MASON COUNTY PLANNING ADVISORY COMMISSION

Minutes August 7, 2006

(Note audio tape (#2) dated August 7, 2006 counter (#) for exact details of discussion)

(This document is not intended to be a verbatim transcript)

1. CALL TO ORDER

The meeting was called to order by Chair Bill Dewey at 6:00 p.m.

2. ROLL CALL

Members Present: Bill Dewey, Tim Wing, Terri Jeffreys, Diane Edgin, and Jay

Hupp. Everett Hughes was excused. Wendy Ervin was absent.

Staff Present: Bob Fink, Allan Borden, and T.J. Martin.

3. APPROVAL OF MINUTES

The minutes from the July 10, 2006 meeting were approved as presented.

4. **NEW BUSINESS**

(#0050) Bill Dewey started the meeting saying this was a public hearing on the proposed draft for the Skokomish Valley pertaining to the channel migration study and amendments to the flood damage prevention ordinance.

(#0070) Bob Fink stated that there are changes proposed for the Mason County Flood Damage Prevention Ordinance that are proposed for the Skokomish Valley. The current regulations do not allow new or expanded houses or barns to be built within the flood plain of the valley. The current restrictions were ordered by the WWGMHB as a response to a review under the state GMA. The principal reason for these restrictions is the definite but not delineated risk that the river will move in its channel or move to a new channel. A report 'Channel Migration and Avulsion Potential Analyses, Skokomish River Valley, Mason County Washington' has been prepared. The author, Mary Ann Reinhart, is here this evening to answer any questions you may have. Our consultant, Jerry Louthain, is also here. The preliminary findings indicate that there are areas in the floodplain of the valley with significantly lower risk from the river. Based on this study, a draft ordinance

amendment has been prepared to incorporate the findings of the newly available science. The effect of the changes would be to allow the construction of buildings and some other forms of development in low risk areas of the valley. There will continue to be no new or expanded buildings in channel migration zones and avulsion potential zones nor in other high risk areas that were identified in the previous studies. These high risk areas include those with higher velocities of water flow or depth of flooding or those that were agreed upon or identified in the Comprehensive Flood Hazard Management Plan that was prepared by the county in the 1990's.

One of the changes that was proposed was to allow small (up to 864 feet) agricultural buildings on ARL to be constructed in the Avulsion Potential Zone. The area of the 'small' ag building is based on the exemption of such buildings contained in the International Building Code. This provision allows some risk in order to help preserve the viability of the ag uses, but limits the risk by limiting the size, cost, and location of the ag building.

Another change is intended to clarify language that applies to the building or maintenance of bridges in the floodplain. Bridges weren't addressed explicitly in the flood ordinance so there was an additional section added to more clearly relate how bridges were supposed to be addressed.

The final change is intended to allow the reconstruction or substantial repair of damaged houses in the no new footprint areas. The proposal identifies that if you have an existing farmhouse and you need to replace that building or substantially improve it, you can do it in place or a different location on the farm. There are certain conditions on that such as you can't have a location on the farm that's outside of the no new footprint area. If you don't have an alternative to rebuilding it or providing your farmhouse within these high risk areas, then you can do that to replace the current one.

One of the questions that has arisen was if there would be land available to build on if all the constraints were taken into consideration, such as stream buffers and wetlands. The map here identifies that there are areas that are potentially available for those developments that are not in the no new footprint areas. The result is that there are still considerable areas in which structures could possibly be built. A better answer can only be determined on a site by site basis. Our calculation is that there are potentially 500 acres of land that's potentially allowed for building a new residence, which isn't allowed in the no new footprint areas. The county is moving towards digitizing its information and being able to map it so people can easily see these different regulations. We will continue to use the FIRM's as published. I understand from FEMA, our maps are due for updating in 2008.

Another question was if the lands at the mouth of the Skokomish River north of SR 106 were properly mapped with regard to flood depths. To investigate this the county did some surveys in this area to compare with its available information on land elevations. What it determine is that the available information cannot be relied upon to exactly determine flood depths. The proposal is to use the current map as a rebuttable presumption. A property owner wishing to build would have to have the site evaluation determined, and if flood depths were not over 4 feet, then he or she could build (assuming that all other regulatory requirements were met).

(#0550) Bill Dewey commented regarding the elevation that that's something where you can go in factually and determine where the wetlands or streams are. Bill inquired if there were other characteristics that put you in the no new footprint zone that aren't rebuttable, such as are the lines drawn for the channel migration zone or the avulsion zone.

(#0560) Bob Fink stated that the lines drawn for the FEMA floodplain is fixed, unless you get a letter of map amendment from FEMA, and that can amend the map for FEMA. The no new footprint areas that were part of the Comprehensive Flood Management Plan are areas that are mapped. There isn't just one criteria that determines that's the area of a new no footprint area. There were a number of justifications that went into a process that determined that line. The channel migration zones and the avulsion potential zone, there's no one factor that went into determining the lines that are on this map. There was very detailed analysis done and in order for someone to challenge the basic fundamentals, they would have to remodel the valley.

(#0600) Bill Dewey inquired if there was a single map that people can go to and tell accurately if their property is in the no new footprint zone or not.

(#0620) Bob Fink replied that's the intention with the exception of rebuttable presumptions that we may have. Bob reviewed maps with PAC. There will eventually be one map that would show that. At this level, it's very difficult to tell people with any surety that they can build in any particular location. The purpose of this kind of mapping is to identify generally where people can do things and also certain specific regulations that are applied at a larger scale. We are lacking in being able to have the information that allows us to show parcels so people can easily see property lines.

(#0750) Tim Wing inquired about the rebuttable presumption issue and how you focused on the area north of 106 and why that isn't that applied to the other parts of the valley.

(#0775) Bob Fink responded that this is the only part of the valley based only on flood depths. There is another area in the Vance Creek area which is a combination of flood depths and velocities based on a study that was done after the Comprehensive Flood Management Plan was completed. There is a set of restrictions for that. It's difficult to get site specific information on elevation because they can vary a few feet across fairly small distances.

(#0875) Bill Dewey opened up the public testimony portion of the hearing.

(#0900) Wes Johnson from the Skokomish Valley testified. Wes stated that this is a flood damage prevention ordinance and he assumes that is the purpose of the ordinance to prevent or limit flood damage. There's a phrase in the ordinance that's been there since the beginning of time and he has spoken to it many different times to no avail and it still remains there. For the record, that for flood damage prevention ordinance you get the least amount of flood damage when you can keep the water in the river channel. The river channel is choked with materials of all kinds. We have a phrase in the ordinance which says that anything that you do to cause more water to flow in that channel is prohibited. That doesn't make any sense in terms of a flood damage prevention ordinance. It's on page 25 and several other locations where it refers to the fact that any modification that might be done that would cause more water to flow in the channel is not permitted. It's just totally inconsistent with the purpose of the ordinance. Also, the Comprehensive Flood Hazard Management Plan was adopted by the county ten years ago. It's been sitting on the shelf ever since. I'm happy to see there's been some progress made towards what that study showed and it's getting back to where we may be able to do some construction in the valley, particularly with respect to agriculture. ARL significance is very important as far as the GMA is concerned and there are approximately 3,000 acres that's prime ag land and the GMA recognizes its importance. This document and the proposed changes that are there contribute to enable those people whose livelihood is farming to continue to make their livelihood that way. I feel that's a step forward.

(#1050) Terri Jeffreys inquired of Wes about the inconsistency in the ordinance between a generalized philosophy that flood damage means keeping water in the river.

(#1065) Wes Johnson responded by saying that if all the water stayed in the river channel there wouldn't be any flood damage. When it starts flowing across the land and over the roads and through houses, that's when the damage starts accumulating.

(#1100) Jim Hunter from the Skokomish Valley testified next. He stated that he has spent his entire life farming in the Skokomish Valley. This affects our farm drastically. The overflow water comes through our farm. Jim shows area on map.

(#1135) Bill Dewey inquired if his property was in the channel migration zone.

(#1140) Jim Hunter responded that it was. He stated that the map has it all backwards. He showed maps from the Flood Hazard Management Plan that indicates there is high ground to the south and channels to the north and center. I talked to Bob Fink to see if I could take Mr. Louthain out and see how he came up with the theory that he has. It's supposed to be BAS but it's far from that as far as I'm concerned. Water goes downhill. I asked Bob why he made it that way and he said it is an old, ancient channel there. There's ancient channels all over the valley, but the last ancient channel, the river, followed Hunter Creek down. That's why Hunter Creek is where it is, because it's an old river channel.

(#1300) Bill Dewey stated that maybe we can draw with some questions is help you better understand the science that went into determining how your property was mapped.

(#1350) Terri Jeffreys inquired if he could locate that high ground on the map.

(#1385) Bill Dewey asked him to locate his property on the map and how many acres it is.

(#1435) Jim Hunter shows area on map. He stated his has about 100 acres.

(#1500) Jerry Richert of the Skokomish Valley testified next. He pointed out to the PAC some of the problems he has experienced along with his neighbors. He showed his 100 acres and they have me right in the middle of the avulsion zone. On all the other planning and studies and the Comprehensive Flood Hazard Plan I've never been impacted until now. It stated that the no new footprint zones were created by KCN incorporated from Mason County's Skokomish River Comprehensive Hazard Management Plan, February of 1997. He indicated they used that study to develop this map. The problem with that is that FEMA even admits that their studies and lines are arbitrary and capricious. It's very important that we don't allow things that have gone wrong in the past to be complicated by adding more false information to it. My whole place now is a no new footprint zone and it never has been before even with all the other studies. On the Richert Ranch they have a creek running right through a field that is impossible for it to be there. There's never been a creek there but they're showing wetlands. My neighbors and I are speaking here for each other. Richert Ranch is to receive a bridge out of the re-licensing of the Skokomish - Cushman project. My question is, can I build a bridge on the North Fork. I don't carry FEMA insurance because it's too expensive for me and if you're a farmer out in the valley you don't have that kind of money. It troubles me that if this goes down the way it is now then it's up to the landowner to prove that the county is wrong, or the state is wrona.

(#1700) Janelle Rutter from the Skokomish Valley testified next. She stated they just bought 5 acres with a existing single wide trailer on it. She stated that she understands that farmhouses will be able to rebuild and she inquired if that would apply to other areas. She has grown up in the area and the farms are what makes the valley flourish. Right now there are a lot of places there that need fixing up. We were also wondering if we were going to be able to rebuild. She said she has called the county and talked with FEMA and there's no answer. We'd like to see the place grow and improve but everything is based upon insurance that most of these people aren't using because they can't afford it. It's all based on information that is incorrect. I don't know what I can do with my property and that needs to be resolved. Someone should be appointed to go out there and do surveys; forget FEMA and forget the map. I think it's good information because it tells us what happened in the past but it won't tell us what's going to happen in the future.

(#1900) Mike Rutter of the Skokomish Valley. He inquired of Bob Fink and his presentation and the inaccuracies of the map.

(#1925) Bob Fink responded that depending on where the data comes from there's various inaccuracies in it. When you try to show every point on the map even the curvature of the earth affects the accuracy. Even the aerial photos are inaccurate in the sense that they're trying to put on a flat surface something that's actually curved. Where the wetlands are, that could be up to 40% inaccurate because it doesn't show wetlands that are there and the boundaries of the wetlands that it shows may not be true.

(#1965) Mike Rutter stated that he has spent the last four summers all up and down that river and he's seen it do nothing but go away from the homesteads that are along the Skokomish. He stated that his father in law lives nearby and he has said that the river is now where it was when he first bought his property and he lost a good 5 acres of his property to the river. He inquired if it will be the homeowners responsibility to get amendments to every single map because what we have right now is inaccurate.

(#2025) Bob Fink stated that the new information, which is the channel migration zone study and the avulsion potential zones, was developed by the county and the consultant that did it is here. There's a report that is still in draft form explaining what the methodology is and how those lines were developed and why they are where they're located. More precision can be done on it with more money. You can refine it more and more but the

cost would be immense. Delineating all the wetlands; Eugene, Oregon, undertook the project of delineating all the wetlands in the city, which was about 1,000 acres, and they spent over a million dollars on the project. The Skokomish Valley has about 5,000 acres. The cost of information is exponential as you get more and more precise.

(#2150) Mike Rutter inquired if someone could protect their land from the river as far as putting stumps where the river might take a weaker area of your property out.

(#2200) Bob Fink responded that's not what is under review here. There are things the community can do to intervene in these processes. Some people prefer keeping the water in the channel. If you actually did that in some way, either through levees or dredging the river, that's going to change what is there. The model we used was based on the assumption that you weren't going to fix the boundaries of the river by doing things like that. Some of the information we used went back about 100 years. The aerial photos went back about 70 years. That's described in the report. What we're saying is that we believe it's sufficient rationale and justification to relax some of the restrictions that were put in a few years ago based on this risk of the river moving. That was the primary reason why the state ordered the county to put such dramatic restrictions on the Skokomish Valley is because of the risk of avulsion. We did the study to develop and find out where the high risk places were and where the low risk places were. Although there are a lot of restrictions that this regulation will keep in place, the regulation also relaxes restrictions on a lot of property as well. We have asked our consultant to follow up on some of the concerns that have been expressed tonight because the same ones were expressed earlier in the workshops. We haven't had time to really resolve those specific questions yet.

(#2400) Marie Churchill spoke next. She has two parcels in the Skok Valley. She was born and raised there and stated that she would like the people of the valleys concerns listened to. This is our livelihood and our heritage. You have to live out there and see how the river is. You have to listen to them and their concerns. They know what they're talking about.

(#2500) Marty Ereth spoke next. Marty is a habitat biologist for the Skokomish Tribe. Marty stated that in the ordinance it says the study was completed in December of 05, which makes it sound like it's in final form, but the study and the maps are still in draft form. Marty inquired if there was an opportunity for peer review of the maps and the study. These maps aren't that accurate. When I have addressed you in the past, my concern was this valley is a channel migration zone; the whole valley. The river used to be much higher and it's cut down through the valley from bank to bank. According to the report, they used a time frame of about 1930 to the present. There were a lot of things that happened before 1930 in this watershed. If you look in the report, they actually have a historic table of events. In 1861 the government land office survey had surveys for the area and they said the Skokomish Flood Plain consisted of forest, swampy, unpassable in places and cut by numerous channels. What we see now is basically a single thread river channel with a couple of spring fed streams. Hunter Creek was probably a river channel, not a spring channel. The important thing is that not all of the information has been looked at to create these maps. The government land office survey maps are available; they were created in 1860 and survey notes that go along with those maps. Given the sensitivity of what's going on in the Skokomish Valley it's reasonable to expect that we look at that timeframe. By 1930, the whole valley was rough timber. He further stated that he knows we can't get back to that timeframe, but we do have to believe that those things that happened back then are likely to occur again. The lack of half of the flows for the last 70 years have been taken out of the river by the Cushman project. The river is supposed to be in the flood plain and if you look underneath houses, you're going to find old river channels that carry flow. We're concerned that this whole ordinance hasn't had a good peer review and that needs to be done. The historical events in this report shows nothing historical in 1998 and 2000. The flood plain was developed. The north fork of the Skokomish avulses through the Richert Ranch. That was mentioned in the report but the reason they gave was because a log jam caused the avulsion. The fact is the south fork channel has degraded to the point that the north fork can no longer move that water into the south fork because the channel is so high at the mouth of the south fork. I'm not advocating dredging; we're advocating responsible flow management from the Cushman project. We're expecting to see this river change as we see new conditions come out of the Cushman dam. There has been major problems with timber harvest in this basin and with road building in this basin. The river can't move any more because it's constrained by dikes. We can dredge but it's not going to solve the problem because the problem is the lack of flows in the north fork.

The Tribe can probably agree to some of the things in the ordinance as far as accessory buildings for farming. We agree this area is significant as far as agricultural lands and we want to maintain that. Farming in the valley has to stay. Other parts of this ordinance as far as subdivisions, we have some major concerns with that. The fact that the hearings board had told the county you will be doing dike monitoring and that's now not being done because of the private property issues. The county and the Tribe had co-sponsored a study with the Corp of Engineers called the General Investigations Study. That's just now getting going and we were hoping some of the results of that study were going to be used to help with that planning. It seems like this ordinance is coming before that. Marty stated that we need to slow down and think about what might come out of that G.I. study, which is supposed to be an ecosystem study to help protect important habitat and make recommendations on actions that might also be used for flood reductions. That's what we're looking for. This ordinance is premature at this point. It's going to be 5 years before that study is done and the recommendations are out.

We have consultants that have done a lot of work in the Skokomish for our Cushman case and there's not one piece of evidence in that report that any of those studies were used by your consultants. There is evidence that you used Tacoma's consultant's information, and anytime you see Tacoma's consultant information used and relied on it definitely throws up red flags for us. Tacoma doesn't believe that they have any part of what is going on in the Skokomish Valley. My last comment is that we would like to submit written comments at a later stage and have them accepted into the record. We would also like to have the government land office survey maps and notes be part of the administrative record.

(#3200) Paul Hunter of the Skokomish Valley testified next. He stated that the line on the map shows 4 feet of water going through our business facility. We all know that isn't correct. On page 27, under bridges and highways, we are extremely concerned about the Purdy Creek Bridge. We own the property immediately above it and property along 106. We're concerned they're going to back water up. They want to raise the road 11 feet and put a bridge in. Presently, you have three bridges and the water builds up and it goes over the highway. When they raise the road 11 feet it's not going to flood the highway. Paul inquired about the surveying of the base elevation.

(#3300) Bob Fink responded that there are several monuments already in place. Public Works did that surveying and they can get you that information.

(#3400) Paul Hunter added that if the river would avulse we would need two bridges to access the houses that are now landlocked. Those houses are worthless.

(#3500) Jeff Heinis is a resident of the valley and also works for the Skokomish Tribe. In building out in the valley, water quality has to be a consideration because anytime you have flood water over your septic system it's failing and the water is going down into the Hood Canal. Jeff stated there are quite a few historical events that are missing. The church dike construction, which resulted in DOE actions. Bordeaux Road flooded out. He is concerned about restricting it and keeping it tight.

(#3550) Bill Hunter is a resident of the valley. He stated he has lived in the valley all his life. The Hunter family has been there 120 years. He stated it was mentioned there's no history for back in the 1800's, but he has been told a lot of history. Things have happened pro and con in the valley. He stated he's never been concerned about the channel coming through his house, which is right next to the grange hall, but it is an avulsion channel migration zone area. If FEMA maps that were created many years ago were used for any of this study, that's why the new maps are in error. There's been no real input from the people in the valley who know the valley regarding this. It's sad they didn't ask the people whose land was affected about this. He further stated he's glad to see the study done, but the result is very sad to me. The sediment in the river, more water will take the sediment, but there's so much gravel load there. That's the biggest worry. Removing that would be better for the farmers, and we wouldn't have the flooding that we have today if the gravel load was out of there. Our store is below 106 and that was never included when FEMA did their original study. We've never had flooding at the store or our greenhouses there.

(#0100) Tim Wing inquired about the gravel load, and if he was referring to dredging the river.

(#0140) Bill Hunter responded that he was talking about gravel mining. He stated it doesn't have to be done

all at once, but they take the gravel out in all the other rivers everywhere. They talk about all the logging and road building up in the valley and then they burned it. That makes all the water run faster.

(#0200) Jack Turner testified that he is a hydrologist with the Skokomish Tribe. He is speaking more on behalf of the Tribe than the people that live there. He stated that he represents people that can speak of generations that are ten generations prior to them and the stories they tell about living in this area. The homes they were born in and where they used to live are under water. Decisions that are made in the upper valley ultimately have impacts on the Tribe as well as the Hunters that are downstream. Right now the Tribe is spending millions of dollars relocating its people to higher land because the ground water is rising and the Tribe will not be able to live where they're living right now. They're also spending hundreds of thousands of dollars for the GI study and to be doing this plan now is premature. I do agree with what the landowners are saying in that neither them nor the Tribe was interviewed in order to provide information in which there seems to be a lot of knowledge from experience from the landowners point of view as well as the Tribe's. The Tribe also has immense technical resources that can provide information not only from living there but also because of their education and experience.

(#0285) Bill Hunter added that there's so much gravel that it runs dry by the north fork and that can't be good for the salmon.

(#0300) Bill Dewey stated that they will continue the public hearing until August 21st. Bill Dewey inquired if there is a process where if people disagreed with the study and the determination that their properties are in these zones to potentially provide information and change that determination.

(#0365) Bob Fink responded that there different mechanisms. One of the primary ones is this meeting here and if people have concerns about how these maps are drawn or how the regulations are written, then this is the proper time to speak up and express their concerns so they can be investigated before we take action. As far as individual permit decisions, if someone wants to build something or do some development that requires a permit, if they disagree with the county's determination on those applications, there are appeal processes. This ordinance, in particular, has an appeal to the Hearing Examiner and there's a section that addresses that. Also, as new information is generated, the county is going through a constant process of revising and updating its regulations as we learn more. There's a requirements under the GMA to revisit these issues as a whole every ten years, but there's an allowance to revisit regulations as needed and to revisit the Comp Plan that they rest upon annually.

(#0425) Diane Edgin expressed concerns about the need for the agriculture, the fish, we need clean water, we need to protect Hood Canal, and these are all overlays. This mapping really concerns me in that we need something more concrete to base our regulations on.

(#0475) Bob Fink explained that one of the reasons we're looking at this is because the current regulations not only prohibit building new residences, but doing substantial improvements to existing residences. A substantial improvement is any improvement to a house that exceeds 50% of the value of the house prior to the improvement. It also prohibits new ag buildings, new barns and these are restrictions that are difficult to live with and we're trying to find some relief where it's appropriate. That's why this study was done to see if there were areas that could be identified where some relief could be granted or some reduction in the regulations. If you have questions regarding the study, the consultants are here to answer them for you.

(#0600) Jay Hupp expressed concerns that there are significant discrepancies between what the property owners feels they need and what the property owners know about the valley, and what the geologists say is most probable.

(#0645) Mary Ann Reinhart responded that she is the senior fluvial geomorphologist that oversaw the drafting of the production of the channel migration zone and avulsion potential study. We were hoping to garner information tonight at this hearing and to take those concerns and look at each of those issues and concerns and to re-evaluate that with respect to the model that we have. When we agreed to approve a draft map, it was with the intention to modify the map as needed based on new information that would be forthcoming.

(#0685) Tim Wing inquired if she was ever given instructions to create results that would limit building in those areas.

(#0690) Mary Ann Reinhart responded that she was never given those instructions. We were unaware of how the county intended to manage the flood plan based on the results of the study until after we had the preliminary draft product available. Our instructions were to use BAS to develop the model based on the history and current conditions of the basin and to move forward in an unbiased manner and that's what we attempted to do.

(#0715) Tim Wing inquired if they ever went out and walked the land in some of the areas that were discussed tonight specifically.

(#0720) Mary Ann Reinhart responded that they did. There was a team of field geologists in the area for about three days.

(#0725) Tim Wing inquired if they ever met with any of the local people.

(#0735) Mary Ann Reinhart responded very few of them. At the time that they were conducting the reconnaissance in the field, we were doing some limited monitoring of the levees. Letters were sent out to all of the property owners and we were requesting access to the property. During that time, we actually encountered very few of the property owners. The first opportunity we had to meet the property owners was at the public meeting at the Grange Hall. We did have a few comments on the map and we agreed with county staff that we were working with that we would wait until we heard more information coming forth from both the report and review of the map once it was made available for public review. This is just in draft form.

(#0778) Tim Wing stated it was his understanding we were talking about using this to make a decision in fairly short order to implement an ordinance that is based on a map that we haven't even had a lot of input on from the local people that live there.

(#0790) Bob Fink responded that we are trying to adopt a new ordinance before the end of the year. The understanding is that we wouldn't adopt any ordinance until the report was final and we were satisfied that this was the best we could do at this time.

(#0805) Tim Wing inquired if there was an immediate need to get something accomplished on this.

(#0810) Bob Fink stated that the concern that comes up is people who live in the valley who want to make improvements to their property, they can't do that right now.

(#0820) Tim Wing inquired if it's possible to adopt some of this without formally adopting a map that appears to have not been fully completed yet.

(#0830) Bob Fink stated that whatever we adopt we need to use BAS and have a sound rationale for what you are doing. We could certainly adopt any part of this without adopting the whole thing. The reason why we can lift some of the restrictions on the property in the valley is because we believe that this new science gives us a rationale and use the BAS to show that there are lower risk areas. One of the things that we didn't know when we first commissioned this study was whether there was any place in the valley that would be found to be outside the avulsion areas. That's why we didn't start developing these changes until we had some preliminary findings that laid out the course.

(#0860) Mary Ann Reinhart stated that she doesn't want to give the impression that this is a very preliminary product. With the exception of some changes that we anticipated making based on the responses of property owners to the map, the results were very good. We wouldn't have submitted this product to county staff knowing what they wanted to do here in terms of making modifications to the existing ordinance. (#0888) Tim Wing explained that he is a real estate agent and in the last four or five years he's had three properties that are waterfront properties on Hood Canal where about a week before they were supposed to close somebody, using one of these maps, announces that the property is in a flood zone. So when we have a map that hasn't had input from the people in the area, we haven't gone far enough yet. Before he's

interested in securing a decision based on this map, he would really like to see a lot of input from some local people. Sometimes people who are supposedly using BAS aren't using any common sense and aren't listening to local people who really know the area well. He explained he's not saying that's the case here, but it certainly is a sensitive issue with him. Tim Wing then inquired how it is determined that some place is an avulsion area.

(#0965) Mary Ann Reinhart explained it is a rather complicated process. She stated that they look at zones of aggradation within the channel and we looked at the existing hydrologic models for the system which tell us what the potential or capacity of certain flows is to move sediment in the channel. We also know from that where it's likely to be dropping out. We compiled that along with the topography of the flood plain as sediment builds up in the channels, the aggradation, which is basically the increase in elevation of the channel floor, as you fill the channel up, you're also displacing the volume of water that can be transported. So there are certain areas in the system that are much more prone to sediment deposition and therefore aggradation, and we contrast that information against the topography of the flood plain on both sides of the channel. From that, we project the slope or gradient of the flood plain surface and project the pathway that the channel would take if obstruction in the main stem occurred. There are some simplifying assumptions that we had to make with this study and that is in the course of an avulsion, that 100% of the flow, at the time of the avulsion, would move from the main stem to a new channel that it would create across the flood plain or reoccupy an old abandoned channel. We looked at the history of this channel through the air photos, which date back to the 1930's, but we also made ample use of the government land office maps, which date to the mid 1800's. Based on the documentation, we knew what the channel, or the entire system, looked like prior to development. We also know what the glacial history and the geologic history is. So we projected pathways that the flow would most likely take over the flood plain in the event of a complete avulsion. For that we used LIDAR (Laser Imaging Detection and Ranging) imagery and we processed the LIDAR, which is similar to an air photo with no vegetation on it. From the LIDAR, we developed a surface gradient map which gave us a great deal of topographic information and made it possible for us to literally project the surface gradients across the flood plain. There are some idiosyncrasies with some of the LIDAR data and we expected some of the property owners might have additional information that wouldn't be apparent from the LIDAR. If there are major changes, we will make them.

(#1130) Bill Dewey inquired if there was an opportunity to use aerial photographs during flood events to see where the water is going as a tool.

(#1150) Mary Ann Reinhart stated that if there was aerial coverage of a flood event we made every attempt to locate those photos, but there was only one event that was relatively high flow.

(#1168) Tim Wing inquired about armoring the bank and if that was allowed.

(#1175) Bob Fink responded that the county regulations do allow for actions to be taken to protect property. There are other regulations that come into play besides the county regulations.

(#1190) Tim Wing talked about his property being in an avulsion zone and if he's already there, can he armor his area, and if he does, and it improves his land, would he be allowed to enlarge his home.

(#1200) Bob Fink responded that in the last year or two there have been some people who have armored portions of the bank, particularly using woody debris and tying in things to effectively armor it using a softer armoring. That has been done fairly recently.

(#1235) Tim Wing inquired further if a property owner ends up in one of these zones where he's not supposed to do anything, but if he can do something to protect his home, and that effectively changes things for him, even though he's in that zone, would he be able to expand his home.

(#1250) Bob Fink stated that there are certain assumptions built into it. We could have made a different study saying that we should assume that we armor this whole shore so there could be no erosion, I assume you'd get different results. We didn't do that. At some future point there may be some choices made regarding levees and other measures to manage the river. I would assume those would change the analysis that would go into the model. Consequently the map would change.

(#1300) Tim Wing stated that what he's hearing from the testimony tonight is many of the people want to protect the agriculture and to protect that you have to protect the ability to live there and run the farm. People shouldn't be able to go create an island where there isn't one now, but if they have a home out there they should be able to armor that and if they effectively armor that they should be able to expand it even if it's in an area that that map would suggest isn't a good place to do that.

(#1325) Terri Jeffreys stated is what most people are going to have problems with is how their lands are designated and short of going parcel by parcel, she inquired if they thought there is a possibility of perhaps allowing in an ordinance the ability to appeal or to have the land redesignated based on an independent study by a geomorphologist. It would change the way the lines are drawn because it would take out parcels in a specific area and Terri inquired if it needs to be more comprehensive and holistic in order to make any kind of zone designation unusable.

(#1390) Mary Ann Reinhart responded that the way they dealt with this particular fluvial system is from a very holistic prospective. The soils of the flood plain, the topography, the evolutionary history, and the actual discharge, the sediment in transport, and basically the dynamic condition of where it's avulsing or not, and also the characteristics of the channel. So we dealt with it on both a basin and holistic way, which was the best way for us to evaluate and then estimate where these flow paths were most likely to be. There would have to be some thought on how that could be done and still maintain the integrity of the rest of the model results.

(#1455) Terri Jeffreys stated that there was a request for opening up this study for peer review.

(#1460) Mary Ann Reinhart responded that she would have no resistence to that. A response to a peer review was not included in our original scope and that would have to be renegotiated with the county. In terms of having the study itself opened up to a peer review, that would not be a problem. We're currently working with the Bureau of Reclamation and with WSDOT and their consultants regarding the Purdy Creek bridge. We have shared our data and we have actually presented some of this information to them in separate meetings.

(#1485) Terri Jeffreys inquired if they had considered looking at some of the studies that were done in connection with the Cushman project.

(#1492) Mary Ann Reinhart responded that they had looked at several references from that project.

(#1525) Terri Jeffreys inquired if they were working under the assumptions of the current amount of stream flow that's allowed through, and that perhaps some of those studies were looking at a different stream flow that could be possible.

(#1550) Mary Ann Reinhart stated that they did not consider, in the results of their study, the option of turning the north fork flows back on again. We understood that for the time being, and well into the future, that is not a likely probability.

(#1580) Terri Jeffreys inquired if there is a way to allow for and incorporate in more landowners input and not jeopardize your methodologies.

(#1590) Mary Ann Reinhart replied that it won't jeopardize the methodologies by any means. They are what they are. It may modify the results and we're very open to that. We haven't produced this product blindly and Mary Ann stated that she has worked in several other flood plains occupied by numerous other people in Pierce and Lewis Counties, and throughout Western Washington. She explained that she understands the impacts and implications of a map such as this. We don't take it lightly and she stated that they spend many hours contemplating the accuracy of the lines and recognizing that they are subject to change because there's always a link in the system that could use some tweeking. Also, we would be very happy to meet with more property owners. That, however, would have to come from county staff.

(#1635) Bob Fink pointed out that at the workshop at the Grange Hall there were over 50 people there from the valley, and they had a chance to review the materials that you see here. The comments we got tonight

were more extensive than what we received at that workshop. A lot of people have had a chance to review these materials and comment on them.

(#1685) Jay Hupp inquired about Wes's question regarding given the title of this ordinance, Mason County Flood Damage Prevention Ordinance, that why is it that we are intentionally preventing any effort to keep the stream in its banks.

(#1700) Jerry Luthain, of HDR consultants, stated that Bob Fink had came to him initially as one being familiar with the valley and I was asked to rewrite the existing ordinance which says you can't do anything out in the flood plain. This is called the Flood Damage Prevention Ordinance because this is basically the pattern that is set up by FEMA and the State Department of Ecology. The intention is to reduce flood damages, not to control floods. The idea is to be able to build and do things in the flood plain so that you have minimal damage from the flooding, which is a normal natural occurrence. This ordinance is intended to put language in there to allow certain things to happen in the flood plain. This is a model that's followed nationwide. It's based on a model ordinance by FEMA and also an additional model ordinance by DOE.

(#1765) Terri Jeffreys inquired if it is possible to write into the ordinance the ability for an individual landowner to have their land redesignated through their independent, scientific consultant.

(#1788) Allan Borden stated that it's already in there. It's on page 14 under Interpretation of FIRM Boundaries.

(#1800) Jerry Luthain added that that is standard language from the FEMA model. If you can show or demonstrate that something is not right, then that allows the appeal process.

(#1825) Allan Borden stated this mapping is not a zone. It's a tool to help flood damage reduction so that you can differentiate areas that have high concern from areas that have no concern.

(#1835) Terri Jeffreys stated that it does affect the ability to develop the land; that zone and how you're designated.

(#1845) Allan Borden responded by saying that in a sense it does, but a person has to propose whatever they want to propose.

(#1855) Terri Jeffreys continues on saying a person puts in a development permit and they're told their land is designated a no new footprint zone and inquired if they can appeal that designation.

(#1865) Allan Borden responded that it's written in there right now.

(#1875) Terri Jeffreys inquired if this would be a map amendment and would these zones be adopted by FEMA as well.

(#1885) Bill Dewey also inquired if the CMZ's and APZ's get incorporated into the FEMA map and does it all become one map.

(#1895) Bob Fink responded that they wouldn't be incorporated into any official FEMA map. This provision, 4.3-5, although the title says 'Interpretation of FIRM Boundaries, it actually talks about hazard boundaries. This would allow us to look at different hazard boundaries and regulate the land. When we're looking at a boundary, we're usually looking at the area immediate adjacent to the boundary. If we're talking about property that's square in the middle of an APZ, what would you have to document to show that that APZ doesn't belong there? The question is are we applying it correctly on the ground. The other issue is how would you change an APZ and remove it entirely or move it to some other location? How would you document that, short of revisiting the work that was done in the study and doing it again and better? It's relatively easy for Mary Ann to go back and incorporate any new information into her study. If two years from now someone wanted to change the findings of the study, they could do that, but they would have to go and re-learn and re-gather the information that Mary Ann is familiar with now. And then make the case.

(#2000) Bill Dewey stated that if there is a provision there for someone to challenge a decision, that's the

critical thing.

(#2005) Bob Fink stated that something of that scale would be best done through a formal amendment process rather than on a permit basis. That doesn't mean it couldn't be done on a site by site basis if someone wanted to invest that much into it. Based on this new study, the county would probably want to change the maps. It's one thing to approve the permit, but if we had that kind of information we would change the map so that all the affected property owners would benefit. Let's think about that over the next few weeks and see if we need a separate process for an appeal.

(#2085) Tim Wing inquired about the uplands with the logging and the roads and what was being done to address those issues.

(#2095) Bob Fink stated that there is a lot of work being done to stabilize and restore natural flows to natural gravel deposits into the stream system.

(#2100) An audience member added that currently there's an effort by the Skokomish Watershed Action Team which involves different organizations from citizens groups to the forest service to Green Diamond to the Tribe, and they're working on several aspects of the watershed to do road stabilization. Green Diamond with their lands, their contention is that their practices aren't contributing to sedimentation or if there is sedimentation that they've contributed to, it won't reach the valley for decades. Those lands are extensively logged.

(#2150) Terri Jeffreys inquired if those lands were being replanted.

(#2175) Audience member responded that they are being replanted, but they're being cut at a rate that extent of it isn't such that there has been any mitigating affects. It's a cumulative affect that is occurring.

(#2200) Diane Edgin had a comment that she would like to see the verbiage on page 24 under Conditional Build Zone added to that under the definitions.

(#2250) Bill Dewey stated that based on a comment by Janelle Rutter tonight who has a mobile in the valley, and that there were provisions in here for making modifications to a farmhouse, and Bill stated that when he read that section, he inquired if 'farmhouse' is something that needs to be defined better. We need some perimeters on that so that doesn't become a gray area or a problem for the county. We're continuing the hearing on this until August 21st and from the information you heard tonight, I'm assuming that you'll prepare some draft proposed findings of fact for us to consider.

(#2300) Bob Fink stated we can do that.

(#2340) Bill Dewey inquired about the item on the agenda regarding PAC review.

(#2355) Bob Fink stated that is an item that Emmett Dobey wanted added to the agenda. He wasn't able to make it tonight. We have a number of items still coming forward to you pretty rapidly. It will entail at least two meetings a month for at least a couple of more months.

(#2395) Terri Jeffreys brought up the critical areas update and wondered if we could have workshops separate from the hearing.

(#2400) Bob Fink stated that we've already had workshops on all the subjects.

(#2410) Terri Jeffreys stated that we had those workshops prior to an ordinance sitting in front of us. There's the wordsmithing part of a workshop as well and / or looking for reasoning behind certain language. In our last meeting, we went through a tremendous amount of work prior to the public getting a chance to testify. It was an unwieldily situation and I thought it might be nice, now that we have the ordinance in front of us, to be able to talk about these things with you.

(#2440) Bob Fink stated that we have a number of issues coming up. Bob inquired if they wanted to have a

workshop that would give you a chance to ask questions about all the drafts that you currently have. Bob added that he wants to make sure the PAC's questions are addressed, but we also want to give the public a chance to comment. That may also raise additional questions in your mind, such as what has happened this evening.

(#2495) Jay Hupp stated that he agrees with Terri that the critical areas ordinance subject is going to be in depth, in detail, and there's going to be a lot of discussion on it. Jay stated that he would prefer we have a workshop where we can do that without boring the public to death.

(#2525) Bob Fink responded that if you want to have workshop prior to having any of the hearings to discuss your current questions, we could do that, but that would require additional meetings. We have a full schedule without that. Bob stated that his recommendation would be that we go ahead and hold the meetings and just as we have for this one, then we discuss it along with what information the public brings, then we re-examine the questions and see what it takes to deal with those questions.

(#2550) Bill Dewey added that he felt this hearing was conducted better where we had the staff report and there were minimal questions and then the public was given a better opportunity to testify. Bill stated that he would like to try to do it all at one meeting, but have the staff report, and then clarifying questions, then go on the public comment, and then have the advantage of that public comment for our deliberations.

(#2575) PAC was in agreement with that.

Meeting adjourned.