalis; Edna Fund, Lewis County Commissioner; Vickie Raines, City of Cosmopolis; Lonnie Willey, Town of Pe Ell

Board Members Excused: Wes Cormier, Grays Harbor County Commissioner; Lionel Pinn, City of Napavine

Board Members Absent: Dan Thompson, City of Oakville; Kathi Hoder, City of Aberdeen

Consultants Present: David Curtis, WEST Consultants, Jerry Louthain, HDR; French Wetmore, French and Associates

Others Present: Jim Kramer, Facilitator; Scott Boettcher, Flood Authority staff; Chris Brewer; Butch Ogden; Cindy Wilson; Jessica Hausman; Frank Kersh, J. Vander Stoep; Dennis Osborn

Handouts/Materials Used:

- Agenda
- PowerPoint – WEST Consultants
- PowerPoint – French and Associates
- Financial Report
- See https://www.ezview.wa.gov/site/alias_1492/34798/meetings_2013-15.aspx#November2014

1. Call to Order

Chair Raines called the meeting to order at 9:11 a.m. She thanked Mayor Estes for hosting the meeting and providing coffee, fruit and donuts.

2. Introductions

Self-introductions were made by all attending.

3. Approval of Agenda

There were no changes; the agenda was approved as presented.

4. Approval of Meeting Notes

The meeting notes had not been distributed; they will be approved at the December meeting.

Chair Raines stated Item 6 would be next on the agenda due to Mr. Walton being available immediately for a telephone update.

6. Update: SR107 and Relic Channel High-Flow By-Pass

Ray Walton, WEST Consultants and Casey Kramer, WSDOT, gave an overview of the PowerPoint on the relic channel and SR107. They have been working on a 2-dimensional model study to do modeling to

see if a bypass alignment would provide better hydraulics for scour conditions at the bridge on SR107. The study approach is to develop the 2-D model, simulate a range of geometry alternatives, and simulate a range of flow conditions and more.

Slides in the PowerPoint showed avulsion and high flow bypass; flow conditions for 2007, 2 year conditions and 100 year floods; and velocity of the river. There were examples of what would happen with a new channel and the old river in place.

Next steps include complete simulation of all alternative geometries and design flows; evaluating the differences between alternative scenarios; prepare and making a presentation. Mr. Walton asked for questions.

Mr. Boettcher stated when the earth moves away from the sheet pile wall the velocity increases. Mr. Walton stated he is looking at velocities at high flow and the bypass will provide relief.

Mr. Averill asked if completion of this project will make the sheet pile wall irrelevant. Mr. Walton stated if the decision is for the high flow bypass to encourage the river to go in that location the danger of avulsion could still occur while the old channel is moving. If that happens, avulsion is heading toward the mill. The decision was made to protect against that eventuality. In that sense the sheet pile wall provides additional and immediate protection of the mill.

A question was asked if this has any effect on flooding upstream or downstream beyond what is occurring now. Mr. Walton stated it does not because he is able to look at flooding in the 2-D models. He thinks this will have very little effect on flooding. He has not looked at the results of the 1-D model at Mary's River but felt that the changes would be very small, if at all.

Mr. Boettcher asked when the study would be completed. Mr. Walton stated simulation should be done by the end of next week. He believes it will be wrapped up in December.

5. Update: Climate Change Implications for Chehalis River Basin

David Curtis, WEST Consultants, distributed a PowerPoint on climate changes. He stated changes are tied to a reference point. Climate is based on a 30-year average and is updated once every ten years. The challenge is the limited data. Networks have not been around very long: since the 1950s. A slide showed the annual precipitation in Sacramento from 1850 to 2014. The 30-year moving average of annual rainfall in Oregon shows an upward trend. In Centralia it started low in the 1950s, peaked in the 1970s and is going back down a little.

Mr. Curtis explained that tree rings indicate how wet or dry things are. Using this information showed changes for 1000 years. Climate changes 20 to 40% during a 20-25-year planning cycle.

Mr. Curtis stated these conditions are both natural and man-made. We are changing the cycle by what we are doing in the atmosphere and climate can be amplified or mitigated by changes we make to the atmosphere. He explained the tree line and the effect on trees. Accelerated growth has occurred during the post industrial area.

Temperature changes are a strong signal for warming; it will affect sea level rise. Precipitation changes are a weak signal. Extremes are what we need to pay attention to. Highs and lows will get more intense while the averages stay about the same.

Slide 6 in the PowerPoint showed that a coastal flood is likely and that big impacts run upstream. Property in the Aberdeen area that is exposed to high water is over \$1 billion; 15,000 people, and 9500 housing units. The threat of high water with coastal rise and flooding of the Chehalis River is very great.

Mr. Curtis also explained atmospheric rivers, which is a thin filament of moisture linked to the equator. This is also known as the "Pineapple Express." These events are responsible for the greatest floods.

Action items to consider:

- Improve rating curves: The Chehalis River at Centralia, and the Skookumchuck River at Centralia. The gages are owned by the National Weather Service (NWS) and are not funded for rating curves. The Flood Authority could fund these.
- Improve forecasts for inundation mapping: these are underserved in the Lower Basin. NWS is providing storm surge guidance (every 6 hours there is a new forecast at the coastline). Mr. Curtis has put a link for this on the Flood Authority website.
- Forecast Gap: There are upper basin forecasts; there are ocean forecasts. There is a gap in the middle and the risk is a billion dollars in property exposure. All of the pieces are there; they need to be assembled into a forum that is useable to local folks. It can be modeled with 3-4 days lead time.

Mr. Vanell referred to slide 9 and stated if we are looking at the average and not the [actual precipitation] what is the scenario if we get the 8-10 million acre feet of water. Should we prepare for the worst case? Mr. Curtis stated everyone who designs structures needs to understand that they can be exceeded. There is always the next bigger flood that can occur. With climate change the probability of getting bigger events is going up, and that is what we need to be concerned about. We will never build a levee high enough or a dam big enough. We need to prepare for the bigger event, prepare for management practices; decide where to build facilities and build them resiliently. Social structures need to understand that we may have a big event. Ranges in the Pacific Northwest are not as extreme but they will happen.

Mr. Kramer stated the ability to improve flood warning in the lower basin has not been focused on by the Flood Authority. This information needs to be provided to the Grays Harbor local governments. If they want to do something, report back to the Flood Authority. Mr. Curtis stated it would cost under \$2000 for modeling and it would require three or four years of records and about \$15,000 a year for three years to get a baseline.

Chair Raines stated Item 8 would be next on the agenda since Commissioner Valenzuela had to leave early and wanted to be present during that discussion.

8. Update: Floodplain Management Recommendations

Mr. Kramer stated French Wetmore would summarize the floodplain assessment and talk about next steps. The Flood Authority needs to decide if it wants to proceed with the recommendations.

Mr. Wetmore provided a PowerPoint of the status in the Basin, and what communities can do and what the Flood Authority can do. The objective of the Floodplain Management Assessment is to: assess the status of floodplain management in the Basin; recommend community and Basin-level efforts; and focus on flood loss prevention and reduction rather than protecting natural floodplain functions.

Mr. Wetmore stated the FEMA maps are not accurate and until there are new maps, manage to the flood of record, or base flood elevation (BFE).

Basin communities have significant amounts of vacant floodplain land; their comprehensive plans do not address floodplain development; and zoning ordinances do not have floodplain or low density uses. Recommendations for these issues: guide damage-prone development away from flood problems; preserve areas as open space.

Floodplain construction regulations differ in the various ordinances and some do not meet all of the current NFIP requirements. Recommendations include reviewing higher standards and increasing freeboard.

Administering regulations is also an issue. Smaller communities do not have floodplain management training and have small staffs. Recommendations include staff training, provide model procedures and records and offer on-call assistance.

Existing problems can be mitigated by regulations, flood control, retrofitting and public information. Recommendations to mitigate problems include funding of flood vent retrofits; funding of building retrofits; and providing information and technical assistance.

Flood insurance coverage includes 4,788 flood insurance policies in 12 communities within the Basin, totaling over \$4 million in total annual premiums and over \$980 million in total coverage. Some flood insurance policies are listed under the wrong community and many areas are still under insured. Recommendations include promoting flood insurance and training insurance agents.

Communities need to participate in the Community Rating System (CRS). This is a voluntary program which reduces flood insurance premiums. The benefits include direct dollar savings, better organized programs and incentive to improve programs. Mr. Wetmore included recommendations to the communities and to the Flood Authority (slides 22 and 23). https://www.ezview.wa.gov/site/alias_1492/34798/meetings_2013-15.aspx#October2014

Mr. Kramer stated there is money available from the state for retrofitting. There is no work plan for the other recommendations. He stated if there is an interest staff can come back with recommendations and resources that are available. Should the Flood Authority move forward? There was agreement to have staff develop a work program.

There was discussion and the conclusion was that the Flood Authority would move forward. More outreach would be done in the communities and staff would come up with recommendations. There were thumbs up all around.

Chair Raines stated that this meeting would be the last meeting for Commissioner Valenzuela. She presented the Commissioner with a certificate and a gift and thanked her for her contribution to the Flood Authority. Chair Raines also had a gift for Merlin MacReynold, Chehalis City Manager, who will be retiring.

7. Floodproofing Update

Mr. Boettcher stated there are funds available for improperly installed vents. A request was sent out in October, and a reminder early in November, for communities to submit requests. Only Bucoda

responded. The Flood Authority would require the town to be trained by Mr. Wetmore as to what to look for in the permit application and to sign off that the contractor did install the vents to standard. It is hoped that by Bucoda participating other communities will understand the process and take advantage of the offer.

A fiscal agent is needed for the billing; Lewis County is unable to provide that service.

Mr. Boettcher reminded everyone that this is not a FEMA project. The recommendations: Mr. Boettcher will hire a contractor; Mr. Wetmore will offer technical assistance, and someone else will be the administrative agent. Time needs to be spent promoting what we are doing so other basin governments are aware.

Mr. Averill stated Centralia did not put in for retrofits. Responses from citizens were that it wasn't worth the effort because they couldn't get the money from FEMA. He tried to explain that this was not FEMA money. The process may need to be explained again. Another problem is that the community development departments in both Centralia and Lewis County have been reduced in the last couple of years and sending someone out in the field would be difficult. He suggested that the city of Centralia put an article in the paper and people can voluntarily come in.

Mr. Boettcher stated the price per structure for retrofits would be about \$2500. Mr. Osborn asked what the work would entail. It was hard to tell staff if he doesn't know about the program. Mr. Kramer stated Mr. Boettcher would hire a contractor through OFM so cities just need to let people know this is available. Mr. Boettcher stated the communities need to be trained first so they can say that the contractor installed the vents properly. There is no up-front cost to homeowners; the contractor would get the permit and the Flood Authority would do the bidding process.

Mr. Estes stated if someone comes to Montesano to get a building permit he does it as a citizen. If the city is responsible it goes out for bid. To operate in Montesano one needs a business license. Chair Raines stated that the firm that will do the work should come from that county and the funds stay in the county.

Mr. Vanell asked if every owner needed to give approval before starting. Mr. Boettcher stated the contractor needs approval to go on the property or they can't do it. The approval needs to be in place before going to bid. Mr. Kramer stated if this is to be done quickly waiting for 25 property owners to agree doesn't make sense. We need a high and a low estimate, assuming they have to buy a business license, and get a bid on a per-proposal cost. Put all that on an on-call contract. We should work with the news media.

Mr. Ogden stated at the first contact the land owner signs an agreement to allow access to his property. It does not tie the landowner to anything but permission. Mr. Ogden can provide a copy of that agreement through the Conservation Commission.

9. Public Comment

There were no public comments.

10. Reports

a. Chair's Report

The Chair did not have a report.

b. Member Reports

Centralia – Mr. Averill stated the City hopes to get funding for the China Creek project. It has put out an RFP and is moving forward.

Lewis County – Commissioner Fund stated she, Mr. Averill and Tim Elsea discussed the use of social media and the Outreach Committee will be discussing it and doing some research. Information will be brought back at the January meeting. Ms. Wilson and Mr. Estes both stated social media provides a huge benefit.

Montesano – Mr. Estes stated the Mary's River Lumber project looks semi-complete. The contractor ran into huge rocks when they were driving the beams and they need to be cut off. Another issue was logs that were used a long time ago to divert the river have to be dug out, which was not expected. He stated there are about 35 beams that are available for another project or that can be sold and the money returned to the Flood Authority. They are worth about \$250,000.

Chair Raines stated she would rather visit the site after the paving is done. The steel will still be there unless it is sold. She did not know of a project where the steel could be used. Mr. Estes stated he would get bids and bring those to the December meeting. Chair Raines suggested postponing the tour until after completion of the project.

Bucoda – Mr. Vanell reported that next Thursday the Stormwater Advisory Board will meet in Olympia. Mr. Boettcher will be attending that meeting. Outreach is planned for the Thurston County Planning Council in March or April.

c. Correspondence

There was no correspondence.

d. State Team Report

Mr. Ogden reported that Grays Harbor County has 2 pads that paperwork is being prepared for; the SEPA was approved today. Lewis County has one finished pad; 2 need fencing only. There are 7 pads permitted and will be moving forward in the spring, and one trying to find a location not in the floodway. With the completed pads there are 1,503 animals protected, which is \$2.2 million in livestock and 20 major pieces of equipment, at the cost of about \$800,000. Mr. Kramer asked that an email with that information be forwarded.

Ms. Hausman reported that Ecology is working on floodplain management and helping with gauges around the Basin.

11. Financial Report

Ms. Napier stated the expenses for October 16 through November 10 were \$18,646 which included staff salaries and consulting services. If any jurisdiction has invoices to be paid, please get those to Lewis County as soon as possible. They must be submitted in 2014 to be paid.

12. Meeting Conclusions

Mr. Kramer stated the Flood Authority heard from Mr. Curtis about providing better flood warning in the Grays Harbor area and that communities in that area need to learn about this. A report was given by Ray Walton and Casey Kramer regarding work on the old relic channel, which looks promising. Flood

Plain recommendations from French and Associates and the Flood Authority will develop an action plan for implementing reports provided by French and Associates. The Authority is moving forward on an approach for vent retrofits that will have a minimal effect on jurisdictions.

11. Confirm Next Regular Meeting

The next meeting will be a telephone conference on December 18. Chair Raines asked that the members bring recommendations for Chair and Vice Chair. She thanked Mayor Estes for hosting the Flood Authority.

The meeting adjourned at 11:48.