AGENDA ITEM SUMMARY
(Must be submitted NLT 3PM Wednesday for next week agenda)

Department: Community Development (DCD)
WORK SESSION ☒ Meeting Date: 07/23/18
REGULAR AGENDA ☐ Meeting Date:
Required Originals Approved and Attached? ☒
Will be provided on:

Item Summary:*:
☐ Call for Hearing
☐ Resolution
☐ Draft Ordinance
☐ Contract/Agreement/MOU**
☐ Proclamation
☐ Final Ordinance
☐ Contract #
☐ Budget Item
☒ Other: Shoreline Master Program (SMP)
Update Work Session

Documents exempt from public disclosure attached: ☐

Executive Summary: The County Planning Commission (PC) recommended a Shoreline Master Program (SMP) to the Board of County Commissioners to update and replace: (1) the existing 1976 SMP (last amended 1992) and (2) the SMP administrative procedures in Chapter 35.01, Shoreline Management, Clallam County Code (CCC) under Title 35 CCC, Shorelines. The PC’s recommendation is represented by the Draft SMP (September 2017). The Board held a public hearing on the PC’s recommended Draft SMP on December 12, 2017. The proposed Draft SMP (September 2017), supporting documents, existing 1976 SMP, and other information are available on the County’s SMP Update Webpage at: http://www.clallam.net/LandUse/SMP.html

Since the December 12 public hearing, the Board has held nine work sessions in 2018—January 29, February 12, March 5, April 2 and 23, June 11, 18 and 25, and July 16. The upcoming work session will include review of Draft SMP Chapter 7, Critical Areas within the Shoreline Jurisdiction, and related public comments received by the Board. Attached is a staff report to assist in the review of public comments on Draft SMP Chapter 7. It will also finish review of the previous staff report responses to the public comments on Draft SMP Chapter 6, Shoreline Buffers and Vegetation Conservation, initiated at the July 16 work session, identified as “policy discussion areas.”

Budgetary Impact: (Is there a monetary impact? If so, are funds for this already allocated or is a budget change necessary? If this is a contract and a budget change is necessary, the budget change form must be submitted with the item at work session and for the regular agenda) If a budget Action is required, has it been submitted and a copy attached? ☐

Not Applicable.

Recommended Action: (Does the Board need to act? If so, what is the department’s recommendation?)

Finish review of the staff report submitted with the July 16 work session packet on Draft SMP Chapter 6, Shoreline Buffers and Vegetation Conservation, with the area of focus being the public comments identified as “policy discussion areas.” Review the staff report related to public comments on Draft SMP Chapter 7, Critical Areas within the Shoreline Jurisdiction (see Attachment).

County Official Signature: [Signature]

Date Submitted: 7-19-18

* Submit original and 5 copies
** Submit 3 originals and 5 copies
Date: July 19, 2018
To: Board of Clallam County Commissioners
From: Steve Gray, Planning Manager
Re: Public Comments on Draft SMP Chapter 7—Critical Areas within Shoreline Jurisdiction

The County Planning Commission (PC) recommended a Shoreline Master Program (SMP) to the Board of County Commissioners (BOCC) to update and replace: (1) the existing 1976 SMP (last amended 1992) and (2) the SMP administrative procedures in Chapter 35.01, Shoreline Management, Clallam County Code (CCC) under Title 35 CCC, Shorelines. The PC’s recommendation is represented by the Draft SMP (September 2017).

The BOCC held a public hearing on the PC’s recommended Draft SMP on December 12, 2017. Since the December 12 public hearing, the Board has held nine work sessions in 2018 on the Draft SMP (Sept. 2017) and public comments received.

This staff report summarizes and addresses public comments received on the Draft SMP (Sept. 2017) between September 20 thru December 12, 2017 (close of the public hearing on Draft SMP) that are specific to Draft SMP Chapter 7, Critical Areas within Shoreline Jurisdiction.

The Board held four previous work sessions with a focus on the requirements, background and rationale of the proposed shoreline and critical area buffers in the Draft SMP:

November 13, 2017: Prior to the Board’s December 12, 2017 public hearing on the Draft SMP (Sept. 2017), staff held a work session with the Board on shoreline and critical area buffers as well as other provisions. The November 13, 2017 consultant and staff presentation for this work session is available can be viewed from the SMP Update Web Page under “SMP Presentations”.

March 5, 2017: The Board’s March 5 work session focused on provisions related to shoreline and critical area buffers in terms of: (a) relationship of proposed Shoreline Environmental Designations (SED) and shoreline buffers; (b) science and other information that form basis of proposed buffers; (c) comparison of current versus proposed shoreline and critical area buffers; and (d) summary of range of public comments received on shoreline buffer widths. Included in the meeting packet and discussed at the work session was the December 11, 2012 Memorandum: Explanation of Proposed Shoreline Buffer Widths prepared by the County consultants that also included a review of the scientific literature. The March 5, 2017 staff presentation and the 2012 shoreline buffer memorandum are available under the “SMP Presentations” and “SMP Supporting Documents” links, respectively, on the SMP Update Web Page.

April 2, 2017: The Board’s April 2 work session focused on continued discussion of proposed shoreline and critical area buffer requirements from the March 5 work session. The March 5, 2017 staff presentation, December 2012 Memorandum: Explanation of Proposed Shoreline Buffer Widths, and excerpts 2017 Final Cumulative Impacts Analysis and No Net Loss Report (CIA/NNL) for the Clallam County SMP related to buffers included in the meeting packet and are also available under the “SMP Presentations” and “SMP Supporting Documents” links, respectively, on the SMP Update Web Page.
July 16, 2018: At the July 16 SMP work session, the Board reviewed a staff report related to public comments on Draft SMP Chapter 6, Shoreline Buffers and Vegetation. The standard shoreline buffers proposed in Chapter 6 apply to the marine, river and lake reaches subject to the SMP and are measured from the ordinary high water mark (OHWM). Critical areas and associated buffers for wetlands, aquatic and wildlife conservation areas, and geologic hazard areas addressed in Draft SMP Chapter 7 may also be present on land located within the shoreline jurisdiction.

Chapter 7 of the Draft SMP is intended to address and comply with the State SMP Guidelines for critical areas under WAC 173-26-221 (2)(3)(5)—see attached Exhibit A.

Overview of Draft SMP Chapter 7

Draft SMP Chapter 7, Critical Areas within Shoreline Jurisdiction, contain the following 18 sections:

Section 7.1  Applicability
Section 7.2  General Policies for all Critical Areas
Section 7.3  Regulations—General Regulations for all Critical Areas
Section 7.4  Regulations—Wetland Designation, Delineation, Mapping, and Classification
Section 7.5  Regulations—Wetland Buffers
Section 7.6  Regulations—Wetland Protection Standards
Section 7.7  Regulations—Aquatic Habitat Conservation Area Designations and Mapping
Section 7.8  Regulations—Aquatic Habitat Conservation Area Buffers
Section 7.9  Regulations—Aquatic Habitat Conservation Area Protection Standards
Section 7.10  Regulations—Class I & II Terrestrial Habitat Conservation Areas Designation and Mapping
Section 7.11  Regulations—Class I & II Terrestrial Habitat Conservation Areas Protection Standards
Section 7.12  Regulations—Geologically Hazardous Areas Designation, Classification, and Mapping
Section 7.13  Regulations—Geologically Hazardous Areas Buffers
Section 7.14  Regulations—Geologically Hazardous Areas Protection Standards
Section 7.15  Regulations—Frequently Flooded Area Designation and Mapping
Section 7.16  Regulations—Frequently Flooded Area Protection Standards
Section 7.17  Regulations—Critical Aquifer Recharge Areas Designation, Classification, and Mapping
Section 7.18  Regulations—Critical Aquifer Recharge Areas Protection Standards

A summary of the above Chapter 7 sections and the related public comments received by the Board follows.

Draft SMP Section 7.1, Applicability

Draft SMP Chapter 7 contains policies and standards for the protection of critical areas located within the SMP jurisdiction. The shoreline jurisdiction extends to include all lands necessary for buffers to protect critical areas that are overlapping or otherwise coincident with the shoreline jurisdiction. Critical areas and buffers located within the shoreline jurisdiction will be regulated under the SMP. Conversely, critical areas and associated buffers located outside shoreline jurisdiction will be regulated by Chapter 27.12 CCC, Critical Areas Code following update of the SMP. See Draft SMP Section 1.8 for more information regarding shoreline jurisdiction.
Draft SMP Section 7.2, General Policies for all Critical Areas

This section contains proposed general policies for critical areas and buffers in the shoreline jurisdiction.

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<th>Commenter</th>
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<tr>
<td>7.2 (2)</td>
<td>WDFW (B-4)</td>
<td>Comments that sub-parts &quot;f&quot; and &quot;h&quot; of Policy 7.2 (2) will be important in balancing safety and protection of the developed environment with the maintenance of ecological processes.</td>
<td>Comment supports policy.</td>
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<td>Pg. 7-1</td>
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Draft SMP Section 7.3, Regulations—General Regulations for all Critical Areas

This section contains general regulations for all critical areas and buffers in the shoreline jurisdiction, as applicable, to new shoreline uses and development. These general standards address critical area mapping and designation, field identification, construction fencing, signs, and land divisions.

Draft SMP Section 7.4, Regulations—Wetland Designation, Delineation, Mapping, and Classification

This section contains regulations for wetland designation, delineation, mapping and classification. The proposed wetland delineation requirements are consistent with RCW 90.58.380 that is also used by state and federal agencies with jurisdiction over development and uses within wetlands. Consistent with WAC 173-26-221 (2) (i) (B), the proposed wetland classification and rating uses the Washington State Wetland Rating System for Western Washington (Ecology Publication No. 14-06-029, and revised editions).

County wetland maps are available to the public from the County's on-line interactive web maps. These maps show the approximate location and extent of wetlands and are advisory. Definitive information about wetland size or presence requires a field inspection by a qualified professional. The County will update maps as new information from qualified sources becomes available. The on-line maps also are updated to show wetlands, or portions thereof, where recent on-site wetland delineation and classification studies have been completed.

Draft SMP Section 7.5  Regulations—Wetland Buffers

Proposed buffers for wetlands subject to the jurisdiction of the SMP are based on October 2014 Ecology Wetland Buffer Guidance for Western Washington to be used in conjunction with the Washington State Rating System for Western Washington (see also Draft SMP Section 7.4).

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<tr>
<td>7.5</td>
<td>Quileute Tribe (A-1)</td>
<td>Supports proposed wetland buffer regulations as appropriately conforming with Department of Ecology guidance regarding vegetative buffers for wetlands.</td>
<td>Comment supports proposed wetland buffer regulations.</td>
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Page 3
Draft SMP Section 7.6 Regulations—Wetland Protection Standards

This section contains regulations specific to wetlands that are in addition to the wetland buffer standards of Draft SMP Section 7.5.

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| 7.6.(1) | Futurewise, SCNOC, & WEC (C-2) | Recommend more specific avoidance criteria by revising 7.6.(1) based on a modified version of model language prepared by the Washington State Department of Ecology as follows: "New shoreline uses and developments shall be located, designed, constructed, and maintained to avoid wetland areas and their buffers. Impacts to wetlands and their buffers shall be prohibited except when all of the following conditions applicable requirements are met:

a. Category I Wetlands. Activities and uses shall be prohibited from Category I wetlands, except where existing public facilities must be expanded or extended into the wetland, or a utility must be located or expanded in a wetland because there is no other site that can serve the utility's function, or a reasonable use exception or variance allows the impact.

b. Category II and III Wetlands. For Category II and III wetlands, where wetland fill is proposed, it is presumed that an alternative development location exists. Activities and uses shall be prohibited unless the applicant can demonstrate that:

i. The basic project purpose cannot be reasonably accomplished on another site or sites in the general region while still successfully avoiding or resulting in less adverse impact on a wetland; and

ii. All on-site alternative designs that would avoid or result in less adverse impact on a wetland or its buffer, such as a reduction in the size, scope, configuration or density of the project, are not feasible.

c. Category IV Wetlands. Activities and uses that result in unavoidable impacts may be permitted in Category IV wetlands and associated buffers in accordance with an approved critical area(s) report and compensatory mitigation plan, and only if the proposed activity is the only reasonable alternative that will accomplish the applicant's objectives. Full compensation for the loss of acreage and functions of wetland and buffers shall be provided under the terms established in these regulations.

ad. The use or development is specifically allowed by this Program; and

be. All reasonable measures have been taken to avoid adverse impacts on wetland functions and values as demonstrated through a mitigation plan; and

cf. Compensatory mitigation for acreage and function is provided, in accordance with Section 8.3 through 8.4 of this Program, for all adverse impacts that cannot be avoided; and

dg. The amount and degree of alteration are limited to the minimum needed to accomplish the project purpose."

This regulation combined with other provisions in Sections 7.4-7.6 SMP and other applicable sections of SMP are designed as a whole to protect wetlands. Some uses may be supported such as a boardwalk through a wetland for public access and recreation that minimizes impacts to wetland environment. Other uses such as a public road corridor may result in unavoidable impacts to wetlands or buffers. Such impacts would need to be mitigated consistent with SMP Chapter 8, Mitigation and No Net Loss.

Draft SMP Section 7.7 Aquatic Habitat Conservation Area Designation and Mapping

This section classifies and designates aquatic habitat areas based on the water typing system in the forest practice rules in WAC 222-16. This classification system is used in state mapping to classify stream types into fish and non-fish bearing stream types. These areas also include aquatic habitats recognized by state and federal agencies for listed endangered, threatened and sensitive species.
Draft SMP Section 7.8 Regulations - Aquatic Habitat Conservation Area Buffers

This section contains the proposed standard buffer width and related standards for streams and aquatic areas and reaches "not classified" as shorelines of the state located within the shoreline jurisdiction. Standard buffer widths and related buffer standards for shorelines of the state are addressed in Draft SMP Chapter 6 and Table 6-1 of the SMP.

Draft SMP Section 7.9 Regulations – Aquatic Habitat Conservation Area Protection Standards

This section contains protection standards specific to aquatic areas that are in addition to the aquatic habitat buffer standards of Draft SMP Section 7.8.

Draft SMP Section 7.10 Regulations—Class I and II Terrestrial Habitat Conservation Areas Designation and Mapping

This section contains standards to classify and designate Class I and II Terrestrial Habitats. Terrestrial habitats means the subset of fish and wildlife habitat conservation areas that occur on land (i.e., landward of the ordinary high water mark) within the shoreline jurisdiction.

Draft SMP Section 7.11 Regulations—Class I and II Terrestrial Habitat Conservation Areas Protection Standards

This section contains the regulations pertaining to when new development and uses within areas designated as Class I and II Terrestrial Conservation Areas in Draft SMP Section 7.10 require a habitat management plan. These habitats are also protected based on the shoreline and critical area buffer requirements of SMP Chapters 6 and 7 and other applicable sections of SMP pertaining to the specific permitted development and uses.

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| 7.11.(2)| Futurewise, SCNOG, & WEC (C-2) | The SMP should better protect Class II Terrestrial Habitats. Regulation 7.11.(2) indicates that whether Class II Terrestrial Habitats will be protected "shall be determined during the SEPA threshold determination on the project and/or by the Administrator." The SMP update must require protection for all priority species and habitats no allow the Administrator to make a case-by-case call without any criteria. Related comments: *Critical saltwater habitats include "areas with which priority species have a primary association (WAC 73-26-221(2)(c)(ii)(A).... The shoreline master program defines Class II Terrestrial Habitats as species and habitats that are not the habitats of endangered, threatened, or sensitive species. These species meet the definition of critical saltwater habitats must be protected."*  
*"Some Class II Terrestrial Habitats also meet the definition of fish and wildlife conservation areas in WAC 365-190-130(2). The state SMP Guidelines, in WAC 173-26-221(2)(a)(ii), adopt by reference "WAC 365-190-080 through 365-190-130..."  
*"This is also necessary to comply with SMP Guidelines in WAC 173-26-221 (2)(a), that require.....provide a level of protection to critical areas within the shoreline area that assures no net loss of shoreline ecological functions necessary to sustain shoreline natural resources."* | These habitats are also intended to be protected based on the shoreline and critical area buffer requirements of SMP Chapters 6 and 7 and other applicable sections of SMP pertaining to the specific permitted development and uses in the shoreline.  
Associated critical saltwater habitats that occur on adjacent shorelands landward of the OHWM are designated as Class I Terrestrial.  
Recommend: Add under Section 7.7 to include critical freshwater habitats and critical saltwater habitats as part of the aquatic habitat conservation area designations. The terms critical freshwater and saltwater habitats are defined in Draft SMP Chapter 11, Definitions. |
Draft SMP Section 7.12  Regulations—Geologically Hazardous Areas Designation, Classification, and Mapping

This section contains the regulations for designating and classifying geologic hazard areas.

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<tr>
<td>7.12</td>
<td>WDFW (B-4)</td>
<td>In regards to Section 7.12, Regulations – Geologically Hazardous Areas Designation, Classification, and Mapping, WDFW comments: &quot;It appears that channel migration zones are included in the Classification for both Erosion Hazard Areas and Landslide Hazard Areas. This results in some confusion in reading the draft.&quot;</td>
<td>The classification and designation of channel migration zone (CMZ) in both landslide and erosion hazard is appropriate. Areas subject to channel migration are by nature an erosion hazard. Where channel migration undercuts steep banks or slopes they can trigger landslides.</td>
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<td>7.12</td>
<td>Bowen (E-1a)</td>
<td>Comments include several pages of comments/questions related to Washington State Department of Ecology Channel Migration Zone (CZM) Reports and related mapping.</td>
<td>The County submitted a letter to Ecology dated February 18, 2018, requesting a response to these public comments/questions in addition to other County questions. Ecology responded in a letter dated April 23, 2018 to these public comments and County questions.</td>
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| 7.12(2g)| Bowen (E-1a) | Ecology’s CMZ Report is reflected on the title page as “Draft.” This has been explained to me as subject to some form of finalization by Ecology. I understand the county staff was afforded the opportunity to comment on the report but lacked capacity to do so (and historically did not do so, apparently taking it at face value). I also understand that Ecology most likely will not include this Report in their "published report library, therefore for the purpose of supporting the plan it is essential the actual report and its finalization process be directly documented (archived as an attachment) in the plan (not as a "link" but just as the SEPA, Restoration Plan, and other documents are included). In addition, it is also understood this report will be "finalized" in the near term yet to be determined.......I am left when that occur (not by the time of this public hearing is held) and therefore even more so the question of its legitimacy in being relied upon to set new restrictions on private property...." | Ecology’s April 23, 2018, letter (see above) also included submission of three final channel migration assessment (CMA) reports for the earlier draft December 2011 and April 2013 Draft reports for WRIA 18-19 and WRIA 20, respectively:  
- Clallam County Channel Migration Assessment: Puget Sound WRIA’s 18-19 (April 2018).  
- Revised CMZ Boundaries for Lower Morse Creek, Clallam County (January 2013)  
- Clallam County Channel Migration Assessment: Pacific WRIA 20 (April 2018)  
As noted in Ecology’s letter, the above final CMA Reports included only minimal changes that address minor errors, typos, and clarifications (i.e., no additional technical analysis).  
Recommendation: Adopt by reference Ecology’s three, Final CMA Reports as part of findings of any County Commissioner action (i.e., Resolution) to locally-approve an updated SMP. |

7.12(2g) Bowen (E-1a) recommends the SMP "be edited to reflect that all streams that were not specifically a function of the model using the primary data source and supported by other viable data sources are limited in scope for those delineations and are "advisory only for those changes that "exceed" the current county designations."

"If my government does not see fit to make this edit, or something similar regarding "advisory" as used in regards to Tsunami zoning, then at a minimum the

| At the April 23, 2018 work session, the Commissioners reviewed a staff report (dated April 18, 2018) that included proposed revisions to Draft CMZ standards in Section 7.14.10 of the Draft SMP to incorporate a 3-step CMZ assessment review process. These draft revisions were generally supported by the Commissioners at that time. These draft revisions are |
need for language is essential to identify and address the burden on the landowner (the "Onus" concept used by the DCD director on several occasions with the public and also before the BOCC, resulting in a taking in the form of a burden to limit the landowner they must determine essentially a proportionate measure of mitigation) along with the application of such burden (specifying what that is, but this piece might not be needed if the language is there, just at this point in the process I don’t have readily available/known) and allowed exceptions. Otherwise it is my opinion well-crosses the line in being respectful of due process and being subject to an uncompensated taking of property.

| 7.12.(4) | Futurewise, SCNOG, & WEC (C-2) | We support the designation of tsunami inundation zones as geological hazards. They have very serious risk of harm to people and property. As proposed 7.12.(4), recognizes tsunami hazard areas are a type of critical areas. But proposed 7.12.(4) does not designate any tsunami hazard areas even though they are identified in the 2010 Hazard Mitigation Plan by Clallam County. Recommend: That tsunami hazard areas mapped by the State of Washington or Clallam County be designated as seismic hazard area. |
| 7.12.(4) | Futurewise, SCNOG, & WEC (C-2) | Incorporate as part of classification and designation of seismic hazard areas the 2004 Liquefaction Susceptibility Map and 2004 Site Class Map for Clallam County prepared by the Washington State Department of Natural Resources. Liquefaction occurs when earthquake shaking causes a soil to rapidly lose its strength and behave like quicksand. These maps represent the best science and technical information on the occurrence of these hazards. Adopting these maps and protective provisions for these areas will protect people and property from hazards resulting from earthquakes. Based on the 2004 Map, recommend: o Designate areas classified as having a liquefaction susceptibility of "moderate," "moderate to high," "high" and "peat deposit as geological hazards. o Designate areas classified as having a site class of "D," "D to E," and "F" as geological hazards. These areas are where the underlying geology is likely to amplify shaking on the ground surface. |
| Other | Futurewise, SCNOG, & WEC (C-2) | Landslides are capable of damaging commercial, residential, or industrial development at both the tops and toes slopes due to the earth sliding and other geological events. So the areas at the top, toe, and sides of the slope are geological hazards. We recommend these areas be designated as landslide hazard areas. Concur that landslide hazard areas include areas at the top, toe, and sides of slopes designated as hazards. This would appear to be addressed based on that the SMP’s proposed standard landslide hazard area buffers are measured from the top, toe and all edges per Section 7.13.(1). Future studies specific to a location that document a larger area than standard buffers from top, toe or sides of a landslide hazard area for a particular location could be considered and adopted by reference as designated landslide hazard areas. |
Draft SMP Section 7.13  Regulations—Geologically Hazardous Area Buffers

This section contains the proposed standard buffers for landslide hazard areas. Proposed marine bluff feeder buffers are based on the shoreline inventory and characterization report and related consultant recommendations. The large feeder bluff buffers proposed are also supported by local scientific studies including:


Proposed required buffers for channel migration zones are addressed in Draft SMP Section 7.14.(10), as further revised based on prior Board work session discussion at the April 23, 2018 (see attached Exhibit B).

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<td>Jamestown S’Klallam Tribe (A-2a)</td>
<td>For feeder bluff marine shorelines, support the below buffer provisions with the goal to provide for the essential, long-term supply of sediment to beaches, spits, and other important shoreforms, and ensure human development is kept out of harm’s way.</td>
<td>Proposed feeder bluff buffers are intended to meet these goals. Recommend add to Section 7.2, Critical Area Policies: Protect feeder bluffs ability to provide for essential, long-term supply of sediment to beaches, spits, nearshore habitats, and other important shoreforms.</td>
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<td>• Recommends for all categories of feeder bluffs (as classified in the 2012 Shorelines Inventory and Characterization Report), the measurement for habitat buffers shall begin at the top edge of the bluff.</td>
<td>No change needed. Draft Section 7.13.(1) states that new uses and developments shall maintain minimum buffers from the top, toe, and all edges of landslide hazard areas (includes feeder bluffs).</td>
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<td>• Recommends the minimum habitat buffer width on non-exceptional feeder bluffs shall be 100-feet.</td>
<td>No change needed. The Draft SMP (see Tables 6-2 and 7-7) support standard buffers for non-exceptional feeder bluffs of 100-feet.</td>
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<td>• Recommends the minimum habitat buffer width on exceptional feeder bluffs shall be 150 feet.</td>
<td>No change needed. Current Draft SMP (see Tables 6-2 and 7-7) support standard buffers for exceptional feeder bluffs of 150-feet.</td>
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<td>• Buffers shall be increased where documented bluff retreat rates equal or exceed one-foot per year on non-exceptional feeder bluffs and 1.5-feet per year on exceptional feeder bluffs. In these cases, buffers shall be increased to a minimum width equalling 100 years of the documented bluff retreat rate.</td>
<td>Recommend add this provision to SMP buffer standards for feeder bluffs. See related response in this Staff Report pertaining to SMP Section 7.13.(7) that contains criteria for increasing buffer widths related to feeder bluffs.</td>
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<td>Futurewise, SCNOG, &amp; WEC (C-2)</td>
<td>The Shoreline Master Program Guidelines, in WAC 173-25-221 (2)(c)(ii)(B), provide: “Do not allow new development or the creation of new lots that would cause foreseeable risk from geological conditions to people or improvements during the life of the development.”Lots are permanent and homes are often occupied for more than 100 years. Also, refers to a recent paper that in Clallam County “analysis with a simple bluff erosion model suggests that predicted rates of sea-level rise.”</td>
<td>Policy discussion area. Not all marine bluffs are subject to same erosion and bluff regression rates due to geology, landscape position (e.g., wave action), height, and other factors.</td>
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rise have the potential to increase bluff erosion rates by up to 0.1 m/year [meter a year] by the year 2050. This translates to four additional inches of bluff erosion a year with a cumulative distance of 128 inches or 10.6 feet by 2050.

Strengthens:

- Given current and likely future bluff erosion rates, we recommend that the 150-foot Marine Bluff—Feeder Bluff Exceptional buffer apply to all marine bluffs.
- Do not allow new development or the creation of new lots that would cause foreseeable risk from geological conditions to people or improvements during the life of the development.

| D-1 thru D-9 | Apply the 150-foot Marine Bluff—Feeder Bluff Exceptional buffer to all marine bluffs as marine bluff erosion is likely to increase with rising sea levels and increasing wave heights. Adopt site specific buffers for landslide hazards and other measures to protect people and property from landslide hazards. | See above response. |

| Futurewise, SCNOG, & WEC (C-2) | Concerned that the 50-foot buffer width for other landslide hazards is not adequate to protect people and property. Landslides can impact development at long distances. Recommend: That regulations require the site-specific identification of landslide top of slope and slope faces subject to failure and sliding, toe of slope areas subject to impact from down slope run-out, and buffers for areas subject to landslide hazards. The Joint SR 530 Landslide Commission recommends identifying “critical area buffer widths based on site specific geotechnical studies” as an innovative development regulation” that counties and cities should adopt. Construction should not be allowed in these areas. | Policy discussion area. The consultants focused on mapping and classifying marine bluff types, and recommended associated buffers. The 50-foot buffer recommended for landslide hazards that are not feeder bluffs is the current critical area code standard. Landslide hazard buffers can be increased under the critical area code adjacent to a bluff or ravine which is severely unstable based on recent geotechnical events. The County may want to consider a geotechnical report analysis. |

| OEC & FMPSP (C-3a); PPF (C-6) | Commented that the proposed 50-feet landslide hazard buffer in Table 7-7 is too shallow. This is not protection over a 75 yr. period as required—25 years, if lucky. Variances should not be given in such areas. These may not be buildable areas. | See above response. |

| Futurewise, SCNOG, & WEC (C-2) | Support Regulation 7.14.7(a) (i) requirement that a geotechnical report contain a site plans to identify “the type and extent of geologic hazard areas, any other critical areas, and buffers on, adjacent to, or that are likely to impact or influence the proposal or be influenced by the proposal, including properties and critical areas upslope and downslope of the subject site.” This is important because landslide hazards are capable of damaging property at significant distances. The 2014 Oso slide ran out for over a mile (5,500 feet) even through the slope height was 600 feet……in a study of shallow landslides along Puget Sound from Seattle to Everett, the average runout length was 197.5 feet and the maximum runout length was 771 feet.” Recommend: Regulations require site-specific geotechnical studies to identify landslide top of slope and slope faces subject to failure and slide, toe of slope areas subject to impact from down slope run-out, and identifying buffers needed to protect development form these hazards. | Policy discussion area. |

| WDFW (B-4) | In regards to Section 7.13.(1) buffer provisions for landslide hazard area (non-channel migration zones), WDFW comments: “Under 7.13 Regulations, channel migration zones (CMZs) are excluded and the regulation provides no direction pertaining to CMZs…..” | Recommend adding a footnote to Table 7-7 to Section 7.14.(10) requirements for channel migration zones. |
Buffer Averaging Comments

7.13.(4) Pg. 7-20
OEC & FMSP (C-3a); PPF (C-6)

Buffer averaging is not a good idea for new development or totally rebuilt sites. (For guidance, see the scientific analysis just completed by Dave Parks of the WA State Department of Natural Resources. Bluff Recession in the Elwha and Dungeness Littoral Cells, Washington, USA. Environmental & Engineering Geoscience, Vol. XXI, No. 1, January 2015, and Mapping and Monitoring Bluff Erosion with Boal-based LIDAR and the Development of a Sediment Budget and Erosion Model for the Elwha and Dungeness Littoral Cells, Clallam County, WA.)

Where properties are too small for a home site with safe setbacks for an estimated 75 year period, perhaps a small vacation structure or a greenhouse could be allowed. Without doubt, for the protection of property owners, natural resources, and County residents that could be sued, the County should disallow properties being built where it is perceived these properties would put property owners in harms way. If these properties are platted or built upon, the County should instruct property owners to move their structures back in order to not be washed away or fall over a bluff. The County could additionally consider ways to assist property owners, if need be, such as setting up a fund to assist lower income property owners with relocating their structures and, in some cases, purchasing properties at a modest price. These properties could not be resold by the property owners so this would be a win-win for all. This would protect the County and taxpayers against law suits from having let these properties be built on and later learning the house and lives are threatened.

Comments on SMP 7.13.(7), Increasing Buffer Widths (Feeder Bluff—Exceptional) Standards,

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<td>Jamestown S’Klallam (A-2a)</td>
<td>Recommend that standard buffers be increased where documented bluff retreat rates equal or exceed one-foot per year on non-exceptional feeder bluffs and 1.5-feet per year on exceptional feeder bluffs. In these cases, buffers shall be increased to a minimum width equaling 100 years of the documented bluff retreat rate. The goal of this recommendation is to: 1) provide for the essential, long-term supply of sediment to beaches, spits, and other important shoreforms, and 2) ensure human development is kept out of harm’s way.</td>
<td>Policy discussion area. Support revision. The proposed 100 and 150 foot buffers for feeder bluffs are intended to provide for typical 75 to 100-year lifespan based on average bluff regression. There is a bluff regression model and data bluffs associated with the Elwha and Dungeness Drift Cells. Information on bluff regression from future reach or site specific studies may find some portions of bluff eroding faster where a 100 or 150 buffers may not provide sufficient protection for typical 75 to 100 year lifespan of a home or structure. Adding this standard will also provide a bluff retreat standard to assist in determining when increased buffers are needed under Section 7.13.(7) for Feeder Bluff-Exceptional.</td>
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Draft SMP Section 7.14  Regulations—Geologically Hazardous Area Protection Standards

This section contains protection standards specific to geologic hazardous areas that are in addition to the landslide buffer standards of Draft SMP Section 7.13.

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| 7.14.(2) Pg. 7-21 | OEC & FMSP (C-3a); PPF (C-6) | Commented that if the County signs off on the below regulation and there is an accident, the County—meaning the citizens of the County— are liable. Any property owner that accepts this option should have his/her right to sue the County. 

"New uses and developments may be allowed in geologically hazardous areas and/or their buffers only when specifically allowed by this Program and when all reasonable measures have been taken to avoid adverse impacts on slope stability and protect human health and safety." | Policy discussion area. |
| 7.14.7(a) (i) | Futurewise, SCNOG, & WEC (C-2) | Supports Regulation 7.14.7(a)(i) requirement that a geotechnical report contain a site plans to identify "the type and extent of geologic hazard areas, any other critical areas, and buffers on, adjacent to, or that are likely to impact or influence the proposal or be influenced by the proposal, including properties and critical areas upslope and downslope of the subject site." This is important because landslide hazards are capable of damaging property at significant distances. The 2014 Oso slide ran out for over a mile (5,500 feet) even through the slope height was 600 feet......In a study of shallow landslides along Puget Sound from Seattle to Everett, the average runout length was 197.5 feet and the maximum runout length was 771 feet." Recommend: Regulations require site-specific geotechnical studies to identify landslide top of slope and slope faces subject to failure and slide, toe of slope areas subject to impact from down slope run-out, and identifying buffers needed to protect development from these hazards. | Policy discussion area. |
| 7.14.(8) Pg. 7-24 | WDFW (B-4) | In regards to Section 7.14.(8) provisions WDFW comments: "7.14 Regulations – appears to provide great latitude to the administrator to impose conditions in geologically hazardous areas. It may provide more direct protection of ecological processes and public safety, provide more regulatory certainty and reduce work for the administrator; to formulate more direct regulatory requirements. Because by definition the CMZ is an area where the channel may locate in the future, it is important to provide a buffer on CMZ and avoid a future channel location that is without a vegetative buffer." Recommend update to require any Administrator conditions be based on based on the recommendations of a geotechnical report. | |
| 7.14.(10) Pg. 7-24 | WDFW (B-4) | Related to Section 7.14(10), Channel Migration Zone (CMZ) Protection Standards, comments:

- Under SMP Section 7.13, Geologic Hazardous Area Buffers, channel migration zone buffers are not addressed.

- In regards to sub-part "10a" below, comments: "Where is the already included buffer indicated in the draft SMP? We were unable to locate it and again this language is confusing. What does the already included buffer consist of?

"......a. Locate the proposal landward of the potential channel migration hazard area as indicated on the map which already includes an erosion hazard buffer; or......" See below comment. |
| 7.14.(10) Pg. 7-24 | WDFW (B-4) | Ecology mapping of the potential channel migration zone (CMZ) includes an erosion hazard buffer that includes 1 channel width for entrenched streams, 50% to 100% of the width of the meander amplitude, and other factors. | |
In regards to sub-part "10c" below, comments: "Again under (c), the administrator has latitude to restrict development based on the CMZ assessment as opposed to including in the SMP, direct regulations of the CMZ. We recommend a more explicit regulation that excludes new development in the CMZ and provides a vegetative buffer starting at the edge of the CMZ."

"......c. Based on the results of the channel migration zone assessment, the Administrator may prohibit or limit use or development within a channel migration zone and/or require a buffer of undisturbed natural vegetation from the edge of the channel migration zone to retain both a safety and habitat buffer if and when the channel migrates to the channel migration zone edge."

See previously discussed changes to this sub-section by the Board in April that are attached in Exhibit B to this staff report.

### Other Comments Related to Safety Zones

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<td>Jamestown S'Klallam Tribe (A-2a)</td>
<td>Establish safety zones that cover all areas located within 1-meter vertical elevation (NAVD 88 Datum) above ordinary high water on FEMA coastal flooding and marine tsunami zones. For delineating safety zones, measurements should be taken from native ground elevations. Placing fill within a safety zone would not remove the filled area from the safety zone. Construction of residential and commercial structures should be prohibited inside these zones. This is a very modest standard to prevent construction of house and other buildings that would be certain to be flooded from storm surge in the next several decades. The presence of structures within these dangerous areas would engender expensive and harmful protective measures and ultimately place people and property in harm's way.</td>
<td>Policy discussion area.</td>
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| Futurewise, SCNOG, & WEC (C-2) | Tsunamis are a significant risk in Clallam County. The Clallam Bay-Seiku and Dungeness River areas of the County are not incorporated, but have higher population densities than other unincorporated areas of the County, and are located in areas susceptible to flooding, tsunamis, landslide/erosion and severe storms. Critical facilities are located in these areas including bridges, a prison and sheriff's offices in Clallam Bay-Seiku, and water reservoir and fire station in the Dungeness River area. References the 2010 Hazard Mitigation Plan for Clallam County. We support the designation of tsunami inundation zones as geological hazards. They have very serious risk of harm to people and property. However, we did not find any standards that apply to tsunami hazard areas. Recommend the following standards:

- Avoid new development in tsunami hazard areas. Where a site is large enough to develop outside of a tsunami hazard, development within the tsunami hazard should be prohibited. Prohibiting development in tsunami hazard areas is the safest approach.

- If a part of the site has a lower tsunami risk, development should be clustered on that part of the site.

- Where tsunami hazard areas are outside cities and limited areas of more intense rural development, zone them for low density uses such as one dwelling unit per 10 acres.

- Where developments are allowed in tsunami hazard areas, require an evaluation to determine if a tsunami resistant structure can be required to allow residents, customers, and employees to shelter in place.

- Locate and configure new development that occurs in tsunami run-up areas to minimize tsunami losses.

- At a minimum, require that subdivisions, commercial, and recreational uses to prepare and maintain an evacuation plan including evacuation routes and provide for warnings and training for employees, residents, and those who will use the development on when and how to evacuate. These evacuation plans should be reviewed by the county for effectiveness and consistency with the community evacuation plans. | Policy discussion area. |
Draft SMP Sections 7.15 and 7.16—Regarding Floodplain Designation, Mapping and Protection Standards

These sections adopt the Federal Emergency Management Agency (FEMA) maps and establishes regulations based on these maps. FEMA is in the process of updating the floodplain maps for Clallam County.

Draft SMP Sections 7.17 and 7.18, Critical Aquifer Recharge Areas (CARA) Designation, Mapping, and Classification, and CARA Protection Standards

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| 7.17    | Futurewise, SCNOG, & WEC (C-2) | “The State of Washington Department of Ecology has identified the potential for salt water intrusion along the entire Strait of Juan de Fuca in Clallam County. The SMP Update includes critical areas regulations for aquifer recharge areas. These critical area regulations must provide a level of protection to critical areas within the shoreline area that assures no net loss of shoreline ecological functions necessary to sustain shoreline natural resources. WAC 173-26-221(2)(a)(ii). In addition, the regulatory provisions for critical areas shall protect existing ecological functions and ecosystem-wide processes. WAC 173-26-221(2)(b)(iv). The proposed critical area regulations fail to comply with these requirements because they do not protect drinking water sources on which many county residents and businesses depend from salt water intrusion. The Growth Management Hearings Board has held that Growth Management Act requires counties to designate vulnerable seawater intrusion areas as critical aquifer recharge areas. The Board also held that counties must adopt development regulations to protect aquifers used for potable water from further seawater degradation.” Recommend:  
- County designate the areas mapped by Ecology as susceptible to salt water intrusion as having a high susceptibility to contamination. | Policy discussion area. |
| 7.18    |           | See related comment above. Also recommend:  
| 7.18(4) | OEC & FMSP (C-3a); PPF (C-6) | Commented that “...cides” of any kind noted in the below regulation should be disallowed in critical aquifer recharge areas on any size acreage. Also, request amend as follows:  
"The use of fertilizers, herbicides, pesticides or other chemicals for vegetation management within critical aquifer recharge areas shall adhere to best management practices best available science to prevent impacts to water quality and water supply. Where the application of such chemicals covers five (5) or more acres, a mitigation plan shall be required pursuant to Section 8.3 of this Program." | No change recommended. |
General master program provisions.

"The provisions of this section shall be applied either generally to all shoreline areas or to shoreline areas that meet the specified criteria of the provision without regard to environment designation. These provisions address certain elements as required by RCW 90.58.100(2) and implement the principles as established in WAC 173-26-186..............

(2) Critical areas.
(a) Applicability. Pursuant to the provisions of RCW 90.58.090(4) and 36.70A.480(3) as amended by chapter 107, Laws of 2010 (EHB 1653), shoreline master programs must provide for management of critical areas designated as such pursuant to RCW 36.70A.170 (1)(d) located within the shorelines of the state with policies and regulations that:
   (i) Are consistent with the specific provisions of this subsection (2) critical areas and subsection (3) of this section flood hazard reduction, and these guidelines; and
   (ii) Provide a level of protection to critical areas within the shoreline area that assures no net loss of shoreline ecological functions necessary to sustain shoreline natural resources.

   The provisions of this section and subsection (3) of this section, flood hazard reduction, shall be applied to critical areas within the shorelines of the state. RCW 36.70A.030 defines critical areas as:

   "Critical areas" include the following areas and ecosystems:
   (a) Wetlands; (b) areas with a critical recharging effect on aquifers used for potable waters; (c) fish and wildlife habitat conservation areas; (d) frequently flooded areas; and (e) geologically hazardous areas."

   The provisions of WAC 365-190-080 through 365-190-130, to the extent standards for certain types of critical areas are not provided by this section and subsection (3) of this section flood hazard reduction, and to the extent consistent with these guidelines are also applicable to and provide further definition of critical area categories and management policies.

   As provided in RCW 90.58.030 (2)(f)(ii) and 36.70A.480, as amended by chapter 321, Laws of 2003 (ESHB 1933), any city or county may also include in its master program land necessary for buffers for critical areas, as defined in chapter 36.70A RCW, that occur within shorelines of the state, provided that forest practices regulated under chapter 76.09 RCW, except conversions to nonforest land use, on lands subject to the provision of WAC 173-26-241 (3)(e) are not subject to additional regulations. If a local government does not include land necessary for buffers for critical areas that occur within shorelines of the state, as authorized above, then the local jurisdiction shall continue to regulate those critical areas and required buffers pursuant to RCW 36.70A.060(2).

   In addition to critical areas defined under chapter 36.70A RCW and critical saltwater and freshwater habitats as described in these guidelines, local governments should identify additional shoreline areas that warrant special protection necessary to achieve no net loss of ecological functions.

(b) Principles. Local master programs, when addressing critical areas, shall implement the following principles:
   (i) Shoreline master programs shall adhere to the standards established in the following sections, unless it is demonstrated through scientific and technical information as provided in RCW
90.58.100(1) and as described in WAC 173-26-201 (2)(a) that an alternative approach provides better resource protection.

(ii) In addressing issues related to critical areas, use scientific and technical information, as described in WAC 173-26-201 (2)(a). The role of ecology in reviewing master program provisions for critical areas in shorelines of the state will be based on the Shoreline Management Act and these guidelines.

(iii) In protecting and restoring critical areas within shoreline jurisdiction, integrate the full spectrum of planning and regulatory measures, including the comprehensive plan, interlocal watershed plans, local development regulations, and state, tribal, and federal programs.

(iv) The planning objectives of shoreline management provisions for critical areas shall be the protection of existing ecological functions and ecosystem-wide processes and restoration of degraded ecological functions and ecosystem-wide processes. The regulatory provisions for critical areas shall protect existing ecological functions and ecosystem-wide processes.

(v) Promote human uses and values that are compatible with the other objectives of this section, such as public access and aesthetic values, provided that impacts to ecological functions are first avoided, and any unavoidable impacts are mitigated.

(c) Standards. When preparing master program provisions for critical areas, local governments should implement the following standards and use scientific and technical information, as provided for in WAC 173-26-201 (2)(a).

Provisions for frequently flooded areas are included in WAC 173-26-221(3).

(i) Wetlands.

(A) Wetland use regulations. Local governments should consult the department's technical guidance documents on wetlands.

Regulations shall address the following uses to achieve, at a minimum, no net loss of wetland area and functions, including lost time when the wetland does not perform the function:

- The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind;
- The dumping, discharging, or filling with any material, including discharges of stormwater and domestic, commercial, or industrial wastewater;
- The draining, flooding, or disturbing of the water level, duration of inundation, or water table;
- The driving of pilings;
- The placing of obstructions;
- The construction, reconstruction, demolition, or expansion of any structure;
- Significant vegetation removal, provided that these activities are not part of a forest practice governed under chapter 76.09 RCW and its rules;
- Other uses or development that results in an ecological impact to the physical, chemical, or biological characteristics of wetlands; or
- Activities reducing the functions of buffers described in (c)(i)(D) of this subsection.

(B) Wetland rating or categorization. Wetlands shall be categorized based on the rarity, irreplaceability, or sensitivity to disturbance of a wetland and the functions the wetland provides. Local governments should either use the Washington state wetland rating system, Eastern or Western Washington version as appropriate, or they should develop their own, regionally specific, scientifically based method for categorizing wetlands. Wetlands should be categorized to reflect differences in wetland quality and function in order to tailor protection standards appropriately. A wetland categorization method is not a substitute for a function assessment method, where detailed information on wetland functions is needed.

(C) Alterations to wetlands. Master program provisions addressing alterations to wetlands shall be consistent with the policy of no net loss of wetland area and functions, wetland rating, scientific and technical information, and the mitigation priority sequence defined in WAC 173-26-201 (2)(e).

(D) Buffers. Master programs shall contain requirements for buffer zones around wetlands. Buffer requirements shall be adequate to ensure that wetland functions are protected and maintained in the long term. Requirements for buffer zone widths and management shall take into account the
ecological functions of the wetland, the characteristics and setting of the buffer, the potential impacts associated with the adjacent land use, and other relevant factors.

(E) **Mitigation.** Master programs shall contain wetland mitigation requirements that are consistent with WAC 173-26-201 (2)(e) and which are based on the wetland rating.

(F) **Compensatory mitigation.** Compensatory mitigation shall be allowed only after mitigation sequencing is applied and higher priority means of mitigation are determined to be infeasible. Requirements for compensatory mitigation must include provisions for:

(i) Mitigation replacement ratios or a similar method of addressing the following:
   - The risk of failure of the compensatory mitigation action;
   - The length of time it will take the compensatory mitigation action to adequately replace the impacted wetland functions and values;
   - The gain or loss of the type, quality, and quantity of the ecological functions of the compensation wetland as compared with the impacted wetland.

(ii) Establishment of performance standards for evaluating the success of compensatory mitigation actions;

(iii) Establishment of long-term monitoring and reporting procedures to determine if performance standards are met; and

(iv) Establishment of long-term protection and management of compensatory mitigation sites. Credits from a certified mitigation bank may be used to compensate for unavoidable impacts.

(ii) **Geologically hazardous areas.** Development in designated geologically hazardous areas shall be regulated in accordance with the following:

(A) Consult designation criteria for geologically hazardous areas, WAC 365-190-120.

(B) Do not allow new development or the creation of new lots that would cause foreseeable risk from geological conditions to people or improvements during the life of the development.

(C) Do not allow new development that would require structural shoreline stabilization over the life of the development. Exceptions may be made for the limited instances where stabilization is necessary to protect allowed uses where no alternative locations are available and no net loss of ecological functions will result. The stabilization measures shall conform to WAC 173-26-231.

(D) Where no alternatives, including relocation or reconstruction of existing structures, are found to be feasible, and less expensive than the proposed stabilization measure, stabilization structures or measures to protect existing primary residential structures may be allowed in strict conformance with WAC 173-26-231 requirements and then only if no net loss of ecological functions will result.

(iii) **Critical saltwater habitats.**

(A) **Applicability.** Critical saltwater habitats include all kelp beds, eelgrass beds, spawning and holding areas for forage fish, such as herring, smelt and sand lance; subsistence, commercial and recreational shellfish beds; mudflats, intertidal habitats with vascular plants, and areas with which priority species have a primary association. Critical saltwater habitats require a higher level of protection due to the important ecological functions they provide. Ecological functions of marine shorelands can affect the viability of critical saltwater habitats. Therefore, effective protection and restoration of critical saltwater habitats should integrate management of shorelands as well as submerged areas.

(B) **Principles.** Master programs shall include policies and regulations to protect critical saltwater habitats and should implement planning policies and programs to restore such habitats. The inclusion of commercial aquaculture in the critical saltwater habitat definition does not limit its regulation as a use. Reserving shoreline areas for protecting and restoring ecological functions should be done prior to reserving shoreline areas for uses described in WAC 173-26-201 (2)(d)(i) through (v). Planning for critical saltwater habitats shall incorporate the participation of state resource agencies to assure consistency with other legislatively created programs in addition to local and regional government entities with an interest such as port districts. Affected Indian tribes shall also be consulted. Local governments should review relevant comprehensive management plan policies and development regulations for shorelands and adjacent lands to achieve consistency as directed in RCW 90.58.340. Local governments should base management planning on information provided by
state resource agencies and affected Indian tribes unless they demonstrate that they possess more accurate and reliable information.

The management planning should include an evaluation of current data and trends regarding the following:
- Available inventory and collection of necessary data regarding physical characteristics of the habitat, including upland conditions, and any information on species population trends;
- Terrestrial and aquatic vegetation;
- The level of human activity in such areas, including the presence of roads and level of recreational types (passive or active recreation may be appropriate for certain areas and habitats);
- Restoration potential;
- Tributaries and small streams flowing into marine waters;
- Dock and bulkhead construction, including an inventory of bulkheads serving no protective purpose;
- Conditions and ecological functions in the near-shore area;
- Uses surrounding the critical saltwater habitat areas that may negatively impact those areas, including permanent or occasional upland, beach, or over-water uses; and
- An analysis of what data gaps exist and a strategy for gaining this information.

The management planning should address the following, where applicable:
- Protecting a system of fish and wildlife habitats with connections between larger habitat blocks and open spaces and restoring such habitats and connections where they are degraded;
- Protecting existing and restoring degraded riparian and estuarine ecosystems, especially salt marsh habitats;
- Establishing adequate buffer zones around these areas to separate incompatible uses from the habitat areas;
- Protecting existing and restoring degraded near-shore habitat;
- Protecting existing and restoring degraded or lost salmonid, shorebird, waterfowl, or marine mammal habitat;
- Protecting existing and restoring degraded upland ecological functions important to critical saltwater habitats, including riparian and associated upland native plant communities;
- Improving water quality;
- Protecting existing and restoring degraded sediment inflow and transport regimens; and
- Correcting activities that cause excessive sediment input where human activity has led to mass wasting.

Local governments, in conjunction with state resource agencies and affected Indian tribes, should classify critical saltwater habitats and protect and restore seasonal ranges and habitat elements with which federal-listed and state-listed endangered, threatened, and priority species have a primary association and which, if altered, may reduce the likelihood that a species will maintain its population and reproduce over the long term.

Local governments, in conjunction with state resource agencies and affected Indian tribes, should determine which habitats and species are of local importance.

Local governments shall protect kelp and eelgrass beds, forage fish spawning and holding areas, and priority species habitat identified by the department of natural resources’ aquatic resources division, the department of fish and wildlife, the department, and affected Indian tribes as critical saltwater habitats.

Comprehensive saltwater habitat management planning should identify methods for monitoring conditions and adapting management practices to new information.

(C) Standards. Docks, piers, bulkheads, bridges, fill, floats, jetties, utility crossings, and other human-made structures shall not intrude into or over critical saltwater habitats except when all of the conditions below are met:
- The public’s need for such an action or structure is clearly demonstrated and the proposal is consistent with protection of the public trust, as embodied in RCW 90.58.020;
- Avoidance of impacts to critical saltwater habitats by an alternative alignment or location is not feasible or would result in unreasonable and disproportionate cost to accomplish the same general purpose;
• The project including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat.

• The project is consistent with the state’s interest in resource protection and species recovery.

Private, noncommercial docks for individual residential or community use may be authorized provided that:

• Avoidance of impacts to critical saltwater habitats by an alternative alignment or location is not feasible;

• The project including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat.

Until an inventory of critical saltwater habitat has been done, shoreline master programs shall condition all over-water and near-shore developments in marine and estuarine waters with the requirement for an inventory of the site and adjacent beach sections to assess the presence of critical saltwater habitats and functions. The methods and extent of the inventory shall be consistent with accepted research methodology. At a minimum, local governments should consult with department technical assistance materials for guidance.

(iv) Critical freshwater habitats.

(A) Applicability. The following applies to master program provisions affecting critical freshwater habitats within shorelines of the state designated under chapter 36.70A RCW, including those portions of streams, rivers, wetlands, and lakes, their associated channel migration zones, and flood plains designated as such in the master program.

(B) Principles. Many ecological functions of lake, river and stream corridors depend both on continuity and connectivity along the length of the shoreline and on the conditions of the surrounding lands on either side of river channel and lake basin. Environmental degradation caused by development such as improper stormwater sewer or industrial outfalls, unmanaged clearing and grading, or runoff from buildings and parking lots within the watershed, can degrade ecological functions in lakes and downstream. Likewise, gradual destruction or loss of riparian and associated upland native plant communities, alteration of runoff quality and quantity along the lake basin and stream corridor resulting from incremental flood plain and lake basin development can raise water temperatures and alter hydrographic conditions, degrading ecological functions. This makes the corridor inhospitable for invertebrate and vertebrate aquatic, amphibian and terrestrial wildlife species and susceptible to catastrophic flooding, droughts, landslides and channel changes. These conditions also threaten human health, safety, and property. Long stretches of lake, river and stream shorelines have been significantly altered or degraded in this manner. Therefore, effective management of lake basins and river and stream corridors depends on:

(I) Planning for protection, and restoration where appropriate, throughout the lake basin and along the entire length of the corridor from river headwaters to the mouth; and

(II) Regulating uses and development within lake basins and stream channels, associated channel migration zones, wetlands, and the flood plains, to the extent such areas are in the shoreline jurisdictional area, as necessary to assure no net loss of ecological functions, including where applicable the associated hyporheic zone, results from new development.

As part of a comprehensive approach to management of critical freshwater habitat and other lake, river and stream values, local governments should integrate master program provisions, including those for shoreline stabilization, fill, vegetation conservation, water quality, flood hazard reduction, and specific uses, to protect human health and safety and to protect and restore lake and river corridor ecological functions and ecosystem-wide processes.

Applicable master programs shall contain provisions to protect hydrologic connections between water bodies, water courses, and associated wetlands. Restoration planning should include incentives and other means to restore water connections that have been impeded by previous development.

Master program provisions for lake basins and river and stream corridors should, where appropriate, be based on the information from comprehensive watershed management planning where available.

(C) Standards. Master programs shall implement the following standards within shoreline jurisdiction:
(I) Provide for the protection of ecological functions associated with critical freshwater habitat as necessary to assure no net loss of ecological functions.

(II) Integrate protection of critical freshwater, riparian and associated upland habitat, protection with flood hazard reduction and other lake, wetland, river and stream management provisions.

(III) Include provisions that facilitate authorization of appropriate restoration projects.

(IV) Provide for the implementation of the principles identified in (c)(iv)(B) of this subsection.

(3) Flood hazard reduction.

(a) Applicability. The following provisions apply to actions taken to reduce flood damage or hazard and to uses, development, and shoreline modifications that may increase flood hazards. Flood hazard reduction measures may consist of nonstructural measures, such as setbacks, land use controls, wetland restoration, dike removal, use relocation, biotechnical measures, and stormwater management programs, and of structural measures, such as dikes, levees, revetments, floodwalls, channel realignment, and elevation of structures consistent with the National Flood Insurance Program. Additional relevant critical area provisions are in WAC 173-26-221(2).

(b) Principles. Flooding of rivers, streams, and other shorelines is a natural process that is affected by factors and land uses occurring throughout the watershed. Past land use practices have disrupted hydrological processes and increased the rate and volume of runoff, thereby exacerbating flood hazards and reducing ecological functions. Flood hazard reduction measures are most effective when integrated into comprehensive strategies that recognize the natural hydrogeological and biological processes of water bodies. Over the long term, the most effective means of flood hazard reduction is to prevent or remove development in flood-prone areas, to manage stormwater within the flood plain, and to maintain or restore river and stream system’s natural hydrological and geomorphological processes.

Structural flood hazard reduction measures, such as diking, even if effective in reducing inundation in a portion of the watershed, can intensify flooding elsewhere. Moreover, structural flood hazard reduction measures can damage ecological functions crucial to fish and wildlife species, bank stability, and water quality. Therefore, structural flood hazard reduction measures shall be avoided whenever possible. When necessary, they shall be accomplished in a manner that assures no net loss of ecological functions and ecosystem-wide processes.

The dynamic physical processes of rivers, including the movement of water, sediment and wood, cause the river channel in some areas to move laterally, or "migrate," over time. This is a natural process in response to gravity and topography and allows the river to release energy and distribute its sediment load. The area within which a river channel is likely to move over a period of time is referred to as the channel migration zone (CMZ) or the meander bend. Scientific examination as well as experience has demonstrated that interference with this natural process often has unintended consequences for human users of the river and its valley such as increased or changed flood, sedimentation and erosion patterns. It also has adverse effects on fish and wildlife through loss of critical habitat for river and riparian dependent species. Failing to recognize the process often leads to damage to, or loss of, structures and threats to life safety.

Applicable shoreline master programs should include provisions to limit development and shoreline modifications that would result in interference with the process of channel migration that may cause significant adverse impacts to property or public improvements and/or result in a net loss of ecological functions associated with the rivers and streams. (See also (c) of this subsection.)

The channel migration zone should be established to identify those areas with a high probability of being subject to channel movement based on the historic record, geologic character and evidence of past migration. It should also be recognized that past action is not a perfect predictor of the future and that human and natural changes may alter migration patterns. Consideration should be given to such changes that may have occurred and their effect on future migration patterns.

For management purposes, the extent of likely migration along a stream reach can be identified using evidence of active stream channel movement over the past one hundred years. Evidence of active movement can be provided from historic and current aerial photos and maps and may require field analysis of specific channel and valley bottom characteristics in some cases. A time
frame of one hundred years was chosen because aerial photos, maps and field evidence can be used to evaluate movement in this time frame.

In some cases, river channels are prevented from normal or historic migration by human-made structures or other shoreline modifications. The definition of channel migration zone indicates that in defining the extent of a CMZ, local governments should take into account the river’s characteristics and its surroundings. Unless otherwise demonstrated through scientific and technical information, the following characteristics should be considered when establishing the extent of the CMZ for management purposes:

- Within incorporated municipalities and urban growth areas, areas separated from the active river channel by legally existing artificial channel constraints that limit channel movement should not be considered within the channel migration zone.
- All areas separated from the active channel by a legally existing artificial structure(s) that is likely to restrain channel migration, including transportation facilities, built above or constructed to remain intact through the one hundred-year flood, should not be considered to be in the channel migration zone.
- In areas outside incorporated municipalities and urban growth areas, channel constraints and flood control structures built below the one hundred-year flood elevation do not necessarily restrict channel migration and should not be considered to limit the channel migration zone unless demonstrated otherwise using scientific and technical information.

Master programs shall implement the following principles:

(i) Where feasible, give preference to nonstructural flood hazard reduction measures over structural measures.

(ii) Base shoreline master program flood hazard reduction provisions on applicable watershed management plans, comprehensive flood hazard management plans, and other comprehensive planning efforts, provided those measures are consistent with the Shoreline Management Act and this chapter.

(iii) Consider integrating master program flood hazard reduction provisions with other regulations and programs, including (if applicable):
- Stormwater management plans;
- Flood plain regulations, as provided for in chapter 86.16 RCW;
- Critical area ordinances and comprehensive plans, as provided in chapter 36.70A RCW; and
- The National Flood Insurance Program.

(iv) Assure that flood hazard protection measures do not result in a net loss of ecological functions associated with the rivers and streams.

(v) Plan for and facilitate returning river and stream corridors to more natural hydrological conditions. Recognize that seasonal flooding is an essential natural process.

(vi) When evaluating alternate flood control measures, consider the removal or relocation of structures in flood-prone areas.

(vii) Local governments are encouraged to plan for and facilitate removal of artificial restrictions to natural channel migration, restoration of off channel hydrological connections and return river processes to a more natural state where feasible and appropriate.

(c) Standards. Master programs shall implement the following standards within shoreline jurisdiction:

(i) Development in flood plains should not significantly or cumulatively increase flood hazard or be inconsistent with a comprehensive flood hazard management plan adopted pursuant to chapter 86.12 RCW, provided the plan has been adopted after 1994 and approved by the department. New development or new uses in shoreline jurisdiction, including the subdivision of land, should not be established when it would be reasonably foreseeable that the development or use would require structural flood hazard reduction measures within the channel migration zone or floodway. The following uses and activities may be appropriate and/or necessary within the channel migration zone or floodway:
- Actions that protect or restore the ecosystem-wide processes or ecological functions.
• Existing and ongoing agricultural practices, provided that no new restrictions to channel movement occur.
  • Mining when conducted in a manner consistent with the environment designation and with the provisions of WAC 173-26-241 (3)(h).
  • Bridges, utility lines, and other public utility and transportation structures where no other feasible alternative exists or the alternative would result in unreasonable and disproportionate cost. Where such structures are allowed, mitigation shall address impacted functions and processes in the affected section of watershed or drift cell.
  • Repair and maintenance of an existing legal use, provided that such actions do not cause significant ecological impacts or increase flood hazards to other uses.
  • Development with a primary purpose of protecting or restoring ecological functions and ecosystem-wide processes.
  • Modifications or additions to an existing nonagricultural legal use, provided that channel migration is not further limited and that the new development includes appropriate protection of ecological functions.
  • Development in incorporated municipalities and designated urban growth areas, as defined in chapter 36.70A RCW, where existing structures prevent active channel movement and flooding.
  • Measures to reduce shoreline erosion, provided that it is demonstrated that the erosion rate exceeds that which would normally occur in a natural condition, that the measure does not interfere with fluvial hydrological and geomorphological processes normally acting in natural conditions, and that the measure includes appropriate mitigation of impacts to ecological functions associated with the river or stream.

(ii) Allow new structural flood hazard reduction measures in shoreline jurisdiction only when it can be demonstrated by a scientific and engineering analysis that they are necessary to protect existing development, that nonstructural measures are not feasible, that impacts on ecological functions and priority species and habitats can be successfully mitigated so as to assure no net loss, and that appropriate vegetation conservation actions are undertaken consistent with WAC 173-26-221(5).

Structural flood hazard reduction measures shall be consistent with an adopted comprehensive flood hazard management plan approved by the department that evaluates cumulative impacts to the watershed system.

(iii) Place new structural flood hazard reduction measures landward of the associated wetlands, and designated vegetation conservation areas, except for actions that increase ecological functions, such as wetland restoration, or as noted below. Provided that such flood hazard reduction projects be authorized if it is determined that no other alternative to reduce flood hazard to existing development is feasible. The need for, and analysis of feasible alternatives to, structural improvements shall be documented through a geotechnical analysis.

(iv) Require that new structural public flood hazard reduction measures, such as dikes and levees, dedicate and improve public access pathways unless public access improvements would cause unavoidable health or safety hazards to the public, inherent and unavoidable security problems, unacceptable and unmitigable significant ecological impacts, unavoidable conflict with the proposed use, or a cost that is disproportionate and unreasonable to the total long-term cost of the development.

(v) Require that the removal of gravel for flood management purposes be consistent with an adopted flood hazard reduction plan and with this chapter and allowed only after a biological and geomorphological study shows that extraction has a long-term benefit to flood hazard reduction, does not result in a net loss of ecological functions, and is part of a comprehensive flood management solution.

(5) Shoreline vegetation conservation.
   (a) Applicability. Vegetation conservation includes activities to protect and restore vegetation along or near marine and freshwater shorelines that contribute to the ecological functions of shoreline
areas. Vegetation conservation provisions include the prevention or restriction of plant clearing and earth grading, vegetation restoration, and the control of invasive weeds and nonnative species.

Unless otherwise stated, vegetation conservation does not include those activities covered under the Washington State Forest Practices Act, except for conversion to other uses and those other forest practice activities over which local governments have authority. As with all master program provisions, vegetation conservation provisions apply even to those shoreline uses and developments that are exempt from the requirement to obtain a permit. Like other master program provisions, vegetation conservation standards do not apply retroactively to existing uses and structures, such as existing agricultural practices.

(b) Principles. The intent of vegetation conservation is to protect and restore the ecological functions and ecosystem-wide processes performed by vegetation along shorelines. Vegetation conservation should also be undertaken to protect human safety and property, to increase the stability of river banks and coastal bluffs, to reduce the need for structural shoreline stabilization measures, to improve the visual and aesthetic qualities of the shoreline, to protect plant and animal species and their habitats, and to enhance shoreline uses.

Master programs shall include: Planning provisions that address vegetation conservation and restoration, and regulatory provisions that address conservation of vegetation; as necessary to assure no net loss of shoreline ecological functions and ecosystem-wide processes, to avoid adverse impacts to soil hydrology, and to reduce the hazard of slope failures or accelerated erosion.

Local governments should address ecological functions and ecosystem-wide processes provided by vegetation as described in WAC 173-26-201 (3)(d)(i).

Local governments may implement these objectives through a variety of measures, where consistent with Shoreline Management Act policy, including clearing and grading regulations, setback and buffer standards, critical area regulations, conditional use requirements for specific uses or areas, mitigation requirements, incentives and nonregulatory programs.

In establishing vegetation conservation regulations, local governments must use available scientific and technical information, as described in WAC 173-26-201 (2)(a). At a minimum, local governments should consult Shoreline Management Assistance Materials provided by the Department and Management Recommendations for Washington's Priority Habitats, prepared by the Washington State Department of Fish and Wildlife where applicable.

Current scientific evidence indicates that the length, width, and species composition of a shoreline vegetation community contribute substantively to the aquatic ecological functions. Likewise, the biota within the aquatic environment is essential to ecological functions of the adjacent upland vegetation. The ability of vegetated areas to provide critical ecological functions diminishes as the length and width of the vegetated area along shorelines is reduced. When shoreline vegetation is removed, the narrower the area of remaining vegetation, the greater the risk that the functions will not be performed.

In the Pacific Northwest, aquatic environments, as well as their associated upland vegetation and wetlands, provide significant habitat for a myriad of fish and wildlife species. Healthy environments for aquatic species are inseparably linked with the ecological integrity of the surrounding terrestrial ecosystem. For example, a nearly continuous corridor of mature forest characterizes the natural riparian conditions of the Pacific Northwest. Riparian corridors along marine shorelines provide many of the same functions as their freshwater counterparts. The most commonly recognized functions of the shoreline vegetation include, but are not limited to:

- Providing shade necessary to maintain the cool temperatures required by salmonids, spawning forage fish, and other aquatic biota.
- Providing organic inputs critical for aquatic life.
- Providing food in the form of various insects and other benthic macroinvertebrates.
- Stabilizing banks, minimizing erosion, and reducing the occurrence of landslides. The roots of trees and other riparian vegetation provide the bulk of this function.
- Reducing fine sediment input into the aquatic environment through stormwater retention and vegetative filtering.
- Filtering and vegetative uptake of nutrients and pollutants from ground water and surface runoff.
• Providing a source of large woody debris into the aquatic system. Large woody debris is the primary structural element that functions as a hydraulic roughness element to moderate flows. Large woody debris also serves a pool-forming function, providing critical salmonid rearing and refuge habitat. Abundant large woody debris increases aquatic diversity and stabilization.

• Regulation of microclimate in the stream-riparian and intertidal corridors.

• Providing critical wildlife habitat, including migration corridors and feeding, watering, rearing, and refugia areas.

Sustaining different individual functions requires different widths, compositions and densities of vegetation. The importance of the different functions, in turn, varies with the type of shoreline setting. For example, in forested shoreline settings, periodic recruitment of fallen trees, especially conifers, into the stream channel is an important attribute, critical to natural stream channel maintenance. Therefore, vegetated areas along streams which once supported or could in the future support mature trees should be wide enough to accomplish this periodic recruitment process.

Woody vegetation normally classed as trees may not be a natural component of plant communities in some environments, such as in arid climates and on coastal dunes. In these instances, the width of a vegetated area necessary to achieve the full suite of vegetation-related shoreline functions may not be related to vegetation height.

Local governments should identify which ecological processes and functions are important to the local aquatic and terrestrial ecology and conserve sufficient vegetation to maintain them. Such vegetation conservation areas are not necessarily intended to be closed to use and development but should provide for management of vegetation in a manner adequate to assure no net loss of shoreline ecological functions.

(c) Standards. Master programs shall implement the following requirements in shoreline jurisdiction.

Establish vegetation conservation standards that implement the principles in WAC 173-26-221 (5)(b). Methods to do this may include setback or buffer requirements, clearing and grading standards, regulatory incentives, environment designation standards, or other master program provisions. Selective pruning of trees for safety and view protection may be allowed and the removal of noxious weeds should be authorized.

Additional vegetation conservation standards for specific uses are included in WAC 173-26-241(3).
EXHIBIT B

Proposed revisions to Section 7.14.10 of the Draft SMP (Sept. 2017) for County Commissioner consideration
10. Channel Migration Zone Protection Standards: If County maps indicate that a potential channel migration hazard exists on or adjacent to a proposed use or development site, the applicant shall either:

a. Channel Migration Zone (CMZ) Mapping. Locate the proposed landward of the potential channel migration hazard area as indicated on the map which already includes an erosion hazard buffer; or Clallam County shall make available to the public maps and supporting documents (e.g., methodology) of the potential CMZ based on best available information. These maps currently include the following:
   i. Delineation of the Dungeness River Channel Migration Zone-River Mouth to Canyon Creek; by Byron Rot and Pam Edens, Jamestown S’Klallam Tribe, October 1, 2008.
   ii. Final Channel Migration Assessments for Clallam County, prepared by Cardno Entrix – GeoEngineers, for Washington Department of Ecology.

These maps and supporting documentation shall be advisory and used by the Administrator to provide guidance in determining the applicability of the standards of this Program to a property. These maps shall be updated as new information becomes available.

b. CMZ Checklist and Review. Applicant’s that propose new shoreline uses and development in the mapped potential CMZ within the shoreline jurisdiction shall submit a completed CMZ checklist available from the Administrator with their shoreline application. The Administrator will perform and document the results of the following steps to determine whether to require the applicant to prepare a CMZ assessment report:
   i. Review the submitted CMZ checklist and any other supporting information provided by the applicant;
   ii. Consult maps and related supporting data bases and reports on the location and extent of the potential CMZ that are available to the public;
   iii. Review whether any significant channel movement has occurred between available County aerial orthophoto data layers since Year 2000;
   iv. Consult with state resource agencies of jurisdiction and/or expertise such as Department of Natural Resources, Department of Ecology and Department of Fish and Wildlife; and
   v. Conduct a site visit to observe and document (e.g., photos) current conditions and evidence of channel migration.

b.c. CMZ Assessment Report. If required by the Administrator, the CMZ assessment report shall be prepared by a geologist, engineering geologist, or professional engineer licensed in the state of Washington, or other qualified professional with at least 5 years of experience in analyzing channel response in the fluvial systems of the Pacific Northwest, that demonstrates the following:

i. The parcel on which the development or use is proposed is effectively protected (disconnected) from the channel movement due to the existence of permanent levees maintained by public agencies (not all roads and levees will be considered disconnection points); or
ii. The proposed use or development site has minimal risk of channel migration as indicated by the existing channel type, land cover (and low likelihood of future alterations in land cover); surficial geology, low soil erosion potential; lack of evidence of likely avulsion pathways (including areas upstream of, but proximate to, the site); low inundation frequency(ies); whether channel movement has occurred between aerial photo years; and other available information. The assessment shall include a review of existing CMZ maps and studies; available data (e.g., aerial photos) regarding historical channel locations at the site; available topographic data (e.g., LiDAR, USGS topographic maps); identification of the site within a broader geomorphic reach of the river system, and the general characteristics of that reach; description of existing channel type, existing channel alterations and likelihood of future alterations with changes in land cover, surficial geology, soils and erosion potential; and geotechnical setbacks relating to erosion at the toe of adjacent slope(s). The approach to assessing local migration shall be generally equivalent to the methods detailed in "A Framework for Delineating Channel Migration Zones" (Ecology Publication # 03-06-027), or similar method approved or sanctioned by Ecology.

The determination of minimal risk shall also consider the typical lifespan of the proposed use and development (e.g., 100 years for a single-family home); the ability and ease of moving the use or development (e.g., RV or mobile home); whether the use or development is temporary or permanent; and the likely effectiveness of applicable shoreline and critical area (e.g., wetlands) buffers between the stream and the proposed location of the use and development. The CMZ assessment shall also evaluate the risk of whether it would be reasonably foreseeable that the proposed use or development would require new shoreline stabilization or interrupt the process of channel migration.

d. CMZ Field Determination. If a qualified professional determines that the proposed use or development is at risk to channel migration based on the CMZ assessment above, a field review is required to confirm the presence of a CMZ, and field observations shall be documented in the CMZ assessment report. Field observation finding shall include:

i. Date of the site visit;

ii. Who conducted the field review and their title/position;

iii. Distance and location of channel walked;

iv. Length and location of CMZ boundary delineated;

v. Presence of avulsion hazard and/or erosion hazard areas;

vi. Description of method(s) used to determine CMZ presence, CMZ outer edge delineation and marking (flagging, other);

vii. Description and location of required shoreline and critical area buffers (e.g., wetlands) pursuant to Chapter 6 and 7 of this Program between the ordinary high water mark and the proposed use and development; and

viii. Other applicable information.

e. New Uses and Development Inside CMZ. Based on the results and recommendations of the channel migration zone assessment, the Administrator may shall prohibit or limit use or development within a channel migration zone when such uses or development would likely be subject to channel migration or when it would be reasonably foreseeable that the
use or development would require shoreline stabilization or interrupt the process of channel migration. In addition, based on the findings and recommendations of the CMZ assessment report, or a habitat management plan required by this Program, the Administrator may and/or require a buffer of undisturbed natural vegetation from the edge of the channel migration zone to retain both a safety and habitat buffer if and when the channel migrates to the channel migration zone edge. The exception would be new uses and development that may be appropriate (e.g., water dependent uses, restoration projects, etc...) and/or may be necessary (e.g., roads, utilities) within the CMZ that are otherwise authorized and consistent with this Program, including providing mitigation to address impacted ecological functions and processes.

7.15 Regulations – Frequently Flooded Area Designation and Mapping

1. Designation and Mapping: All lands classified as floodway, floodplain or special flood hazard areas in the Federal Emergency Management Agency report titled “The Flood Insurance Study for Clallam County” dated February 23, 2001, as now or hereafter amended, with accompanying Flood Insurance Rate and Boundary Maps, are designated as frequently flooded areas. The study and maps are on file at Clallam County. When base flood elevation data has not been provided in the Flood Insurance Study, the Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from the Federal Emergency Management Agency, Washington State Department of Ecology, or other qualified source. Where base flood elevation data and floodway delineation are not available either through the Flood Insurance Study or from a qualified source, historical data, high water marks, photographs of past flooding, etc., shall be used to determine base flood elevations. Special Flood Hazard Areas shall be delineated by engineering studies that meet the specifications 44 CFR § 65 and approved by FEMA and then adopted by Clallam County. The only method to alter data or maps related to special flood hazard areas is through an officially processed map change, through a physical map revision, a county-wide remapping, or a Letter of Map Change (LOMC) submitted to FEMA and approved. Qualified professionals may submit these studies to FEMA to alter the location of the Special Flood Hazard Areas through the Letter of Map Change (LOMC) process, with the concurrence of the Administrator.

7.16 Regulations – Frequently Flooded Area Protection Standards

1. The standards of this Program, including this section, shall be implemented along with the International Building Code and Clallam County Code 21.01.040 to protect frequently flooded areas because the jurisdiction of the shoreline master program covers the full extent of the floodplain and is therefore coincident with the frequently flooded areas.

2. The standards of this section and other applicable provisions of this Program shall apply to all new uses and developments occurring within the floodway, floodplain or special flood hazard areas, including flood control structures regulated in Section 4.4 of this Program.

3. Critical facilities shall be prohibited within areas designated as frequently flooded. Where linear critical facilities must cross frequently flooded areas, reasonable and practicable alternative alignments which minimize flood hazard shall be considered and preferred; any necessary crossing for linear critical facilities shall be elevated and/or flood-proofed, sited to minimize hazard and ecological impacts, and otherwise designed and maintained to minimize flood hazards.