

Merrill, Hannah

From: Lear, Cathy
Sent: Thursday, September 01, 2011 12:48 PM
To: Merrill, Hannah
Cc: bvreeland@tfon.com
Subject: FW: Shoreline I & C Report comments Cont.

Hannah,

Here are Bob Vreeland's comments. Bob, thank you for these comments and for your good efforts in the SMP update.

Cathy
360.417.2361

Be patient: your best ideas are probably years ahead of their time.

- Kim

Hightower

-----Original Message-----

From: Bob Vreeland [REDACTED]
Sent: Wednesday, August 31, 2011 5:05 PM
To: rjohnson@jamestowntribe.org; doug.morrill@elwha.nsn.us; jimm@portofpa.com; nwest@cityofpa.us; ja.ward@pnl.gov; A. Shogren; Lyn Muench; A. Stevenson; ed.bowlby@noaa.gov; M. Paul; A. Schouten; D. Clare
Cc: Lear, Cathy; Freed, David
Subject: Shoreline I & C Report comments Cont.

4.7 Reach 7: Angeles Point

Pg. 4-19, lines 10 & 11: Is it correct that the "Net shore-drift within the reach is entirely eastward?"

Pg. 4-19, line 19: "There are REPORTS (emphasis mine) of a pipeline along the base of the feeder bluffs...." This is an example of a clear (in my mind, anyway) problem with this report. There is obviously no "ground truthing" of the information in this report. This comment is attributed to personal communication with Randy Johnson. There are not "REPORTS" of a pipeline. There "IS" a pipeline along the base of the feeder bluffs.

Pg. 4-19, lines 30-31: Arnold Schouten, anything to add to this waterfowl comment?

Pg. 4-19, lines 34-36: There is mention of "eelgrass patches throughout a majority of the reach..." but not mention of herring spawning area. Don't these "eelgrass patches" provide any herring spawning area? What data does CMRC have on this? Is the importance of eelgrass in this reach insufficiently stressed?

Pg. 4-19, lines 38 & 39: Is the population of abalone in this reach "greatly reduced" or is it now non-existent? Is poaching the only reason for the reduction or elimination of this population, or did over harvest play a part? I'm not convinced that a Seattle Times article in 2009 is a very reliable source.

Pg. 4-20, lines 9 & 10: "The portion of the Elwha River within the reach has a State impaired water quality listing for temperature. Elwha water quality is listed by the Streamkeepers as 'Compromised' for WQI." This is an example of one of the many water quality

comments included for each reach which, in my view, has no value because of the lack of detail. Why and when is the Elwha impaired for temperature? What is the reason for the Elwha to be "compromised" for WQI? Does the Elwha exceed temperature levels only in the late summer and/or early fall because two reservoirs near the mouth allow the water to heat up? Is it because of the City of Port Angeles's water withdrawals? Is it a combination of these? What causes water quality index items are measured and which ones are "compromised" in the Elwha and when? Without information with greater detail there is no possibility of establishing a baseline against which future conditions can be compared and providing a basis for assigning Shoreline Environment Designations, and developing policies and regulations.

Pg. 4-20, lines 15-17: Public access: The parking along the Elwha Dike Road is extremely limited. This comment on public access seem inadequate to me.

Pg. 4-21, line 4: Is it true that there is no armoring of the shoreline to the west of the Elwha reservation?

Pg. 4-21, lines 16-22: If 58% (from reach summary sheet) of the land ownership in this reach is private, the majority used for residential development, and 2/3 or the shoreland area is potential for new residential development (lines 19 & 20, pg. 4-20) why is the Management Issues and Opportunities section so short for this reach? Why is there no Key Management Considerations section for this reach, as there is for other reaches?

Pg. 4-21, line 23: I have great discomfort with the way modifying words are used throughout this document. This sentence is what I see as a problem with the modifier "Most" implying something greater than the 75% stated in the Reach summary sheet. Seventy-five percent may mean "most" to some, but "most" could mean anything from 75% to 99% to others. I suggest that the modifying words be replaced by the more accurate (precise) percentages from the reach summary photo/maps. In this case it would be just as easy to say "Seventy-five percent of the reach shoreline is publicly owned" and avoid any reader interpretation of "most."

4.9 Reach 9: Crescent Bay-Low Point

Pg. 4-24, lines 9-15: Is the marine vegetation, forage fish, salmonid information complete/accurate?

Pg. 4-24, lines 16-19: Again, of what use is the limited information regarding water quality for Whiskey Creek, Salt Creek and Lyre River?

Pg. 4-26, lines 19 & 20: Why do only "PORTIONS" (emphasis mine) of the Twin Rivers within the reach provide habitat for steelhead, resident cutthroat trout and coho and chum salmon? I don't get that impression from Map 3b - Marine Ecological Characteristics. Why no mention of salmonid habitat for the Lyre River and Salt Creek? Is this another example of a misleading modifier "portions?"

Pg. 4-26, lines 21-23: Again, of what use is the minimal detail on water quality?

4.11 Reach 11: Deep Creek

Pg. 4-28, lines 8-12: Is the marine vegetation, salmonids, forage fish, marine mammal information complete/accurate? There is no mention of Deep Creek portion in this reach being used for migration (Map 3b - Marine Ecological Characteristics). This brings up a great frustration I have with this report. I read the text, look at the photo/map summary sheets, and the large 11 by 17 maps (large maps) and get slightly different information, sometimes different information, sometimes conflicting information. It makes me wonder what is the purpose of the text portion of this report. Sometimes it's more detailed than the photo/map

summary sheets. Many times the photo/map summary sheets provide more detail than the text. The large maps provide different information than the text. Should the reader REALLY have to look at all three sources and then wonder which is the correct and most accurate data? I don't think so. I believe this needs to be resolved, but don't have a suggestion as to how to accomplish this at this point. Maybe I'll think of something at a later date, but don't count on it!

Pg. 4-28, lines 14-16: Again in my opinion, the water quality data needs to be of greater detail if it's to be useful.

4.12 Reach 12: Pysht River

pg. 4-29, lines 20-21: Arnold Schouten, any need for more detail on waterfowl information?

Pg. 4-29, lines 23-26: Is the marine vegetation, forage fish, & salmonid information accurate/complete?

Pg. 4-29, lines 28-30: Water quality information of minimal value in my opinion.

4.13 Reach 13: Pillar Point

Pg. 4-30, lines 26-32: Is the marine mammal, marine vegetation, forage fish, & salmonid information accurate/complete?

4.14 Reach 14: Slip Point

Pg. 4-31, lines 26-31: Is the marine mammal, marine vegetation, forage fish, & salmonid information accurate/complete?

4.15 Reach 15: Clallam Bay

Pg. 4-32, lines 32 & 33: Arnold Schouten, any need for more information/detail on birds/waterfowl in this reach?

Pg. 4-32 & 33, lines lines 36-39 & 1-3: Is the marine vegetation, forage fish, & salmonid information accurate/complete?

Pg. 4-33, lines 6-8: Water quality information for the Clallam River is of little use, in my opinion. More detail is needed.

Pg. 4-34, lines 8-10: I find the description of the size of the undeveloped parcels in lines 8 & 9 and the parcels in lines 9 & 10 confusing. Are only the undeveloped parcels generally irregular in size and the developed parcels narrow in width? Or are all parcels, developed and undeveloped, irregular in size and also narrow in width?

4.16 Reach 16: Sekiu-Kydaka Point

Pg. 4-35, line 16: The line states that "SOME (emphasis mine) of the bluff areas within the reach are unstable." The Reach summary photo/map sheet states (under Hazard Areas) "Several bluff areas are unstable (65%) with recent slides..." It is unclear to me what the "65%"

figure means. Are 65% of the bluff areas mapped southwest of Kydaka Point unstable? Sixty-five percent seems to me to be more significant than modifying words "Some" and "Several."

Pg. 4-36, lines 3 & 4: Is marine mammal information accurate/complete?

Pg. 4-36, lines 6-10: Is marine vegetation, forage fish, & salmonid information accurate/complete?

Pg. 4-36, line 14: This line doesn't make sense to me. Does it mean that 3/4 of the shoreline is publicly owned but access is limited because most of the shoreland behind it is private timber land?

4.17 Reach 17: Shipwreck Point

Pg. 4-37, lines 26-32: Is the marine mammal, marine vegetation, forage fish, & salmonid information accurate/complete? Why aren't salmonid spawning and rearing areas in the Hoko & Sekiu Rivers mentioned in the text and the photo/map summary sheet? The reader has to go to the large (11-17) maps to find out that there are salmonids in these two rivers. I don't believe a reader should have to search through the report to find this information.

Pg. 4-37, lines 33-37: Again I believe the water quality information is of little use because of lack of detail.

4.18 Reach 18: Rasmussen (Bullman creek)

Pg. 4-40, line 9: I believe the modifier "PREDOMINANT" (emphasis mine) is misleading in this sentence. The Reach summary photo/map sheet shows 80% is rocky platform shore. Why not say over 3/4 of the shoreline is rocky platform? That way the reader of the text doesn't have to guess what "predominant" means.

Pg. 4-40, line 15: The 1st sentence states "...shorelands contain SOME (emphasis mine) unstable slopes..." The Reach summary photo/map sheet shows 33% unstable. I consider 1/3 of the shorelands being unstable more than "some." Again I believe the modifier "some" could mislead the reader of the text.

Pg. 4-40, lines 24-28: Is the marine vegetation, forage fish, & marine mammal information accurate/complete?

Pg. 4-40, lines, 29 & 30: The text and the photo/map summary sheet state "...streams within the reach provide habitat for steelhead, coho, chinook & chum..." Map 3c - Marine Ecological Characteristics (large 11X17 map) only shows juvenile rearing of fall chinook and coho in Bullman Creek. Map 4c Ecological Characteristics - Freshwater doesn't show any salmonids in the streams in this reach. What is the reader suppose to believe? These are the type of inconsistencies that, in my view, need to be corrected if this report is to be of any use.

Pg. 4-40, lines 29-32: The water quality information is of minimal use do to lack of detail.

Reach Sheet Data Descriptions and Sources:

Given that "The PSNERP analysis is at a very large scale and does not address conditions that may be present for any given location" (Pg. 3-6, lines 28 & 29) is the PSNERP Degradation Score for each of the 18 marine reaches of any real value?

REACH MR-1: Diamond Point

Last sentence of 1st paragraph in REACH SUMMARY says that "...majority of the SHORELINE (emphasis mine) area is forested." Page 4-2, line 12 says "Approximately half of the SHORELAND (emphasis mine) area within the reach is heavily forested." Is there a SHORELINE/SHORELAND confusion here or does it just so happen that both the shoreline and shoreland happen to be 1/2 forested in this reach?

PHYSICAL CHARACTERISTICS, Shoreform and shoretype: shows 59% of the geomorphic shoretypes in the reach are feeder bluffs. The text (Pg. 4-1, lines 19 & 20) state "The MAJORITY (emphasis mine) of the shoreline consists of feeder bluffs,..." Wouldn't it be more precise to state in the text that "over half the shoreline consists of feeder bluffs" or "nearly 60% of the shoreline consists of feeder bluffs." That way the reader doesn't have to guess what the modifier "majority" really means.

PHYSICAL CHARACTERISTICS, Net Shore Drift: This is a case where this photo/map summary sheet provides much more specific information than the text. It seems to me that the text should provide the most specific information and the summary sheets should summarize this information. If the authors of this report don't agree with me, then at least, the greatest detail should ALWAYS be in the summary sheets, not most of the time in the summary sheets, but sometimes in the text.

PHYSICAL CHARACTERISTICS, Hazard Areas: The first sentence states "SEVERAL (emphasis mine) bluff areas are unstable (58%)..." The text (Pg. lines 22 & 23) state "A majority of the bluffs are considered to be unstable." It does seem to me that 58% is more than "several." This is one of several cases where the modifying words are not very precise and in this case are also seem to me to be contradictory.

ECOLOGY, Offshore Vegetation: The description in the 1st sentence "Eelgrass is mapped throughout 77% of the reach (continuous along Discovery Bay and Sequim Bay and patchy along the Strait)" doesn't seem to me to match the text (Pg. 4-1, lines 27 & 28) "Patches of kelp and eelgrass are present along the entire reach..." Which one of these statements is the reader suppose to accept?

ECOLOGY, Habitats and Species: 2nd paragraph, 2nd sentence, mentions coho salmon and cutthroat trout mapped in Eagle Creek but the text for this reach doesn't mention this. Neither Map 3a Ecological Characteristics - Marine nor Map 4a Ecological Characteristics - Freshwater, show Eagle Creek let alone MAP any coho or cutthroat. By the way, are the cutthroat anadromous? If some are, they are in the genus *Oncorhynchus* and are not technically "trout." Or is it that all cutthroat are now *Onchrhynchus* and shouldn't technically called trout anymore? Someone needs to check on this one.

HUMAN ENVIRONMENT AND LAND USE, Public Access: the 55% of the shoreline being public owned seems to me to give a different impression than the text (Pg. 4-4, line 18) "Much of the shoreline...is publicly owned;" Why not say in the text "Over half of the shoreline is publicly owned" and avoid the reader's potential confusion about what "much" actually means.

REACH MR-2: Sequim Bay

REACH SUMMARY: The 6th sentence "Approximately 10% of the shoreline is armored,..." doesn't seem to me to match the text (Pg. 4-5, lines 27 & 28) "...approximately 20% of the shoreline within the reach has been armored, or otherwise modified." Or is this a case where the text may be slightly more detailed with the "or otherwise modified" being the "several overwater structures" mentioned in the summary sheet? Again, I don't believe that the report should leave the reader guessing what the authors mean. The reader may just conclude the report is to inconsistent to be of any real value.

REACH SUMMARY: 2nd paragraph, 1st sentence states a MAJORITY (emphasis mine) of the reach is moderate- to low-density residential development. The text, Pg. 4-6, line 1, states "almost half of the the land within the reach is moderate- to low-density residential development." I would agree that "almost half" could be a "majority," but it seems to me that the modifier "majority" means slightly different things in different places in this report (see next comment).

REACH SUMMARY: 2nd paragraph, 3rd sentence states a MAJORITY (emphasis mine) of the reach is forest cover and other natural vegetation. The ECOLOGY, Onshore Vegetation shows 44% as forest habitat and 21% as natural shrub, which adds to 65%. Now I would agree that 65% is a "majority," but again I believe it would be better to state in the REACH SUMMARY that 65% is forest habitat and natural shrub, rather than leave the reader guessing if "a majority" means 45%, 55%, 65%, etc.

PHYSICAL CHARACTERISTICS, Shoreform and Shoretype: The 3rd sentence shows 28% of the geomorphic shoretypes is feeder bluffs. Pg. 4-5, line4 & 5 state "...one-third of the total reach shoreline is classified as feeder bluffs." This may be a small point since 28% is close to 1/3 or 33%, but the text does not say "...NEARLY 1/3 is feeder bluffs" which I believe it should state to be more clear, accurate & precise.

PHYSICAL CHARACTERISTICS, Hazard Areas: The first sentence states "Several bluff areas are unstable (11%)" I would agree that 11% could be considered "SEVERAL" (emphasis mine), but the modifying "several" ranges from 3% (Reach MR-4: Kulakala Point) to 65% (Reach MR-16: Sekiu-Kydaka Point). The modifying word "some" is only used for Reach MR-18: Rasmussen which has 33% unstable. The modifying word "many" is used for reaches with 90% or more unstable slopes (Reach MR-14: Slip Point & Reach MR-13: Pillar Point). I would consider anything over 60% unstable to be "many." Perhaps more modifying words are needed here. Perhaps the modifying word categories could be increased to: "few, some, about half, & many."

ECOLOGY, Offshore Vegetation: The kelp statement (2nd sentence) "...no kelp mapped within the reach." doesn't match the text on pg. 4-5 lines 19 & 20, which states "Patches of kelp are mapped on the west side of Sequim Bay."

ECOLOGY, Shellfish: The summary sheet contains information on shrimp and geoduck that are not mentioned in the text. The only text reference to shellfish is on pg. 4-5, lines 33 & 34. Crab is not mentioned in the text for summary sheet. The Clallam Marine Resources Committed is in the process of working to remove lost crab pots in Sequim Bay, which would lead me to believe that crab harvest is important in the Bay.

Reach MR-3: Gibson Spit

REACH SUMMARY: 3rd paragraph, 1st sentence is a case where the text (Pg. 4-9, lines 15 & 16: "...over 3/4 of the shoreland area has potential for new residential development.") is more specific than the summary ("...the majority of the shoreland zone has potential for new residential development.").

PHYSICAL CHARACTERISTICS, Hazard Areas: The 1st sentence (5% short bluff segments unstable) leaves a different impression than the text (Pg. 4-7, lines 32 & 33: "...feeder bluffs in the central portion of the reach...identified as landslide hazard areas.").

PHYSICAL CHARACTERISTICS, Degree of Process Degradation: The last sentence of the paragraph doesn't seem to be complete.

ECOLOGY, Offshore Vegetation: The last line identifies "Kulakala Point" which is not mentioned in the text, or identified on the areal photo. The reader does not find the point identified until the large maps.

ECOLOGY, Onshore Vegetation: The 1st sentence shows 12% shoreland forest and 71% natural shrub and herbaceous vegetation, but the text (Pg. 4-7, lines 36 & 37) state 13% heavily forested and 75% natural shrub and herbaceous habitat. In my view, even slight inconsistencies like this can lead a reader to doubt the accuracy of information in this report.

ECOLOGY, Habitats and Species: The 1st sentence (76% of the shoreland zone contains mapped wetland habitat) is inconsistent with the text (Pg. 4-8, line 9: "Approximately 1/3 of the shoreland zone with (sp) the reach is wetland habitat.").

ECOLOGY, Shellfish: There is no mention in the text of shellfish in this reach. Shouldn't the shellfish harvest at least be mentioned in the text?

HUMAN ENVIRONMENT AND LAND USE, Shoreline Modifications: 1st sentence "Four segments of shoreline armoring (15% of reach total)..." doesn't match the text (Pg. 4-8, line 22: "Four segments (about 10%) of this reach are armored...").

Reach MR-4: Kulaka Point

REACH SUMMARY: The text does not mention that wetlands in the Dungeness delta preclude intensive development in that area. Shouldn't this be mentioned 4.4.3 Management Issues and Opportunities pages 4-13 & 14 in the text?

ECOLOGY, Offshore Vegetation: I believe this is a case if the reader only read the text (Pg. 4-11, line 26: : "Patches of eelgrass and kelp are mapped throughout a majority of the reach,..."), they would have a much different impression of this reach than if they read this section.

ECOLOGY, Onshore Vegetation: Last line, why is lawn/landscaping and agriculture lumped in this reach (and in MR-3)? Lawn/landscaping are mentioned in most (15 out of the 18 reaches, if I counted right) other reach summaries under this category, but agriculture is not included in this category in 13 of the 15 reaches with lawn/landscaping. Is the "agriculture" actually vegetable gardens, or is there actually agriculture occurring in the shoreland of this reach?

ECOLOGY, Habitats and Species: 1st sentence, 2nd paragraph, is a case where the text (Pg. 4-11, lines 27 & 28) are more detailed than the summary here.

ECOLOGY, Shellfish: The text (Pgs. 4-11 & 12, lines 39-41 & 1-8 provide more detail on the impact of water quality on shellfish harvest than is provided in this summary. The text (Pg. 4-12, lines 9-11) provide much more detail about the importance of crab and commercial shellfish than is indicated here.

HUMAN ENVIRONMENT AND LAND USE, Shoreline Modifications: This summary and the text (Pg. 4-11, lines 5-10) provide a different level of detail. The "Pockets of nearshore fill..." are not mentioned in this summary.

Reach MR-5: Dungeness Spit:

PHYSICAL CHARACTERISTICS, Hazard Areas: The 1st line of the summary implies ("...small slide incident along Dungeness Harbor, near existing homes.") there may be a problem, but the text (Pg. 4-14, line 35: "...single-family homes, set back approximately 300 feet from the shoreline.") presents, in my mind, a lower level of concern.

ECOLOGY, Offshore Vegetation: 1st sentence (eelgrass mapped throughout 17% of reach) implies the eelgrass is on the Strait side of the spit, but the text (Pg. 4-14, line 22) implies that eelgrass is only in Dungeness Harbor.

ECOLOGY, Onshore Vegetation: There is no mention of onshore vegetation in the text.

ECOLOGY, Habitats and Species: There is no mention of wetland habitat in the text.

ECOLOGY, Shellfish: There is no mention of shellfish in the text.

Reach MR-6: Green Point

REACH SUMMARY: 2nd sentence, 2nd line, why state that the shoreline "generally consists of highly-erosive feeder bluffs" when the text (Pg. 4-15, line 25) states "Over 70% of this reach is mapped as feeder bluff or feeder bluff exceptional." Why not say "primarily consists" or is there a difference between highly-erosive feeder bluffs, feeder bluff, and feeder bluff exceptional?

PHYSICAL CHARACTERISTICS, Net Shore Drift: 2nd sentence gives me a different impression ("A very small region...") gives me a different impression than the text (Pg. 4-15, lines 26 & 27), which doesn't mention the "No Appreciable Drift area at the mouth of Lees Creek."

ECOLOGY, Habitats and Species: 2nd paragraph, 1st sentence only mentions smelt habitat, but the text (Pg. 4-17, lines 12 & 13) states "...patches of smelt spawning habitat are mapped east of Morse Creek." The text in this case provides more detail than the summary.

ECOLOGY, Habitats and Species: 2nd paragraph, 2nd sentence lists bull trout and rainbow that are not listed in the text (Pg. 4-17, lines 16 & 17). The summary sheet in this case provides more detail than the text.

ECOLOGY, Shellfish: There is no mention of shellfish for this reach in the text. Can it really be that there abalone in 57% of the reach total and 59% red sea urchin when only 37% of the reach is patches of kelp?

HUMAN ENVIRONMENT AND LAND USE, Existing Land Use and Ownership & Zoning and Parcel Data: I believe this is a case where the text (Pg. 4-18, lines 9-17) provide more information than I can glean from these two sections.

HUMAN ENVIRONMENT AND LAND USE, Public Access: 1st sentence (15% "publically {sp.] owned) is slightly different than the text (Pg. 4-18, line 4: Over 10% publicly owned). I agree that 15% is over 10%, but why not be more precise in the text and just state that 15% is publicly owned?

HUMAN ENVIRONMENT AND LAND USE, Shoreline Modifications: There is no mention of nearshore fill in the text.

Reach MR-7: Angeles Point

PHYSICAL CHARACTERISTICS, Shoreform and Shoretype: Last line, when I add up the total feeder buff percent I get 26%. The text (Pg. 4-19, line 12) states "Approximately 1/3 of the shoreline consists of feeder bluffs..." I agree that 26% is approximately 1/3, but so is 35% or any other percentage near 33%. Why not be more precise in the text and just say 26%?

ECOLOGY, Offshore Vegetation: This section (74% eelgrass & 61% kelp) gives a me a different impression than the text (Pg. 4-19, lines 35 & 36: eelgrass patches present throughout majority of reach & continuous kelp stands present).

ECOLOGY, Shellfish: The abalone mapped in 100% of the reach would give me the impression there are abalone in the reach until I read the text (Pg. 4-19, lines 38 & 39). The text leaves me with the impression that the mapping of these reach sections is of limited value at best. If that is the case, is that something the report should admit right up front?

HUMAN ENVIRONMENT AND LAND USE, Existing Land Use and Ownership: 1st line shows 29% of the land usage in the shoreland area is residential. The text (Pg. 4-20, lines 12 & 13) states "...majority of the private and tribal-owned land is used for residential development." The 29% is the largest percentage shown in this section, but the modifying word "majority" leaves me with the impression that much more than 29% is used for residential development. By the way, when I add up the land uses, I only come up with 71.3%, so what is the other 28.7% of the land usage?

HUMAN ENVIRONMENT AND LAND USE, Existing Land Use and Ownership & Zoning and Parcel Data: This shows land ownership is 58% private in this reach. If I add the Rural Residential and Tribes percentage I get 64%. The text (Pg. 4-20, lines 19 & 20) state that approximately 2/3 of the shoreland has potential for new residential development. If 29% of the shoreland is already used for residential, by my calculation, only 35% (64 - 29 = 35) available for residential development, and that assumes that all the Tribes land is expected to be residential development. I don't consider that a reasonable assumption. Thing aren't adding up for me here!

HUMAN ENVIRONMENT AND LAND USE, Public Access: 4th line "public parking is available" should say "public parking is limited."

HUMAN ENVIRONMENT AND LAND USE, Shoreline Modifications: 1st line mentions 9% shoreline armoring, but the text (Pg. 4-19, lines 13-15) states "Levee sections are mapped near the Elwha River mouth, but no other shoreline modifications, including overwater structures, are know to occur within the reach." There is no mention of armoring in the text. So, which is correct, this section or the text?

Reach MR-8: Observatory Point

REACH SUMMARY: 2nd paragraph, 2nd sentence states "The WESTERN (emphasis mine) third of the reach contains moderate-density residential development." The text (Pg. 4-22, lines 8 & 9) state "Private development within the reach is limited to moderate-density residential development in the EAST (emphasis mine) third of the reach." So which is it, east or west?

ECOLOGY, Offshore Vegetation: 1st line show eelgrass mapped throughout 45% of the reach and kelp is mapped (45%) throughout the reach. The text (Pg. 4-22, lines 2 & 3) states "Patches of eelgrass and continuous kelp stands are mapped along the shoreline." This makes me wonder what exactly do the percentages of marine vegetation identified in this and other reaches really mean.

ECOLOGY, Shellfish: There is no mention of shellfish in the text. Given this, one might assume there is a large abundance of abalone "(100% of reach total)" in this reach. I don't think the authors want to leave the reader with that assumption. If someone were to survey the reach for abalone sometime in the future and find no abalone in the reach, they could reach the assumption there has been a "Net Loss" since the update of the Shoreline Plan!

HUMAN ENVIRONMENT AND LAND USE, Existing Land Use and Ownership: When I add the land usage in this reach I get 131%! Is this correct? Are the authors trying to make up for the 29% shortfall of land usage in reach MR-7? Perhaps the percentages in all 18 reaches need to be reviewed for accuracy?

HUMAN ENVIRONMENT AND LAND USE, Impervious Surfaces: There may be no impervious surface mapped in this reach, but given the land usage is 30% residential, there must be impervious surface. Again this leaves me wondering how useful and accurate is the mapping in this report.

Reach MR-9: Crescent Bay-Low Point

PHYSICAL CHARACTERISTICS, Hazard Areas: It seems to me that 53% of the bluff unstable is more than "several" (1st line), particularly given the modifying work "Most" is used for 51% of Crescent Bay thru Agate Bay and Low Point being in a tsunami hazard zone. Again I believe the authors need to check the use of modifying words like "several" and "most" throughout the text and summary sheets. They seem to me to mean different things in different places.

ECOLOGY, Offshore Vegetation: Last sentence leaves me with a different impression about kelp in the reach (throughout reach [42%] but somewhat sparse in Crescent Bay) than the text (Pg. 4-24, line 10: "continuous and patchy kelp stands are present from Crescent Bay to the west end of the reach").

ECOLOGY, Habitats and Species: 1st line shows 6% of the landward portion of reach is wetland habitat, but the text (Pg. 4-24, lines 4 & 5) states "Approximately 1/4 of shoreland area consists of wetland habitat..." Is there a difference between "landward portion of reach" and "shoreland area?"

ECOLOGY, Shellfish: "Red sea URBAN" should be "Red sea URCHIN."

HUMAN ENVIRONMENT AND LAND USE, Existing Land Use and Ownership: Again is there a reason that the land usage percentages add up to over 100%? They add to 124.7% here. This can't be rounding error, can it?

Reach MR-10: Twin Rivers

PHYSICAL CHARACTERISTICS, Hazard Areas: If 59% of the bluff areas are unstable (1st line), I consider this to be more than "several" or "Some" as stated in the text (Pg. 4-26, line 5).

ECOLOGY, Offshore Vegetation: If "Eelgrass is mapped throughout 39% of this reach" (1st line), how can only "Patches of eelgrass" be "located in the eastern half of the reach" (Pg. 4-26, lines 14 & 15)?

ECOLOGY, Shellfish: Again, "Red sea URBAN" should be "Red sea URCHIN."

HUMAN ENVIRONMENT AND LAND USE, Public Access: According to this section 95% of the shoreline is "publically" (sp.) owned, and the text (Pg. 4-27, line 4) over 90% is publicly owned. Yes, 95% is over 90%, but if 95% of the shoreline is publicly owned, why not just say so in the text so the reader of the text is not left wondering if public ownership is 91%, 92%, 93%, etc.?

Reach MR-11: Deep Creek

PHYSICAL CHARACTERISTICS, Hazard Areas: Again, if 64% of the bluff areas are unstable (1st line), I consider that there be more than "several" or "Some" (text Pg. 4-28, line 2).

ECOLOGY, Offshore Vegetation: The text (Pg. 4-28, lines 10 & 11) provide more specific information about the location of the kelp that is provided in this summary.

ECOLOGY, Habitats and Species: 2nd paragraph, 2nd sentence, Chinook is not mentioned in the text (Pg. 4-28, lines 13 & 14).

ECOLOGY, Shellfish: Shellfish are not mentioned in the text.

HUMAN ENVIRONMENT AND LAND USE, Public Access: 1st line shows 69% of the shoreline is publically (sp. again) owned. The text (pg. 4-28, line 19) states "Almost 2/3 of the shoreline in this reach is publicly owned:..." Again a problem with the modifying word, in my mind, because 69% is over 2/3. Why not say in the text that "over" 2/3 of the shoreline is publicly owned?

Reach MR-12 Pysht River

PHYSICAL CHARACTERISTICS, Net Shore Drift: Here is another case where the text (Pg. 4-29, lines 9-11) provide more detail than the summary sheet. I believe the detail should either be in the text or the summary sheet, not sometimes one and sometimes the other.

PHYSICAL CHARACTERISTICS, Hazard Areas: 2nd sentence, how can "Nearly all of the Pysht River estuary be in a tsunami hazard zone (64%)..." yet 65% of the bluff areas being unstable is referred to as "several" or "some" (Reach MR-16)? I keep hammering away at the use of these modifying words throughout this report because it sure seems to me that they are not used consistently.

ECOLOGY, Offshore Vegetation: This section shows no kelp in this reach, but the text (Pg. 4-29, line 23) states there are kelp stand between Butler Cove and Pillar Point.

ECOLOGY, Habitats and Species: 2nd paragraph, 1st line, "...patch of FOREST fish" should be "...patch of FORAGE fish."

HUMAN ENVIRONMENT AND LAND USE, Impervious Surfaces: There may be no impervious surfaces mapped in this reach, but given that 33% of the land usage is residential, there must be some impervious surface.

HUMAN ENVIRONMENT AND LAND USE, Shoreline Modifications: 2nd sentence, there is no mention of a fish passage barrier at Butler Creek in the text for this reach. This is the first mention of a fish passage barrier in the shoreline/shoreland portion of this report. I think it is the ONLY mention of a fish passage barrier in the 18 marine reaches. Is that because this is the only one, or have I missed or the authors missed others?

Reach MR-13

HUMAN ENVIRONMENT AND LAND USE, Zoning and Parcel Data: Is the zoning 38% occupied-dividable correct here? The text (Pg. 4-31, line 11 & 12) states "...nearly all of the shoreland area is zoned for Commercial Forestry and cannot be subdivided,..." So should the "occupied-dividable" actually be "occupied-nondividable" as in the same section for MR-14?

HUMAN ENVIRONMENT AND LAND USE, Impervious Surfaces: Again there may be no impervious surface mapped, but there must be some given 38% of the land usage is residential.

Reach MR-14: Slip Point

I DIDN'T FIND ANYTHING ON WHICH TO COMMENT IN THIS SUMMARY SHEET! DID I "SLIP" UP? (pun intended)

Reach MR-15: Clallam Bay

REACH SUMMARY: 3rd paragraph, 2nd sentence states "The undeveloped parcels are narrow in width." The text (Pg. 4-34, lines 9 & 10) calls the undeveloped parcels "generally irregular in size,..." Are the undeveloped parcels irregularly narrow?

ECOLOGY, Shellfish: Shellfish are not mentioned in the text except (Pg. 4-33, line 18) which mentions recreational shellfish harvest at Clallam Bay Spit Community Beach County Park. Is this because there really are no abalone in this reach, and no one commercially or recreationally harvest Dungeness crab, red sea urchins or hardshell clams in this reach?

HUMAN ENVIRONMENT AND LAND USE, Existing Land Use and Ownership: 3rd line, utilities (2%) are mentioned here and in only one other reach (MR-4). Why are utilities mentioned in only these two reaches? Roads are mentioned in this and most reaches, but not all (MR-5, MR-8, MR-12, MR-13, MR-14, MR-16), why? Are there no roads in these reaches? This seems a little odd since 5% of the shoreland in MR-5 is residential land usage, 30% of MR-8, 33% of MR-12, 38% of MR-13, and 12% in MR-16. MR-16 also lists 1% existing land use as lodging. There must be roads going to these residential and lodging lands within the shorelands in these 6 reaches.

HUMAN ENVIRONMENT AND LAND USE, Impervious Surfaces: The "Approximately 28%" impervious surfaces in this reach is by far the greatest percentage of impervious surface listed for the 18 reaches, yet there is no mention of stormwater runoff for this reach. The only place I found stormwater runoff mentioned was in the text for reach 6 (Pg. 4-18, line 15), and this reach is listed as approximately 10% impervious surface.

HUMAN ENVIRONMENT AND LAND USE, Shoreline Modifications: 1st sentence shows 22% shoreline armoring. The text (Pg. 4-32, line 25) states "More than 1/3 of the shoreline within the reach has been armored, or otherwise modified." Is the difference between 22% here and over 33% in the text due to the "or otherwise modified?"

Reach MR-16: Sekiu-Kydaka Point

PHYSICAL CHARACTERISTICS, Hazard Areas: I consider 65% of the bluff areas being unstable more than "several bluff" or "some bluff areas" (text Pg. 4-35, line 16).

ECOLOGY, Shellfish: There is no shellfish information in the text for this reach.

Reach MR-17: Shipwreck Point

REACH SUMMARY: 4rd line, 4th sentence, says that nearly all the eastern half of this reach is armored, and the Shoreline Modifications section of this summary sheet shows 40% shoreline armoring for the reach. The only thing I can conclude from these two statements is that the eastern half of this reach is nearly 40% of the reach. So does that mean that 50% (eastern HALF) is really 40%? (see next comment)

PHYSICAL CHARACTERISTICS, Shoreform and Shoretype: Last sentence says "Most" of this shoreline in the eastern half mapped as modified and shows 47%. The text (Pg. 4-37, lines 16 & 17) states "Nearly the entire eastern half of the reach is armored." I would consider 47%

armored as "Most of the eastern half" (50%) of this reach. Does the 40% shoreline armoring apply to the entire reach? Does 47% of 50% (eastern half) work out to 40% of the entire reach? I'm too confused by this to figure it out!

ECOLOGY, Offshore Vegetation: There is no mention here of eelgrass (text Pg. 4-37, line 28) "Patches of eelgrass are located along the wet end of the reach."

ECOLOGY, Shellfish: There is no mention of shellfish in the text.

HUMAN ENVIRONMENT AND LAND USE, Existing Land Use and Ownership: 1st sentence shows 40% land usage as timber. The text (Pg. 4-38, line 1) says "Almost half of the land use within the reach is timber,..." Again I believe it would be better to say 40% in the text rather than leave the text reader thinking the land use is 45%, 46%, 47%, 48%, etc. timber.

HUMAN ENVIRONMENT AND LAND USE, Public Access: 1st sentence shows 84% shoreline "publically" (sp. again) owned. The text Pg. 4-38, line 6) states "Almost the entire shoreline" is publicly owned. Again I believe it would be more precise to say that "Over 80%" or "Nearly 85%" of the shoreline is publicly owned. Why leave the reader of the text thinking 95% or maybe greater is publicly owned when 84% is publicly owned?

HUMAN ENVIRONMENT AND LAND USE, Contaminated Sites: This leaking underground storage tank is not mentioned in the text.

Reach MR-18: Rasmussen (Bullman Creek)

ECOLOGY, Offshore Vegetation: The text (Pg. 4-40, line 24) states "...patchy eelgrass areas are present throughout a majority of the reach." This is not indicated in this section.

ECOLOGY, Habitats and Species: 2nd paragraph, 2nd sentence, "Coho" is capitalized and "chinook" is not. In the text (Pg. 4-40, line 29) "Chinook" is capitalized and "coho" is not. How many other places has this happened that I missed?

HUMAN ENVIRONMENT AND LAND USE, Existing Land Use and Ownership: 1st line shows 72% of land usage is timber. The text (Pg. 4-40, line 19) states "Approximately half of the shoreland area within the reach is heavily forested." So is there "approximately" 25% difference between the meaning of "heavily forested" and "timber" land use?

LARGE MAPS: (I didn't review these maps in great detail.)

It doesn't appear that the stream barriers (red X's on maps) are shown in the Legends of the maps.

Map 3a Ecological Characteristics - Marine: Given the eelgrass in Discovery and Sequim bays and the large herring holding areas mapped here, is there no herring spawning happening in the eelgrass in the bays?

There is no "Known Juvenile Rearing" (salmon) area shown for the entire Dungeness River or other streams on this map. This is not the only map that shows no rearing area for salmonids in streams shown. Given this, how accurate can the salmonid information be on this and perhaps other maps?

Map 2b - Hazard Areas: Wrong location map for the reaches shown on this map.

Map 6b - Shoreline Modifications: Wrong location map for the reaches shown on this map.

Map 1c - Physical Characteristics: Wrong location map for the reaches shown on this map.

Given all the comments I've made on only a portion of this report, I have reached my "Shipwreck Point" (pun intended)!

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