

**Chehalis River Basin Flood Authority
Special Meeting
Veterans Memorial Museum
100 SW Veterans Way
Chehalis, WA 98532**

**February 17, 2011 – 9:00 a.m.
Meeting Notes**

Board Members Present: Mark White, Chehalis Tribe; Terry Willis, Grays Harbor County Commissioner; Karen Valenzuela, Thurston County Commissioner; Dolores Lee, Town of Pe Ell; Julie Balmelli-Powe, City of Chehalis; Edna Fund, City of Centralia; Ron Averill, Lewis County Commissioner; Gary Givens, Town of Bucoda

Board Members Absent: Ron Schillinger, City of Montesano; Jim Cook, City of Aberdeen; Dan Thompson, City of Oakville

Consultants Present: Todd Chase, John Ghilarducci, Pam Bissonnette; Justin Healy; Bruce Mackey and Spencer Easton

Others Present: Please see sign in sheet

Chairman Willis called the meeting to order at 9:05 a.m. Introductions were made.

1. Economic Analysis

Mr. Todd Chase stated he would explain the findings of the economic work that would dovetail with the preliminary financial findings that Mr. Ghilarducci would discuss later in the agenda.

Mr. Chase went through the PowerPoint.

Slide 3, item 8: Enhanced property values. Mr. Chase stated he looked only at the land, not at improvements to the land.

Slide 4 showed the map of the Economic "Benefit" Areas. Mr. Chase stated that Black Lake may not contribute or benefit as much before investments were made there. It may be necessary to define those properties that drain north and south and pull those out of the economic analysis. The same would apply to the mouth of the Chehalis in Grays Harbor where tidal events occur. The tide does contribute to movement of water out of the Chehalis. If additional analysis is needed, those areas can be isolated to see what happens when they are pulled out. Commissioner Valenzuela stated Black Lake is out of the boundary and Black River is inside the boundary. Mr. Chase stated he needed to know what tax lots those include. Mr. Mackey stated West Port and Ocean Shores were not considered part of the Basin. Spencer stated the areas that drain into the river were looked at; not those that drain into the harbor.

Mr. Chase stated these are preliminary findings and he needs direction as to what to include. Commissioner Willis stated there is a gauge up above the Grays Harbor area. Ms. Bissonnette stated if there is no direction otherwise they will stick with the WRIA and take out Black Lake.

Slide 5 used census information to include in the IMPLAN model. Only businesses within the flood plain were included; not within the basin. These numbers are the big picture view of the 2007 flood. Some

think the damage was underestimated because not everyone reported minor damage. These numbers put things into perspective as to what is local and what is statewide.

Slide 6 needs to be consistent and accurate when comparing jurisdictions. FEMA data is not based on a single event; it is based on a specific area over a specific period of time.

Commissioner Averill asked if those figures include what FEMA paid out. Mr. Chase stated yes. Commissioner Averill stated that poses a problem because FEMA only pays residential owners; it does not include business or rental losses. Mr. Chase stated there is no consistent measure of property losses but he tracks what he knows.

Slide 7 – Mr. White stated the reservation is unmapped and all of the reservation is not considered flood plain. Mr. Healy stated his maps shows that the reservation is in the flood plain. There are two sets of data and he stated the maps would be reviewed.

Slide 9 – the 2010 census data will be available soon and it will be included.

Slide 11 – these are regional benefits. There is some lost revenue as not all of a million dollars is spent in the region. There could be materials bought outside the region or wages paid to people outside the region. There are some national benefits.

Slide 12: Key Questions

Mr. Chase stated map adjustments need to be made and that would trickle back to his work. Mr. Healy stated the census information is available now and he is not sure if it includes employment but it would include population.

Mr. Chase stated that they will look at the maps and make sure the maps are current and the same data is being used.

Discussion followed on the Key Questions.

- Data gaps were identified and need to be filled in.
- The 2010 Census data should be included.
- Boundaries need to be identified for each county and for the Tribe.
- Better definition is desired on both charts (slides 7 and 8).

2. Break

The group took a break and reconvened at 10:26.

3. Financial Analysis

Slide 2 explains the purpose of the Financial Analysis. Still to be determined is who should pay for what and determine the basis for credits for not building in the flood plain.

Slide 3 – Commissioner Averill stated the slide does not include money for the early warning system. Mr. Mackey explained the chart is after July 1 and early warning is figured before July 1. There will be maintenance for the website, etc. but those costs are not known yet; they did not know what assumptions to make.

Slide 6 – Cost Allocation Question #1: The suggestion is to divide the costs between the flood plain and the rest of the basin. Look at the gross product value and the percentage of activity in the flood plain. That number is fairly consistent (about 70%). There are direct and indirect benefits to commercial development in the flood plain. For every dollar spent to protect the flood plain the flood plain should pay for 70% of those improvements because that is where the benefit is. We are talking only about existing development in the flood plain. Projects and activities that do not fit this approach should be set aside. This would be a project that we need to allocate proportionately throughout the basin and the cost needs to be divided. If a project benefits just one geographic area these rules would not apply.

Mr. Carter asked how the cost is allocated for raising I-5. Ms. Bissonnette stated the state gets 35% of the benefit but they are also getting the local benefit inside. It is not necessarily one or the other (state or local benefit).

Commissioner Averill stated the DOT Mellen St interchange is not shown as a benefit and that will start in 2012.

Slide 7 – These costs are based largely on commercial development. Assessed value was used as half of the allocator because assessed value gets back at residential development.

Slide 8 – Numbers 1 through 11 are flood plain statistics; numbers 12 through 18 are flood plain area; the rest are basin area. These are based on development that is already there. Commissioner Valenzuela state the figures do not include the benefit of flooding in farm lands. Mr. Chase stated the census does not include farm commodities or agriculture value.

Mr. Carter stated transportation services in the flood plain are not included. Mr. Ghilarducci stated the state's share should be negotiated on total impact to the state.

Commissioner Averill stated if the Twin Cities project is built there will be substantial infrastructure that needs to be maintained and I-5 and the BNRR will benefit. Ms. Bissonnette stated the state amount is called out. There will be \$67 million of local benefits from transportation – where does that fit into Mr. Ghilarducci's list? We need to go back and figure out how to incorporate that. Mr. Carter stated the protection of I-5 and the BNRR does not seem to be factored in.

Slide 9 – The flow chart answers some of the previous questions. Economic value and assessed value are being used.

Slide 14 – Ms. Bissonnette stated these costs are to run the district. You could argue that you could do it uniformly. Mr. Ghilarducci stated it would be valid to use the tax approach and allocation approach for future projects. The tax approach could raise the \$645,000 (slide 11).

Mr. Givens stated a compilation of taxes can end up being quite high; he is not for taxes.

Slide 18 – This is where the district could consider the nickel on taxes to recoup the \$645,000. Commissioner Averill stated eventually the district will need to be managed. If Trans Alta goes away the Centralia area will exceed the \$5.90 local tax lid and there will be no taxation available. Also, if Trans Alta leaves then Thurston County may have to manage Skookumchuck Dam due to its direct threat to Bucoda. Mr. Ghilarducci stated the district could structure a rate to recover that instead of imposing a tax.

There was discussion about what the five cents per thousand actually provides. Mr. Chase stated the status of doing nothing could cost a million dollars at the next event and then there will be issues of assessed values declining.

Slide 20 – Ms. Bissonnette hopes to have a draft ILA out early so the Board can review it with staff members and prosecutors to ensure that it says what you want it to say. Membership drafting is already done; the boundaries are to come and also a generalized financial approach. The draft should be ready in a week so there can be discussion at the March meeting.

Discussion on the formation of Flood Control Zone Districts

Commissioner Averill stated Lewis County disestablished two county-wide flood control districts and reformed a district for the Chehalis Basin. That district formation is currently going through the BRB process.

Commissioner Valenzuela stated Thurston County expects to move forward by scheduling a public hearing to form a FCZD but she does not know how that recommendation will be accepted by the other commissioners.

Commissioner Willis stated Grays Harbor County included the entire WRIA. There is a push from other cities and comments from the harbor area asking about benefits and being included. The BOCC decided to not take action on a FCZD and the negative action would allow the process to restart in two weeks. Many people who showed up are willing to go to workshops to talk about the issues and get a better view of how the FCZD will benefit them.

Mr. White stated there has been no serious undertaking to stop the flooding and the Tribe is evaluating its future participation. The Tribe will provide a letter explaining their position.

4. Reports on Development Regulations

Commissioner Averill stated Lewis County has adopted the Flood Authority's flood hazard management plan as an annex to the county plan.

Ms. Fund stated Centralia has approved the 16 recommendations.

Mr. Givens did not know where the town of Bucoda is with the Plan.

Mr. Bob Nacht stated the City of Chehalis is in the process of adopting the Plan. There will be a public hearing on February 22. All of the recommendations have been adopted by the city with the exception of two or three.

Ms. Lee stated the town of Pe Ell has not done anything yet and options will be discussed at the next council meeting.

Commissioner Valenzuela stated Thurston County has a resolution to include the 16 recommendations of the FHMP and the plan is to adopt it on March 13.

Commissioner Willis stated Grays Harbor County is reviewing it and will probably adopt the Plan as an addendum to its county plan.

Mr. White stated the Tribe did not adopt the Plan because the Tribe's plan far exceeds the Flood Authority's plan.

5. Adjourn

The business concluded and the meeting adjourned at 11:51 a.m.

**Chehalis River Basin Flood Authority
Public Meeting
Lewis County Courthouse
351 NW North St.
Chehalis, WA 98532**

**February 17, 2011 – 1:30 p.m.
Meeting Notes**

Board Members Present: Mark White, Chehalis Tribe; Ron Averill, Lewis County Commissioner; Julie Balmelli-Powe, City of Chehalis; Kathi Hoder, City of Aberdeen; Edna Fund, City of Centralia; Karen Valenzuela, Thurston County Commissioner; Gary Givens, Town of Bucoda; Dolores Lee, Town of Pe Ell, Terry Willis, Grays Harbor County Commissioner

Board Members Absent: Ron Schillinger, City of Montesano, Dan Thompson, City of Oakville

Others Present: Please see sign in sheet

1. Call to Order

Chairman Willis called the meeting to order at 1:32 p.m.

2. Introductions

Self-introductions were made by all attending.

3. Approval of Agenda

Chairman Willis asked for the approval of the agenda. There were no changes or corrections and the agenda was approved.

4. Approval of Meeting Notes

Chairman Willis asked if there were changes or corrections to the meeting notes from the work session from January 20, 2011. There were none and they were approved. There were no changes or corrections to the meeting notes from the business meeting and they were approved.

5. Public Comment

Mr. Vince Panesko commented on a remark made at the morning work session regarding the low impact that flooding has caused in Thurston County as compared to Lewis and Grays Harbor counties. Commissioner Valenzuela stated that the reason Thurston County is not affected by flooding as much is because they have regulations that prohibit development in the flood plains. Mr. Panesko stated the evaluation in the flood plain in Lewis County is about \$700 million and in Thurston County it is about \$600 million which is fairly equal value, yet Lewis County has ten times more damage than Thurston County. If dams were built to prevent flooding, Thurston County would benefit very little compared to the other counties because they do not develop in the flood plain.

From a different point of view, there are properties that straddle the Lewis/Thurston County lines. When you look at the zoning of these properties, Commissioner Valenzuela's comment stands out dramatically. The portions of those properties in Thurston County are zoned agriculture and the part of the property in Lewis County is zoned for rural development, despite the attempt to have the Growth Board zone it agricultural. Lewis County fought it and was able to keep it as rural development. The other parcel is owned by the City of Centralia. Mr. Panesko stated Lewis County did not want property

along the river, owned by the City of Centralia, to be zoned agriculture, although it was zoned ag and still is today.

Since the 2007 flood the Port of Centralia has filled in property and put in developments. In Chehalis there has been filling and development also since 2007 with a hotel and a bank. Commissioner Valenzuela's comment needs to be considered. Thurston County has requirements that prevent development in the flood plain. That is significant in minimizing damage and has put Thurston County in a position where they do not get a lot of benefit from flood control measures. Lewis County is fighting what the Flood Authority is trying to do to in terms of minimizing flooding.

6. Reports

a. Chair's Report

Chairman Willis summarized the morning work session that included discussion on the economic analysis and financial analysis for a flood district formation and round table comments regarding the development regulations of the Flood Hazard Management Plan.

b. Member Reports

Ms. Balmelli-Powe read a letter from the City of Chehalis regarding representation of jurisdictions in the new flood district when it is formed. A copy of the letter is available to anyone who requests it.

Ms. Lee stated the Pe Ell council voted to concur with the City of Chehalis's position reflected in that letter.

Commissioner Valenzuela stated she has followed the articles in the Chronicle regarding the activities of the Flood Authority on the FEMA maps. She complimented the Chronicle on its focus on this issue.

Ms. Fund stated that she and Commissioner Averill spoke at the House hearing regarding Trans Alta. She was happy to report that House Bill 1825 will not be coming out of the House.

Chairman Willis stated she would speak as a Commissioner from Grays Harbor County. Grays Harbor County brought forward a flood control zone district proposition. It took the area of WRIA 22 and 23 as the proposed flood district and presented that at a meeting last week. There were approximately 40 people who attended to testify on the proposal. Commissioner Willis stated all but one was against forming a flood control district in Grays Harbor. The BOCC decided that forming a flood control district at that time was not to Grays Harbor County's advantage. Commissioner Willis proposed a motion to end that session and not form the district and the motion passed. Before the motion was passed, however, the people in the audience were asked if they would be willing to attend a public meeting to work on what a flood district would mean to the citizens, the benefits and the area it might include. A majority of those people stated they would attend such a meeting. There will be a meeting early in March for that discussion.

Commissioner Averill stated the newspapers reported Grays Harbor County's decision was for the three county flood control district. Commissioner Willis stated that was not correct, that the flood control district that Grays Harbor proposed was just for Grays Harbor County. She reminded everyone that each county must have its own flood control district or a similar entity before it can be included in a multi-county flood control district.

Commissioner Averill stated Lewis County has had two flood control districts, one formed in 1973 and one in 1997. After discussions with legal counsel and Mr. Hugh Spitzer it was determined that the overlapping districts could cause some legal problems if a bond was required. Last Monday the Lewis County BOCC held a hearing for dissolution of both the 1973 and the 1997 county-wide flood control districts and two sub-zones. In that same hearing, the BOCC re-established a Chehalis Basin Flood Control Zone District. It is in the process of going before the Boundary Review board. The advisory board for the original district is still intact and moving along; the paperwork was cleaned up to prevent legal issues down the road.

Chairman Willis stated there is a flood control zone district for the Connor Creek area in Grays Harbor County. This would have been outside the proposed zone that went before the BOCC on Monday. Also, the proposed maps that Grays Harbor put together included the Chehalis Reservation. It should not have been included. The county has no jurisdiction over the Reservation being in or out of a flood zone district. Those lands will be removed from the map when this issue comes up again.

c. Correspondence

Chairman Willis received a copy of a letter to Keith Phillips from the Chehalis Basin Partnership (CBP) regarding the state becoming the non-federal sponsor for the GI and requested that the CBP be included in the processes.

The mayors of Grays Harbor County also sent a letter to the governor stating their support of projects in the Basin.

Both of these letters are available upon request.

d. State Team Report

Mr. John Donahue briefed the Flood Authority on the Corps' approval of an update on an agreement guiding the partnership on the Twin Cities project. It will allow for in-kind work by the state on that project and will support early work on real estate appraisal and wetland delineation. That agreement is expected next month.

Department of Ecology has been working with the Corps on wetland mitigation strategies as it has to do with the Twin Cities project design.

Last month Mr. Donahue mentioned a workshop that would provide a comprehensive update for technical issues surrounding the Twin Cities design update. It was taken to the Board Advisory Committee and they suggested breaking it up into various categories so attendees could focus on one or a couple of topics. Mr. Goss agreed and he and Mr. Donahue hoped to set a date for the first workshop at the end of March. Before that meeting, Mr. Donahue thought it would be helpful to scope the workshops: the Corps could bring a broad outline of what it expects to bring to the workshops, the type of interaction they hope to get, progress they are making, and staff would bring specific questions to be answered. This will ensure that the workshop is productive for everyone. Mr. Donahue suggested an earlier scoping session in early March to look at each topic the Corps is going to bring to the workshop and help them better define what kind of information is being looked for on each topic.

Mr. Donahue stated anyone on the Flood Authority who is interested in the updated information coming from the Twin Cities project should attend. The plan is to help the Corps better define and improve upon the report they will be providing to Congress on the Twin Cities project. Mr. Donahue

wants to help the Corps by providing input from the state and local perspective about how we view the progress they are making and the questions that remain unanswered. The subjects will include economics and engineering and a follow-up on hydraulics and hydrology.

Mr. Donahue stated the target audience is staff but would not exclude the Flood Authority members if they wish to attend.

Commissioner Averill asked if these were the former technical committees that did the first study with the Corps. Mr. Donahue stated it would be a follow-up to that first study.

Mr. Donahue stated he would like to schedule something before the next Board Advisory Committee meeting, which is March 3. He will email Mr. Mackey to schedule the scoping meeting.

Commissioner Averill asked that Mr. Goss advise everyone which technical committee will be meeting to determine which staff person should attend.

e. Corps of Engineers Report

i. Twin Cities Project

ii. Basin-Wide General Investigation

Mr. Goss was on the agenda later and stated he would postpone his report to that time.

f. Lewis County PUD Report

Mr. Dave Muller updated the Phase IIB report. He received comments and questions and those are being consolidated to be on the same basis, and there is work being done to revise the report. The PUD is talking to the Corps to see if its benefit information would be available for the Twin Cities project since that methodology is the same as the methodology used in Phase IIB. He hopes the report will be available in March but if additional information is received from the Corps, the report may be delayed past March in order to re-work the economic information.

OLD BUSINESS

7. Ongoing Efforts Update

Mr. Mackey stated the only item not covered on the agenda is the update from Anchor. Anchor sent out a report stating it had completed the low flow measurements and were finishing up the high flow measurements. The medium flow measurements will most likely be in April. A concern is whether or not the channel may change. They are taking water quality samples this week and they are working on data compilation and modeling.

8. Early Warning Update from West Consultants

Mr. Dave Curtis, West Consultants, provided an update on the early warning system. Mr. Curtis stated Spencer Easton, Bruce Mackey and Jerry Louthain have been instrumental in guiding Mr. Curtis around obstacles on the ground and helping coordinate many other things.

The overall objective of the early warning system is to improve the value of warnings in the Chehalis Basin. This is done by getting a more effective response. The community will respond to a flood whether there is a flood warning system or not, so the idea of the flood warning system is to improve that response to reduce damages or loss of life that might occur without additional warning.

There are three elements on improving the response: better planning and preparedness up front; better ways to detect a developing flood event; better ways to improve the communications. Mr. Curtis' handout outlined how these three elements are being implemented. The map that accompanied the power point shows existing stream gages and where new gages will be located.

Mr. Curtis explained the chart and graph that shows a typical reading of a river gage. Also included was a series of flood plain maps that showed the area around the courthouse in Lewis County during various stages of a flood event.

Mr. Curtis anticipates the early warning system will be completed in May. He stated all the USGS gage sites on the map are available. The new ones that are going on as part of this project are not available yet and this is because of a satellite license that requires latitude and longitude coordinates of the final sites before they can be submitted.

Commissioner Averill stated Lewis County's Emergency Operation Centers (EOC) are not activated until a certain level of threat is reached. He asked what West Consultants are doing in working with the EOCs in developing information that leads to the point where a decision is made of going to a higher threat level.

Mr. Curtis stated he met with EOC managers last fall and listened to their needs and West tried to respond to those needs. In terms of decisions as to when to go to different levels of response this will be a leverage point to allow them to make better decisions about when to activate to go from one level to the next. Commissioner Averill confirmed that West Consultants is making arrangements with each of the emergency managers to the computer capability that will be in their operating area and usable. Mr. Curtis stated that is the intent: it will be available to everyone. The work being done in the Chehalis Basin is a framework that can be easily expanded to the whole state. It is not restricted to a certain area.

9. Special Meeting Update

Chairman Willis asked if anyone wanted to add more information about the morning work session.

Commissioner Averill stated besides the reports that were given earlier, the adoption of the proposed Flood Hazard Management Plan was discussed. Some jurisdictions have adopted it; others are in various stages of adopting it.

The Board looked at the various costs to be borne by a FCZD or interlocal agreement between a group of districts and looking at the options of how costs will be shared based on benefits. A FCZD has different ways within the law by which they can raise money. One of those is by a tax on property but it has several limitations to it. Other options are rates or charges for actual protections provided. There is an interest that people getting the greatest protection would pay accordingly and those getting less protection would pay less. This issue was not resolved at the morning meeting and will be discussed further.

10. Legislative Outreach

Mr. Mackey stated Senate Bill 5265, which is the bill for the flood control zone district legislation, was heard February 1. The companion bill is House Bill 1660 which was heard February 8. Mr. Mackey understands the Senate Bill was passed out of committee and sent to Rules who decides when and where it will appear on the floor for a vote.

Ms. Fund stated on Wednesday that House Bill 1660 was passed out of committee and referred to Ways and Means. Commissioner Averill asked why it went to Ways and Means. There was a question about the Boundary Review Board and some indication that part of the BRB responsibility was left out. Commissioner Averill stated he was confused about why the bill went to Ways and Means because there was no financial element to this bill.

11. Budget Outreach Effort

Mr. Mackey stated he proposed a budget for Fiscal Year 2013 and Mr. Phillips put it into the governor's budget proposal. Mr. Phillips stated he spoke to both House and Senate staff and asked Mr. Mackey to contact them. Mr. Mackey met with Susan Housan and Hans Dunshee and discussed last year's budget and the provisos that were put forward in that budget and how that led to the Flood Authority's request this year. They were all very pleased with the Flood Authority's progress and the budget request and Mr. Dunshee was very complimentary of what has been done. Following that, Mr. Dunshee had a hearing on House Bill 1497, which is the House version of the capital budget. Both Commissioner Willis and Ms. Lara Fowler testified at the hearing in favor of that budget.

Mr. Mackey wanted to be clear that the current budget does not call out Mr. Mackey's staff time to do budget proposals for the legislature. It is consistent with staff support that Mr. Mackey gives to the Flood Authority and he is able to do what he has been doing and does not anticipate it being without budget but wanted clear direction.

Chairman Willis encouraged clear direction for Mr. Mackey to do this. There were no objections for Mr. Mackey to provide the information needed. Mr. Mackey stated this is different than the time that was allotted to him to work on the FCZD legislation.

Chairman Willis thanked Ms. Fowler for testifying on the budget issues.

NEW BUSINESS

12. Transition Plan

Mr. Mackey stated on June 30, 2011 the Flood Authority will be facing some major changes. Assuming that the multi-jurisdiction flood district is formed and that money is allocated from the state for the first transitional year, everything will change. The Board needs to do some serious planning and some of those issues came up in the morning session which include: work priorities for the first year, how the district will be staffed and organized and how to get it up and running. Mr. Mackey is asking for direction to get this done at a special meeting proposed for March 31. If this is acceptable, Mr. Mackey will draft items for the Board's consideration and will facilitate the discussion to help the Board prepare for the changes.

Chairman Willis asked the Board members if they wished to hold a special meeting for this purpose. There was no objection and Mr. Mackey stated he would confirm a location and time.

Mr. Mackey stated another change coming is his retirement on June 30, 2011. Spencer Easton will be leaving at that time, also, going to Seattle.

13. Corps of Engineers Update

i. General Investigation

Mr. Goss stated the Corps is drafting a scope of work for hydraulic modeling for the entire basin and it should be done by the end of the month. He will be coordinating with Grays Harbor County and other stakeholders and he would like to obligate a contract as soon as possible to use some of the Corps' funding. There will also be discussions with Grays Harbor County about possible LiDAR work.

ii. Twin Cities Project

Mr. Goss stated the Corps is looking at hosting some workshops. He would like to suggest some topics to see what piques interest and then pull out one or two areas of interest for different groups and get representation from the proper stakeholders to participate in those portions of design.

There was a power point handed out on the Twin Cities project. Some major elements of this design that are moving forward are the Skookumchuck Dam modifications, the environmental mitigation costs, 100 year protection for the project, reformulation and Twin Cities Design.

- *Skookumchuck Dam*
The Corps is looking at incremental justification which will consist of a hydraulic model and what kinds of benefits the dam provides. There will be additional economic and hydraulic data that will need to be considered and they will also look at the potential benefits that the dam could provide and balance that against potential induced damages.
- *Environmental Mitigation Costs*
The Corps will be looking at verifying the classification of existing wetlands. There is a ranking of wetlands that needs to be field verified and that will be done with DOE. There will be site visits and Mr. Goss will coordinate with Mr. Mackey to notify the people on the Flood Authority distribution list so they can attend if they wish. The Corps also needs to verify replacements of lost functions: if there is an existing wetland that is impacted those lost habitat units have to be replaced and typically more acreage will be required and replaced than is impacted by the project. The watershed needs to be looked at in its entirety rather than at a limited area.
- *100 Year Protection*
The Corps will be looking at raising levees up to 2' over 30% of the length on the main stream as well as looking at potential changes and modifications at the Skookumchuck Dam levees. That will require some additional environmental mitigation, real estate and benefits in the Skookumchuck sub-basin and potentially downstream on the mainstem of the Chehalis.
- *Reformulation*
There may be some limited reformulation to account for 100 year protection. Part of that would be the Skookumchuck Dam incremental justification. Minor reformulation may not require reauthorization. That decision will be based in part on the cost, scope and new project elements.
- *Twin Cities Design*
This will include calculating the benefit/cost ratio for 100-year protection and will determine if a 100-year protection is part of the federal plan, which will be cost shared by the federal government, or a locally preferred plan, which will be cost shared by the non-federal sponsor.

Commissioner Averill asked what prompted this because FEMA won't include anything behind those levees unless they are 100-year levees. Mr. Goss stated if additional costs change the benefit cost ratio to get to 100 year protection, then that project can still go forward but the cost may have to be borne by the local non-federal sponsor. Commissioner Averill stated there needs to be much more discussion on this issue.

Mr. Goss introduced Martin Hudson from the Division office. If there are additional questions, either Mr. Martin or Mr. Goss can answer them.

Ms. Fund asked what the term “incremental justification” means. Mr. Goss stated the Corps looks at the modifications to the Skookumchuck Dam for that portion of the project. The entire project may go forward as a benefit cost ratio but if a lot of money is being spent on one portion, that portion can be looked at to see what it is protecting. If the cost of implementing those modifications is large and the benefits are large then it can go forward, but if the benefits are not to the scale of doing those modifications, then the Corps may need to look at other ways to offer that protection staying within the authorized plan.

Ms. Powe stated at the end of January there was a vague answer as to whether the benefit cost ratio passed. She asked if there are numbers available yet. Mr. Goss stated quality control is being done on the numbers to verify the database. There are no numbers at this time. We need to know that the data set is complete and we have checked for errors or miscalculations. There is no estimate for when those numbers may be available.

Commissioner Averill stated Mr. Goss sent out a message saying that the figures looked pretty good. Mr. Goss stated at that time there was a positive cost benefit ratio.

14. Expenditure Review

Mr. Bob Johnson reported the balance excluding encumbered funds is \$402,993.97, which means there is still some money for additional studies or work, assuming that the state has the funding.

15. Confirm Next Meeting and Board Requested Topics

The next meeting is scheduled for Thursday, March 17 at 1:30 p.m. and a work session at 9:00 a.m. at the Veterans Memorial Museum. Chairman Willis reminded the group that a special meeting has been set for March 31 and the time and location will be announced.

16. Adjourn

There was no other business before the Flood Authority and the meeting adjourned at 3:06 p.m.