

JEFFERSON COUNTY PLANNING COMMISSION

MINUTES FOR JUNE 1, 2005

- A. OPENING BUSINESS**
- B. PRESENTATION/DISCUSSION ON CHANNEL MIGRATION ZONES (CMZs)**
- C. PRESENTATION/DISCUSSION ON PRELIMINARY SHORELINE INVENTORY AND ANALYSIS**
- D. ADJOURNMENT**

A. OPENING BUSINESS

The regular meeting was called to order at the WSU Learning Center at 6:30 p.m. by Chair Allen Panasuk. Planning Commission members present were Phil Flynn, Dennis Schultz, Jim Hagen, Mike Whittaker, Bill Miller, Bud Schindler, and Edel Sokol. Peter Downey was absent (not excused).

DCD staff present were Josh Peters, Neil Harrington, and Cheryl Halvorson, secretary.

Guest presenters were Jeanne Klawon, U.S. Bureau of Reclamation; Sue Perkins, Perkins Geosciences; Dr. Robert Crittenden, Fisheries Biologist; and Jeffree Stewart, Department of Ecology shorelands specialist.

There were about fifteen members of the public present. Those who signed the guest list were Jeff Davis, John Cambalik, Randi Thurston, Byron Rot representing the Jamestown S'Klallam Tribe, Ross Goodwin, Ted Labbe representing the Port Gamble S'Klallam Tribe, Rich Brocksmith, Owen Fairbank, Jill Silver, Sarah Spaeth, Jerry Gorsline, Pat Pearson of WSU Extension, and Dave Christensen.

The minutes for May 18, 2005, were approved as submitted.

The Chair invited staff updates.

Josh Peters reported that DCD had received the Final Decision and Order from the Hearings Board on the UGA appeal. He stated that there were some findings of invalidity and non-compliance so the county would be working on the UGA issue again. He stated that staff would send copies of the FDO to the commissioners in the next mailing.

Dennis Schultz reported that the UDC Committee suggested revisions for the Unified Development Code were being presented at this meeting. He reported that the UDC as we knew it was being incorporated into the Jefferson County Code. The commissioners discussed when the Planning Commission would begin its review of the UDC revisions. Josh Peters stated that the commission could begin its review at the June 15 meeting after the next critical areas workshop. He stated that it would just be a preliminary review with a formal public process to follow later.

B. PRESENTATION/DISCUSSION ON CHANNEL MIGRATION ZONES (CMZs)

Josh Peters introduced the two presenters, Jeanne Klawon and Sue Perkins, and provided a short biography for each.

Jeanne Klawon provided a PowerPoint presentation concerning the CMZ study that was conducted on the South County rivers (Big Quilcene, Little Quilcene, Dosewallips, and Duckabush). She explained the reasons for delineating CMZs and the components of CMZs.

Jeanne Klawon then went into specifics on the South County rivers. She explained the process used in determining the CMZ, using historic information on channel locations. Ms. Klawon explained how they measured erosion hazard areas. She stated that they also mapped a lot of the manmade structures on the rivers - revetments, etc.

Jeanne Klawon stated that there were maps on the walls for each of the rivers. She provided PowerPoint slides taken on the Little Quilcene River depicting the CMZ. It included the historical migration zone, the erosion hazard zone, and the geologic boundaries.

In answer to Mike Whittaker's question, Jeanne Klawon stated that their information went back to the 1880's and up to 2000 to 2002.

Josh Peters explained that Ms. Klawon's study did not take manmade structures into account. However, Sue Perkins' work, which supplemented Ms. Klawon's study, did consider manmade structures.

Bud Schindler asked if the study had taken into account logging practices of the past which may have had an effect on the CMZ. Jeanne Klawon responded that they had seen some incision that may be historically related to past logging practices. However, the work she had done indicated that the channel had not been affected much based on the historic information.

Jim Hagen asked for clarification of Ms. Klawon's statement about not seeing a trend over time in channel migration. Jeanne Klawon replied that it meant that they had not seen a widening or a narrowing of the channel.

Jeanne Klawon then showed some slides of the Big Quilcene River. She stated that the delta showed a large avulsion-type zone. She showed some slides of river segments up-river from the delta.

Dennis Schultz asked if they had taken historic precipitation into account (100-year rain events) as causes for channel migration. Jeanne Klawon replied that they had not done anything with precipitation.

Jeanne Klawon moved on to some PowerPoint slides taken on the Dosewallips River and explained the CMZs on various segments of the river.

Jeanne Klawon explained what an incision was. It meant that the channel was down-cut, basically lowering the channel bed. She stated that the risk of an avulsion event was less in such areas because the river had to come up a lot higher in order to get across the bank.

Dave Christensen referred to the earlier comment about a high flow event. He explained that the photos shown were all taken during the summer when the weather was clear. So they were not taken during a high flow period. Jeanne Klawon stated that they were looking at channels that were pretty much devoid of vegetation, so they were not just looking at the water volume in the river at the time the photo was taken. They were looking at the entire channel.

Dr. Robert Crittenden referred to a specific segment of the river and commented that there was a high flow event in December, 1980, yet that was not where you saw an effect. He asked if that was characteristic of this river [the Dosewallips]. Jeanne Klawon replied that there were certain reaches that were unstable. They thought those areas were subject to a lot of sediment deposit. There were other reaches where the river was very narrow.

Jeanne Klawon pointed out an avulsion area on the Dosewallips River, stating that it was likely a fairly abrupt event that happened sometime between 1951 and 1957. An audience member stated that he had interviewed the Baileys, who

had lived on the river for many years. They had said that the avulsion resulted from a large log jam that forced the channel over.

Jeanne Klawon then displayed some slides taken on the Duckabush River.

Jeanne Klawon summarized her presentation on the CMZ study. She stated that they could use the information to define the hazards. She turned the presentation over to Sue Perkins, who continued the presentation on that topic.

Sue Perkins stated that a CMZ did not have an equal level of hazard. She stated that her job was to divide that into zones that were disconnected and had no hazard and then to divide the remainder into high, medium and low hazard areas. She stated that people were familiar with flood hazard mapping. She stated that CMZs were a different type of river hazard and the areas did not necessarily correspond with flood hazard areas; they were really two separate things. She stated that the intent of her work was to re-classify the identified CMZs into other zones that were more useful for planning purposes.

Sue Perkins described the disconnected migration areas. She stated that those zones were designated in consultation with Jefferson County. They were mostly in the river deltas. She displayed slides of the four South County rivers to illustrate the issues and designations. She stated that some revetments were not considered reliable in terms of preventing channel migration. One slide showed a revetment that was failing, with the river eroding behind the rock. She stated that roads cut across the rivers, which prevented the rivers from swinging back and forth; the rivers could only get through the road at a bridge opening.

Sue Perkins generally explained the hazard delineation process and the designation of hazard level for particular segments of the rivers. She stated that the areas of highest hazard for channel migration were areas close to the river and areas that had old channels where an avulsion could occur. As you got farther from the river, the hazard became lower. Also, a high surface [bank] from the river that was not prone to avulsion would be a lower hazard.

Sue Perkins stated that different river reaches had very different character, so there was certainly no one-size-fits-all buffer zone or hazard width that should be used. She stated that every reach, in fact, was treated differently. She stated that most rapid channel migration occurred in depositional areas where the river was losing its ability to transport sediment and the sediment dropped out. It formed gravel bars which tended to push the river sideways, which in turn would erode the river banks. If the sediment kept going, you would get much less bank erosion.

Sue Perkins stated that there were four geometric channel types. She provided examples of each and described how they assigned a hazard level. The first was the deltas. The next was wandering river reaches. Another type was the straight and entrenched reaches. The fourth type was the straight and narrow reaches which were natural.

Sue Perkins explained some of the limitations of the CMZ maps. They only showed a relative risk. You could not actually predict exactly when a piece of land was going to get moved into by the river, mostly because such events would be caused by random events. She stated that what you could say pretty

confidently was that some areas were at much greater risk than others. She stated that the CMZ maps did not predict the flood risks or the landslide hazard risks.

Sue Perkins stated that there were transitional zones that were downstream of the straight reaches. One was in the Lazy C area on the Dosewallips. Those were areas that had been straight and had not moved historically. But, based on the fact that sediment was building up, it seemed fairly likely that they could change their character and convert into more of a wandering river type. It was recommended that those zones be assessed every ten years or so.

An audience member stated that it was also important to point out under limitations that only the large rivers were mapped. That was not to say that there were not channel migration zones on smaller streams in the county that were not covered by the study. He admitted that they were really hard to map. He stated that it did not mean that the county should not protect those areas, but we just did not have very good maps for the smaller streams. Sue Perkins agreed that was true. She stated that it was very hard to map the smaller streams because you could not use aerial photos; you had to rely more on field evidence.

Sue Perkins stated that their confidence level was fairly high for the lower reaches of the rivers, although it was lower for the upstream ends of the rivers.

Sue Perkins stated that the Hoh River had been mapped as well, commissioned by the Hoh Tribe. Most of the lower river was either high or moderate risk.

Bud Schindler commented that the Highway 101 bridge in Brinnon over the Dosewallips River had been widened in order to allow the river to travel through more efficiently. He referred to an area of the river that was designated low risk (near the highway) and questioned why there was any risk. Sue Perkins replied that she left that low hazard area in because it was a low lying area and there was a very old channel. She stated that no jurisdictions regulated low hazard areas. Edel Sokol stated that the area in question contained a garden and the owner had claimed there were very old plants on his land, which proved there had not been a flood there in years. Ms. Perkins stated that people should not be alarmed by the presence of a low zone.

Josh Peters explained that there were proposed amendments last year that were not adopted by the BOCC. At this time, there were no proposed amendments; this was a workshop to talk about all the data that had been examined in development of a proposed amendment. He stated that there would be a formal public process once actual amendments were proposed. In answer to Jim Hagen's question about the proposal from last year, Mr. Peters stated that the draft proposal could be a basis for a new proposal, although it could be different as well. He suggested the Planning Commission keep the 2004 proposal for historical background.

Ted Labbe, habitat biologist for the Port Gamble S'Klallam Tribe, complimented the county for commissioning this work. It was very good, state of the art work, adding that they used methods that were designed by very respected scientists. He encouraged the county to use this information in developing its amendments. He suggested some things to think about in developing amendment language. He stated that Dave Christensen in his review talked about the importance of CMZs for avoiding hazards to human welfare and

property. They were also really productive points on the landscape for fish and wildlife. They were important for fish and, on the Dosewallips, they were very important for elk. He stated that Dave Christensen's review talked about protection of CMZs and having them protected in a way that was consistent with Forest and Fish. He stated that there were some inconsistencies in the proposed amendments with how that fit in with the measurement of the buffers. It called for measurement of stream buffers from the edge of the ordinary high water mark. If you actually looked at Forest and Fish, they talked about protection of the CMZs and then buffers on that (buffers from the edge of the CMZ). He suggested the county consider that in any new amendments. He stated that the idea was that if the channel avulsed to the opposite side of the channel, you still had a buffer. Mr. Labbe stated that this study just looked at the large rivers in the county. That was not to say that there were not channel migration zones in the small streams that were not covered by the study. Those areas, though small, were still very important for the productivity of the stream. He suggested that the county look at ways to include language that recognized the existence of CMZs that may not be mapped and that allowed for field review for proposed development in such areas. He stated that they were small but really important parts of the landscape.

Jill Silver stated that she worked with Sue Perkins on the Hoh River CMZ study and worked on the Hoh River a lot. She wanted the Planning Commission to know about a Bureau of Reclamation study that was done upstream to Mile 44 of the Hoh River. She stated that she had a copy of that study and offered to allow staff to have it to make copies for the commissioners. She stated that it was good information for the river on the other side of the county. She stated that there were different issues out there. Here, the ordinary high water mark was more narrow than the CMZ, in most cases. On the West End, it could be the opposite. She stated that while Mr. Labbe was correct for the East County, the commission should consider the differences on the West End. Josh Peters stated that, if there was a CD of the report, staff could post it on the web site.

Mike Whittaker asked how much time was put into the study in the field. Sue Perkins stated that she typically only did the geological part and left the implementation to the local jurisdiction. Ms. Perkins and Jeanne Klawon stated that they spent about three weeks on the ground.

Jim Hagen asked about the statutory language in the GMA for critical areas, asking how far the county was required to go in the CMZ question. He asked if there was a definition of stream size, for example, or if it was at the discretion of the individual jurisdictions to decide which streams would be included. Josh Peters responded that it was a good leading question for the second part of the workshop. He stated that Jeffrey Stewart, DOE, would provide information on CMZ policy from the state level. Mr. Peters pointed out four poster boards prepared for the Discovery Bay Days educational event. One contained information about critical areas and listed the five types of critical areas that were in the Act itself. He stated that there was nothing in the Act that said "channel migration zones". There was information about CMZs in the shoreline guidelines to update the Shoreline Management Program. Mr. Peters stated that in 2004 staff was proposing to put the CMZ information into the geologically hazardous areas section. Others might suggest putting it in the fish and wildlife section. That issue would be discussed during the amendment review.

Dave Christensen stated that he was with the county when it commissioned the study. He stated that about \$120,000 worth of resources went into the studies.

Sarah Spaeth, Jefferson Land Trust, stated that one of the reaches of the Dosewallips River had a very wide CMZ just below the Lazy C. It was the focal point of some efforts to acquire some of those lands to allow the river its natural migration zone. There had been some acquisition that had taken place.

C. PRESENTATION/DISCUSSION ON PRELIMINARY SHORELINE INVENTORY AND ANALYSIS

Josh Peters introduced the next presenters. Jeffree Stewart, DOE, would speak about CMZs and their application to the Shoreline Management Act. Neil Harrington would then speak about the draft shoreline inventory and analysis the county was preparing in conjunction with the Shoreline Master Program [SMP] update.

Jeffree Stewart provided a handout summarizing his presentation. He provided some history on the Shoreline Management Act [SMA]. He stated that the SMA gave priority to uses that were water dependent, along with other "appropriate" uses that were given priority on such lands. He stated that he would also speak about understanding natural systems in relation to human development. He stated that there were areas where certain kinds of development were not appropriate because of the geography and natural conditions.

Mike Whittaker asked about "shorelines of the state", whether it meant salt water shoreline, lake shoreline, or river shoreline. Jeffree Stewart replied that it was all of the above. He stated that rivers, lakes, and streams of a certain size and all marine shorelines were designated as shorelines of the state.

Jeffree Stewart stated that the DOE worked with local jurisdictions by providing both regulatory and technical assistance.

Jeffree Stewart stated that it was important to understand the differences between critical areas regulations and the shorelines, as well as where they overlapped. He explained some differences between the GMA and the SMA.

Jeffree Stewart stated that the state had adopted new Master Program guidelines under WAC 173-26. He stated that he had been working with county staff to update the county's Shoreline Master Program [SMP]. Channel migration zones would be considered as part of that update.

Dr. Robert Crittenden asked about the minimum standards. He asked if they were mandated under the RCWs and, if so, whether the state was providing funding, or whether it was an unfunded mandate. Jeffree Stewart responded that the guidelines were the formally adopted instrument that established the minimum standards for SMPs at the local level. He stated that SMPs under the Shoreline Management Act were developed at the community level so that the citizens of each jurisdiction could make a determination about what was important for their area and what they wanted the local process to be. It did have to meet the minimum guideline standards in the WAC, which was the instrument of RCW 90.68. Therefore, the guidelines in effect were a requirement. Concerning the unfunded mandate question, Mr. Stewart explained

the funding the state legislature had provided in each biennium for the next many years. He stated that we were now in the first round of funding and were starting the second round. He stated that Jefferson County was in the second round.

In answer to Phil Flynn's question, Jeffree Stewart and Josh Peters explained the differences between the Shoreline Hearing Board and the GMA Hearings Board.

Jeffree Stewart stated that one aspect of updating the local SMP was inventorying the conditions on the ground. The current inventory was intended to recognize what had developed on the landscape now. He stated that the SMP set up various shoreline designations [conservancy, rural, urban] and each designation had its own regulations and standards. One thing that could happen across time was that an area designated conservancy, which was pretty restrictive in order to keep a relatively natural state on the ground, may become more developed through a variety of means and, therefore, less appropriate for continuing under the conservancy designation. Those were the kinds of decisions that had to be wrestled with at the local level using the inventory work to identify the appropriate designations and, therefore, the corresponding regulations.

Josh Peters stated that there was state language requiring the county Comp Plan and its regulations and the SMP to be consistent. The deadline for achieving consistency was 2011. Then, periodic updates were required for critical areas. Mr. Peters stated that there were some challenges in marrying the two acts (the GMA and the SMA). Jeffree Stewart agreed that trying to understand how the two worked together was a challenge.

Jeffree Stewart included excerpts in the handout of the kind of guidance contained in WAC 173-26-221(3) concerning flood hazard reduction and CMZs. He stated that one of the difficult issues to reconcile was how to accomplish no net loss of function when we were experiencing such growth. Josh Peters provided some history on the previous shoreline guidelines developed by DOE under the SMA, which were appealed to the Shoreline Hearing Board. The appealing parties entered into a negotiation process which resulted in the development of the current guidelines. Mr. Stewart stated that there was a very specific point where the Shoreline Hearing Board came back to the DOE and said they could not try to include provisions to address the Endangered Species Act. He stated that it had been an attempt by DOE at regulatory streamlining, but the Shoreline Hearing Board determined that the Shoreline Act would not allow it.

Jeffree Stewart and Edel Sokol discussed the issue of no net loss. Josh Peters stated that it was a difficult term to wrestle with. He stated that the challenge was to establish through the inventory and analysis what the ecological function was for all of the shorelines. Then you set up your policies and regulations so that, as future permits came in, the policies would be strong enough so that you would not have a net loss of ecological function in the future. That may include denial of the development, or mitigation, or restoration. Mr. Stewart stated that part of the SMP planning was to plan for ecological restoration. Part of the task was to determine locations where restoration could or should be done, and to recognize areas where restoration had already taken place or had been planned, and to be more strategic and systematic about those restoration activities as mitigation for the inevitable continuing development.

Sue Perkins stated that one part of the handout said that the CMZ could extend beyond the actual shoreline jurisdiction. The shoreline jurisdiction was 200 feet from the shoreline, but a CMZ may be 500 feet wide. She asked for clarification. Jeffree Stewart responded that the shoreline jurisdiction was established on a statutory basis based on the ordinary high water mark. It was an interesting difference that confused people because of differences between state legislation and federal agencies on how to establish the ordinary high water mark. Because there was a difference in identifying the ordinary high water mark, it was not a simple call; it had to be made on the ground for a given area.

Josh Peters stated that Mr. Stewart had been asked to attend in order to create a bridge to the presentation on the preliminary shoreline analysis and because of the similarities in the science that went into the shoreline inventory and the CMZ work. He stated that the shoreline management consideration would be coming up in the next couple of years, but not this year. Right now we were working on critical areas requirements and how to meet those. He stated that it would be a challenge. There would be a critical areas proposal, with possible amendments to the code, later this year. Then in the next couple of years we would be doing the Shoreline Management Act responsibilities, including updating our SMP. Then we would have to analyze whether our critical areas protections with regard to CMZs were consistent with the SMA.

Neil Harrington provided a PowerPoint presentation on the shoreline inventory and analysis in preparation for the SMP update. He provided information on his education and experience.

Neil Harrington reviewed the goals of the SMA. He reviewed the scope of the SMP in Jefferson County. He provided a slide on the SMP update process and described the elements of the SMP inventory and shoreline uses. He reviewed types of shoreline uses, including water dependent and related uses, public access, and ecological functions of rivers and streams and the marine shorelines. He reiterated that the shoreline jurisdiction was 200 feet of the ordinary high water mark.

Jeffree Stewart stated that one of the things that was identified by the legislature as a preferred use of the shoreline was residential use.

Neil Harrington displayed several slides of Jefferson County shoreline features. One was a shoreline feeder bluff at Middle (McCurdy) Point. Another was a feeder bluff in Port Ludlow. He explained that a feeder bluff provided sediment through wave action erosion which was then transported to another area via a drift cell. In answer to an audience member's question, he discussed the potential of a slide hazard as a result of inadequate drainage structures for housing developed on the bluffs. Another slide depicted a salt marsh. There was some discussion about the ownership of the salt marsh and how it might be used as mitigation for development.

Josh Peters stated that the June 15 meeting topic would be about conservation planning. He called attention to a map on the wall that depicted core wildlife habitat areas and corridors. With that work, and the work Mr. Harrington had done, and the work of other presenters, staff was hoping to get together a consortium of interested parties to talk about prioritizing areas that needed protection. The purpose would be to target our funds to the most appropriate places. He stated that, in terms of a shoreline restoration component to an SMP, it was apparently one of the most

challenging aspects of the update, based upon information from some of the early adopters. He stated that the Port Townsend SMP process had included a discussion of the issue about areas of ecological functions that should be preserved and how to go about doing that. Jeffree Stewart stated that some other jurisdictions, notably some in Eastern Washington, had addressed the issue with a really fine model. They would become available as examples when those SMPs were finally adopted.

Neil Harrington stated that the next issue was to define the reaches of the shoreline. He stated that he had tried to divide the shoreline up into areas with similar attributes. He displayed a slide of Lower Port Hadlock with a spit. Jeffree Stewart stated that it was an example of an area that should not be developed. He stated that Beckett Point was another example of an area that probably should not have been developed.

Dennis Schultz asked how many shoreline designations there were. Neil Harrington replied that, currently, there were five - urban, suburban, aquatic, conservancy, and natural.

Allen Panasuk invited comments and/or a presentation from Dr. Crittenden.

Dr. Robert Crittenden stated that the presentations had been excellent and he did not have many additional comments. Dr. Crittenden discussed the relationship between floodwater flows and gravel. He stated that it was the flood events that were, in fact, the most important. He thought that it was unfortunate that the floodwater section had been separated from the CMZ, because the two should really be considered together. The hydraulic conveyance of the floodway was something that was very influenced by how you managed it. If you made a no touch zone in an area with the right conditions, you could effectively clog up the floodway, which could result in higher water levels during a flood event, which would in turn result in a larger flood zone. It would also result in a source of large woody debris. He stated that the problem with large woody debris was that it tended to plug up the entrances to side channels and tended to accumulate gravel. This in turn tended to move towards a single channel configuration in the river. He stated that very often a river would be stable for a long time and then, after a flood event, the river would experience a period of instability and channel migration. He was opposed to a no touch zone approach. He stated that what you should go to was an open forest and described such a forest. He thought that would move towards restoring the natural condition and functions of the river.

Jill Silver respectfully disagreed with Dr. Crittenden's interpretation of the role of alders in a healthy CMZ. She stated that the alders were the first successional species that came after a flood. They established the soil and put nitrogen into the soil, so that conifers could come in next. Alders were also very important in terms of putting nitrogen and other nutrients into the substrate for vertebrates, which the fish ate. They were a necessary part of our rivers that had many functions. She agreed that they tended to trap sediment and helped to create multiple channels. She stated that the large conifers, especially, helped to create multiple channels. She stated that the CMZ study maps went way back in time, so there were essentially no touch zones depicted. There were often many channels. She suggested that those multiple threaded channels on the larger rivers formed much deeper pools with deeper channels for better holding for salmon; and they created more shaded channels, instead of having one wide channel. That would provide better water temperatures overall.

Dr. Robert Crittenden agreed with Ms. Silver's comments, stating that he thought she had misunderstood. He stated that, in the long term, what you wanted was a mature forest. The question was how to get there from an area that was very disturbed, where the trees were all removed. He agreed that alders should be part of the process, but he thought that ideally you should thin them.

The Chair opened the meeting to public comments.

Ted Labbe stated that he would provide written comments. He stated that the tribe had some resources available. One was information they had gained through a contract with Washington Trout to look at water typing error rates for a portion of East Jefferson County (from the Port Ludlow area up to Oak Bay). The study had occurred prior to the adoption of the new stream typing system. One of the things that came out of the study was the high rates of error in the water typing, some of which had been corrected with the new typing system and some of which had not. He thought it was important to understand the new water typing system was a model that predicted fish presence or absence along mapped stream courses. What they found in the field was that upwards of 10% of the fish bearing streams were not even on the maps. He stated that the Washington Trout web site contained a link to the full study (www.washingtontrout.org/ludlow). He stated that the point was that 10% of the fish bearing streams were not even mapped and, therefore, would not be typed. It underscored the importance of the county doing field work and not relying solely on a model.

Ted Labbe stated that there had been a comment in the Planning Commission minutes about stream water temperature not being a problem in East Jefferson County. He stated that, in fact, water temperature was something of a problem. He stated that there were many streams in the county that were on the state and EPA list of water quality streams because of very high summer stream temperatures. In fact, there were some areas where water temperature was lethal to fish. He stated that it was something the WRIA 17 group had discussed. He stated that the county, tribe, Conservation District, and DOE had collaborated on a study to look at water temperatures and factors influencing water temperatures. He stated that he would provide a copy of that study. One thing they found was that riparian shading had a disproportionately large influence on stream temperatures. They found that the biggest single restoration opportunity for improving water temperature for fish or other stream dependent organisms was to improve shading. It also underscored the critical importance of having science based riparian protection as part of the critical areas ordinance so that water temperatures in East Jefferson County streams did not get any worse. He stated that you could not just restore the streams and not protect them from additional development pressure and expect they would get better over time. He stated that he would include the results of that study with his written comments.

Pat Pearson, WSU Extension, extended an invitation to the Planning Commission to attend Discovery Bay Day on Saturday, June 4. She described the activities and that they would include the unveiling of the Salmon-Snow restoration area plan.

Jeffree Stewart stated that the photo slides Mr. Harrington had displayed with his presentation were from the DOE web site. The site could provide similar photos of any area of the shoreline.

D. ADJOURNMENT

Josh Peters stated that the next meeting [June 15] would be the third and final workshop on critical areas. It would be on wildlife habitat conservation opportunities. Also, the commission would begin discussions of a preliminary draft UDC Omnibus amendment package.

The meeting was adjourned at 9:25 p.m.

E. APPROVAL OF MINUTES

These minutes were approved this _____ day of June, 2005.

Allen Panasuk, Chair

Cheryl Halvorson, Secretary