Merrill, Hannah

From: Merrill, Hannah
Sent: Wednesday, January 30, 2013 6:04 PM
To: zSMP
Subject: FW: LEKT Comments on the Clallam County Draft Shoreline Master Plan (November 2012 Draft)
Attachments: LEKT Comments on Draft CC SMP_November 2012v.pdf

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From: Matt Beirne [mailto:Matt.Beirne@elwha.nsn.us]
Sent: Wednesday, January 30, 2013 5:41 PM
To: Miller, Sheila Roark
Cc: Gray, Steve; Merrill, Hannah; doug.morrill@elwha.nsn.us
Subject: LEKT Comments on the Clallam County Draft Shoreline Master Plan (November 2012 Draft)

Ms. Roark Miller,

Attached are preliminary comments from the Lower Elwha Klallam Tribe regarding the County's Draft Shoreline Master Plan.

Thank you

Matt Beirne
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Lower Elwha Klallam Tribe

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January 30, 2013

Ms. Sheila Roark Miller
Clallam County
DCD-SMP Comment
223 E. 4th St., Suite 5
Port Angeles, WA 98362

Re: LEKT comments on the Draft Clallam County Shoreline Master Plan

Dear Ms. Roark Miller,

The Lower Elwha Klallam Tribe has completed its review of the Draft Clallam County Shoreline Management Plan. Overall we found that the County staff, facilitators and consultants tasked with coordinating SMP meetings and preparing drafts of SMP related documents were professional, knowledgeable, and responsive. While we appreciate the opportunity to be involved in the Shoreline Planning process, the tribes should not be relegated to the level of stakeholders. We encourage the county to reach out to the affected tribes and actively seek meaningful dialog on this significant topic.

We offer the attached comments on the current *draft* SMP, but with the understanding that in the absence of the Draft Restoration Plan, Final Cumulative Impacts Analysis, and No Net Loss documents our ability to effectively review this document is compromised. Of particular concern among the proposed SMP provisions are those associated with Variances, Buffer Averaging, Conditional Use Permitting, and New Minor Developments along shoreline bluffs and other sensitive areas prone to environmental hazards. We believe that the collective impacts of providing an "open administrative allowance" in these areas will contribute to a Net Loss of Ecosystem function. Variances for Site Specific land use development along shoreline feeder bluffs should not be allowed as they will likely lead to the future demand for shoreline armoring.

We look forward to meeting with you and your staff to discuss our comments sometime prior to release of the SMP draft and associated documents for public review. Please feel free to contact me at 360-457-4012, ext. 18 or Matt Beirne at ext. 12 if you have any questions. Thank you for your time and attention.

Sincerely,

Doug Morrill
Natural Resources Director

cc. Steve Grey
Hannah Merrill

Comments on the DRAFT Clallam County SMP

1. Shoreline Environmental Designations (SEDs)

While the earlier SEDs were more appropriate due to the environmental descriptors, we believe that the reversion to the former designations will be effective so long as the associated provisions for buffers and setbacks are consistently administered in a manner that will not result in a net loss of ecosystem function. We also believe that it is imperative that the SEDs also include mapped locations of shoreline bluff segments that may be prone to erosion (feeder bluffs, exceptional feeder bluffs) as well as channel migration zones. We recommend referencing relevant Puget Sound studies of marine shoreline landslides and the impacts of building along river and marine shorelines. We have attached an excerpt from the Seattle Landslide Study (Shannon and Wilson 2000) that describes the conditions that contribute to four prominent types of landslides.

2. Shoreline Buffers and Setbacks

We don't believe that site specific development approaches will be effective with respect to feeder bluffs as the impacts to bluff segments should be evaluated on a drift cell scale and not on a property-by-property basis. The Committee has discussed at length the potential ramifications of allowing property owners to hire engineers or geotechnical "experts" to seek Variances from established setbacks and buffers. We believe that this practice will only contribute to the "death by a thousand cuts" so often seen along marine and riparian shorelines that eventually results in the need for shoreline armoring.

Feeder bluffs

The significant value of feeder bluffs to shoreline drift cell processes in Clallam County was well articulated by many members of the County SMP Committee. Please note the previous comments (above) with respect to these areas. We recommend that Jim Johannessen (Coastal Geologic Services) conduct a final review of the SED maps generated for the SMP to ensure that these critical shoreline features are appropriately documented throughout the county.

Habitat Buffers

Habitat Buffer Setbacks should start at the edge of shoreline bluffs rather than the Ordinary High Water Mark (OHWM). Shoreline bluffs provide important terrestrial habitat values wildlife and contribute sediment that is critical to drift cell processes on which numerous fish and shellfish species are dependent.

Section 4.2.3 (Regulations – Shoreline Buffers), provision 5 (b) is confusing in that it suggests that the safety buffer begins at the ordinary high water mark within the channel migration zone (CMZ). We believe that this is inconsistent with the provisions of Washington's Forest Practices Act and the Forest and Fish Law. We recommend that this section be better defined such that the safety buffer is measured from the lateral limits of the CMZ and not *within* the CMZ. Please ensure that the citation is consistent with the FPA/ FFA laws.

Section 4.2.3, provision 7 (Buffer condition) provides criteria for retaining vegetation within the shoreline habitat and safety buffers. We have significant concerns about how this section will be administered and the impacts of allowing landowners to potentially reduce woody vegetation cover by 45%. We also believe that existing forest cover within 100 feet of the shoreline should not be removed to facilitate "view lots". This section is too general in nature and not well defined. For example, the minimum stem diameter, tree species to be retained or planted, and stand ages are not defined.

3. Development in CMZs and other hazard areas

The risks of building adjacent to channel migration zones, bluff properties, and other hazard zones creates a long-term threat to life, property, and ecological function. These threats will often continue long after the original homeowner has been replaced by other homeowners. In order to assure that 1) prospective homeowners are adequately forewarned of high risk properties, and ensure that 2) the cost of future hazard related damages or relocation costs are not borne by county residents or government, a "Notice on Title" should identify the property as within 200 feet of a high risk shoreline or CMZ. The Notice on Title should include a statement that the landowner will not seek shoreline armoring installation at any time in the future. Notice on Title requirements for properties adjacent to flood or shoreline erosion hazards should be included in Sections 2.5 (3 b.), 2.6 (3 e.), 2.7 (2 b.), and footnoted in Table 2-3. This clause should also be included in Section 4.2.3 (Regulations-Shoreline Buffers).

The administration and management of the updated Shoreline Master Program will require extensive resources. We recommend that this program include a funding mechanism that would provide funding for County planning staff to administer the program and perform the monitoring to assure No Net Loss (or adapt the program if needed), and to discourage property development in sites that have inherent risks to structures and the surrounding environment (e.g. erosive bluffs, channel migration zones, and vulnerable coastal shorelines). Please consider creating a shoreline property hazard reduction program to collect annual fees based on the risks of existing structures to known hazards (similar to a Public Benefit rating System). This may be grandfathered in for new construction and transfer of existing ownership. These funds could then be used to help relocate structures if/when needed.

4. Aquaculture (Section 3.2)

Section 3.22 (3). Add a new subsection, "(d) Cause significant adverse effects to Tribal fishing tracts or other Treaty fisheries resources."

Section 3.22 (4). We strongly recommend removing this clause as it provides opportunities for "limited" "experimental" aquaculture projects that have been "unprecedented" or "unproven" in Washington State and that may involve the use of "genera that have nor previously been regularly cultivated". We cannot envision any scenario in which experimental aquaculture operations would be advisable. The release of even small populations of shellfish or finfish can establish a reproductive seed population that could have catastrophic effects on local ecosystems. The Great Lakes ecosystem provides one of the best known examples of how

introductions of nonnative species of zooplankton, crustaceans, and fish can devastate not only a local ecosystem but a formerly productive and regionally invaluable biome.

Another clause that includes distressing language and provisions is found within 3.2.3 (3). We believe that, while "ongoing maintenance, harvest, and replanting" should not require a new permit, the changing of the species to be cultivated most certainly should require a new permit. This will provide an opportunity for local, state, federal, and tribal natural resource managers to evaluate the merits of propagating a species that was not formerly permitted at the facility.

5. "No Net Loss" of Ecosystem Function

We agree that the NNL concept is critical to ensuring that additional adverse impacts to ecological function along shorelines of the state in general, and Clallam County, in particular, should not occur. However, we believe that some of the current provisions within the DRAFT Clallam County Shoreline Master Plan offer opportunities to undermine this goal and actually contribute to a Net Loss of Ecosystem Function. There also needs to be an explanation as to how the Administrator intends to evaluate deviations from the regulations that may be in the form of Variances, Conditional Use Permits, and Buffer averaging. How will existing conditions be compared with post-project completion? We offer the following examples:

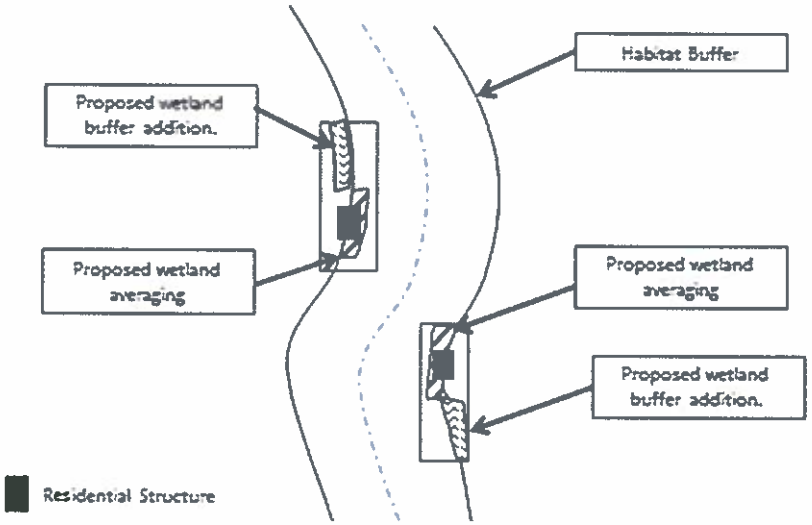
a) **Habitat Buffer Averaging** (Section 4.2.3, provision 8)

We believe that this concept is flawed as it allows significant uncertainty in how this would be administered and does not necessarily require that wetland buffers of equal functional value. Reducing buffers in one area while increasing buffers in another area are still increasing the risk of impacts to the wetland system. For instance, say you reduced a 100 foot buffer to 35 or 50 feet along one edge of a wetland and increased it along the other side. The risk of contaminants entering the wetland has now increased dramatically on the side with the shortened buffer. This concept is further complicated in riparian systems in which an increase in buffer width upstream or downstream from a building site that has been averaged will likely contribute to a net loss of ecosystem function and increase the risk of flood related damage to the structure. The schematic below depicts, based on our understanding of the concept, development scenarios that may occur in a riparian system using wetland buffer averaging.

In this example, additional wetland habitat created along the stream corridor either upstream or downstream from the encroachment of the property development would likely *not* offer equivalent habitat benefits and would, therefore, create a *Net Loss* of ecosystem service. This should not be a decision made by an administrator in the absence of a scientific review of potential impacts.

Riparian System

Wetland Averaging



b) Variances and Conditional Use Permits

Variances and Conditional Use Permits will likely affect No Net Loss calculations over time in cases where habitat encroachment along coastal shorelines and riparian zones is permitted. What entity will be tasked with ensuring that Variances and CUPs do not adversely affect ecosystem function? Does this mean that there would be a previously established number of Variances and CUPs such that there would No Net Loss of ecosystem function over time? These are perhaps, among the most critical questions associated with the No Net Loss principal.

c) Life of the Structure

We strongly recommend dispensing with the 75 year planning horizon and life of structure definitions and, instead, adopting a more realistic value such as 100 years. We believe that the "75 year" figure is arbitrary and based on a generational outlook rather than a more appropriate long-term ecological outlook. If one merely plans based on the "life of a structure" then there is greater likelihood of the loss of ecosystem function over time as shoreline erosion progresses well beyond the 75 year planning period. This would result in a Net Loss of ecosystem function along many shoreline reaches.

Decisions regarding Wetland averaging, Variances, and Conditional Use permitting should not be made by the administrator in the absence of scientific review of potential impacts.

6. Estuaries

Estuaries are among the most valuable and productive aquatic systems within Puget Sound and the Strait of Juan de Fuca. Development pressures tend to be significant in these areas

throughout Puget Sound and have significantly degraded the ecosystem functions of these systems. Owing to the vulnerability and high value of estuarine systems, we strongly recommend that increased protections be afforded to them. Therefore, we recommend that estuarine areas adjacent to the mouths of Clallam County rivers and streams receive a Shoreline Environmental Designation of "Natural".

7. **Mining on River and Stream Shorelines** (Section 3.5.5)

We strongly believe that floodplain mining within active or even ephemeral channels should be prohibited under all circumstances. The high density of gravel pits located throughout Clallam County upland areas are evidence that there is ample existing upland glacial deposits to support gravel extraction well into the future. This section does not address cultural resource impacts, aesthetic values, noise, and consistency of adjacent uses. Oversight of such a permitting process would be extremely complex and the proposed "studies" of potential adverse impacts would be unlikely to effectively determine "sediment budgets" for these streams or accurately characterize the potential for long-term adverse impacts either upstream or downstream of extraction sites. Floodplain extraction of gravel has been documented to contribute to significant degradation of river habitat and would invariably contribute to a Net Loss of Ecosystem Function and should, therefore, be prohibited.

8. **Minor New Development** (Sec. 4.2.3)

We believe that the proposed footprint of allowable uses for "Minor New Development" activities is arbitrary and excessively large and, if implemented, would adversely impact shoreline ecological function. We have been unable to locate any relevant justification as to the maximum square footage proposed in the SMP for clearing & grading (max. 20,000 sq. ft.), impervious area (max. 6,500 sq. ft.), and cumulative footprint (max. 4,000 sq. ft.) for Minor New Developments. Section 4.2.3 (6 a. iii) indicates that the Minor New development should have a "cumulative footprint" of less than 4,000. It is unclear what this statement means, but it appears contrary to a cumulative *impact* area which would be between 2,000 and 6,500 square feet for impervious surface impacts and up to 20,000 square feet for shoreline habitat impacts.

The existing provisions would likely result in significant adverse effects to shoreline ecological function as they enable large construction and clearing intrusions into potentially sensitive shoreline environments that can contribute to accelerated erosion (marine shoreline) and increased flood risk (river corridors). For example, it would be possible for a landowner to create a continuous impervious surface of 250 ft in length running parallel to the shoreline and 26 ft inland for a net impervious surface of 6,500 ft. Likewise, it would be possible to clear and grade 20,000 square feet of land by creating a continuous strip of 400 ft parallel to the shoreline and 50 ft inland. Each of these scenarios could result in significant ecological and safety impacts along a long reach of shoreline bluff even with buffers and setbacks.

We recommend the following requirements for **Minor New Development: 1) < 10,000 square feet for clearing and grading; 2) < 4,000 square feet of impervious surface; 3) < 2,500 square feet of cumulative impacts**. This would still allow for significant development activities. Indeed,

multi-story development, which should be a preferred means of residential footprint development along bluffs, would enable this figure to be increased even further.

9. Vegetation Buffers

We recommend that vegetation buffers be required between agricultural areas and shorelines under the jurisdiction of the Shoreline Management Act. This will help to minimize the runoff of fertilizers and pesticides from agricultural activities into sensitive aquatic habitats.

10. Dredging (Section 3.15.4)

Dredging and the disposal of dredged materials along the shoreline should be discouraged unless these efforts are associated with a shoreline restoration project. The disposal or use of dredged materials along county shorelines that are derived from industrial or municipal areas (e.g. Port Angeles Harbor) should be prohibited.

11. Septic Systems (3.12.10)

There appears to be very little discussion of site development in the context of building on-site septic systems. On-site septic systems should be located outside of habitat and safety buffers and never sited within CMZs and shoreline bluff setbacks.

Reference

Seattle Landslide Study, City of Seattle, DPD.
(excerpted from: Shannon and Wilson, 2000)

4.1 Landslide Types

In evaluating the landslide data compiled for this study, most of the landslides were found to fit into four generalized types. Those types, together with the figure numbers that illustrate a schematic profile view of each type, are as follows:

Generalized Landslide Type	Figure No.
High bluff peeloff	1-2
Groundwater Blowout	1-3
Deep-seated	1-4
Shallow colluvial	1-5 and 1-6

There are various combinations of these generalized landslide types, as one type of mechanism may lead to another during the sliding, or the slide may be complex, exhibiting different modes of failure in different portions of the slide. Landslides involving fill material were classified as shallow colluvial landslides. The following sections describe each landslide type in greater detail.

4.1.1 High Bluff Peeloff

High bluff peeloffs (Figure 1-2) occur on the face of near-vertical bluffs where vegetation is absent or sparse. The soil at and near the bluff face, which has been loosened by the forces of weathering (freezing, thawing, root-wedging), slabs off or slides when it becomes wet during periods of heavy rainfall. This type of landslide commonly occurs following a period of freezing weather. Sometimes seepage from more pervious soils, such as recessional outwash, at the top of the bluff, or runoff over the edge of the bluff contributes to this type of instability. Also, water-bearing layers in the steep bluff could contribute to saturation of the face soils. Normally, the thickness of soil that slides off the face is only a few feet. The soil that comes off the bluff may or may not slide for a considerable distance, depending on the water content of the soil and the angle of the slope below the bluff. Alternative names for this type of landslide are earth fall and blockfall.

4.1.2 Groundwater Blowout

A profile of a groundwater blowout landslide is shown on Figure 1-3. This type of slide occurs where a pervious soil (sand) overlies a lower permeability soil (clay or silt). Groundwater collects in the pervious soil and becomes perched on the underlying, relatively impervious soil. The lower permeability soil could be either a relatively thin silt or clay layer or a thick stratum of silt and clay. Seepage travels to the slope face immediately above the contact with the underlying, relatively impervious zone and causes instability where the sand essentially blows out and flows downslope (runout). Because of this blowout, the upper portion of the slope becomes undermined and also fails. Groundwater is more important in the development of this slide type than direct infiltration of precipitation and is commonly found at "The Contact," Figure A-4. Nevertheless, this type of slide normally takes place during or shortly after periods of heavy precipitation because of the added water near the spring exit. It should be noted that this mechanism for causing landslides (seepage at pervious/impervious contact) was probably involved in a number of slides that were categorized as shallow colluvial landslides in the database table and landslide maps. This categorization would occur where there was a lack of detailed data on a landslide, particularly in the older records.

4.1.3 Deep-Seated Landslides

In the database table, those landslides that were identified or estimated to involve a depth of movement greater than an estimated 6 to 10 feet were categorized as deep-seated (Figure 1-4). These landslides may involve higher density, in-place soil as well as colluvial soil. This type of slide normally consists of the block movement of soils where a mass of soil slides downhill on a failure surface that is often arc-shaped. Sometimes the surface of rupture parallels the ground surface. As blocks of soil move downhill, a setdown of the ground surface occurs at the upper edge of the blocks, thus forming a slide scarp. Such movement is commonly progressive; that is, a lower block of soil moves first, which takes away lateral restraint for higher blocks that, in turn, slide.

The deep-seated landslide is initiated by water coming into the slide mass, which takes place either from rising groundwater levels, direct infiltration of heavy precipitation, surface runoff, saturation by the discharge or leaking of pipes into or onto slope soils, or a combination of these sources of water. Where the soils subject to movement are relatively pervious, such as sand and/or gravel, the movement normally occurs rather abruptly (within minutes or hours). Where the soils are silt or clay, movements usually occur gradually, over days, weeks, or even months.

4.1.4 Shallow Colluvial (Skin Slide)

Shallow colluvial landslides occur when loose, heterogeneous soils on a steep slope become saturated and slide (Figure 1-5). The term "skin slide" is sometimes applied to this slide type because a relatively thin depth of soil is normally involved. They generally consist of rapid movements of the saturated soils, and commonly act like a thick fluid, flowing or running out over a considerable distance. In the database, they are noted as "debris flows" when the runout generally exceeded 50 feet. The saturation of soils that causes shallow colluvial landslides takes place by infiltration of surface runoff, direct infiltration of precipitation, groundwater seepage, discharge from pipes, or a combination of these sources of water.

Figure 1-6 illustrates a relatively shallow slide involving fill material. This type of landslide was categorized as shallow colluvial landslide in the database table and on landslide maps. If fill is placed at the top or the side of a slope without compaction and suitable drainage provisions (surface and subsurface), instability is likely inevitable.