

Skagit SMP Public Comments

Includes all comments from Public Comment Period (April 22 – June 22, 2021)

Comment Number	Submitted On	Name	Comments
1	04/22/2021	Julia Gates	Please allow for more kelp production / restoration along our shorelines
2	04/25/2021	Albert Lindstrom	I live here. This Cape Horn park is out of hand! Some property owners are doing drugs, dealing, dumping used motor oil, auto parts, trailers, etc. Management has failed to control this ! If you explore the inland vacant lots you'll find garbage dumped here and there This is all seeping underground to the river; or soon will be. Need a tour! I'll show you..
3	04/25/2021	Ronald Haworth	<p>Some years ago, my neighbor blocked the north fork of the Samish River. This has sent high water to the areas south of the river. Why is this important; almost every neighbor of mine has animals (some have lots of large animals). Their dropping pollute the river after every flood event (their were two last winter). RESTORE THE NORTH FORT OF THE SAMISH RIVER!. It is within your control to prevent this pollution. I do have extensive documentation, if needed. And finally, flood control can easily be designed so that it keeps the current river bed safe for migrating salmon.</p> <p>Ron & Betty Haworth</p> <p>p.s. Our house is safe during flood events so we are ok. It is the pollution that concerns us. Feel free to write us.</p>
4	04/25/2021	Lisa Lewis	Hello, Sam Bell Rd suffers from Samish River flooding every winter. It is a human-caused problem because an illegal dike was installed by a previous owner on property now owned by Skagit Valley Farm. The dike exists on the North side of the river near the east border of the Lautenbach farm (which is located on the South side of the river.) The dike has existed for decades and is now overrun with vegetation. When there is a combination of heavy rain and incoming tide, water flows south out of the river bed completely covering the Lautenbach crop acreage, proceeding across Sam Bell Rd onto the Kinnear crop acreage, then continuing to flow West almost completely covering my two acres in thigh-high water, and completely covering the two acres west of my property which is a hay field owned by Knutsen. The water proceeds west on Sam Bell Rd to Chuckanut, filling the yards and pastures of all properties in its path. Horses and chickens reside on some of these proeprties, as well as sheep that reside on mine. This water carries with it the manure from the livestock, as well as whatever may have been applied to the crop acreages such as fertilizers and weed killers. All of these pollutants eventually flow with the water back into the riverbed within a few days of the original flooding and on to the shoreline. I'm writing to bring this pollution problem to your attention as an issue which I believe that the Shoreline Master Program should address. I thank you so much for your time.
5	04/26/2021	John Stewart	<p>I have owned Skagit County Tax Parcels with ID numbers 46355 and 46357 on Sinclair Island since 1989. I am keenly interested in The Skagit County Shoreline Master Program Update process because of the County's "overarching shoreline goal" stated in section 6A-2(h) "to restore and enhance those shoreline areas and facilities that are presently unsuitable for public or private access and use."</p> <p>After serving Sinclair Island taxpayers for close to a century, the county dock on Sinclair has, as you undoubtedly know, been condemned and closed for well over a decade. I won't rehearse here the vast amount of time Sinclair islanders have spent</p>

trying to work with the County to restore this county facility.

But I would make these comments as a contribution to the SMPU process:

1. This entire document belies the disingenuous claim committed islanders have received from county Public Works personnel that Skagit County wants to "get out of the dock business" so it can focus on its bridges. That and other instances of bad faith on the part of the County negatively mark the long history of this dispute.
2. Numerous sections of this document potentially relate to the county's responsibility to restore the Sinclair Island dock. Each of the following examples adds to the case to be made for restoration:

Section 6C-4 23

In this section, joint-use and community structures are encouraged to prevent proliferation of single user structures. One Sinclair resident has installed a new, single-family dock, and others plan to follow suit. The County's refusal to restore the County Dock is forcing this process, in direct contradiction of its own overarching goal outlined in the SMP.

Section 14.26.340

Preference is given to projects that preserve or enhance historical shoreline development, which the Sinclair island dock clearly is.

Section 14.26.405-1

This section states that, following the goal stated in 6C-4 23, reconstruction of a dock serving a community may be authorized through an exemption from the SSDP.

These and other sections of the SMP clarify why and how the County should move forward finally to rebuild the Sinclair Island dock.

6	04/27/2021	Glen Johnson	I'm a lifelong resident of the lower valley, farmed down where the dikes are. It only makes sense that I'd study how and when and why they(first farmers) built them where they did, back those hundred plus years ago. When I was young I read about them, being half Dutch, the way I am. I went to Holland several times while serving in Germany, in the army, and got a chance to see the different dikes up close and personal. I returned with my eyes opened about many things, not just dikes, but about how devastating war can be, and what we might do to soften our humanity, make us peaceable, not so warlike. I returned, and went to college studying agriculture/psych. sharing good food with complete strangers helps keep us peaceable. Our shorelines with water lapping at the tops of these dikes, is more than a little nerve wracking. When the farmland is about to be flooded, with pretty salty water, some of us farmers think about it quite seriously. I may be the most concerned person in the county, beings that I'm getting that old. I've made my living mostly from land protected by those dikes. Us farmers of Dutch and Scandinavian descent, are known for our frugal natures, why would we build dikes higher than we need to, especially when at the time they were built, it was hard heavy work. In Holland I saw dikes that were like ours, and I saw dikes that had boulevards and waterfront condos built on top of them. I saw old functional windmills, and wooden show carvers on the shoreline, tourists loved it, even left tips. I picked up a few of them for future reference, the tips that is. I came home and
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worked in the seed industry, where I learned about hybrid seeds. Saw the levee dissolve in nineteen ninety, thought it rather strange that we rebuilt it to the same basic design. I began to realize that there was no reason why I couldn't design a better dike, create a hybrid model, one that pays for itself, rather than continually costs the profits of our property. Well, I came up with a very good design, one that my hired engineer thought would be patentable, and would likely become best management practice for future dike building everywhere. The patent attorney could find no prior art. If I'd have had the spare forty grand, I might have done it, get the patent that is. I'm more interested in gifting it to someone, sorta like when John Tursi, gifted his time and money and efforts to the museum, and Anacortes, and the animal shelter. I tried to give it to my alma mater, but they didn't understand the value of such a gift. Come back when you have the patent in hand, I've heard it several times. As it is, the patentable component of my design is stashed in the recesses of my mind. If I died tomorrow, it would be gone for a long while, more than likely. I don't really need much money, but the design has nearly fifty years of effort into it, It's like a tesla, as compared to the model A design, that now barely functions. I'm willing to give it to the county, community action, the town of Laconner, the Skagit river systems cooperative, the nature conservancy, the Army corps of engineers, the Skagit watershed council, the dike districts, the local school districts, I'm not really that picky. What I must have however, is an audience with the ability to listen to, and hear, an hour and a half dissertation that explains the concept in detail. I'm as serious as a tsunami, that my dike design is built to handle, that pays for itself, while providing what you are looking for in Shoreline management. I'm

7	04/28/21	Peter H. Grimlund	<i>Submitted as attachment, see Appendix</i>
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8	04/28/2021	David Lynch	Skagit County, home of Sinclair Island, has a “Shoreline Master Program” (SMP) that provides for “environmental protect for shorelines, preserves and enhances public access and encourages appropriate development that supports water oriented uses”.
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The dereliction of the Skagit County Dock on the Sinclair Island shoreline has been directly caused by the lack of maintenance and repair by Skagit County, which has badly violated the principles of the SMP! Public access has been trashed. Private docks have been built in the interim that further degrade the shoreline. Support for water oriented uses is gone due to the County’s lack of action.

It has been 10 years since the dock became unuseable, and is an urgent concern for those of us on Sinclair Island that the current plans for dock replacement be funded and repair carried out soon.

9	04/29/2021	Tammy Force	Hi. . . want to be sure that "enhances" public access does not include the dike which is private property??? Example - our address which is my backyard.
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10	05/02/2021	William Daniel	Dear Skagit County Planning and Development Services:
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I am a resident of Similk Highlands on Gibraltar Road, Anacortes. Our neighborhood is on the top of the bluff on the West side of Similk Bay. We are concerned about the commercial mussel growing platforms on the tide flats directly below our neighborhood. The storm drain for our twenty-two residences empties very near the shellfish platforms, probably within 100 ft. During periods of heavy runoff, the effluent likely contains contaminants such as hydrocarbons, de-icing chemicals, lawn fertilizers, weed killer and pet waste. Additionally, motorized vehicles are being operated on the tide flats at low tide.

My neighbors and I are interested to know who licensed this commercial farming operation on the tide lands. We would further like to know who is responsible for testing the shellfish for contamination and how this is done.

We find the commercial farming operation on the tide flats to be intrusive and disruptive to the quiet enjoyment of our properties. Please give these matters your consideration when reviewing the shoreline master program.

Thank you,

William Daniel

11	05/04/2021	Mark Johnson	We have a cabin on Sulfur Springs Road, Big Lake. The last few years, with the large waves produced by boats for wave surfing on the lake, there seems to be more beach front damage to the shoreline, erosion, and also the potential damage to the docks on the lake. There is not enough distance on the lake to dissipate the waves. There must be some way to regulate this activity so more destruction doesn't occur.
12	05/04/2021	George Sidhu	Thank you for working with the District and removing Judy Reservoir from the Shoreline Master Program. Please see the attached comment letter.
13	05/06/2021	john martin	Maintaining a privately funded beach restoration project should be considered. When I called Skagit County Shoreline about maintaining a 21 year old North Beach of Samish Island restoration project, I was told: Got to hire a shoreline outfit, submit proposal, get all permits: Skagit County, WDFL, DOE, Army Corp of Engineers. Make the process easier.
14	05/07/2021	DENNIS KATTE	<i>Submitted as attachment, see Appendix</i>
15	05/08/2021	Rich Wagner	<i>Submitted as attachment, see Appendix</i>
16	05/10/2021	DENNIS KATTE	<i>Submitted as attachment, see Appendix</i>
17	05/10/2021	Sandy Wolff	One issue I have with the new SMP has to do with the dock width. Limiting a dock to 4' will pose a safety issue, particularly with children. The potential for a small child to fall off a dock that is so narrow will be quite high. In addition, if the dock is used to park a large boat, that size would be insufficient for stability. If there is high wind, the dock needs to be stable enough so that it holds the boat securely (with boat whips, ties, etc.). Another issue has to do with existing structures. Our cabin was built in the 40's and we have not been able to afford to increase the size up to now. It is a very small cabin and if we were to increase the size, as I read it, we would only be allowed to add 200 sq. ft. That seems like we would be negatively influenced as we would not be able to gain the same value as others in the neighborhood that are allowed a larger structure. If we could afford to do it now, we would, but we won't be able to until we are older & may move there. It does not seem right that we would be impacted that way.
18	05/13/2021	Rein Attemann	May 13, 2021 To: Betsy Stevenson, Senior Planner, Skagit County Planning Commission From: Rein Attemann, Washington Environmental Council RE: Skagit County SMP periodic update

Hello Betsy,

Please accept these writing comments in lieu of our testimony during the public hearing that took place on Tuesday, May 11, 2021 on the Skagit County SMP periodic update. Please acknowledge receipt of these comments.

Washington Environmental Council is a nonprofit, statewide conservation organization that has been driving positive change to solve Washington's most critical environmental challenges since 1967. A top priority for us and hundreds of our members in Skagit County is the protection and restoration of the Salish Sea, Puget Sound and the rivers that feed this inland sea. Development of smart land use regulations, and implementation of them, is one essential tool to ensure a healthy environment, clean water, and thriving communities.

I would like to focus our limited time on Aquaculture section of the SMP update and will be submitting additional written comments by June 22, 2021

The SMP should make the distinction between net pen aquaculture for native finfish and non-native fin fish in both Table 14.26.405-1, Shoreline Use and Modifications Matrix and section 14.26.415 (7) pertaining to Net Pens. We suggest the uses be called "In-water, Native Finfish" and "In-water, non-native finfish. And "general aquaculture" should be further defined so it is clear that geoduck and finfish/net pen activities are not included in this generalized category. We suggest having the use be called "Aquaculture activities other than geoduck or finfish" and require a Conditional Use Permit under the "Natural" designation and Shoreline Development permit without any exceptions like the Letter of Exception that is allowed. The letter of Exception negates having to get a SDP or CUP and is too permissive.

For any use designated as In-water, native finfish aquaculture, a Conditional Use Permit should be required for each Shoreline Environmental Designations. These operations that propagate native finfish species should be monitored and have contingency plans to address escapement, disease transmission, or significant waste-related environmental impacts.

We urge the county to prohibit in-water, nonnative finfish uses in all shoreline environment designations similar to what Island County and Clallam County have adopted in their SMPs.

Net pen nonnative finfish aquaculture includes many adverse impacts including organic waste from salmon farms changing the physio-chemical properties and microflora biodiversity of benthic sediments below the pens, increased growth of algae, chemical and drug contaminants introduced into the environment, the disruption of marine food webs by attracting carnivorous birds and mammals, and the escape of farmed salmon with the potential to transmit disease and compete with wild salmon. We believe that this change is consistent with the SMP Guidelines requirements for no net loss of shoreline ecological functions.

Any nonnative finfish raising should be required to take place in upland facilities with proper pollution controls and appropriate requirements for each Shoreline Environmental Designation. Under Section 14.26.415 Aquaculture, it states that "upland finfish rearing facilities constitute "agriculture" and are not regulated by this section." However, in reviewing section 14.26.410 Agriculture, there is no mention of regulating upland finfish rearing facilities. Can you please direct us to where upland finfish rearing facilities are regulated in the SMP update and how they will be regulated? It may be better to refer to Clallam County SMP for direction on this matter.

6C-2.11 Commercial geoduck aquaculture should only be allowed where sediments, topography, land and water access

support geoduck operations without significant clearing and grading. Any clearing and grading of the shoreline for commercial geoduck operation is significant and would be counter to 6C-2.7 and WAC 173-26-241(3)(b)(i)(C) that says “new and expanded aquaculture should not be permitted in areas where it would result in a net loss of ecological functions, adverse impacts to eelgrass and macroalgae,...” . Eelgrass and macroalgae protection and recovery is a state and federal priority and should be a county priority as well given the huge amount estimated to have already been lost. We are concerned that the SMP does not provide a process for monitoring no net loss of ecological functions and/or cumulative impacts analysis to eelgrass and macroalgae from geoduck aquaculture. We urge the county to adopt specific requirements to avoid, first and foremost, any impacts to eelgrass and macroalgae.

We recommend that the language in 14.26.415(8)(f) under geoduck aquaculture requiring notifications to property owners to be expanded beyond the suggested 300 yards and to all tribes with usual and accustomed fishing rights to the area be applied to all sections related to new, existing and expanded aquaculture facilities. This provision should not be limited to just geoduck aquaculture.

We are concerned that aquaculture use is allowed in Shorelines of Statewide Significance under section 14.26.415(6). It is unclear in the SMP how implementation will be consistent with RCW 90.58.020.

Thank you

Rein Attemann • Puget Sound Campaign Manager
206.631.2625 •
Washington Environmental Council • wecprotects.org
1402 Third Avenue | Suite 1400 | Seattle, WA 98101

19 05/13/2021 Cory McDonald

From: McDonald, Cory (DNR) <cory.mcdonald@dnr.wa.gov>
Sent: Wednesday, May 12, 2021 4:55 PM
To: Betsy D. Stevenson <betsyds@co.skagit.wa.us>
Subject: Skagit SMP Update comment

Betsy,

I met you a few weeks ago at the Forest Advisory Board meeting. I wanted to comment on the Shoreline Master Program Update but wasn't sure where to send comments so I am emailing you. There has been a lot of discussion on topic at DNR recently and this is arguably one of the most unclear pieces of rule we follow. I tried to describe my concerns at FAB but probably did not do a good job. Below is how I believe the WACs and RCWs fit together as well as my concern for clarification.

RCW 90.58.030
Definitions and concepts.

(ii) 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 nonforestland use, on lands subject to the provisions of this subsection (2)(d)(ii) are not subject to

additional regulations under this chapter;

I understand this to mean that a SMP cannot require any additional regulation beyond 76.09 unless it's a conversion.

WAC 222-50-020

*(2) Compliance with the Shoreline Management Act, chapter 90.58 RCW, is required. The Shoreline Management Act is implemented by the department of ecology and the applicable local governmental entity. A substantial development permit must be obtained prior to conducting forest practices which are "substantial developments" within the "shoreline" area as those terms are defined by the Shoreline Management Act.

Requires an applicant to get a permit (if the county requires it) prior to Forest Practice application approval. Seems appropriate for Class IV general applications but not for other classes.

WAC 173-26-241

(e) Forest practices. Local master programs should rely on the Forest Practices Act and rules implementing the act and the Forest and Fish Report as adequate management of commercial forest uses within shoreline jurisdiction. A forest practice that only involves timber cutting is not a development under the act and does not require a shoreline substantial development permit or a shoreline exemption. A forest practice that includes activities other than timber cutting may be a development under the act and may require a substantial development permit. In addition, local governments shall, where applicable, apply this chapter to Class IV-General forest practices where shorelines are being converted or are expected to be converted to nonforest uses.

It would seem 173-26-241 is written in error by saying "may" because Counties and Local jurisdictions must rely on the Forest Practices Act and rules implementing the act and the Forest and Fish Report as adequate management of commercial forest uses within shoreline jurisdiction. 90.58.030 says that SMPs do not have the authority to supersede 76.09 or add additional regulation. All it seems to allow for is to require a permit, and charge the applicant for it and there is no timeframe for a decision.

The DNR through the Forest Practice Board is directed to follow 222-50-020, and in part, it is in direct contradiction with 222-50-010 which directs DNR to avoid unnecessary duplication.

WAC 222-50-010

Policy.

A major policy of the Forest Practices Act and the board is to work toward a comprehensive, statewide system of laws and rules for forest practices which avoids unnecessary duplication and provides for interagency input and cooperation to the extent that can be accomplished without interfering with the authority of the affected federal, state, regional and local agencies.

- Compliance with the Shoreline Management Act is required and a substantial development permit must be obtained if necessary prior to conducting forest practices. However, if we follow the forest practice rules we are in compliance with 90.58

because it says that it cannot subject us to additional regulations over and above 76.09.

By adding unnecessary duplication of time and cost to a project it encourages applicants to avoid the whole process by doing things that do not make sense environmentally (ex. building more road in a less desirable location to avoid a better crossing through a shoreline) which is not the best for the protection of shorelines or public resources. The Forest Practice Rules and review process are intended to be protect public resources with respect to proposed forest practice related activities (not only timber cutting). The process includes review by DFW, DOE, Tribes and FP. This duplicitous permitting process may in some cases, cause mistrust and disdain for the regulatory process which could put resources at more risk than they otherwise would be.

I have heard that counties may utilize this regulation to ensure landowners do not try and build road for conversion purposes under a Class 3 application. But that burdens all legitimate applicants (including DNR - State Lands) to obtain a substantial development permit that in turn can only require them to follow the Forest practice rules in order to get an approved FPA because they have to follow the rules to do that any way.

I appreciate that you acknowledge the issue for Forest Practices and that your office is trying to avoid the time and cost issue for applicants. It would be great if there were a way to formally address this situation in the SMP update but I realize that may not be possible.

Also wanted to mention SUBSTITUTE SENATE BILL 5381 (line 32) which addresses fish passage projects and clarifies under certain conditions that they would be exempt from requiring Substantial Development Permits.
(32 Sec. 2. RCW 90.58.147 and 2019 c 150 s 2 are each amended to read as follows:33 34 (1) A public or private project that is designed to improve fish 35 or wildlife habitat or fish passage shall be exempt from the 36 substantial development permit requirements of this chapter when all of the following apply:37 38 (a) The project has been approved by the department of fish and 39 wildlife or, for forest practices hydraulic projects within the scope p. 4 SSB 5381.PL1 of RCW 77.55.181, the department of natural resources if the local 2 government notification provisions of RCW 77.55.181 are satisfied; 3 (b) The project has received hydraulic project approval by the 4 department of fish and wildlife pursuant to chapter 77.55 RCW or 5 approval of a forest practices hydraulic project within the scope of 6 RCW 77.55.181 from the department of natural resources if the local 7 government notification provisions of RCW 77.55.181 are satisfied; and8 9 (c) The local government has determined that the project is 10 substantially consistent with the local shoreline master program. The 11 local government shall make such determination in a timely manner and provide it by letter to the project proponent.12 13 (2) Fish habitat enhancement projects that conform to the 14 provisions of RCW 77.55.181 are determined to be consistent with local shoreline master programs.15 16 (3) Public projects for the primary purpose of fish passage 17 improvement or fish passage barrier removal are exempt from...)

Thank you for taking my comment.

Sincerely,

Cory McDonald

			Proprietary Forester Northwest Region Department of Natural Resources cory.mcdonald@dnr.wa.gov 360-333-2146 cell 360-854-2830 desk
20	05/13/2021	KIM MOWER	<p>I was part of the Committee from the start of this Shoreline Master Program, and am familiar with the arduous attention and commitment by Committee members and County Staff in its development. My question and concern involves the Rural Conservancy - Skagit Floodway designation, page 16 - 6B-5.</p> <p>I am concerned property owners in this portion, inked blue, have been adequately informed about the changes coming their way. Many overlapping rules and regs over land use such as Ag/NRL, Shoreline, UGA, and almost all the encompassing SMP designation combine to rattle the most astute property owner. I suggest County perform an increased awareness campaign to property owners in this designation. People may not understand the development rights have been changed, and could feel the rug has been yanked out from under them. Please give this suggestion some consideration. Thank you everyone, Kim Mower</p>
21	05/14/2021	Rick Anderson	Water front lots less than 1 acre should be exempt from wet land requirements and restrictions.
22	5/19/2021	Dale Malmberg	<p>I am a long time resident of Skagit County and live on Big Lake. I do have some suggestions for the new Skagit County Shoreline Master Program. First, I'd like to ask that the program include Boat Lifts as well as docks, piers, boat houses, ect. in the permit process. Boat Lifts should have a requirement of 8 feet setback from property boundry. Navigation, as well as fish habitat and quality of water should be considered in implementing permits. Aesthetic impacts to adjacent land uses should be included in permit process.</p>
23	05/22/2021	GARY HAGLAND	<p>Comment from Citizens Alliance for Property Rights, Skagit Chapter.</p> <p>The Skagit chapter of CAPR agrees with the Planning Commission that the entry in the SMP draft referencing the Skagit Countywide UGA Open Space Concept Plan should be deleted. A concept plan, dealing with essentially a different topic, has little to nothing do with the condition of the county's shorelines. Rather, it is an idealized vision of interconnected greenbelt corridors through and between urban jurisdictions. We suspect that the passage was included in order to provide the open space plan with more significance than it deserves. It has no business in the SMP.</p> <p>Gary Hagland CAPR Skagit Chapter, President</p>
24	05/31/2021	Donna Mason	<p>I object to this because it fails to address sea level rise</p> <ul style="list-style-type: none"> • Allows fishnet pens, lessens aquaculture restrictions • Allows reducing river buffer up to 50%; Dept. of Ecology recommends up to 25% • Has no "Best Available Science" for riparian zones • Allows MORE administrative discretion on variances and buffers (less oversight & public review) • Allows logging in buffers • Requires filing appeals in five days (unreasonably short) • Doesn't limit pesticides/herbicides adjacent to wetlands, streams, lakes, rivers • Allows boulders as "soft" shoreline armoring

- Allows overwater structures without protecting eel grass and kelp beds
- Needs more protection from saltwater intrusion

25 05/31/2021 Joe Geivett

I write to provide additional comments regarding the pending SMP Update. I have testified at the Planning Commission meeting, met with Betsy Stevenson, commented previously at the email address, and attended a community meeting at Lake Cavanaugh (with Betsy and 71 concerned locals from the lake community). I live at 35035 S Shore Drive on Lake Cavanaugh.

In an effort to make sure you have background on Lake Cavanaugh, I provide the following facts about the lake, which behaves different than most lakes in Western Washington as it does not have a formal lake level control (meaning it has high water in the WINTER rather than the SUMMER):

Background Of Lake Cavanaugh:

1. Platted in 1940's. Approximately 500 lots are present on the lake.
2. Approximately 90% developed with homes and cabins as of 2020.
3. Average setback from the lake for buildings is about 50 ft
4. Most existing properties have docks 25 – 110 ft long
5. Lake is generally oriented West-East and docks are generally North-South.
6. Lake level varies approximately 4 feet throughout the year:
 - a. High level in January & November – 1013 approx
 - b. Low level May – Oct – 1009.4 approx
 - c. Average water level from Jun – Oct is 1010.5
 - d. Ordinary High water is around 1011.
7. Fish stocked on lake by WSDFW include:
 - a. Kokanee (September)
 - b. Cut Throat Trout (June)
 - c. Other species found include Rainbow Trout, Bass and Sculpin.
 - d. No fish migrate to Lake Cavanaugh from the Pilchuck river. A fish blockage was installed in the early 1970's by WDFW to prevent eels and other invasive species from reaching the lake. Fishermen seem to congregate around docks where they are able to catch fish.
8. No Stores, marinas, or public beaches are present on the lake. WSDFW maintains a boat launch at the east end of the lake.
9. Lake temperatures range from surface freezing in winter months (Dec – Feb) to approximately 75 degrees in summer months. Lake is about 80 feet deep at deepest.
10. Lake is approximate 3 miles long by 1 mile at its widest.
11. Water quality is exceptional with about 1/3 of property owners drawing water from the lake for drinking water.
 - a. Oxygen content:
 - i. 10 ft: 9.3 ppm (110% saturation);
 - ii. 55 ft: 5.0 ppm (47% saturation)
 - b. Acidity:
 - i. 10 ft – 7.0
 - ii. 55 ft -6.5
 - c. Visibility: 28 ft approx..
 - d. Fecal Coliform: 0 colonies (occasionally measure minor amounts <12)

12. Surrounding land uses are DNR and private working forests.
13. Weather patterns are unusual with shear winds coming from the east when winter weather is traveling from the west. Winds often exceed 80 mph. Winters are particularly violent as the lake level is high and winds are exceptional. Damage occurs every year to docks and building roofs. Due to weather, boats and boat lift covers, and floats are removed by October until mid-May. Little activity occurs on the lake from October to May.
14. Geology around the lake varies from steep rocky cliffs to wide flat areas. Rock is present at surface in some areas and other areas require pile foundations of 42 feet to reach firm bedding.

I believe that docks can meet the following objectives identified in the DOE manual at this location:

1. Locate to avoid prop wash of lake bottom
2. Address structural requirements unique to the environment at the lake
3. Allow for use of docks for recreation including access to lake for swimming, boating (average boat at the lake is 20-25 ft).
4. Avoid placement of toxic products, tires, and exposed floats (Styrofoam) in water.
5. Allow for boat lifts to remove boats from lake during moorage (covers to allow light through). Lifts to be minimum 9 ft waterside of summer shoreline (summer shoreline)
6. Avoid Skirting on docks
7. Avoid new Boat Houses and covered moorage
8. Encourage floating docks
9. Introduce sunlight thru decking to allow safe use of docks for recreation. Surface to allow for children, boaters, and dogs to safely use surface. Products with 30%-40% daylight would allow cost-effective solution.

To this end, I would recommend the following criteria for docks at Lake Cavanaugh:

1. Docks, piers and mooring buoys should avoid locations where they will adversely impact shorelines ecological functions or processes and minimize impacts to navigation of adjacent properties.
2. Dock lengths established as maximum of 50 ft or longer if necessary due to shallow water depth for boat mooring, or longer if equal to the average of docks within 300 ft of subject property.
3. Dock widths shall be a maximum of 12 ft wide. Widths may be increased by up to 50% with an administrative variance if conditions require additional width for stabilization and individual environmental conditions. Such additional width will be granted if placement of pilings are decreased and light-permitting grating on dock surface is increased.
4. Create Incentive for shared docks by allowing 25% increase in length and width if located on a property line and shared with at least 2 property owners.
5. Establish docks to provide at least 4-5 feet of water depth for June water elevations (when lake is at 1010). This may require dock lengths in excess of the existing average within 300 ft. Administrative variance may be used to extend dock by up to 50% with notification and comments by adjacent property owners.
6. Over water portion of docks to provide at least 40% daylight on at least 50% of the dock surface. Outer 25 ft of dock is encouraged to be floating with grated surface as described above. Intent is to provide daylight thru structure to water where feasible (open grating to solid floats beneath decking is of little value and to be avoided).
7. In locations where grasses are present near shoreline, active portions of docks (where boats moor) shall be placed a minimum of 25 ft from shoreline (this leaves a 25 ft minimum zone for grasses while the dock still has 25 ft for boat mooring). Docks to be limited in width to 6 ft for first 25 ft from shore in these locations. Full width is allowed for remaining portion.
8. No artificial lighting is allowed on docks other than navigational markers and minimum amount needed to locate dock at

- night. Focus lighting on deck surface to minimize illumination of surrounding area. Minimize glare and incorporate cut-off shields, as appropriate. Reflectors are encouraged.
9. No toxic treated wood to be utilized for portions of dock in the water. No tires or exposed Styrofoam to be utilized in dock construction (encapsulated foams may be utilized).
 10. No skirting is allowed on docks below 1 ft from the decking surface.
 11. Pilings shall be installed at maximum spacing practical for the specific location.
 12. Floating or suspended watercraft lifts should be located a minimum of 9 feet from the summer shoreline.
 13. No dock shall be used for a residence.
 14. Trampolines and other anchored floatables shall only be allowed from May 15 – October 15. Floatables will be removed for remainder of year. Note that trampolines are up to about 20 ft in diameter.

FOR MAINTENANCE/REMODEL:

1. During maintenance, repairs shall be made without the use of toxic materials. If more than 50% of decking is replaced, decking shall be updated to current requirements. Repairs may be made with in-kind materials as existing with exception that toxic materials and un-encapsulated foam floats described above shall not be utilized.

BUILDING SETBACKS FROM LAKE:

I support language which allows for up to 50% reduction of setback with an administrative variance.

In general, conditions vary around the lake. It may make sense to have fewer strict requirements for the docks and have more functional criteria. Either way, I think the overall plan should be to match what is already at the lake and take measures to address the unique conditions at Lake Cavanaugh. The guidelines of the SMP were modeled after Lake Washington and Lake Sammamish, which have fish migration thru the lake and have high water in summer recreational months rather than winter as we have at Lake Cavanaugh.

Thank you for your efforts on this matter. Please call or email if you need more information.

Joe Geivett
 Emerald Bay Equity
 joe@ebequity.com
 (206) 910-3825

26 6/11/2021 DENNIS KATTE *Submitted as attachment, see Appendix*

27 6/13/2021 Larita Humble *Submitted as attachment, see Appendix*

28 6/16/2021 Kyle Loring Dear Skagit PDS,

Please find attached part 1 of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting.

Part 1 includes the narrative comment letter and a matrix of proposed changes. The scientific documents supporting those comments and proposed changes will be attached in 13 additional uploads.

Please don't hesitate to contact me with any questions.

Sincerely,
Kyle Loring

29 6/16/2021 Kyle Loring

Dear Skagit PDS,

Please find attached part 2 of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting.

You should receive 12 additional uploads.

Please don't hesitate to contact me with any questions.

Sincerely,
Kyle Loring

30 6/16/2021 Kyle Loring

Dear Skagit PDS,

Please find attached part 3a of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting.

You should receive 11 additional uploads.

Please don't hesitate to contact me with any questions.

Sincerely,
Kyle Loring

31 6/16/2021 Kyle Loring

Dear Skagit PDS,

Please find attached part 3b of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting.

You should receive 10 additional uploads.

Please don't hesitate to contact me with any questions.

			Sincerely, Kyle Loring
32	6/16/2021	Kyle Loring	Dear Skagit PDS, Please find attached part 3c of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting. You should receive 9 additional uploads. Please don't hesitate to contact me with any questions. Sincerely, Kyle Loring
33	6/16/2021	Kyle Loring	Dear Skagit PDS, Please find attached part 3d of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting. You should receive 8 additional uploads. Please don't hesitate to contact me with any questions. Sincerely, Kyle Loring
34	6/16/2021	Kyle Loring	Dear Skagit PDS, Please find attached part 3e of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting. You should receive 7 additional uploads. Please don't hesitate to contact me with any questions. Sincerely, Kyle Loring
35	6/16/2021	Kyle Loring	Dear Skagit PDS, Please find attached part 3f of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE

Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting.

You should receive 6 additional uploads.

Please don't hesitate to contact me with any questions.

Sincerely,
Kyle Loring

36 6/16/2021 Kyle Loring

Dear Skagit PDS,

Please find attached part 3g of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting.

You should receive 5 additional uploads.

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Sincerely,
Kyle Loring

37 6/16/2021 Kyle Loring

Dear Skagit PDS,

Please find attached part 4 of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting.

You should receive 4 additional uploads.

Please don't hesitate to contact me with any questions.

Sincerely,
Kyle Loring

38 6/16/2021 Kyle Loring

Dear Skagit PDS,

Please find attached part 5a of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting.

You should receive 3 additional uploads.

Please don't hesitate to contact me with any questions.

Sincerely,
Kyle Loring

39 6/16/2021 Kyle Loring

Dear Skagit PDS,

Please find attached part 6 of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting.

You should receive 1 additional upload.

Please don't hesitate to contact me with any questions.

Sincerely,
Kyle Loring

40 6/16/2021 Kyle Loring

Dear Skagit PDS,

Please find attached part 5b of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting.

You should receive 2 additional uploads.

Please don't hesitate to contact me with any questions.

Sincerely,
Kyle Loring

41 6/16/2021 Kyle Loring

Dear Skagit PDS,

Please find attached part 7 of 7 of the combined comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee to address the Shoreline Master Program Update you are currently conducting.

This should be the last of 14 uploads.

Please don't hesitate to contact me with any questions.

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Kyle Loring

Dear Skagit County PDS,

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To protect our special shorelines, I ask that you take the following actions in the Shoreline Master Program update:

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Please make sure that new buildings are constructed outside of the area likely to be inundated by sea level rise by 2100 and that new lots are designed so that they contain buildable area outside of the area likely to be inundated by sea level rise.

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pollution in Guemes Island’s Sole Source Aquifer through seawater intrusion, which, according to local reports, has severely impacted the safe drinking water for some 65 individual homes. The County is now embracing its authority to regulate well drilling to prevent seawater intrusion impacts. We look forward to the County enforcing rules to protect the drinking water supply.

On A Positive Note: There are elements in the draft SMP that are commendable and should be retained. Sections on Vegetation Conservation (14.26.380) and Designating Habitats and Species of Local Importance (14.26.570) are comprehensive in detail and reflect the importance of protecting shoreline vegetation and special habitats. These are excellent examples for other municipalities as they update SMPs and Critical Area Ordinances.

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Please retain sections of the code that allow access to property for administrative officials to monitor permit compliance and mitigations. Implementation and effectiveness monitoring of permit conditions is essential for the success of this code.

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Thank you for this opportunity to comment on Skagit County’s draft Shoreline Master Program.

43	6/17/2021	Scott Andrews	<i>Submitted as attachment, see Appendix</i>
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44	6/17/2021	Amanda Rose	June 17, 2021
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Skagit County Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

Re: Skagit County Shoreline Master Program Comprehensive Update & Periodic Review

Dear Skagit County PDS,

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Thank you for this opportunity to comment on Skagit County's draft Shoreline Master Program.

Sincerely,

Amanda Rose
4792 West Shore Road

45 6/18/2021 Rosie Wuebbels

Skagit County Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

Re: Skagit County Shoreline Master Program Comprehensive Update & Periodic Review

Dear Skagit County PDS,
I've lived in Skagit County since the 1970s and with the increased pressure of the population, have seen the continued pressure on our County's ecosystem.

Living in Skagit County, we have the good fortune to enjoy a natural environment that provides environmental benefits far beyond our borders and our lifetimes. Recognizing our good fortune, we also know that we need to protect our shorelines. Thank you for this opportunity to share some improvements in the SMP Update that will help do that.

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Thank you for this opportunity to comment on Skagit County’s draft Shoreline Master
.sincerely,
rosie wuebbels

46 6/18/2021 Richard Bergner

June 18, 2021

Skagit County Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

Re: Skagit County Shoreline Master Program Comprehensive Update & Periodic Review

Dear Skagit County PDS,

I am fortunate to live on the shoreline of Fidalgp Island in the Dewey Beach area. We need to protect our shorelines.

The primary purpose of the Shoreline Master Program is “to protect the state shorelines as fully as possible,”

To protect our special shorelines, I ask that you take the following actions in the Shoreline Master Program update:

Prohibit new commercial net pens.

Address sea level rise. Projected sea level rise has gone largely unaddressed in the Skagit SMP Update. Sea levels in Skagit County are projected to rise by at least 1 ½ feet by 2100. New buildings need to be constructed outside of the area likely to be inundated by sea level rise by 2100.

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Protect Drinking Water from Seawater Intrusion.

Thank you for this opportunity to comment on Skagit County’s draft Shoreline Master Program.

Sincerely,

Richard Bergner
15515 Yokeko Drive
Anacortes, WA 98221

47 6/18/2021 Laurie Sherman

June 18, 2021

Skagit County Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

Re: Skagit County Shoreline Master Program Comprehensive Update & Periodic Review

Dear Skagit County PDS,

I live on Fidalgo Island. I have watched one decision at a time chip away at our shorelines. Many were fine, stand-alone, decisions, but all together have changed the fabric of the shoreline ecosystem. Unlike most places in the state of WA, Anacortes has continued to armor the shoreline and proposes to complete the Guemes Channel Trail, adding that much LESS habitat for marine wildlife. Each beautiful home, neighborhood and manicured lawn destroys the buffer above the shoreline and adds runoff and water pollution. We need to make decisions carefully, as we are running out of open space. Open space is not just space, its a filtration system. WE need to filter the water we use, that runs off our driveways and sidewalks or we will run out of water to drink, to live. A lot of responsibility rests on your shoulders as you oversee development decisions for OUR future. Please think long and hard, listen to the scientists, naturalists, biologists and fisherman, make a smart future for us all! Below are detailed comments made by Evergreen Islands with which I agree Thanks for listening!!.

June XX, 2021

Skagit County Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

Re: Skagit County Shoreline Master Program Comprehensive Update & Periodic Review

Dear Skagit County PDS,

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Establish and defend adequate riparian buffers. Riparian buffers provide shade and cooler water temperatures for vulnerable salmonids, stabilize banks, retain runoff during peak flows, provide detritus for aquatic insects, and filter toxins before they reach streams. They provide habitat for birds and amphibians, and resting and rearing places for mammals like river otter and beaver. To protect these ecological functions, make sure buffers are as wide as a mature tree. Do not allow timber harvest in riparian buffers (section 14.26.574). Do not allow Planning Staff discretion to reduce buffers by 50% (section 14.26.735 – Shoreline Variance). And Do not allow buffer decreasing (14.26.534 (4)(b)).

Protect Drinking Water from Seawater Intrusion. We appreciate the Update provisions addressing seawater intrusion areas, Section 14.26.550. Community members have expressed concerns about past County practices that have allowed chloride pollution in Guemes Island's Sole Source Aquifer through seawater intrusion, which, according to local reports, has severely impacted the safe drinking water for some 65 individual homes. The County is now embracing its authority to regulate well drilling to prevent seawater intrusion impacts. We look forward to the County enforcing rules to protect the drinking water supply.

On A Positive Note: There are elements in the draft SMP that are commendable and should be retained. Sections on Vegetation Conservation (14.26.380) and Designating Habitats and Species of Local Importance (14.26.570) are comprehensive in detail and reflect the importance of protecting shoreline vegetation and special habitats. These are excellent examples for other municipalities as they update SMPs and Critical Area Ordinances.

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Please retain sections of the code that allow access to property for administrative officials to monitor permit compliance and mitigations. Implementation and effectiveness monitoring of permit conditions is essential for the success of this code.

Consideration of the Cumulative Impacts of Granting Variances. 14.26.735 Shoreline Variance. "In granting of all variances, consideration must be given to the cumulative impacts of additional requests for like actions in the area. Total variances must not cause substantial adverse effects to the shoreline environment." This is a good example of keeping the big picture in mind as individual applications are reviewed.

Thank you for this opportunity to comment on Skagit County's draft Shoreline Master Program.

Sincerely,
Laurie Sherman
4596 Ginnett Rd
Anacortes, WA 98221

48 6/18/2021 Konrad Kurp

SMP review comments by Konrad Kurp:

Skagit County is to take this opportunity to take in the big picture, timewise and ecological-geographically.

Paying close attention to the short and long range issues to be addressed:

- Habitat wildlife on land and water [salmon, whales, fish...]
- Water resources streams and rivers; quantity, temperature, distribution...
- Shoreline management, development and water quality issues...
- Waste and discharge...
- * Plastic and the environment...
- Enforcement mechanisms

There are many good proposals submitted, in addition to state and county legislative efforts, waiting to be incorporated in this review. to address our disregard on a lot of these issues in the past.

Thanks for reading these rather general, nonspecific, comments.

They are meant to point in the direction, we like to see us go.

49 6/18/2021 Norm Conrad

As a resident of Skagit County, I support the recommendations brought forward by Evergreen Islands, RE Sources, Washington Environmental Council, Guemes Island Planning Advisory Committee in their June 16, 2021 comment letter on the periodic review and update of the Skagit County Shoreline Management Program.

Under the Shoreline Management Program Periodic Review, we have the opportunity to take steps to help recover the Southern Resident orcas, the Chinook salmon, and the species and habitats on which they depend. The fall Chinook stocks that originate in the Skagit River are highest in importance as food sources for the southern resident killer whale and spring Chinook stocks are of high importance. So protecting the habitats of these Chinook stocks is critical.

I support the recommended measures outlined below that will improve protection for these key species that will achieve the no net loss of ecological function requirement, a requirement under the SMA;

1. Adopt State of Washington Department of Fish and Wildlife's up-to-date buffers to protect Chinook and other salmon and the prey on which they rely.
2. Prohibit new commercial net pen aquaculture operations to propagate non-native finfish or native finfish species in marine waters
3. Do not reduce and/or degrade riparian buffers. Riparian buffers serve to provide shade and cooler water temperatures for vulnerable salmonids, stabilize banks, retain runoff during peak flows, provide detritus for aquatic insects, and filter pollution before it reaches streams.
4. Fully address sea level rise and increased coastal erosion in the frequently flooded areas to protect people, ground water, and property. Projected sea level rise poses one of the greatest potential disruptors to shoreline protection but has gone

largely unaddressed in the SMP Update.

5. Prohibit new armoring in shorelines and do not classify boulders as soft armor. Shoreline armoring reduces critical shoreline processes and destroys nearshore habitat. Consistent with the most current science description of the many ecological impacts associated with armoring, armoring should not be allowed for new development.

6. Extend Permit Appeal filing deadline from 5 days to 14 days.

Thank you for the opportunity to provide comments.

50 6/19/2021 Julia Hurd *Submitted as attachment, see Appendix*

51 6/19/2021 Kathleen Lorence Much work has gone into the Skagit SMP. There are 5 things I'd like to briefly comment on.

Soft armoring does not include boulders; as such, it is recommended that inclusion of them be deleted. Looking at the bigger picture, restoring as many shorelines as possible to a healthy state, with soft armoring versus hard armoring is an important goal for Skagit County.

The net pen collapse near Cypress Island was horrifying. Native salmon are already endangered and that collapse can be added to the list of threats. Allowing net pens allows the risk of recurrence. Please rescind the regulations allowing them.

Friends on Guemes have a plethora of water barrels around their home. It was startling the first time I saw them but I've come to understand it has to do with salt water intrusion. Protection of the sole source aquifer by regulations about the where and when of well drilling are appreciated. As always, enforcement will be key.

While Setbacks protect environmental features, they also protect homeowners and developers. On Whidbey Island, the neighbor of a friend received a Variance to built their home closer to the bluff than the standard setback. Panic set in when the bluff started to give way; thousands of dollars were required for stabilization measures. Why risk this?

Buffer widths are established for protection. Allowing reductions of up to 50% with an Administrative Variance (and up to 100% by a Hearing Examiner Variance in SCC) is counter to this intent. Elimination of these Variances is recommended, at a minimum only a 25% reduction should be allowed BY EXCEPTION.

Thank you for your time.

52 6/19/2021 Gena DiLabio I have enjoyed living in Skagit County for over 15 years and moved here because of the abundant waterways and spaciousness of the farmland. Knowing the fragility of shorelines here are my suggestions regarding updating the Skagit County Shoreline Master Program (SMP).

Please take into account projected rising sea levels, ban new commercial net pens which harm native salmon, require new development is built to avoid new armoring, establish and defend adequate riparian buffers, prevent contamination of drinking water from seawater intrusion and enforce rules that do so, permanently assign protected critical areas, maintain access for officials to monitor compliance and mitigation, and lastly, always consider the cumulative impacts when granting variance.

Thank you for considering my concerns.
Sincerely,
Gena DiLabio

53 6/19/2021 Teresa Dix

Everything is linked to everything else. If we protect our environmental resources, our wetlands, shorelines, marine environments and lakes we in essence protect our communities, our children's futures our health and all the many things that are linked to these places....orcas, salmon, the eel grass beds, the intertidal nurseries for life.

Please also ensure public access to these places of outdoor enjoyment and make sure there is no net loss of the ecological functions of these environmental resources.

There are so many losses already on this planet, life that has gone extinct because of our greed, thoughtlessness, our outright arrogance think that we humans are above all other life, forgetting that our very lives depend upon these other things.

Please do right by the environment. There is no time to waste during this time of a rapidly changing climate. Everything that can be saved should be saved and protected.

Thank you,
Respectfully,
Teresa Dix

54 6/20/2021 Patty Rose

To Whom it may concern,

We purchased our home on North Beach on Guemes island in 2007. During the years I have lived here, I have witnessed various threats to our marine and nearshore environment. I will deal with three of the most obvious from the perspective updates to the Shoreline

55 6/20/2021 Patty Rose

To Whom it may concern,

First my apologies for accidentally sending an incomplete comment submission just a few minutes ago!

Since we purchased our home on North Beach, I have noticed increasing threats to our marine and nearshore environment. The region is growing, and the added ferry traffic and building pressure is very obvious on the island. Real estate sells very fast, and we all read of threats to marine life from Orcas down to tiny forage fish.

I would like to highlight three areas that I think the SMP must address with urgency:

1. Shoreline buffers must be enforced without variances or administrative decreases. The cumulative effect of individual decreases in buffers will be loss of critical nearshore habitat.
2. Do not allow new shore armoring for the same reason stated above. (If people are required to build farther back from the shore, the need for armoring is lessened.)

3. Enforce requirements to preserve native vegetation.

Thank you for your time and attention,

Patty Rose

56 6/20/2021 Mary Ratermann I am concerned about a few items in the Skagit County Master plan.

First, because of the issues we have had with net pens in the past, and because of the increased pollution and problems with escaped fish, ALL net pens, whether salmon or steelhead trout should be permanently banned.

Second, with sea level expected to rise up to two feet by the end of this century, no new buildings should be allowed in this projected area. Rare floods will be more common and with Skagit County rated third in the state with regards to the exposure of homes on land less than four feet above sea level, allowing construction here would be too catastrophic to consider. Armoring our coastline should not be allowed due to the reduction of intertidal habitat and decreases in biodiversity that is so essential for a healthy ecosystem.

Finally, with climate change upon us, and with our southern resident orcas in danger, buffering of our creeks, wetlands, and rivers is essential to benefit water quality, increase shading for juvenile salmon, and decrease water temperatures. Timber harvesting must be prevented with riparian areas. The buffer zone area should not be decreased!

I thank you for the work you do and for taking the time to read my comments.

Mary M Ratermann

57 6/20/2021 JANET WEEDMAN Shoreline ecosystems are diverse and sensitive environments that serve as the nursery for many species like Chinook salmon that Southern Resident orca depends on. Strong protective measures and management of these areas are required to preserve ecological functions and values of our natural environment, as well as the protection for public health including safe drinking water for our community. Additionally, the Pacific Northwest is a haven for those from elsewhere to visit and restore themselves in a way only nature can do. This is a direct economic benefit to taking care of our natural resources so our natural resources will take care of us! Thank you.

58 6/21/2021 Dennis Clark *Submitted as attachment, see Appendix*

59 6/21/2021 ARLENE FRENCH As you review the Skagit County shoreline Master Program, I simply ask that you strengthen the rules for the protection of our shoreline, do not weaken them. Our shorelines are part of the larger eco system which includes our local orcas and all the wildlife that are dependent on this resource.

I'm also concerned about buffer zones being shortened.

60 6/21/2021 Mark Hitchcock *Submitted as attachment, see Appendix*

61 6/21/2021 Luis Gastellum I am against the recent approval of a shoreline decision to disapprove the the changes to protect the blue herons on Marches point. It was short sighted by the advisory board which leans heavily to development and does not give protection of critical resources. I am also against un incorporated communities which is part of the process now in question. With the critical

problem of viable water with the extended drought in the valley, building more people to Skagit Valley is the wrong thing to do. Unincorporated communities are an extra burden on fire districts, law enforcement, water resources. disturbance of farm land which should be protected, and eliminates the rural environment and creates urban sprawl. Unincorporated communities need to go through the SEPA Process to analyze the impact on all critical resources

62 6/21/2021 Karlee Deatherage Submitted as attachment, see Appendix

63 6/21/2021 Hal Rooks Submitted as attachment, see Appendix

64 6/21/2021 Tim Trohimovich Submitted as attachment, see Appendix

65 6/21/2021 Marnie Pennington Skagit County Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

Re: Skagit County Shoreline Master Program Comprehensive Update & Periodic Review

Dear PDS,

I feel it is important to protect our precious shoreline in Skagit County, and find that there are 2 major issues not included in your current Shoreline update proposal.

Please make sure to include the following improvements to protect our shoreline from issues that we know to be true.

#1 Address the fact that sea level is rising. A 1.5' increase is expected by 2100. Be it temporary (Tsunami), or inevitable this can not be overlooked. Make sure that new buildings are constructed outside of the area likely to be inundated by sea level rise by 2100 and that new lots are designed so that they contain buildable area outside of the area likely to be inundated by sea level rise.

#2 Following the net pen collapse off Cypress Island, we are all aware of the dangers these operations pose for the coastal ecosystems. Lets learn from this terrible experiment. Prohibit new commercial net pens. Net pen fish aquaculture harms our native salmon.

If we are not vigilant in protecting the shoreline - we will never be able to get it back. It is the jewel of Skagit County. Please protect it for the good of the people living here and those who visit, past present and future.

Thank you for this opportunity to comment on Skagit County's draft Shoreline Master Program.

Sincerely,

Marnie Pennington

			5072 Roney Rd, Bow, WA 98232
66	6/21/2021	Mary Ruth and Phillip Holder	<i>Submitted as attachment, see Appendix</i>
67	6/21/2021	Valerie Rose	<p>Re: Skagit County Shoreline Master Program Comprehensive Update & Periodic Review</p> <p>Dear Skagit County PDS,</p> <p>I am concerned about the updates to Skagit Co.'s draft Shoreline Management Plan. Our county's shorelines are precious and fragile. To protect them into the future, I urge you to:</p> <p>Stop any new commercial net pens. Such fish farms have proven to harm our vulnerable native salmon. Farmed fish spread disease, and require substantial chemical applications which contaminate the surrounding water. The escape of farmed Atlantic salmon off Cypress Island in 2017 has already impacted wild salmon, we cannot risk further damage.</p> <p>Riparian buffers are essential for salmon. Establish and defend adequate riparian buffers, to create provide shade and cooler water temperatures for young salmon. Do not allow Planning Staff to reduce buffers at their discretion by 50% (section 14.26.735 – Shoreline Variance), and do not allow buffer decreasing (14.26.534 (4)(b)).</p> <p>Climate chaos is already bringing extreme weather across the country, and accelerated melting of glacial ice. Scientists project sea level rise in Skagit County to rise by at least 1 ½ feet by 2100. We must take realistic measures to ensure that new buildings are constructed outside of the area likely to be inundated by sea level rise by 2100. Any new lots must only be allowed outside the area likely to become underwater.</p> <p>Please retain the sections on Vegetation Conservation (14.26.380) and Designating Habitats and Species of Local Importance (14.26.570.) They reflect the importance of protecting shoreline vegetation and special habitats.</p> <p>It is important to keep sections of the code allowing access to property for administrative staff to monitor permit compliance and mitigations. Protecting our fragile shorelines requires observation and, where needed, enforcement. Thank you for protecting these irreplaceable lands and waters.</p> <p>Sincerely,</p> <p>Valerie Rose 1434 S. 12th St. Mt. Vernon, WA 98274</p>
68	6/22/2021	Jenna Friebel	<i>Submitted as attachment, see Appendix</i>
69	6/22/2021	Michael Hughes	<i>Submitted as attachment, see Appendix</i>
70	6/22/2021	Timothy Manns	<i>Submitted as attachment, see Appendix</i>

71	6/22/2021	Lin McJunkin	I am an artist and long-time resident of Skagit County, having moved here for the beauty of the Salish Sea region. I have several concerns about the draft Shoreline Management Program, but I am most concerned about the lack of attention that should be given to proposed sea level rise due to our changing climate. Sea level rise poses one of the greatest potential disruptors to shoreline protection but has gone largely unaddressed in the Skagit SMP Update. Sea levels in Skagit County are projected to rise by at least 1 ½ feet by 2100. Please make sure that new buildings are constructed outside of the area likely to be inundated by sea level rise by 2100 and that new lots are designed so that they are outside of the area likely to be inundated by sea level rise. thank you. Lin McJunkin
72	6/22/2021	Rick Eggerth	<i>Submitted as attachment, see Appendix</i>
73	6/22/2021	Amy Trainer	<i>Submitted as attachment, see Appendix</i>
74	6/22/2021	Carolyn Gastellum	Skagit County Planning and Development Services 1800 Continental Place Mount Vernon, WA 98273

Re: Skagit County Shoreline Master Program Comprehensive Update & Periodic Review

Dear Skagit County PDS,

I support and agree with all the statements in letters that have been submitted by Skagit Land Trust, Skagit Audubon, and Evergreen Islands. We have lived in Skagit County for 32 years and are concerned about important choices such as those in the SMP. Sea level rise, near shore and extended marine environments, the health of shorelines and the ability of forage fish, salmon, and marine mammals thrive is increasingly threatened. For the benefit of the health and well being of people and the non-human species that we depend on, I submit the following:

Living in Skagit County, we have the good fortune to enjoy a natural environment that provides environmental benefits far beyond our borders and our lifetimes. Recognizing our good fortune, we also know that we need to protect our shorelines. Thank you for this opportunity to share some improvements in the SMP Update that will help do that.

In 1971, the Washington Legislature enacted the Shoreline Management Act (SMA) recognized that “the shorelines are fragile and that the increasing pressure of additional uses being placed on them necessitated increased coordination in their management and development.” The primary purpose of the SMA is “to protect the state shorelines as fully as possible,” and a couple of “shorelines of statewide significance” exist right here in Skagit County, including Skagit Bay and Padilla Bay.

To protect our special shorelines, I ask that you take the following actions in the Shoreline Master Program update:

Prohibit new commercial net pens. Net pen finfish aquaculture harms our native salmon, from excessive waste to changing the chemical properties and limiting biodiversity below the pens, increased growth of algae, chemical and drug contaminants introduced into the environment, the disruption of marine food webs by attracting carnivorous birds and mammals, and the escape of farmed salmon with the potential to transmit disease and compete with wild salmon. We believe that this change is consistent with the SMP Guidelines requirements for no net loss of ecological function. Following the net pen collapse off Cypress Island, we are all aware of the dangers these operations pose for the coastal ecosystems.

Address sea level rise. Projected sea level rise poses one of the greatest potential disruptors to shoreline protection but has gone largely unaddressed in the Skagit SMP Update. Sea levels in Skagit County are projected to rise by at least 1 ½ feet by 2100.

Please make sure that new buildings are constructed outside of the area likely to be inundated by sea level rise by 2100 and that new lots are designed so that they contain buildable area outside of the area likely to be inundated by sea level rise.

Avoid new armoring and do not classify boulders as soft armor. Shoreline armoring destroys nearshore habitat and diminishes the amount of insects that juvenile salmon eat. New development must be designed, located, and constructed to avoid the need for new armoring.

Prevent uses or modifications, like piers and docks, into or over important saltwater plants like seagrasses and macroalgae

Establish and defend adequate riparian buffers. Riparian buffers provide shade and cooler water temperatures for vulnerable salmonids, stabilize banks, retain runoff during peak flows, provide detritus for aquatic insects, and filter toxins before they reach streams. They provide habitat for birds and amphibians, and resting and rearing places for mammals like river otter and beaver. To protect these ecological functions, make sure buffers are as wide as a mature tree. Do not allow timber harvest in riparian buffers (section 14.26.574). Do not allow Planning Staff discretion to reduce buffers by 50% (section 14.26.735 – Shoreline Variance). And Do not allow buffer decreasing (14.26.534 (4)(b)).

Protect Drinking Water from Seawater Intrusion. We appreciate the Update provisions addressing seawater intrusion areas, Section 14.26.550. Community members have expressed concerns about past County practices that have allowed chloride pollution in Guemes Island's Sole Source Aquifer through seawater intrusion, which, according to local reports, has severely impacted the safe drinking water for some 65 individual homes. The County is now embracing its authority to regulate well drilling to prevent seawater intrusion impacts. We look forward to the County enforcing rules to protect the drinking water supply.

On A Positive Note: There are elements in the draft SMP that are commendable and should be retained. Sections on Vegetation Conservation (14.26.380) and Designating Habitats and Species of Local Importance (14.26.570) are comprehensive in detail and reflect the importance of protecting shoreline vegetation and special habitats. These are excellent examples for other municipalities as they update SMPs and Critical Area Ordinances.

Requirements to permanently sign Protected Critical Areas and their buffers is a good practice as is mandatory field site assessments for permit applications.

Please retain sections of the code that allow access to property for administrative officials to monitor permit compliance and mitigations. Implementation and effectiveness monitoring of permit conditions is essential for the success of this code.

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as individual applications are reviewed.

Thank you for this opportunity to comment on Skagit County's draft Shoreline Master Program.

75 6/22/2021 Rein Attemann On behalf of our supporters, Washington Environmental Council submits public comments on the Skagit County Shoreline Master Program Comprehensive Update and Periodic Review from 14 community members. Please accept them as unique individual letters. Thank you for all you work for ensure environmental safeguards for our shorelines.

Submitted as attachment, see Appendix

76 6/22/2021 Barbara Tuttle Skagit County Shoreline Master Program Comprehensive Update and Periodic Review

To Skagit County Planning and Development Services:
June 22, 2021

I, like other Skagit County residents, am concerned about protecting our shorelines. I want to share a few important ways I think the Skagit County Shoreline Master Program Update can do that.

Prohibit new commercial net (fish) pens which endanger our native salmon. These pens cause increased algae, chemical and drug contamination, and can result in the escape of farmed salmon which could transmit disease and compete with wild salmon.

Address sea level rise. Sea level rise poses one of the greatest dangers to shoreline protection. Local sea levels are projected to rise by at least 1.5 feet by 2100.

Ensure that new buildings are constructed outside of areas likely to be inundated by rising sea levels.

Establish and protect adequate riparian buffers to provide shade and cooler water temperatures for vulnerable salmonids, stabilize banks, retain runoff, and filter toxins before they reach streams. Buffers provide habitat for birds, amphibians, and mammals such as river otters and beavers. Do not allow timber harvest in riparian buffer zones.

Thank you for this opportunity to comment on Skagit County's draft Shoreline Master Program.

Barbara Tuttle
502 E. Washington St.
Mount Vernon, WA 98274

77 6/22/2021 Karen Gardiner I have lived in Skagit County for over 30 years and always feel so lucky to enjoy such a wonderful natural environment that we all wish to protect for our grandchildren and for all the wildlife both on land and sea. Thank you for this chance to share some improvements in the SMP update that will help protect our environment for the future.

In 1971, the Washington Legislature enacted the Shoreline Management Act (SMA) recognized that "the shorelines are fragile and that the increasing pressure of additional uses being placed on them necessitated increased coordination in their management and development." The primary purpose of the SMA is "to protect the state shorelines as fully as possible," and a couple of "shorelines of statewide significance" exist right here in Skagit County, including Skagit Bay and Padilla Bay.

To protect our special shorelines, I ask that you take the following actions in the Shoreline Master Program update:

Prohibit new commercial net pens. Net pen finfish aquaculture harms our native salmon, from excessive waste to changing the chemical properties and limiting biodiversity below the pens, increased growth of algae, chemical and drug contaminants introduced into the environment, the disruption of marine food webs by attracting carnivorous birds and mammals, and the escape of farmed salmon with the potential to transmit disease and compete with wild salmon. We believe that this change is consistent with the SMP Guidelines requirements for no net loss of ecological function. Following the net pen collapse off Cypress Island, we are all aware of the dangers these operations pose for the coastal ecosystems.

Address sea level rise. Projected sea level rise poses one of the greatest potential disruptors to shoreline protection but has gone largely unaddressed in the Skagit SMP Update. Sea levels in Skagit County are projected to rise by at least 1 ½ feet by 2100.

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Karen Gardiner
726N 14th Street
Mount Vernon, WA 98273

78 6/22/2021 philip brown

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Requirements to permanently sign Protected Critical Areas and their buffers is a good practice as is mandatory field site assessments for permit applications.

Please retain sections of the code that allow access to property for administrative officials to monitor permit compliance and mitigations. Implementation and effectiveness monitoring of permit conditions is essential for the success of this code.

Consideration of the Cumulative Impacts of Granting Variances. 14.26.735 Shoreline Variance. "In granting of all variances, consideration must be given to the cumulative impacts of additional requests for like actions in the area. Total variances must not cause substantial adverse effects to the shoreline environment." This is a good example of keeping the big picture in mind as individual applications are reviewed.

Thank you for this opportunity to comment on Skagit County's draft Shoreline Master Program.

Skagit County Shoreline Master Program Comprehensive Update & Periodic Review June 22, 2021

In 1976 the 200th anniversary of our country I purchased our shoreline lot in Anacortes, At that time I was informed there was a building set back of 50 feet from the shoreline.

In 2012 the Skagit county planning approved the SMP that replaced the 50 foot set back with a 100 foot critical area buffer zone. This was an environmentalist governmental land grab to steal private owner property development rights. This land grab was done without justification and against our countries constitutional private property rights.

The present SMP further proposes to illegally increase this critical area buffer zone to 150 feet from the shoreline. In my case SMP would steal an additional 8250 sq feet of my private development property rights.

In addition the public due process has not been done during our COVID19 pandemic period using zoom technology.

I am asking the present county commissioners to remove the arbitrary and capricious buffer areas from the SMP and require public due process before any further action is taken.

Roger Oos

80 6/22/2021 Brian Lipscomb *Submitted as attachment, see Appendix*

81 6/22/2021 Martha Bray Thank you for the opportunity to comment on the draft update of the Shoreline Management Program (SMP). I appreciate the considerable amount of work that this complex update represents, and the challenges that it entails. We are lucky to have a rich legacy of saltwater and freshwater shorelines in Skagit County. As we all know our shorelines are immeasurably valuable for people, the economy, wildlife and natural ecosystems upon which we all depend. Shorelines are fragile, and have already suffered significant cumulative impacts. In the face of population growth and accelerating climate change, Skagit County's SMP needs to protect what remains of our natural shorelines, and it needs to require restoration wherever feasible. Protecting and restoring shorelines provides resilience for both human and natural communities.

Climate driven sea level rise presents one of the most significant changes to our shorelines in generations, and yet it is largely unaddressed in this update. This is troubling. In the rush to complete this plan, it appears that this issue has been punted to a future update. We cannot afford to postpone planning for sea level rise, especially given how long it has taken to get this SMP update completed. Good predictive models exist for sea level rise in Skagit County. These models need to be incorporated into this SMP update, and all development should be prohibited in areas expected to be inundated. Larger setbacks and buffers should be planned in these identified areas, and preemptive ways to avoid hard shoreline armoring in this changing shoreline environment need to be explored. Planning for sea level rise is not only essential for resilient ecosystems, it is common sense hazard reduction – it is good for people.

Our shorelines are suffering from cumulative impacts. Shoreline variances and buffer reductions on individual permits add up - it is death by a thousand cuts. These discretionary options should be the last resort. The language regarding “consideration of cumulative impacts of granting variances (14.26.735) is important; this language must be retained, and it needs to be effectively implemented. Shorelines are a finite resource. Once they are modified, there is no easy repair.

Protecting buffers of native vegetation is an inexpensive and incredibly valuable way to protect shorelines, water quality and to support wildlife; but we are always quick to reduce buffer size. The goal should be to look for ways to maximize buffer width instead. Research shows the importance of larger buffers commensurate with mature tree height. Again, once development is sited, it is a permanent change and it is too late – please make science based decisions that protect important natural systems. This also goes for bank hardening – it is well documented that bank armoring degrades the natural functions of the shoreline in many ways. Development must be sited so as to prevent hard shoreline armoring (including armoring with rock/boulders).

Given the many competing uses within the shoreline jurisdiction, the policies and goals of the draft SMP express the needs for restoration and protection well, but implementation and balancing multiple values is always challenging. Preventing further degradation of shorelines must be a priority for the County, not only by having an updated SMP on the books, but also through adequate funding for implementation, staff training and enforcement.

Again, thank you for the opportunity to comment.

82 6/22/2021 Robert Warinner *Submitted as attachment, see Appendix*

83 6/22/2021 GARY DUVALL These responses to the SMP have been submitted to the Skagit County Planning Commission previously on behalf of the Lake Cavanaugh Improvement Association. We do not believe that the dock and setback proposals are supported by science as required by the state Shoreline Management Act. The dock proposal is completely impractical due to high winds, waves, and variable water depth. Larger docks are better for fish and shore life. We submit the attached as an alternative, which is consistent with the dock standards on lakes Sammish, Whatcom, Goodwin and Stevens. As to setbacks, the county proposal is the most restrictive rules of any large lake in the state that is open to motor boats. The county's only scientific report does not say that 100 foot setbacks are problematic or that 50 foot setbacks are required, and in any event all the research was done on rivers not lakes. Therefore these restrictive rules are out of touch with science, with other similar lakes' rules, and do not comply with state law.

Submitted as attachment, see Appendix

84 6/22/2021 Martha Bray Thank you for the opportunity to comment on the draft update of the Shoreline Management Program (SMP). I appreciate the considerable amount of work that this complex update represents, and the challenges that it entails. We are lucky to have a rich legacy of saltwater and freshwater shorelines in Skagit County. As we all know our shorelines are immeasurably valuable for people, the economy, wildlife and natural ecosystems upon which we all depend. Shorelines are fragile, and have already suffered significant cumulative impacts. In the face of population growth and accelerating climate change, Skagit County's SMP needs to protect what remains of our natural shorelines, and it needs to require restoration wherever feasible. Protecting and restoring shorelines provides resilience for both human and natural communities.

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Again, thank you for the opportunity to comment.

85	6/22/2021	Edith Walden	<i>Submitted as attachment, see Appendix</i>
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86	6/22/2021	John Day	June 22, 2021
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Skagit County Shoreline Master Program
Comprehensive Update & Periodic Review
Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

Re: Skagit County Shoreline Master Program Comprehensive Update and Periodic Review

Dear Director Hart:

Thank you for this opportunity to comment on the Skagit County Shoreline Master Program Comprehensive Update and Periodic Review (SMPCUPR).

I strongly support the comments on this subject submitted by the Skagit Audubon Society (on whose board I serve), Skagit Land Trust (for which I serve as a volunteer land steward), Evergreen Islands, and several other conservation organizations.

The SMPCUPR process is critical to protecting the unique and important values associated with the shorelines of Skagit County. It is also critical to planning for a future that will see not only increasing population and development pressure, but also significant impacts due to global climate change, including sea level rise, drought, water shortages, and lower stream flows. While I believe the current proposal demonstrates some improvement over previous versions, I feel it is inadequate in regard to a number of key issues.

Most importantly, it fails to adequately acknowledge and address the projected future impacts of sea level rise (SLR) on low-lying areas of the county in terms of existing and future human uses and of key natural values and processes. This is unacceptable. We are already seeing the effects of SLR and it is clear that it will increase dramatically no matter what happens with greenhouse gas emissions. We must take the long view to ensure that we protect natural values and processes such as intertidal habitat, wetlands, beaches, feeder bluffs, etc., into the future. This means not allowing development to damage what we have or foreclose on our ability to protect them going forward.

I support the following:

- no net loss of habitat as a standard for shoreline uses
- prohibit further development in areas that will be subject to the effects of SLR
- include marine shorelines in addressing flood hazard reduction
- prohibit hard armoring of shorelines to protect existing development except when there is no reasonable alternative
- all recommendations submitted by Evergreen Islands, et al

Sincerely,

John Day
6368 Erwin Ln
Sedro-Woolley, WA 98284

87 6/22/2021 Roger Oos

In 1976 the 200th anniversary of our country I purchased our shoreline lot in Anacortes, At that time I was informed there was a building set back of 50 feet from the shoreline.

In 2012 the Skagit county planning approved the SMP that replaced the 50 foot set back with a 100 foot critical area buffer zone. This was an environmentalist governmental land grab to steal private owner property development rights. This land grab was done without justification and against our countries constitutional private property rights.

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I am asking the present county commissioners to remove the arbitrary and capricious buffer areas from the SMP and require

public due process before any further action is taken.

Roger Oos

Appendix

Comments submitted as attachments

Comment 7

27 April 2021

Skagit County - Shoreline Master Program

Comment Regarding Sinclair Island & Skagit County Derelict Public Dock

During the winter of 2011/12, the Skagit County Public Dock serving Sinclair Island since the 1920's was destroyed. The residents of Sinclair Island have repeatedly petitioned Skagit County to repair or replace the facility as it is a valuable asset serving the safety and well being of those who travel to or from Sinclair especially during periods of inclement weather. Absent the public dock there is no safe, all weather public access for residents or emergency services personnel. And for those who do not have beach front property, the public dock is the only means of access without transiting private property.

The long term lease with the WA DNR expired in January of 2018. Per the terms and conditions of that lease as told by the DNR field representative responsible for Sinclair, Skagit County must either, A) be actively engaged in activities leading to the facilities repair or replacement or B) they must remove all vestiges of the facility and return the adjacent tidelands to their previous natural state. In the DNR's eyes, working to repair or replace the facility keeps the country from triggering the clause stipulating the removal and return of the tidelands to their natural state clause.

As the county does not appear to be engaged in trying to repair or replace the facility, they appear to be in violation of that clause.

Our community has been told repeatedly that the DNR, Tribes and others concerned about the negative environmental impact of docks on surrounding tidelands, that they would greatly prefer that a public dock be maintained on Sinclair for public use. They feel as do we, that it would alleviate pressure felt by some home owners to build their own private dock.

Recommendations:

The updated Shoreline Master Program should include Sinclair Island and specifically address the needs of the Sinclair community and specify actions to be taken by Skagit County to either repair/replace the public dock or remove all vestiges of the facility.

If the recommendation is to remove the public dock, than the county should be directed to create a fast track approval process that minimizes residents expense related to permitting for new private docks.

Respectfully submitted:

Peter H. Grimlund

Sinclair Property Owner

Comment 14

May 8, 2021

RE: SKAGIT COUNTY MASTER PROGRAM COMPREHENSIVE UPDATE

TO: SKAGIT COUNTY PLANNING AND DEVELOPMENT SERVICES

The Lake Cavanaugh Improvement Association (LCIA) members and residents thank you for this opportunity to express our concerns with the SMP revision.

I submit this on behalf of the LCIA which represents some 225 members with vested interests in Lake Cavanaugh. Our membership and many other property owners have been working with the County since 2015 on the SMP update.

We are also sending copies to our Commissioner Browning and Commissioners Janicki and Wesen since LCIA had conferenced with Commissioners Janicki and Wesen over the years.

Although the revision has addressed some of our previous concerns, some remain relative to dock and pier construction, buffers, severe fluctuations in water levels.

One of our concerns relates to:

WATERCRAFT LIFT CANOPIES

Table 14.26.420.1, Standards for Docks, SMP page 101.

Mandates light-permeable fabric. While there seems to be logic for light, the requirement is illogical. Canopies are sold with the explicit purpose of protecting boats from sunlight and UV-caused trim and upholstery fading, extreme surface heating, and rain. With no sun shielding, at 77 degrees air temperature, onboard dark colored surface temperatures can reach up to 125 degrees. Ever walked barefoot on an asphalt road or sat on an exposed lawn chair in August? Permeable must be defined as to transmittance to have any meaning at all. Is it 20% let-thru, 50% or does it have to be translucent?

Most lift canopies are 8' above summer water levels. Plenty of light is allowed under. The sun's movement causes varying degrees and angles of light to the water depending on its position. The least amount of direct sunlight occurs when the sun is directly overhead. If there is no cover, the boat (in raised position) is normally at or 2-4' above water level dependent on lake level allowing sunlight to enter. Boat shadow cannot be eliminated and is a constant. If there is no lift, the boats immersion adds even more shadowing. The canopy usually adds 12" of overhang to the boat's shadow, barely increasing the shading. -

Basta Boatlifts is located in Bellevue, WA and a principal manufacturer of boatlifts. They now offer covers made of Herculite Patio 500 "clear", Herculite Weblon, and Sunbrella.

Herculite describes the Patio version described as “opaque”. The Weblon is described as “some light color shades offer some illumination” Sunbrella offers virtually none. The Herculite data is attached. Again, the light penetration issue becomes almost meaningless in view of fabric availability and lack of an actual required allowance clearly expressed. Herculite’s website: <https://www.herculite.com/awning-fabrics/coastline-plus>

The enclosed photo will illustrate the typical height of the canopy above the water as well as the extreme fluctuations in lake level at Lake Cavanaugh.

Most canopy covers are on for only 5 months. Most covers and boats are typically put in May and removed by October since 40-50 MPH winds are usually encountered in October-November. See attached data from Robert Getz, Lake Cavanaugh resident and Weather Underground contributor with authenticated gust speeds of 41, 54, and 52 in November 2017, 2018, and 2020.

Shading helps small fish and minnows. WDFW seeks shading along rivers and creeks to minimize water temperatures, yet promotes non-shady exposures in lakes; somewhat of a dichotomy. We reference The Advantage to Fishes of Hovering in Shade by Gene Helfman. *Simply put, it states that fish are attracted to the shade produced by floats and overhanging structures because from underneath they are better able to see into sunlit areas to better avoid predators.* Small fish’ eyesight develops slowly. Predators, too, are better able to spot prey, but the small fish and minnows prefer the shallows where larger fish can’t easily swim.

Mr. Helfman’s* studies were referenced in Overwater Structures and Non-Structural Piling White Paper prepared for WDFW by Jones and Stokes Associates in December 2006.

Overwater Structures : Marine Issues by University of Washington, White paper project T1083, May 2001 and prepared for WDFW, WDOE, and WDOT also addresses shadowing but *principally discusses predation of salmonids but in marine waters and Lake Union. Lake Cavanaugh is a freshwater lake and has no anadromous fish; they are prevented from entering by a weir WDFW built so their reasoning for light permeable fabric is not entirely apropos.*

The plasticized materials used for light permeable covers have a reduced service life of 5 years compared to the traditionally used Sunbrella acrylic’s life of 10 years. This results in increased replacement cost. Big Lake and Lake Cavanaugh alone have 895 lakefront parcels. Most owners of boats over 14’ have boat lifts. The tax base for the county’s eight major lakes is \$561,068,385; the taxes on waterfront property is already high. This requirement adds yet another “penalty” cost to owners. The permeability requirement, along with significantly greater levels of sun damage to boats, is not fair and should be removed.

Dennis Katte, LCIA SMP Update Chairman

33164 West Shore Drive

Mount Vernon, WA 98274

Specifications

Description:	Vinyl laminated on a weft insertion scrim base of high tenacity filament polyester.
Weight:	13 oz. per sq. yard
Width:	62 inches / 157.48 centimeters
Surface:	Top surface treated with Rain Kleen® for color retention and prolonged fabric life.
Transparency:	Some light color shades offer good illumination.
Abrasion Resistance:	Excellent
Dimensional Stability:	Excellent
Flexibility:	Excellent in both hot and cold environments
Mildew Resistance:	Excellent
Chemical Resistance:	Excellent
Water Repellency:	Excellent – Water Proof
Oil Resistance:	Excellent
Sewability:	Excellent
Heat Sealability:	Excellent. Can be sealed by hot air wedge welder or radio frequency bar type.



Patio500[®]

 **HERCULITE[®]**

Powered by Innovation ♦ Proven by Performance

Specifications

Description:	Vinyl laminated on a woven synthetic fabric.
Weight:	17.5 oz. per square yard
Width:	61 inches / 154.94 centimeters
Transparency:	Opaque (some light color shades do offer illumination)
Abrasion Resistance:	Excellent
Dimensional Stability:	Excellent
Flexibility:	Excellent in both hot and cold environments
Flame Resistance:	Meets California State Fire Marshall Title 19, NFPA-701-99 (Large Scale) ASTM E84-81A Flame Spread Rating Class A (15)
Mildew Resistance:	Excellent
Chemical Resistance:	Excellent
Water Repellency:	Excellent – Water Proof
Oil Resistance:	Excellent
Sewability:	Excellent
Heat Sealability:	Excellent. Can be sealed by hot air wedge welder or radio frequency bar type.

P.O. BOX 435, EMIGSVILLE, PA 17318 USA
(800) 772-0036 (717) 764-1192 FAX (717) 764-5211
www.herculite.com customercare@herculite.com



THERE IS NO ASSOCIATED WEBCAM
WITH THIS STATION

Weather History for KWAMOUNT16

Monthly Mode

November

2017

Next

Previous

View

Summary

November 1, 2017 - November 30, 2017

	High	Low	Average
Temperature	62.3 °F	28.7 °F	41.6 °F
Dew Point	58.0 °F	27.2 °F	39.7 °F
Humidity	99 %	48 %	93 %
Precipitation	17.26 in	--	--

	High	Low	Average
Wind Speed	33.0 mph	0.0 mph	5.0 mph
Wind Gust	54.0 mph	--	9.4 mph
Wind Direction	--	--	ESE
Pressure	30.46 in	29.44 in	--

Graph

Table

November 1, 2017 - November 30, 2017

THERE IS NO ASSOCIATED WEBCAM
WITH THIS STATION

Weather History for KWAMOUNT16

Monthly Mode

November

2018

Next

Previous

View

Summary

November 1, 2018 - November 30, 2018

	High	Low	Average
Temperature	55.9 °F	32.2 °F	43.3 °F
Dew Point	54.9 °F	31.7 °F	41.9 °F
Humidity	100 %	46 %	95 %
Precipitation	15.09 in	--	--
	High	Low	Average
Wind Speed	25.0 mph	0.0 mph	3.0 mph
Wind Gust	41.0 mph	--	6.1 mph
Wind Direction	--	--	SSE
Pressure	30.62 in	29.50 in	--

Graph

Table

November 1, 2018 - November 30, 2018

Date
Comment Number 14

Dew Point
Dennis Katte

Humidity

Speed

THERE IS NO ASSOCIATED WEBCAM
WITH THIS STATION

Weather History for KWAMOUNT16

Monthly Mode

November

2020

Next

Previous

View

Summary

November 1, 2020 - November 30, 2020

	High	Low	Average
Temperature	60.1 °F	29.0 °F	41.6 °F
Dew Point	56.5 °F	23.2 °F	39.8 °F
Humidity	100 %	50 %	94 %
Precipitation	9.40 in	--	--
	High	Low	Average
Wind Speed	27.0 mph	0.0 mph	4.5 mph
Wind Gust	52.0 mph	--	8.5 mph
Wind Direction	--	--	SE
Pressure	30.53 in	29.21 in	--

Graph

Table

November 1, 2020 - November 30, 2020

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JOURNAL ARTICLE

The Advantage to Fishes of Hovering in Shade

Gene S. Helfman

Copeia
Vol. 1981, No. 2 (May 15, 1981), pp. 392-400 (9 pages)

Published By: American Society of Ichthyologists and Herpetologists (ASIH)



<https://doi.org/10.2307/1444228>

<https://www.jstor.org/stable/1444228>

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The Advantage to Fishes of Hovering in Shade

GENE S. HELFMAN

Temperate lake fishes are attracted to the shade produced by floating objects. Mechanisms underlying this attraction were investigated by measuring the relative visibility of a target both under and away from the shade of a float. During most conditions, a shaded observer could see objects farther away than could an unshaded observer. Importantly, a shaded observer could see a sunlit target at more than 2.5 times the distance at which a sunlit observer could see a shaded target. This relative visual advantage may result from two interacting visual phenomena: 1) the increment threshold response, whereby a sunlit viewer has a raised contrast perception threshold and therefore has difficulty responding to a shaded target; and 2) the veiling brightness effect, whereby particles between sunlit observer and shaded target scatter relatively bright light into the observer's eyes, further reducing the target's visual contrast. Shade-producing objects may attract fishes because the objects function to reduce both background light and veiling brightness. A fish hovering in shade is better able to see approaching objects and is simultaneously more difficult to see.

THE habit of hovering under floating or overhanging structure is common to fishes, both predators and prey. The phenomenon has been described primarily for pelagic marine systems (Gooding and Magnuson, 1967; Mitchell and Hunter, 1970; Wickham and Russell, 1974), and also for freshwater streams (Butler and Hawthorne, 1968; Gibson and Power, 1975; Devore and White 1978) and temperate lakes (Helfman, 1979a). It is a phenomenon experienced by almost anyone who has sat on a lakeside dock or a becalmed sailboat at sea.

Marine workers in particular have generally discounted the influence of shade in attracting and holding fishes. Senta (1966) found that juvenile pelagic fishes were not attracted to the darkened part of an aquarium. Gooding and Magnuson (1967) reported that none of the species that followed a drifting observation platform remained in the shade of the raft. Hunter and Mitchell (1967) found that larger plywood sheets that cast larger shadows were less effective in attracting pelagic fishes than were similar but smaller objects. Evidence from the present study suggests, in contrast, that shade, interacting with water clarity, sunlight, and vision, is an important factor in attracting temperate lake fishes to overhead structure.

MATERIALS AND METHODS

Underwater visibility measurements were made with a 12 cm high, 6.5 cm diameter, weighted cylinder that was divided into trans-

verse black and white thirds. The cylinder was suspended vertically 15 cm below the surface of the water from the end of a floating plastic pipe, which was marked at 10 cm intervals. While snorkeling, I recorded the maximum distance at which the black/white transitions on the cylinder were just visible. Measurements were taken of this visibility in open water (=ambient), and with either the cylinder or the observer located beneath the center of a 1 m² floating frame covered with black plastic. Visibility was measured with the sun both behind and ahead of the observer. Some measurements were also made at floats used in fish attraction experiments (see below). Measurements were made in water bodies in New York, North Carolina, South Carolina, Georgia and Florida, where water varied from clear through green, tea and red clay in color. Values were obtained in water deep enough to eliminate the influence of light reflected from the bottom.

Experimental floats were used for attracting fishes and for some relative visibility measurements. They consisted of white-painted wooden cargo pallets which were nailed together to form three different size structures (1.1 m², 2.1 m² and 3.6 m²). These floats were anchored in 3 m of water in Cazenovia Lake, N.Y. Fishes were counted beneath and within 1 m of the three floats and a 1 m² empty frame control float on 26 occasions from August to October 1976 (see Helfman, 1979a, for details). One series of relative visibility measurements was made under the largest float to obtain prelim-

Abstract

Temperate lake fishes are attracted to the shade produced by floating objects. Mechanisms underlying this attraction were investigated by measuring the relative visibility of a target both under and away from the shade of a float. During most conditions, a shaded observer could see objects farther away than could an unshaded observer. Importantly, a shaded observer could see a sunlit target at more than 2.5 times the distance at which a sunlit observer could see a shaded target. This relative visual advantage may result from two interacting visual phenomena: 1) the increment threshold response, whereby a sunlit viewer has a raised contrast perception threshold and therefore has difficulty responding to a shaded target; and 2) the veiling brightness effect, whereby particles between sunlit observer and shaded target scatter relatively bright light into the observer's eyes, further reducing the target's visual contrast. Shade-producing objects may attract fishes because the objects function to reduce both background light and veiling brightness. A fish hovering in shade is better able to see approaching objects and is simultaneously more difficult to see.

Journal Information

Copeia is an internationally respected, widely-cited quarterly that publishes original research on fishes, amphibians and reptiles, emphasizing systematics, ecology, conservation, behavior, genetics, morphology and physiology.

Publisher Information

The American Society of Ichthyologists and Herpetologists is dedicated to the scientific study of fishes, amphibians, and reptiles. The primary emphases of the Society are to increase knowledge about these organisms, to disseminate that knowledge through publications, conferences, symposia, and other means, and to encourage and support young scientists who will make future advances in these fields. The programs of the American Society of Ichthyologists and Herpetologists are part of a global effort to interpret, understand, and conserve the Earth's natural diversity and to contribute to the wise use of natural resources for the long-term benefit of humankind.

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*Footnote on Gene S. Helfman

(PHD in Ecology, Cornell; Professor Emeritus teaching 30 years at University of Georgia, authored books and dozens of scientific studies, married to Dr. Judy Meyer, and aquatic ecologist, and currently lives on Lopez Island. Abstract copy included.

CC: Commissioners Browning, Janicki, Wesen

OVERWATER STRUCTURES AND NON-STRUCTURAL PILING WHITE PAPER

Prepared for

Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, Washington 98501-1091

Prepared by

Jones and Stokes Associates
11820 Northup Way, Ste E300
Bellevue, Washington 98005

In association with

Anchor Environmental, L.L.C.
1423 Third Avenue, Suite 300
Seattle, Washington 98101

R2 Resource Consultants
15250 NE 95th Street
Redmond, Washington 98052

December 2006



White Paper
Research Project T1803, Task 35
Overwater Whitepaper

**OVERWATER STRUCTURES:
MARINE ISSUES**

by

Barbara Nightingale
Research Assistant
School of Marine Affairs

Charles A. Simenstad
Senior Fisheries Biologist
School of Aquatic and Fishery Sciences

University of Washington
Seattle, Washington 98195

Washington State Transportation Center (TRAC)
University of Washington, Box 354802
University District Building
1107 NE 45th Street, Suite 535
Seattle, Washington 98105-4631

Washington State Department of Transportation
Technical Monitor
Patricia Lynch
Regulatory and Compliance Program Manager, Environmental Affairs

Prepared for

Washington State Transportation Commission
Department of Transportation
and in cooperation with
U.S. Department of Transportation
Federal Highway Administration

May 2001

Assessor <assessor@co.skagit.wa.us>
To: 'dennis.katte@frontier.com'
Fri, Mar 19 at 1:09 PM

Dennis,

Please see information below related to your request.

Skagit County lakefront parcel counts and assessed values

Region	Lakes	parcels	assessed value
Fidalgo Is	Campbell, Erie, Trafton	94	\$55,707,900
Conway	McMurray, Sixteen	104	\$33,880,263
Sedro Woolley	Big Lake	402	\$200,425,422
	Lake Cavanaugh	493	\$256,857,700
	Clear Lake	32	\$14,197,100
	Totals	1125	\$561,068,385

Dave Thomas

Skagit County Assessor

700 South Second Street, Room 204

Mount Vernon, WA 98273

360 416-1777

Comment 15

May 8, 2021

Skagit County Planning Commission

1800 Continental Place
Mount Vernon WA 98273

RE: Skagit County SMP Update

Dear Commissioners,

Thank you for the opportunity to comment on the Update for our County's Shoreline Management Program.

I am a property owner on the far west shore of Lake Cavanaugh where my family has been part of the community for more than 66 years. My comments were originally made in my correspondence, dated March 13, 2016, which have been included in the SMP Update reference package, page 258.

I hope you will give my comments your full consideration.

DIMENSION STANDARDS PAGE 6

The **100 ft building setback** is unsubstantiated and objectionable. Such a setback would force new structures to have their peripheral vision cut-off and the sense of open space and a waterfront experience would be lost, unless the sideyard landscaping and trees are cleared. Worse yet, the edges of the view would typically be obstructed by both the neighbor's existing improvements, which are historically located much closer to the shoreline, and by the densely treed buffers commonly maintained along the shared property lines. Further, such a setback will substantially reduce the likely planting of lawns along the lake frontage.

I recognize that certain percentages of this 100 ft requirement are under consideration. Although much appreciated, such administrative decisions are not necessary.

A codified **50 ft building setback is more appropriate** for Lake Cavanaugh – a dimension that is allowed by many other nearby jurisdictions.

At a minimum, I support the allowance of Variances as described in 14.26.735, which allows for reasonable discretion of the County Administration and the Hearing Examiner, an authority that has been fairly administered over the decade.

PROPOSED DOCK STANDARDS PAGE 99 to 101, including **TABLE 14.26.420-1**

The proposed SMP Update ignores two critical understandings of Lake Cavanaugh:

1. Lake Cavanaugh is a lake with **NO anadromous fish**.
2. Lake Cavanaugh water **height varies up to 5 ft**, summer to winter.

Why the County is choosing to ignore these facts is unexplained and both **substantially taint the conclusions** of the SMP Update as it would apply to Lake Cavanaugh.

Further a survey of existing owners confirms that there is **NO SUPPORT** for Joint -Use Docks, so any such incentives only create an illusion of change.

The following comments are in reference to "Individual Docks"

Dock Height

The maximum height is noted "from Surface Water", a measurement which I support, understanding that surface water would mean the **ordinary summer level**.

However, if the SMP Update is intended to state that the dock height be not less than 1.5 ft “above the OHWM”, know that such a measurement would yield a dock height of 8 ft !! above the Summer water line.

Cavanaugh varies greatly from low (summer) to high (winter) water	4 ft to 5 ft
Clearance, as specified here, above the OHWL	1.5 ft
The dock, beams, joists and decking	<u>2.0 ft</u>

Dock height of above the Summer water line 7.5 ft to 8.5 ft

This would be absurd... and in direct conflict with the earlier declaration that improvements "do not unreasonably interfere with shoreline views". OHWL **clearance, should not apply** to Lake Cavanaugh, since the summer water height is so different from the OHWL.

Dock Width

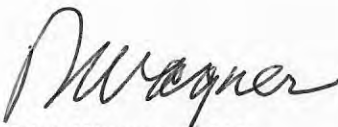
The **Maximum Width is too restrictive.** The proposed 4 ft requirement does not honor the fact that Cavanaugh has **NO anadromous fish** – a criteria set-out by WAC 220-660-14-0 (3)(c) i. And, 4ft walkway width above a water surface is dangerous.

All too casually, this anadromous classification lakes has been deleted in the current Update, even though it was clearly recognized in previous SMP regulations and by the State WAC. At Lake Cavanaugh, the **dock width should remain a maximum of 6 ft.**

Dock Floating Sections

The proposed **area limit for Floating Sections is too restrictive.** The proposed 8 ft x 8 ft would only allow for two lounge chairs, ...so where's the cooler go? And the paddle boards and kayaks? At a minimum, if the owner does not propose a swim float, the allowable area of the float should be increases to 192sf. (12ft x 16ft). The increase is much deserved considering that the piles and/or anchorages for the swim float would not be required.

Thank you for your consideration of these comments.



Rich Wagner, FAIA
Lake Cavanaugh Family Owner for 65 years
32787 S Shore Dr., Mt Vernon, WA.
WagnerR@BaylisArchitects.com

Planning Commissioner for 14 years in Renton, WA.

cc: Peter Gill, APA, Long Range Planning Manager
Betsy Stevenson, AICP, Senior Planner

Comment 16

May 10, 2021

Skagit County Planning Commission

1800 Continental Place

Mount Vernon, WA 98273

RE: Skagit County SMP Update

Section 14.26.735 Shoreline Variance

The variance described in this section offers the property owner a method whereby development can be achieved on “non-standard”, or irregular shaped lots which preclude strict adherence to standards as established by the SMP. This is very reasonable and should benefit those owning such properties.

Paragraph (2) (a) states “Administrative variance. An application to reduce a standard buffer width by 50% or less is an administrative variance.” Most people associate property width as being a side-to-side measurement and depth to be a length measurement, or in this case, from the OHWM landward.

The verbiage should be clarified prior to adoption, and if width is contrary to the public interpretation, indicated herein then it requires additional clarification and possible debate.

Thank you for your consideration and resolve of this comment.

Dennis Katte, LCIA SMP Update Chairman

33164 West Shore Drive

Mount Vernon, WA 98273

206-734-1288

Comment 26

Skagit County Shoreline Master Program Comprehensive Update & Periodic Review

Planning and Development Services

1800 Continental Place

Mount Vernon, WA 98273

June 12, 2021

14.26.420.1 Standards for Docks

I am writing to strongly object to the new standard width of piers which were reduced 33% from 6' to 4' for single users.

Your commented note (A94) on page 100 states that Planning originally was going to use WAC 220 -660-140 standards but decided to use the table format. Further, it states that "...most of the width standards are in line with the WAC." Only this one does not----WHY? Change it back to 6' and then they would all be consistent.

The WAC portion in discussion follows:

- (i) **"Limit the width of residential piers and docks to six feet for the first thirty feet from the shoreline (measured from mean low water). Limit the width of recreational piers to the minimum width needed to accommodate the intended use.**

Note that the WAC has not been changed and allows 6' residential piers in both fresh and saltwater.

The "intended use" of a pier is to facilitate access along its length as persons or pets travel to the end (to use a floating or stationary larger section for boat access, swimming, sunbathing, fishing, etc. Obviously, "intended use" also connotes "the ability to safely use", best achieved by a wider than 4' width. Why is the County totally ignoring the safety issues?

Consider a toddler walking out to his family at pier's end, and their dog comes running from behind slightly brushing against the toddler. Toddler falls on pier but rolls off into water.

Consider several kids running to the end racing as kids do. Get legs tangled and one falls in.

Consider an elderly person walking and not paying full attention slightly losing balance. Falls in shallow water, hits bottom and is injured. How about a person in a wheelchair or a walker?

Consider two people moving dock furniture a kayak or water toys out to the end. Throw in the possibility one is walking backwards. One foot goes half over edge. Drops load and falls over edge.

Consider darkness as piers are normally unlit. Person walks toward house, looks up, loses night vision, falls over edge into shallow water and is injured.

Why has Planning reduced the width to 4'?

Commented (A95) "Recommended by Ecology and WDFW to use consistent width requirement for docks". This statement may be true but is ludicrous and simply a cop out. Planning wants to use a 6' width for marine waters and 4' for freshwater docks. The table indicates such. If consistent, both would be 6'. In fact, WAC 220-360-380 for piers and docks in saltwater limits piers to 6'. Planning's goal here seems only to create revenue from Administrative Variances. Other than the 4' pier, all others would be consistent. Why is Planning ignoring the safety aspect? This is an insult to the 1125 waterfront parcel owners in Skagit County. Does the County build 4' sidewalks?

We believe this change was suggested by Watershed. If so, and if Planning went along as it seems, then Planning simply rubber-stamped it without questioning and certainly without considering its 895 lakefront parcel owners on Big Lake and Lake Cavanaugh thereby doing them a great dis-service and severely reducing the safety level of piers. And for what logical reason? There is none I can think of that override the safety issue. There are another 230 lakefront parcels on the other six freshwater county lakes.

There's an easy solution----change the 4' new standard to 6'. Then it would be consistent and would also offer greater safety for users. In fact, King County has a MINIMUM pier width of 5'.

Cc: Commissioners Peter Browning, Lisa Janicki, Ron Wesen

Respectfully submitted,

Dennis Katte

Lake Cavanaugh Improvement Association SMP Update Chairman

33164 West Shore Drive

Mount Vernon, WA 98273

Tel. 206-732-1288

Comment 27

SMP

Boat Lift Covers –

Supposedly boat lift covers are to be “light permeable fabric.” Is there a percentage or a way to measure permeability of fabric? What type of fabric would be adopted in the new ordinance and what manufacturer makes this cover? There are none that currently exist to my knowledge. Boat lift covers as they exist protect our boats from the elements. The sun fades the gel coat color and dry rots the upholstery. Therefore, the covers are not light permeable. Many of our boats on Lake Cavanaugh are quite expensive. To suggest that we diminish the quality of the fabric protecting our boats from the sun and the elements is like saying that we should not park our expensive car in the garage but in fact, leave it parked outside! This seems an absurd request!

Dock Floats –

The dock consists of a pier, ramp, and float. The proposed ordinance is noticeably clear as to the size of the pier and ramp but makes no mention of the size of the float. My assumption is that it is 8 feet wide but does not specify the length of the float. Eight feet by 10 feet, 15 feet, 20 feet? Clearly one would need to tie up their boat for moorage if not using a lift or visiting neighbors and the average boat length is 20 to 22 feet.

Dock Grating –

The proposal does not address grating material. Is the grating fiberglass, metal, or plastic? Our docks are walked on by all ages with bare feet and sat on in swimsuits in the summertime, will the grating material become too hot from the penetrating sun for us to use our docks as we are accustomed? Is the grating surface flat for patio furniture to sit atop without tilting? Many people fish from these docks, especially children. I am visualizing fishing gear following through or hooks becoming lodged in the grating. Shouldn't the material or product be specified prior to implementing or adopting a new ordinance? Depending on the grating material, the size of the openings could be problematic. For instance, a Labrador Retriever would have no issue, but a Yorkshire Terrier or Chihuahua paws could go through the grating and break a leg.

At Lake Cavanaugh some fish find shelter or hide from predators under shaded docks.

The proposals seem to group saltwater and fresh water, lakes, rivers, and Puget Sound properties into the same categories. It seems that there should be different variances for each based on fish, vegetation, and topography. These ordinances are being drawn up and proposed as a “one size fits all” document which does not seem to make sense and are not science based.

Currently Lake Cavanaugh is on the docket for an updated boat launch. Included in the plan is a new dock where one has not previously existed. The boat launch is maintained and owned by the Department of Fish and Wildlife. Will the DFW be required to follow the same proposed ordinances or receive a variance or are they exempt?

New Construction –

The proposal of a 100-foot set back from the high-water mark would make most lots virtually unbuildable due to the land topography. Apparently, there is a variance process, but the county is so backed up that this creates just another delay in an already exhausting permit process.

Larita Humble
Lake Cavanaugh Improvement Association President
6.12.2021

Comment 28

By Web Portal

June 16, 2021

Skagit County Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

**Re: Skagit County Shoreline Master Program Comprehensive Update & Periodic Review--
Combined Comments of Evergreen Islands, Washington Environmental Council, RE
Sources, and Guemes Island Planning Advisory Committee**

Dear Skagit County PDS,

The Puget Sound Partnership (“Partnership”) characterizes the Puget Sound as “a national and tribal treasure...worthy of our every effort for protection and restoration.”¹ But Puget Sound is “in grave trouble,” epitomized by the listing of Southern Resident orcas, Chinook salmon, steelhead, and many other species under the Endangered Species Act (“ESA”).² Indeed, every one of the 59 populations of Chinook salmon, steelhead, and bull trout that call Puget Sound home suffer the dubious distinction of listing under the ESA, and “[n]one are close to recovery.”³ Our shared waters continue to be polluted by toxic chemicals, pharmaceuticals, and fecal contamination that requires commercial and recreational shellfish closures.⁴ And shoreline development continues to add long-term habitat impacts with permitted and unpermitted bulkheading and the removal of shoreline vegetation critical for healthy ecosystems. To address these ills will require collaboration among “hundreds of partners in planning, prioritizing, and undertaking the actions needed to recover and sustain Puget Sound.”⁵

However, based on our review of Skagit County’s (“Skagit”) draft Shoreline Master Program comprehensive update (“Update”), Skagit appears to have declined this call to

¹ <https://psp.wa.gov/sos.php> (last visited June 4, 2021).

² Puget Sound Partnership, State of the Sound Report, 6 (Dec. 2, 2019), attached hereto as Attachment B.

³ State of Salmon in Watersheds 2020, Key Takeaways, *available at* <https://stateofsalmon.wa.gov/regions/puget-sound/> (last visited June 4, 2021).

⁴ *Id.*

⁵ <https://psp.wa.gov/sos.php>.

collaborate in the recovery of our salmon, orcas, and the people and species that depend on them. While the Update represents a significant overhaul of Skagit’s existing, antiquated Shoreline Master Program, and includes modernizing provisions that we welcome, it continues to authorize ecological impacts directly and through loopholes to standard protections, indefensibly fails to address sea level rise, and overlooks the current scientific understanding of shoreline development like overwater shading of submerged aquatic vegetation like seagrasses and macroalgae. Thus, while the Update might slow local species’ descents into extinction, it isn’t likely to arrest that trend.

In light of this background, we request that Skagit County accept its legal and moral obligation to prevent new impacts to the Salish Sea ecosystem, and offer these comments as a starting point for doing so. These comments address:

Section A – the ecological state of our Skagit County and Puget Sound shorelines;

Section B -- the Shoreline Management Act’s (“SMA”) ecological protection priority and requirements;

Section C – the direction provided in the Washington Department of Ecology Minimum Guidelines (“Guidelines”), including the requirement to use the most current technical and scientific information available;

Section D -- the inability of mitigation provisions to achieve no net loss;

Section E -- the Update provisions that we support;

Section F – confirmation that the County intends to track and address the cumulative impacts of shoreline development; and

Section G – several overarching concerns with the Update.

In addition, we have recommended specific language revisions in a matrix attached to this letter as Attachment A.

Evergreen Islands dedicates itself to promoting, protecting, and defending Skagit County’s unique saltwater island ecosystems, and to ensuring that Skagit County manage the expansion of its built environment protect local ecological treasures.

Washington Environmental Council is a 501(c)(3) organization founded in 1967. Our mission is to protect, restore, and sustain Washington’s environment for all, and we are committed to clean water protections for Puget Sound and for all Washington State waters.

RE Sources is a local organization in northwest Washington. Founded in 1982, RE Sources works to build sustainable communities and protect the health of northwest Washington's people and ecosystems through the application of science, education, advocacy, and action. RE Sources has over 20,000 supporters in Whatcom, Skagit, and San Juan counties.

A. The State of Puget Sound Shorelines.

Notwithstanding the millions of dollars dedicated to recovering the health of Puget Sound shorelines, the ecological health of the shorelines continues to decline, harming all the species that depend on them, including humans.⁶ According to the Puget Sound Partnership (“Partnership”), of the 28 vital sign indicators of Puget Sound ecosystem health with targets for 2020, only 4 met the target.⁷ As has been well-publicized, but bears repeating, the southern resident orcas have declined significantly since their listing on the Endangered Species Act in 2005, Puget Sound Chinook similarly haven’t improved since their listing in 1999, and Pacific herring numbers continue to decline.⁸ The Southern Resident orcas are threatened by: (1) an inadequate availability of prey, the Chinook salmon, (2) legacy and new toxic contaminants, and (3) disturbances from noise and vessel traffic.⁹ And Skagit County can play a significant role in their recovery--a 2018 analysis by the National Oceanic and Atmospheric Administration and the Washington Department of Fish and Wildlife ranked the fall Chinook stocks that originate in the Skagit River as highest in importance as a food source for the orcas and ranked the spring Chinook stocks in the Skagit River as high importance.¹⁰

⁶ Puget Sound Partnership, State of the Sound Report.

⁷ <https://vitalsigns.pugetsoundinfo.wa.gov/> (last visited June 6, 2021).

⁸ Puget Sound Partnership, State of the Sound Report, at 15.

⁹ State of Washington Office of the Governor, Executive Order 18-02 Southern Resident Killer Whale Recovery and Task Force p. 1 (March 14, 2018), available at: https://www.governor.wa.gov/sites/default/files/execute_order/eo_18-02_1.pdf, attached hereto as Exhibit C.

¹⁰ National Oceanic and Atmospheric Administration and the State of Washington Department of Fish and Wildlife, *Southern Resident Killer Whale Priority Chinook Stocks* p. 6 (June 22, 2018), available at: <https://www.documentcloud.org/documents/4615304-SRKW-Priority-Chinook-Stocks.html>, attached hereto as Exhibit D.

In-depth investigation by the member Tribes of the Northwest Indian Fisheries Commission has found similarly that the poor ecological health of Puget Sound watersheds continues to prevent them from receiving the benefits of Treaties signed decades ago, including the right to obtain adequate fish from their usual and accustomed places. In its portion of the 2020 State of Our Watersheds report, the Swinomish Indian Tribal Community set forth the following findings:¹¹

(1) while Skagit River tidal delta habitat restoration has proven successful, the pace has slowed since 2009 and the delta has reached only about 82% of the desired future condition established in the Skagit River Chinook Recovery Plan;

(2) since 2008, an additional 5 miles of nearshore armoring have severed the marine environment from its terrestrial connection;

(3) high stream temperatures continue to be a limiting factor for Skagit River Chinook and steelhead recovery, and reliance on voluntary efforts continues to fail to achieve sufficient riparian planting to meet needed temperatures; and

(4) of the 443 culverts on fish-bearing streams in the Skagit watershed, 352 were documented as fish-passage blockages and the other 91 were unknown but may block fish.

In light of these circumstances, we recommend measures that will improve protection and assist in ecological recovery, such as improved shoreline buffers to protect riparian vegetation, a prohibition against commercial fish feedlots, avoidance of impacts to eelgrass and macroalgae, and habitat restoration.

B. Shoreline Management Act.

In 1971, the Washington legislature enacted the SMA in response to the “recognition that the shorelines are fragile and that the increasing pressure of additional uses being placed on them necessitated increased coordination in their management and development.”¹² The

¹¹ Northwest Indian Fisheries Commission, *2020 State of Our Watersheds; A Report by the Treaty Tribes in Western Washington*, at 335-350, attached hereto as Exhibit E.

¹² RCW 90.58.020; *Buechel v. Dep’t of Ecology*, 125 Wn.2d 196, 203, 884 P.2d 910 (1994).

primary purpose of the SMA is “to protect the state shorelines as fully as possible,”¹³ and, in contrast with the general rule of strict construction, the SMA “is to be broadly construed in order to protect the state shorelines as fully as possible.”¹⁴ The SMA therefore establishes a policy that “contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while protecting generally the public right of navigation and corollary rights incidental thereto.”¹⁵ In addition, “uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment, or are unique to or dependent upon use of the state’s shoreline.”¹⁶ And in the limited instances when alterations of the natural condition of the shorelines of the state are authorized, the SMA gives priority to uses that promote public access, like ports, parks, marinas, piers, and single family residences.¹⁷

In addition to protections for all shorelines, the SMA establishes heightened protection for shorelines of statewide significance. Skagit County contains sizeable stretches of shorelines of statewide significance, including Skagit Bay and Padilla Bay up to the Ordinary High Water Mark and all other shorelines up to the extreme low tide line.¹⁸ For these shorelines, the SMA sets forth a preference in the following order for uses that:

- (1) recognize and protect the statewide interest over local interest;
- (2) preserve the natural character of the shoreline;
- (3) result in long term over short term benefit;
- (4) protect the resources and ecology of the shoreline;
- (5) increase public access to publicly owned areas of the shorelines;
- (6) increase recreational opportunities for the public in the shoreline; and

¹³ *Lund v. Dep’t of Ecology*, 93 Wn. App. 329, 336-37, 969 P.2d 1072 (1998) (quoting *Buechel*, 125 Wn.2d at 203).

¹⁴ RCW 90.58.900; *Buechel*, 125 Wn.2d at 203.

¹⁵ *Buechel*, 125 Wn.2d at 203 (citing RCW 90.58.020; *Caminiti v. Boyle*, 107 Wn.2d 662, 732 P.2d 989 (1987)).

¹⁶ RCW 90.58.020.

¹⁷ *Id.*

¹⁸ *Id.*; RCW 90.58.030(2)(f).

(7) provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.¹⁹

C. Shoreline Master Program Guidelines.

In 2003, the Washington Department of Ecology (“Ecology”) adopted the Shoreline Master Program Guidelines (“Guidelines”) to assist counties in updating their SMPs for consistency with the SMA and applicable advances in scientific knowledge.²⁰ The Guidelines establish binding state agency rules and must be satisfied by shoreline master program updates.²¹ The sections below: (1) explore the Guidelines’ scientific requirement; (2) identify the requirement to monitor and address cumulative impacts; and (3) set forth the Guidelines’ requirements for ecological protection and restoration.

1. The SMA and Guidelines emphasize ecological protection and restoration.

The Guidelines draw upon the SMA to direct SMPs to protect and restore shoreline habitat. For example, the Guidelines incorporate the SMA’s hierarchy for shoreline uses noted above and acknowledge the SMA’s emphasis on the “the maintenance, protection, restoration, and preservation” of the shoreline environment.²²

The Update must both conserve remaining ecological functions and promote the restoration of impaired ecological functions.²³ First, the Update must “include regulations and mitigation standards ensuring that each permitted development will not cause a net loss of ecological functions of the shoreline.”²⁴ Second, the Update must ensure that the aggregated impacts of exempt development will not cause a net loss of ecological functions.²⁵ Third, counties that contain shorelines with impaired functions must include goals and policies to restore those functions and must coordinate and facilitate restoration projects through their

¹⁹ RCW 90.58.020.

²⁰ Chapter 173-26 WAC.

²¹ RCW 90.58.030(3)(b) & (c), .080(1) (“[l]ocal governments shall develop or amend a master program for regulation of uses of the shorelines of the state consistent with the required elements of the guidelines adopted by the department in accordance with the schedule established by this section) & (7).

²² WAC 173-26-186(8).

²³ WAC 173-26-181, -186(8), -201(2)(c), -201(2)(f), -221(2), -221(5), -221(6).

²⁴ WAC 173-26-186(8)(b)(i).

²⁵ WAC 173-26-186(8)(b)(ii).

SMPs.²⁶ Thus, the Update must protect resources even in substantially developed or degraded areas because they can retain important ecological functions, like an intensely developed harbor that also serves as a fish migration corridor.²⁷

To achieve adequate ecological protection, counties must manage shorelines to safeguard both: (1) ecosystem-wide processes like the presence and movement of fish and wildlife; and (2) individual components and localized processes like those associated with shoreline vegetation.²⁸ More specifically, the Update must offer policies and regulations that protect and restore **critical habitats**, including wetlands, critical freshwater habitats, and critical saltwater habitats like kelp and eelgrass beds, spawning and holding areas for forage fish, subsistence, commercial and recreational shellfish beds, mudflats, intertidal habitats with vascular plants, and areas with which priority species have a primary association.²⁹ The Update must therefore:

- Establish adequate buffer zones around critical saltwater habitats to separate incompatible uses;
- Protect existing and restore degraded near-shore habitat;
- Protect existing and restore degraded or lost salmonid, shorebird, waterfowl, or marine mammal habitat;
- Protect existing and restore degraded upland ecological functions important to critical saltwater habitats, including riparian and associated upland native plant communities;
- Improve water quality; and
- Protect existing and restore degraded sediment inflow and transport regimens.³⁰

The Guidelines also require the protection of adequate shoreline **vegetation**. To protect

²⁶ WAC 173-26-186(8)(c); -201(2)(c).

²⁷ WAC 173-26-201(2)(c).

²⁸ WAC 173-26-201(2)(c).

²⁹ WAC 173-26-221(2)(b)(iii), (c)(i), (c)(ii), and (c)(iii).

³⁰ WAC 173-26-221(2)(c)(iii)(B). It is important to note that although the Guidelines state that the “management planning should address those protections, the Guidelines define “should” as a mandatory term, stating that “‘should’ means that the particular action is required unless there is a demonstrated, compelling reason, based on policy of the Shoreline Management Act and this chapter, against taking the action.” WAC 173-26-020(35).

property, human safety, visual qualities of the shoreline, and plant and animal species and their habitat, the Update must also protect and restore the ecological functions and ecosystem-wide processes performed by vegetation along shorelines.³¹ SMPs must plan to conserve and restore vegetation and incorporate regulations that assure no net loss of shoreline ecological functions and ecosystem-wide processes, avoid adverse impact to soil hydrology, and reduce the hazard of slope failures and accelerated erosion.³²

Last, the Guidelines' no-net-loss standard contemplates truly avoiding impacts where possible, rather than allowing impacts and then relying on aspirational compensatory mitigation to fix the impacts.³³ Thus, where a use or development is necessary to achieve another goal of the SMA, SMPs must "protect existing ecological functions and avoid new impacts to habitat and ecological functions" before implementing compensatory mechanisms.³⁴

2. The Update must be based on the most current, accurate, and complete scientific and technical information available.

In contrast with the Growth Management Act, which requires the Best Available Science to be "included" in the record, the SMA requires counties to understand and incorporate current scientific and technical information into the Update.³⁵ The statute directs counties to "[u]tilize a systematic interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts" and to "[u]tilize all information regarding hydrology, geography, topography, ecology, economics, and other pertinent data."³⁶ The Guidelines reiterate this requirement, instructing counties to review and amend the SMP through a process that "ensures meaningful understanding of current and potential ecological functions provided by affected shorelines."³⁷ The Guidelines further require that SMPs be based on "an analysis incorporating the most current, accurate, and complete scientific and technical

³¹ WAC 173-26-221(5)(b).

³² *Id.*

³³ WAC 173-26-201(2)(c).

³⁴ *Id.*

³⁵ RCW 90.50.100(1)(a), (e); WAC 173-26-201(2)(a).

³⁶ RCW 90.50.100(1)(a), (e).

³⁷ WAC 173-26-186(8)(a) (emphasis added).

information available.³⁸ To achieve this requirement, counties must first identify and assemble this information and then incorporate it where applicable.³⁹ In addition, counties should use the scientific information to identify risks that SMP provisions pose to ecological functions as well as assumptions and data gaps related to the scientific information used.⁴⁰

As noted in the attached matrix and below, several provisions in the Update are not based on an analysis incorporating the most current, accurate, and complete scientific and technical information available.

D. Alterations of Critical Areas and Buffers in the Shoreline Must Be Strictly Curtailed Because Compensatory Mitigation Typically Fails to Replace Lost Functions.

Although few studies have evaluated success rates for marine mitigation projects, studies of wetland mitigation projects indicate that compensatory mitigation typically does not replace lost ecological functions even in the readily-visible terrestrial world. Twenty-five years ago, Race and Fonseca synthesized surveys of mitigation projects and found significantly flawed mitigation projects that: (1) did not adhere to established mitigation policies; (2) were frequently unsuccessful; and (3) often missed the deadline.⁴¹ Race and Fonseca stated that “[t]here is need to acknowledge the extent to which non-scientific, real-world complications plague current policies and practices.”⁴² Another broad survey of structural and functional loss in restored wetlands found that after 100 years, 621 wetland sites continued to suffer biological structure and biogeochemical functioning 26% and 23% below reference sites.⁴³ And a 2008 study of 23 wetland mitigation projects found similarly that: (1) 67% of the projects did not meet permit requirements for wetland areas; (2) open-water/emergent wetlands were exchanged for scrub/shrub forested wetlands; (3) wetlands decreased in number from 134 to

³⁸ WAC 173-26-201(2)(a) (emphasis added).

³⁹ *Id.*

⁴⁰ WAC 173-26-201(2)(a)(ii), (iii).

⁴¹ Margaret S. Race and Mark S. Fonseca, *Fixing Compensatory Mitigation: What Will It Take?*, 6 Ecological Applications 1, 94-101 (1996) (stating at page 97 that “[b]ased on over a decade of survey results, the cumulative record of past mitigation projects remains undeniably poor overall, with disappointingly few examples of success,” and noting that exemptions virtually guarantee incremental loss of wetlands), attached hereto as Attachment F.

⁴² Race and Fonseca, at 1.

⁴³ Moreno-Mateos, *et al.*, *Structural and Functional Loss in Restored Wetland Ecosystems*, 10 PLoS Biology 1 (Jan. 2012), attached hereto as Attachment G.

65; and (4) smaller wetlands were lost.⁴⁴

Last, a 2009 paper examined the reasons that biodiversity trading programs like critical areas compensatory mitigation provisions fail to achieve no-net-loss and found that such programs can succeed where the trade involves a simple, relatively measurable commodity, like sulfur dioxide in the air, but that they fail when attempting to trade biodiversity like wetland or riparian ecosystems because of their complexity, difficulty in measuring their functions, and lack of directly interchangeable parts.⁴⁵ Particularly pertinent here, the authors conclude that,

given the option of saying to developers ‘yes, with conditions’ rather than ‘no,’ officials will prefer ‘yes, with conditions’ – particularly where compliance with conditions cannot be credibly measured and officials can avoid accountability for outcomes. Legitimized bartering can thus create a policy situation ‘obscure enough to please all parties...and so ill-defined that failures...will be difficult to detect and impossible to litigate.’ ...In sum, while compensation and no net loss are worthy goals, and bartering biodiversity might appear more promising than simple and weakly enforced prohibitions, this article suggests policies that enable biodiversity trading may perversely yield worse biodiversity outcomes.⁴⁶

This inability to ensure the replacement of complex ecosystems impacted by development warrants a greater emphasis on preventing development and uses that would impact shoreline ecological functions and thus require compensatory mitigation.

E. Improvements in the Update.

We support the following practices that would be established by the Draft Update.

1. Conservation of vegetation within the shoreline.

14.26.380 Vegetation Conservation – Includes specific, detailed requirements to protect trees and vegetation along the shoreline. Regulations limit tree pruning and protect groups of trees to maintain stand integrity and reduce susceptibility to wind throw. The section specifies retention of tree canopy cover by shoreline designation.

14.26.455 Forest Practices – Any deviation from selective commercial tree cutting standards of RCW 90.58.150 can only be authorized through the issuance of a shoreline conditional use permit.

2. Site assessments and field monitoring.

⁴⁴ Kettlewell, *et al.*, *An Assessment of Wetland Impacts and Compensatory Mitigation in the Cuyahoga River Watershed, Ohio, USA*, 28 *Wetlands* 1, 57 (3/2008), attached hereto as Attachment H.

⁴⁵ Walker, *et al.*, *Why bartering biodiversity fails*, *Conserv. Ltrs* 2 (2009), attached hereto as Attachment I.

⁴⁶ *Id.* at 155 (quoting Walker *et al.* 2008:226; Winter 1985).

14.26.515 Standard Critical Areas Review and Site Assessment – All critical area application review procedures include a site inspection. In addition, Protected Critical Areas (PCAs) must be depicted on site plans, recorded and identified in the field. PCAs must be signed and buffer edges permanently marked. **We support access** for administrative officials to monitor permit compliance and mitigations. “Owners of PCAS shall grant ingress and egress by the Admin official for monitoring and evaluation of compliance with established conditions of approval, binding conditions or any required mitigation.” A complete record of checklists, approvals,... maintained by the County and available upon public request.

3. Interdisciplinary teams for technical assistance.

14.26.590 Interdisciplinary Team – the Admin Official or Hearing Officer... may utilize an interdisciplinary team to provide technical assistance where necessary to assess a proposal or make a determination. A complete record will be maintained with written opinions.

4. Designating habitats and species of local importance.

14.26.570 Fish and Wildlife Conservation Area Designations – The regulations include an explicit, transparent process for nominating habitats and species of local importance which may be designated by the Administrative Official. This can serve as a model for other SMPs and Critical Area Ordinances.

5. Consideration of the cumulative impacts of granting variances.

14.26.735 Shoreline Variance – In granting of all variances, consideration must be given to the cumulative impacts of additional requests for like actions in the area. Total variances must not cause substantial adverse effects to the shoreline environment.

F. Ensuring That Cumulative Impacts Are Tracked and Addressed.

The Guidelines emphasize the need to evaluate and consider the cumulative impacts of reasonably foreseeable future shoreline development.⁴⁷ As an administrative matter, the Guidelines direct counties to establish a mechanism to document and periodically evaluate the cumulative effects of authorized development on shoreline conditions.⁴⁸ **We understand that County staff have identified the need to conduct this monitoring and we welcome that effort and request that the mechanism for doing so be made public during this update process.**

G. Overarching Comments.

As noted above, the attached matrix identifies the recommended changes to specific

⁴⁷ WAC 173-26-186(8)(d).

⁴⁸ WAC 173-26-191(2)(a)(iii)(D).

Update text.⁴⁹ In addition, we set forth below several overarching comments regarding:

- (1) support for provisions to honor Tribal rights;
- (2) the need to include language in the Update that addresses and prevents impacts associated with sea level rise;
- (3) the need to require a variance for the expansion and replacement of nonconforming residential structures;
- (4) the need for standardized water quality buffers across all Skagit County codes for herbicides and pesticides;
- (5) the need to enforce seawater intrusion protections; and
- (6) a recommendation to apply the conditional use permit process for shoreline armoring.

1. Honoring Tribal Treaty Rights.

We fully support the ability of Tribal members to exercise their Treaty rights, including their rights to protect their cultural and archaeological resources and to fish in their usual and accustomed places (and concomitant right to have an adequate amount of fish available to catch). Consistent with that position, we request that the Update include language to prevent the installation of mooring buoys in locations that would interfere with fishing by Tribal members in usual and accustomed places. We also support the Update's provisions to notify Tribes of actions with the potential to interfere with those rights, and recommend that Skagit consider adding a project approval review expressly directed toward evaluating potential impacts to a Tribe's cultural resources from shoreline development if that is desired by Tribes with interests in the county.

2. Sea level rise must be addressed.

Projected sea level rise poses one of the greatest potential disruptors to future shoreline protection and management, but has gone largely unaddressed in the Update. According to Projected Sea Level Rise for Washington State, a 2018 assessment, significant increases are expected for sea levels along Skagit County shorelines.⁵⁰ For example, after incorporating factors like vertical land movement, there is a 50% chance that by 2050, sea levels will rise in Skagit

⁴⁹ Attachment A.

⁵⁰ Washington Coastal Resilience Project, *Projected Sea Level Rise for Washington State; a 2018 assessment* (2018) (updated July 2019), attached hereto as Attachment J.

County by 0.6 feet for a low carbon emissions scenario and by 0.7 feet for a high emissions scenario.⁵¹ By 2100, those numbers increase to 1.6 feet for a low emissions scenario and 2.1 feet for a high emissions scenario.⁵² As can be seen on the National Oceanic and Atmospheric Administration sea level mapping tool available at: <https://coast.noaa.gov/digitalcoast/tools/slr.html>, a substantial amount of the Skagit River delta becomes inundated by sea level rise at levels approaching 2 feet.⁵³ That mapping tool already shows shallow coastal flooding areas in a large swath across this same area and marshes starting to migrate into this area at just ½ foot of rise.⁵⁴ In addition, not only is sea level rise very real, the rate is accelerating.⁵⁵

Naturally, given the significant anticipated sea level rise for our region, Ecology recommends that counties address sea level rise adaptation in SMP goals, policies, and regulations.⁵⁶ Ecology notes that SMPs “are essential tools in assuring the wise development of coastal areas and the protection of public resources as sea level increases. Many potential problems associated with sea level rise will intensify existing management challenges such as development in flood prone areas, construction of shoreline armoring, protection of beaches and salt marshes, and siting a variety of shoreline uses.”⁵⁷ Consequently, Ecology recommends “[l]imiting new development in highly vulnerable areas.”⁵⁸ In addition, to ensure the protection of shoreline ecological functions, wetlands and shoreline vegetation must be allowed to migrate landward as naturally as possible.⁵⁹

⁵¹ Relative Sea Level Rise Projections for Coastal Area Near 48.5N, 122.5W (Padilla Bay), attached as Attachment K.

⁵² *Id.*

⁵³ NOAA Office of Coastal Management DigitalCoast, Sea Level Rise Viewer, *available at* <https://coast.noaa.gov/digitalcoast/tools/slr.html> (last visited June 7, 2021).

⁵⁴ *Id.*

⁵⁵ William and Mary Virginia Institute of Marine Science, *U.S. West Coast Sea-Level Trends & Processes, Trend Values for 2019*, *available at*: https://www.vims.edu/research/products/slrc/compare/west_coast/index.php (last visited June 7, 2020), screen shot attached hereto as Attachment L.

⁵⁶ Wash. Dept. of Ecology, Appendix A: Addressing Sea Level Rise in Shoreline Master Programs, 7, attached hereto as Attachment M.

⁵⁷ Wash. Dept. of Ecology, Appendix A: Addressing Sea Level Rise in Shoreline Master Programs, 5

⁵⁸ Ecology, *Preparing for a Changing Climate; Washington State’s Integrated Response Strategy*, Pub. No. 12-01-004, 90 (April 2012), attached hereto as Attachment N.

⁵⁹ C. Craft, *et al.*, *Forecasting the effects of accelerated sea-level rise on tidal marsh ecosystem services*, FRONT ECOL ENVIRON 2009; 7, doi:10.1890/070219, at 6, attached hereto as Attachment O. (Frontiers in Ecology and the Environment is a peer-reviewed scientific journal).

To address sea level rise, Ecology cites several sample policies:

King County shall ensure that new projects for any major maintenance or replacement of utilities, roads, and other public infrastructure consider the impacts of sea level rise in the location, design, and operation of the projects; and

Habitat protection and restoration projects in the shoreline jurisdiction shall consider implications of sea level rise and other climate change impacts to promote resiliency of habitats and species.

Encourage all use and development to address potential adverse effects of global climate change and sea level rise.

To these suggestions, we add the following:

New lots and new and expanded development should be located so they will not interfere with the landward expansion and movement of wetlands and aquatic vegetation as sea level rises.

Policies like the above are not only necessary to protect residents and shoreline ecology, they are required by the SMA's direction to use the most current, accurate, and complete scientific and technical information available, as well as the SMA requirement to include "[a]n element that gives consideration to the statewide interest in the prevention and minimization of flood damages...."⁶⁰ Consistent with that directive, we recommend that Skagit County adopt an adaptation policy within Chapter 6 of the SMP's Comprehensive Plan language that: precludes shoreline armoring and construction of dikes in response to rising sea levels.

Consistent with these policies, we recommend three new development regulations to address sea level rise:

- 1. New lots shall be designed and located so that the buildable area is outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.*
- 2. Where lots are large enough, new structures and buildings shall be located so that they are outside of the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.*
- 3. New and substantially improved structures shall be elevated above the elevation likely to be gained by sea level rise by 2100, or for the life of the structure, whichever is less.*

⁶⁰ WAC 173-26-201(2)(a); RCW 90.58.100(2)(h).

In addition to these policies and development regulations, we recommend that Skagit County implement the following comprehensive approach to adapting to sea level rise, as outlined by the California Coastal Commission:

1. *Determine the range of sea level rise projections relevant to the Skagit County shorelines subject to tidal influence. As a planning horizon, the County may want to note that development constructed today is likely to remain in place over the next 75-100 years or longer.*⁶¹
 2. *Identify potential physical sea level rise impacts on the Skagit County shorelines subject to tidal influence.*
 3. *Assess potential risks from sea level rise to the resources and development on the shorelines subject to tidal influence.*
 4. *Identify adaptation strategies to minimize risks. The California Coastal Commission Sea Level Rise Policy Guidance includes recommended adaptation strategies to consider.*⁶²
 5. *Include in the Update selected adaptation strategies.*
 6. *Implement the Update and monitor and revise as needed.*
- 3. The Update should require a variance for the expansion or replacement of non-conforming residential structures.**

The Guidelines acknowledge that it may be necessary to regulate existing uses to avoid harm to public health and safety or the environment.⁶³ The Guidelines also acknowledge that shoreline ecological functions can be impaired by past actions, unregulated activities, and exempt development.⁶⁴ As a result, the SMP must include provisions to address uses that become nonconforming in a manner that achieves the policies of the SMA consistent with constitutional or other legal limits.⁶⁵ This approach also offers an opportunity to achieve the Guidelines' mandate to improve shoreline ecological functions over time through restoration of impaired functions.⁶⁶

⁶¹ *California Coastal Commission Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits*, 69 – 95 (Nov. 7, 2018), available at: <https://www.coastal.ca.gov/climate/slrguidance.html> (last visited June 7, 2011), attached hereto as Attachment P.

⁶² *Id.* at 121 – 162.

⁶³ WAC 173-26-191(2)(a)(iii)(A).

⁶⁴ WAC 173-26-186(8).

⁶⁵ WAC 173-26-191(2)(a)(iii)(A).

⁶⁶ WAC 173-26-201(2)(f).

While the Update addresses nonconforming docks and bulkheads by requiring conformity with current rules upon replacement of those structures, it would allow full replacement of residential structures in some instances and increased nonconformity for expansions without a variance to protect against new impacts.⁶⁷ The County should take advantage of the reasonable opportunity that nonconforming rules offer to bring new construction into compliance with current rules and prevent expanded nonconformities. This approach is consistent with the SMA and Guidelines, it is consistent with the directive from the Washington Supreme Court that “[t]he present use of a nonconforming building may be continued but it cannot be increased nor can it be extended indefinitely if zoning is to accomplish anything.”⁶⁸

4. Standardized setbacks should apply to pesticide and herbicide application near waters.

For consistency with Comprehensive Plan policies that recognize the need to avoid contaminating water bodies with fertilizer and pesticide use (*e.g.*, Sections 6C-1.2 (Water Quality), 6G-4 (Water Quality, Stormwater and Nonpoint Pollution), the SMP’s development regulations should apply consistent setbacks for the application of pesticides and herbicides near county shorelines. At present, proposed Section 14.26.465 (Recreation Developments) specifies a 25 foot chemical-free swath adjacent to water bodies, while the wetland standards at 14.26.534 recommend establishing covenants to limit the use of pesticides within 150 feet of wetlands.

Consequently, to maintain the functions and values of shorelines and critical areas, we recommend that the SMP be revised to include a standard 100-foot setback from marine, lake, stream, and riparian shorelines and wetland edges for the application of pesticides or herbicides. Pesticides are pervasive in the waters of the Puget Sound, and impact aquatic biota including endangered species such as salmon and orca. The 100-foot distance has been recommended as an additional optional Best Management Practice by Ecology’s 2014 and 2019 Stormwater Management Manuals for Western Washington, both of which have been adopted by Skagit County.

⁶⁷ Update, at Part VI, Sections 14.26.610-.650.

⁶⁸ *State ex rel. Miller v. Cain*, 40 Wn.2d 216, 221, 242 P.2d 505 (1952).

5. Seawater intrusion protections must be enforced.

We appreciate the Update provisions addressing seawater intrusion areas, Section 14.26.550, and look forward to the County addressing this critical issue for many of our shorelines. As you are likely aware, community members have expressed concerns about past County practices that have allowed chloride pollution in Guemes Island's Sole Source Aquifer through seawater intrusion, which, according to local reports, has severely impacted the safe drinking water for some 65 individual homes. In fact, seawater intrusion likely caused by excess well drilling led to a well-documented Group A well failure in the Potlatch II development on Guemes Island, resulting in substantial costs for homeowners there. And despite evidence of multiple well failures due to seawater intrusion, the County has not restricted new well drilling on Guemes Island prior to the Update. We appreciate that, notwithstanding previous public positions to the contrary, the County is now embracing its authority to regulate well drilling to prevent seawater intrusion impacts caused by irresponsible shoreline well drilling. We look forward to the County enforcing these new rules to protect the drinking water supply for many of its constituents.

6. Conditional Use Permits for shoreline armoring.

Due to the substantial ecological impacts caused by shoreline armoring, we recommend that construction of bulkheads and other forms of armoring occur only pursuant to a conditional use permit. A comprehensive study of armoring effects conducted in 2016 found that armoring "was consistently associated with reductions in beach width, riparian vegetation, numbers of accumulated logs, and amounts and types of beach wrack and associated invertebrates."⁶⁹ Consequently, we recommend a conditional use permit for bulkheads and other forms of hard armoring to ensure a full evaluation of their impacts.

⁶⁹ M. Dethier, *et al.*, *Multiscale impacts of armoring on Salish Sea shorelines: Evidence for cumulative and threshold effects*, 175 *Estuarine, Coastal and Shelf Science* 106, 106 (2016), attached hereto as Attachment Q.

Thank you for your consideration of these comments. We urge you to protect the ecological value of Skagit shorelines based on the most current scientific and technical information.

Sincerely,

/s/ Marlene Finley
Marlene Finley, President
Evergreen Islands



Rein Attemann
Rein Attemann, Puget Sound Campaign Manager
Washington Environmental Council

/s/ Karlee Deatherage
Karlee Deatherage, Land & Water Policy Manager
RE Sources



Harold R. Rooks, Jr.
Harold R. Rooks, Jr, Chair
Guemes Island Planning Advisory Committee

Attachments

ATTACHMENT A

Attachment A

Table of Recommended Revisions

The table below identifies the revisions that Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee propose to address the Shoreline Management Act’s mandate to protect state shorelines as fully as possible. The table includes the page number for the text to be revised and the individual subsection or paragraph.

Revisions are identified as follows: (1) language to be removed is shown in strike-through, and (2) language to be added is shown in underline. In addition, we have inserted the rationale for the recommendation in the fourth column.

Page Number	Skagit County Proposed Language	Recommended language	Rationale for recommendation
7	6A-Introduction The SMA vests counties and cities with the primary responsibility for comprehensively planning and reasonably regulating shoreline development and use. The goals, shoreline area designations, policies, regulations, and procedures set forth in the shoreline management master program are essential to the protection of the public health, safety, and general welfare of the people of Skagit County.	6A-Introduction The SMA vests counties and cities with the primary responsibility for comprehensively planning and reasonably regulating shoreline development and use. The goals, shoreline area designations, policies, regulations, and procedures set forth in the shoreline management master program are essential to the protection of the public health, safety, and general welfare of the people of Skagit County, <u>including potable, safe drinking water.</u>	
12	Management Policies 6B-1.2 New overwater structures should be allowed for water-dependent uses, public	6B-1.2 New overwater structures should be allowed for water-dependent uses,	<i>When constructed over submerged aquatic</i>

Page Number	Skagit County Proposed Language	Recommended language	Rationale for recommendation
	access, or ecological restoration.	public access, or ecological restoration, <u>where they will not shade submerged aquatic vegetation like seagrasses and macroalgae.</u>	<i>vegetation, overwater structures cause impacts to their viability by shading out sunlight, even when grated.¹</i>
12	6B-1.4 In order to reduce the impacts of shoreline development and increase effective use of water resources, multiple uses of overwater facilities should be encouraged.	6B-1.4 In order to reduce the impacts of shoreline development and increase effective use of water resources, multiple uses of <u>the same</u> overwater facilities should be encouraged.	<i>This edit would promote the use of individual facilities for multiple uses to avoid the need to construct multiple overwater facilities for each use.</i>
13	<p>Natural Purpose</p> <p>The purpose of the Natural environment is to protect those shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline functions. Only low intensity uses should be allowed in order to maintain the ecological functions and ecosystem-wide processes.</p>		<i>This section would benefit from a definition of “low intensity” or examples of low intensity uses.</i>

¹ See K. Fresh, et al., *Using light-permeable grating to mitigate impacts of residential floats on eelgrass Zostera marina L. in Puget Sound, Washington*, Ecol. Eng. (2006), doi:10.1016/j.ecoleng.2006.04.012 (concluding that grating up to 50% of a float deck either did not affect dock shading impacts on seagrass or that such effect could not be detected), attached to the associated comments as Attachment R; W. Gladstone and G. Courtenay, *Impacts of docks on seagrass and effects of management practices to ameliorate these impacts*, Estuarine, Coastal and Shelf Science 136, 53-60 (2014) (concluding that grating reduced, but did not eliminate, the loss of seagrass biomass under docks), attached to the associated comments as Attachment S.

Page Number	Skagit County Proposed Language	Recommended language	Rationale for recommendation
15	<p>Rural Conservancy Designation Criteria</p> <p>6B-4.1 A Rural Conservancy environment designation should be assigned to shoreline areas outside incorporated municipalities and urban growth areas, as defined by RCW 36.70A.110, if any of the following characteristics apply:</p> <ul style="list-style-type: none"> a. The shoreline is currently supporting lesser-intensity resource-based uses, such as agriculture, forestry, or recreational uses, or is designated agricultural or forest lands pursuant to RCW 36.70A.170; b. The shoreline is currently accommodating lesser-intensity residential development outside urban growth areas and incorporated cities or towns; c. The shoreline is supporting human uses but subject to environmental limitations, such as properties that include or are adjacent to steep slopes, feeder bluffs, floodplains or other flood-prone areas; d. The shoreline is of high recreational value; or e. The shoreline contains unique historic or cultural resources; or f. The shoreline contains low intensity water-dependent uses. 	<p>6B-4.1 A Rural Conservancy environment designation should be assigned to shoreline areas outside incorporated municipalities and urban growth areas, as defined by RCW 36.70A.110, if any of the following characteristics apply:</p> <ul style="list-style-type: none"> a. The shoreline is currently supporting lesser-intensity resource-based uses, such as agriculture, forestry, or recreational uses, or is designated agricultural or forest lands pursuant to RCW 36.70A.170; b. The shoreline is currently accommodating lesser-intensity residential development outside urban growth areas and incorporated cities or towns; c. The shoreline is supporting human uses but subject to environmental limitations, such as properties that include or are adjacent to steep slopes, feeder bluffs, floodplains or other flood-prone areas; d. The shoreline is of high recreational value; or e. The shoreline contains unique historic or cultural resources; or f. The shoreline contains low 	

Page Number	Skagit County Proposed Language	Recommended language	Rationale for recommendation
		<p style="text-align: center;">intensity water-dependent uses; <u>or</u> g. <u>The shoreline contains low intensity water-dependent uses.</u></p>	
15-16	<p>6B-4.2 Uses in the Rural Conservancy environment should include those which sustain the shoreline area's physical and biological resources and uses of a nonpermanent nature that do not substantially degrade ecological functions or the rural or natural character of the shoreline area. Agriculture, commercial forestry, and aquaculture when located on natural resource lands and consistent with provisions of this SMP are preferred by the County and allowed uses under the SMA. Low-intensity, water-oriented commercial and industrial uses may be permitted where those uses have located in the past or at unique sites in rural communities that possess shoreline conditions and services to support the use. Water-dependent and water-enjoyment recreation facilities that do not deplete the resource over time, such as boating facilities, angling, hunting, wildlife viewing trails, and swimming beaches, are preferred uses, provided significant adverse impacts to the shoreline are mitigated. Mining and related activities may be an appropriate use within the rural</p>	<p>6B-4.2 Uses in the Rural Conservancy environment should include those which sustain the shoreline area's physical and biological resources and uses of a nonpermanent nature that do not substantially degrade ecological functions or the rural or natural character of the shoreline area. Agriculture, commercial forestry, and aquaculture when located on natural resource lands and consistent with provisions of this SMP are preferred by the County and allowed uses under the SMA. Low-intensity, water-oriented commercial and industrial uses may be permitted where those uses have located in the past or at unique sites in rural communities that possess shoreline conditions and services to support the use. Water-dependent and water-enjoyment recreation facilities that do not deplete the resource over time, such as boating facilities, angling, hunting, wildlife viewing trails, and swimming beaches, are preferred uses, provided significant adverse impacts to the shoreline are mitigated. Mining and related activities may be an appropriate use shall not be <u>allowed</u> within the rural conservancy</p>	

Page Number	Skagit County Proposed Language	Recommended language	Rationale for recommendation
	<p>conservancy environment when conducted in a manner consistent with the environment policies and the provisions of WAC 173-26- 241 (3)(h) and when located consistent with mineral resource lands designation criteria pursuant to RCW 36.70A.170 and WAC 365-190-070</p>	<p>environment when conducted in a manner consistent with the environment policies and the provisions of WAC 173-26- 241 (3)(h) and when located consistent with mineral resource lands designation criteria pursuant to RCW 36.70A.170 and WAC 365-190-070</p>	
16	<p>6B-4.3 Developments and uses that would substantially degrade or permanently deplete the biological resources of the area should not be allowed</p>	<p>6B-4.3 Developments and uses that would substantially degrade or permanently deplete the biological resources of the area should <u>will</u> not be allowed</p>	
19	<p>Urban Conservancy 6B-7.6 Mining and related activities may be an appropriate use within the Urban Conservancy environment when conducted in a manner consistent with the environment policies and the provisions of WAC 173-26-240 (3)(h) and when located consistent with mineral resource lands designation criteria pursuant to RCW 36.70A.170 and WAC 365-190- 070.</p>	<p>6B-7.6 Mining and related activities are not allowed may be an appropriate use within the Urban Conservancy environment when conducted in a manner consistent with the environment policies and the provisions of WAC 173-26-240 (3)(h) and when located consistent with mineral resource lands designation criteria pursuant to RCW 36.70A.170 and WAC 365-190-070.</p>	
19	<p>Agriculture Policies 6C-1.1 General d. The creation of new agricultural lands by</p>	<p>d. The creation of new agricultural lands by</p>	

Page Number	Skagit County Proposed Language	Recommended language	Rationale for recommendation
	diking, or filling of those tidelands, tidal marshes, and associated wetlands which are potentially more productive in their long term natural state should be discouraged.	diking, or filling of those tidelands, tidal marshes, and associated wetlands which are potentially more productive in their long term natural state should be discouraged <u>is not allowed</u> .	
21	<p>Aquaculture Policies</p> <p>6C-2.1 Aquaculture is an activity of statewide interest and should be encouraged. Properly managed, it can result in long-term over short-term benefit and can protect the resources and ecology of the shoreline. Shellfish aquaculture provides ecosystem services such as wildlife habitat and improved water quality through filtration.</p>	<p>6C-2.1 Aquaculture is an activity of statewide interest and should be encouraged <u>where it will not adversely impact shoreline ecology</u>. Properly managed <u>and sited, aquaculture can largely avoid impacts</u> it can result in long-term over short-term benefit and can protect the resources and ecology of the shoreline. Shellfish aquaculture <u>can</u> provides ecosystem services such as wildlife habitat and improved water quality through filtration.</p>	<p><i>To the extent that aquaculture replaces existing shoreline habitat and species with a different habitat or species, or by intensifying the use of that habitat with a mono-crop, it causes ecological impacts and should be recognized as such.</i></p>
22	<p>6C-2.11 Commercial geoduck aquaculture should only be allowed where sediments, topography, land and water access support geoduck operations without significant clearing and grading.</p>	<p>6C-2.11 Commercial geoduck aquaculture should only be allowed where sediments, topography, land and water access support geoduck operations without significant clearing and grading.</p>	<p><i>This change reflects the impacts caused by clearing and grading.</i></p>
31	<p>Mining Policies</p> <p>6C-13.1 Recognizing that certain earth materials are in demand, yet limited in quality and quantity, and that shorelines are a valuable and limited resource where mining can have irreversible impacts, mining activities should primarily be encouraged to take place outside of</p>	<p>6C-13.1 Recognizing that certain earth materials are in demand, yet limited in quality and quantity, and that shorelines are a valuable and limited resource where mining can have irreversible impacts, mining activities should primarily be encouraged to</p>	<p><i>Mining should not occur in or along shoreline areas and their buffer zones.</i></p>

Page Number	Skagit County Proposed Language	Recommended language	Rationale for recommendation
	<p>shoreline areas.</p> <p>a. Mining activities, if allowed, should not occur in shoreline areas of high environmental, cultural, recreational, or historical value.</p> <p>b. Recognizing the limited quantity and quality of natural marine and lake shores, especially accretion shoreforms, and recognizing the increasing demand for other uses of these shorelines and the existence of alternative sources of earth materials, mining activities should be limited on these shorelines.</p> <p>c. Surface mining of river and stream point bars for sand and gravel or other materials should be allowed provided there is annual accretion and replacement of these materials.</p>	<p>take place outside of shoreline areas.</p> <p>a. Mining activities, if allowed, should not occur in shoreline areas of high environmental, cultural, recreational, or historical value.</p> <p>b. Recognizing the limited quantity and quality of natural marine and lake shores, especially accretion shoreforms, and recognizing the increasing demand for other uses of these shorelines and the existence of alternative sources of earth materials, mining activities should be limited on these shorelines.</p> <p>c. Surface mining of river and stream point bars for sand and gravel or other materials should be allowed provided there is annual accretion and replacement of these materials.</p>	
33	<p>Recreational Development</p> <p>6C-14.2 Unique and Fragile Shoreline Areas</p> <p>a. Accretion shoreforms, marshes, estuaries, and wetlands that are susceptible to damage from more intensive recreational development should be protected and preserved for less intensive forms of recreation.</p>	<p>6C-14.2 Unique and Fragile Shoreline Areas</p> <p>a. Accretion shoreforms, marshes, estuaries, and wetlands that are susceptible to damage from more intensive recreational development <u>should must</u> be protected and preserved for less intensive forms of recreation.</p>	

Page Number	Skagit County Proposed Language	Recommended language	Rationale for recommendation
33	<p>6C-14.3 Design</p> <p>f. Recreational or access development should be designed to protect and preserve scenic views and aesthetic values of the shoreline environment.</p>	<p>f. Recreational or access development should be designed to protect and preserve scenic views, and <u>and ecological health</u> of the shoreline environment.</p>	
33	<p>Residential Development Policies</p> <p>6C-15.1 Where allowed by this SMP, residential development should not significantly damage, diminish, or adversely affect shoreline ecological function, natural resource uses, archaeological and historic sites, or important scenic vistas.</p>	<p>6C-15.1 Where allowed by this SMP, residential development should not significantly damage, diminish, or adversely affect shoreline ecological function, natural resource uses, archaeological and historic sites, or <u>important scenic vistas, or groundwater quality, such as through salt water intrusion.</u></p>	
44	<p>Critical Areas Policies</p> <p>6G-2.11 Ensure adequate design, construction, management, and operations to protect groundwater quality and quantity.</p> <p>a. Existing and future beneficial uses of groundwater should be maintained and protected.</p> <p>b. Wherever groundwater is determined to be of a higher quality than the criteria established for said waters, the existing water quality should be protected, and contaminants that will reduce the existing quality thereof</p>	<p>6G-2.11 Ensure adequate design, construction, management, and operations to protect groundwater quality and quantity.</p> <p>a. Existing and future beneficial uses of groundwater should be maintained and protected, <u>including against loss or degradation of potable water due to sea water intrusion.</u></p> <p>b. Wherever groundwater is determined to be of a higher</p>	

Page Number	Skagit County Proposed Language	Recommended language	Rationale for recommendation
	should not be allowed.	quality than the criteria established for said waters, the existing water quality should be protected, and contaminants that will reduce the existing quality thereof should not be allowed.	
57-59	Part III: General Regulations 14.26.305 Environmental Protection	Mitigation	<i>This section must be revised to insert provisions that address Skagit County's ongoing oversight of mitigation projects once a project is permitted. Such provisions would include a timeline for achieving successful mitigation and steps to cure any failures to achieve that success.</i>
59	(8) New development and uses must be designed to mitigate significant adverse impacts on other shoreline uses and values.	(8) New development and uses must be designed to mitigate significant adverse impacts on other shoreline uses and values.	<i>The SMP doesn't establish a threshold for the significance of impacts that must be mitigated. Instead, all impacts must be addressed. Instead, SMPs must conserve remaining ecological functions and promote the restoration of impaired ecological functions. WAC 173-26-181, -186(8), -201(2)(c), -201(2)(f), -221(2), -221(5), -221(6).</i>

14.26.310 Dimensional Standards

59	(1) When a development or use is proposed that does not comply with the dimensional standards of this SMP, such deviations from the SMP bulk, dimensional, or performance standards can only be authorized by approval of a Shoreline Variance. If a proposal meets requirements allowing administrative reductions or modifications, it is considered compliant with the SMP and does not require a Shoreline Variance.	(1) When a development or use is proposed that does not comply with the dimensional standards of this SMP, such deviations from the SMP bulk, dimensional, or performance standards can only be authorized by approval of a Shoreline Variance. If a proposal meets requirements allowing administrative reductions or modifications, it is considered compliant with the SMP and does not require a Shoreline Variance.	<i>The term “use” should be deleted because variances apply to dimensional standards, rather than uses, which are addressed through the conditional use permit process.</i>
60	(4) Water-dependent uses, shoreline access, and shoreline restoration may be authorized within the required buffer without a Shoreline Variance provided mitigation sequencing is applied and the project demonstrates adequate compensatory mitigation to achieve no net loss of shoreline ecological functions.	(4) Water-dependent uses, shoreline access, and Shoreline restoration may be authorized within the required buffer without a Shoreline Variance provided mitigation sequencing is applied and the project demonstrates adequate compensatory mitigation to achieve no net loss of shoreline ecological functions.	<i>The development of uses and access in the buffer defeats the purpose of the buffer, which the most current science recommends remain largely undeveloped.² Consequently, any development in that area should occur only subject to the review that occurs through the variance process.</i>

Table 14.26.310-1 Dimensional Standards

The following table sets out minimum buffer widths and other dimensional standards for each shoreline environment designation. For other dimensional standards, see SCC 14.26.420 Boating Facilities and Related Structures and Uses		
	Shoreline Environment Designation	

² Washington Department of Fish and Wildlife, *Riparian Ecosystems, Vol. 2: Management Recommendations*, 24-25 (Dec. 2020), attached as Attachment T to the associated letter.

Dimensional Standard	Natural	Rural Conservancy	Urban Conservancy	Shoreline Residential	High Intensity	Aquatic
Buffers for Upland Uses¹						
from marine or lake shorelines	200 ft	150 ft	150 ft	100 ft	140 ft	n/a
from river or stream shorelines	200 ft	200 ft	200 ft	200 ft	200 ft	n/a
Height Limits for Residential Development²						
for uses waterward of the OHWM	n/a	n/a	n/a	n/a	n/a	n/a
for upland uses within required buffer	25 ft	25 ft	25 ft	25 ft	25 ft	n/a
for upland uses outside required buffer	35 ft	35 ft	35 ft	35 ft	35 ft	n/a
accessory structures on Guemes Island	15 ft	15 ft	15 ft	15 ft	15 ft	n/a
Height Limits for All Other Uses²						
for uses waterward of the OHWM	n/a	n/a	n/a	n/a	n/a	5 ft
for upland uses within required buffer	25 ft	25 ft	25 ft	25 ft	25 ft	n/a
for upland uses outside required buffer	35 ft	35 ft	35 ft	35 ft	35 ft	n/a
Hard Surface Limits						
for all commercial and industrial upland uses	n/a	30 10%	70%	n/a	70%	n/a
recreational uses	5%	25 10%	30%	30%	40%	n/a
for all other upland uses	5%	30 10%	30%	30%	40%	n/a
Signs and Outdoor Advertising						
Max Height	n/a	5 ft	5 ft	10 ft	25 ft	5 ft
Max sign area per side	n/a	15 sq ft	15 sq ft	20 sq ft	100 sq ft	6 sq ft

Footnotes:

1. Water-dependent developments are allowed within the buffer provided mitigation sequencing is applied per SCC 14.26.305 to avoid, minimize, and mitigate adverse impacts to result in no net loss of shoreline ecological function

2. Additional height for utility facilities, bridges, and industrial uses may be approved when necessary for the functions of a permitted use, provided such structures must be designed to minimize obstruction of views. For such heights proposed over 35 feet above average grade the applicant shall demonstrate that it will not obstruct the view of a substantial number of residences and overriding consideration of the public interest will be served.

The County should track the many instances in which it approves development that conflicts with these standards.

We recommend applying a hard surface limit of 10% for Rural Conservancy lands consistent with the Guidelines' statement that "[s]cientific studies support density or lot coverage limitation standards that assure that development will be limited to a maximum of ten percent total impervious surface area within the lot or parcel, will maintain the existing hydrologic character of the shoreline. WAC 173-26-211(5)(b)(ii)(D).

14.26.320 General Provisions Applicable Upland of the OHWM

61	(1) Location of upland development.	(1) Location of upland development.	The SMA requires that new development be
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	(a) New development must be located and designed to avoid the need for future shoreline stabilization to the extent feasible.	(a) New development must be located and designed to avoid the need for future shoreline stabilization to the extent feasible.	<i>constructed to avoid the need for future shoreline stabilization.</i>
61-62	(2) Design features for compatibility. Shoreline use and development must be designed to complement the character and setting of the property, minimize noise and glare, and avoid impacts to view corridors, where feasible.	(2) Design features for compatibility. Shoreline use and development must be designed to complement the character and setting of the property, minimize noise and glare, and avoid impacts to view corridors, where feasible.	
62	(3) Screening. (a) Building mechanical equipment must be incorporated into building architectural features, such as pitched roofs, to the maximum extent possible. Where mechanical equipment cannot be incorporated into architectural features, a visual screen must be provided consistent with building exterior materials that obstructs views of such equipment.	(3) Screening. (a) Building mechanical equipment must be incorporated into building architectural features, such as pitched roofs, to the maximum extent possible. Where mechanical equipment cannot be incorporated into architectural features, a visual screen must be provided consistent with building exterior materials that obstructs views of such equipment.	
62	(8) Lighting. Interior and exterior lighting must be designed and operated to avoid illuminating nearby properties or public areas; prevent glare on adjacent properties, public areas or roadways to avoid infringing on the use and enjoyment of such areas; and to prevent hazards. Methods of controlling spillover light include, but are not limited to,	(8) Lighting. Interior and exterior lighting must be designed and operated to avoid illuminating nearby properties or public areas; prevent glare on adjacent properties, public areas or roadways to avoid infringing on the use and enjoyment of such areas; and to prevent hazards. Methods of controlling spillover light include, but are not limited to, limits on height of structure, limits on	<i>Lighting must be directed downward to limit its impacts.</i>

	limits on height of structure, limits on light levels of fixtures, light shields, setbacks, buffer areas and screening. Lighting must be directed away from critical areas, unless necessary for public health and safety	light levels of fixtures, light shields, setbacks, buffer areas and screening. Lighting must be directed <u>downward and</u> away from critical areas, unless necessary for public health and safety	
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14.26.330 General Provisions Applicable Waterward of the OHWM

63	(2) Buffers. Water-dependent in-water structures, activities, and uses are not subject to the shoreline buffers established in this SMP provided mitigation sequencing is applied per SCC 14.26.305 to avoid, minimize, and mitigate adverse impacts to result in no net loss of shoreline ecological function.	(2) Buffers. Water dependent in-water structures, activities, and uses are not subject to the shoreline buffers established in this SMP provided mitigation sequencing is applied per SCC 14.26.305 to avoid, minimize, and mitigate adverse impacts to result in no net loss of shoreline ecological function.	<i>The SMA does not exempt water-dependent in-water structures, activities, and uses from the need to address ecological impacts. Thus, to the extent that such development can comply with buffers, it should do so. And for those aspects that cannot meet buffer standards, impacts must be minimized and compensated.</i>
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14.26.405 Uses and Modifications Matrix

83-84	Table 14.26.405-1 <u>Shoreline Use</u> Aquaculture (see SCC 14.26.415) General aquaculture: CU, SD/E, SD/E, SD/E, SD/E, upland	Table 14.26.405-1 <u>Shoreline Use</u> Aquaculture (see SCC 14.26.415) General aquaculture: CU, SD/E, SD/E, SD/E, SD/E, upland Aquaculture activities other than	<i>“General aquaculture” in Table 14.26.405-1, Shoreline Use and Modifications Matrix should be further defined so it is clear that geoduck and finfish/net pen activities are</i>
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	<p>Non-commercial freshwater hatcheries: CU, CU, SD/E, SD/E,SD/E, upland</p> <p>Net-pens; CU, CU, CU, CU, CU, upland</p> <p>Commercial geoduck aquaculture: CU, CU, CU, CU, CU, upland</p>	<p><u>geoduck or finfish; X, SD/E without exemptions, SD/E without exemptions, SD/E without exemptions, SD/E without exemptions, upland</u></p> <p>Non-commercial freshwater hatcheries: CU, CU, SD/E, SD/E, SD/E, upland</p> <p>Net-pens; CU, CU, CU, CU, CU, upland <u>X, X, X, X, X, upland</u></p> <p>Commercial geoduck aquaculture: CU, X, CU, CU, CU, CU, upland</p>	<p><i>not included in this generalized category to better delineate more specifically the various aquaculture uses and applications in the SMP. We suggest having the use be called “Aquaculture activities other than geoduck or finfish” and be prohibited in “Natural” designation and Shoreline Development permit without any exceptions in the remaining designations. The letter of Exception negates having to get a SSDP or CUP and is too permissive.</i></p>
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14.26.415 Aquaculture

<p>89-90</p>	<p>(1) Applicability</p> <p>(a) This section applies to “aquaculture,” meaning the culture or farming of fish, shellfish, or other aquatic plants and animals. Aquaculture does not include the harvest of wild geoduck associated with the State-managed wildstock geoduck fishery.</p> <p>(b) Upland finfish rearing facilities constitute “agriculture” and are not regulated by this section</p>		<p><i>Any finfish raising/rearing, native or nonnative, should be required to take place in upland facilities with proper pollution controls and appropriate requirements for each Shoreline Environmental Designation. Under Section 14.26.415 Aquaculture, it states that “upland finfish rearing facilities constitute</i></p>
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			<p><i>“agriculture” and are not regulated by this section.” However, in reviewing section 14.26.410 Agriculture, there is no mention of regulating upland finfish rearing facilities. Can you please direct us to where in the SMP updated document upland finfish rearing facilities are regulated and how they will be regulated?</i></p>
91	<p>(4) General requirements.</p> <p>e. Aquaculture operations must be designed, located, and managed to minimize impacts to native eelgrass and macroalgae.</p> <p>i. Aquaculture operations are not required to avoid impacts on eelgrass or macroalgae that colonizes an aquaculture operation.</p> <p>ii. Aquaculture operations are not required to avoid impacts on non-native eelgrass.</p>	<p>e. Aquaculture operations must be designed, located, and managed to minimize <u>avoid</u> impacts to native eelgrass and macroalgae, <u>with the exception that</u></p> <p>i. Aquaculture operations are not required to avoid impacts on eelgrass or macroalgae that colonizes an aquaculture operation.</p> <p>ii. Aquaculture operations are not required to avoid impacts on non-native eelgrass.</p>	<p><i>The BAS requires avoidance of impacts to these sensitive and critical habitats.</i></p>
92	<p>(5) Shorelines of Statewide Significance.</p> <p>b. Applications for new aquaculture within Shorelines of Statewide Significance must address the policies of RCW 9A0.58.020.</p>		<p><i>We are very concerned that aquaculture use is allowed in Shorelines of Statewide Significance under section 14.26.415(6). It is unclear in the SMP how</i></p>

	<p>c. Mechanical disturbance of bottom materials for shellfish harvest is prohibited on Shorelines of Statewide Significance, except the traditional mechanical (drag) dredge shellfish harvest method may be allowed as a conditional use. All hydraulic harvest methods require a Conditional Use Permit.</p>		<p><i>implementation will be consistent with RCW 90.58.020.</i></p>
<p>93</p>	<p>(7) Net pens. (a) In addition to the General requirements, a net pen application must include: (i) Site characterization survey: (A) Bathymetric survey (bottom features) (B) Hydrographic survey (current velocity and direction, drogue tracking, vertical profiles of temperature, salinity and dissolved oxygen) (C) Underwater photographic survey (presence of critical habitat) (ii) Baseline benthic survey conducted once the net pens are in place, but before they are stocked with fish: (A) Sediment chemistry (B) Infauna sampling (b) A net pen application must demonstrate:</p>	<p>(7) Net pens. (a) <u>New commercial net pen aquaculture operations to propagate non-native finfish or native finfish species in marine waters is prohibited.</u> (a) In addition to the General requirements, a net pen application must include: (i) Site characterization survey: (A) Bathymetric survey (bottom features) (B) Hydrographic survey (current velocity and direction, drogue tracking, vertical profiles of temperature, salinity and dissolved oxygen) (C) Underwater photographic survey (presence of critical habitat)</p>	<p><i>Net pen finfish aquaculture, especially nonnative, includes many adverse impacts including organic waste from salmon farms changing the physio-chemical properties and microflora biodiversity of benthic sediments below the pens, increased growth of algae, chemical and drug contaminants introduced into the environment, the disruption of marine food webs by attracting carnivorous birds and mammals, and the escape of farmed salmon with the potential to transmit disease and compete with wild salmon.³ We believe</i></p>

³ A. Buschmann, et al., *Salmon aquaculture and coastal ecosystem health in Chile: Analysis of regulations, environmental impacts and bioremediation systems*, Ocean & Coastal Management *3 (2009), doi:10.1016/j.ocecoaman.2009.03.002, available at:

	<p>(i) that the native fish and wildlife resources will not be significantly impacted; and</p> <p>(ii) that state parks, wildlife refuges or reserves, or habitats of local importance found in Part V, Critical Areas, will not be significantly impacted.</p> <p>(c) A net pen facility must be located at least 1,500 feet from the OHWM, except a lesser distance may be authorized through a Shoreline Variance if a visual impact analysis demonstrates a lesser distance will not result in a significant adverse impact to aesthetic qualities of the shoreline.</p>	<p>(ii) Baseline benthic survey conducted once the net pens are in place, but before they are stocked with fish:</p> <p>(A) Sediment chemistry</p> <p>(B) Infauna sampling</p> <p>(b) A net pen application must demonstrate:</p> <p>(i) that the native fish and wildlife resources will not be significantly impacted; and</p> <p>(ii) that state parks, wildlife refuges or reserves, or habitats of local importance found in Part V, Critical Areas, will not be significantly impacted.</p> <p>(c) A net pen facility must be located at least 1,500 feet from the OHWM, except a lesser distance may be authorized through a Shoreline Variance if a visual impact analysis demonstrates a lesser distance will not result in a significant adverse impact to aesthetic qualities of the shoreline.</p>	<p><i>that this change is consistent with the SMP Guidelines requirements for no net loss of shoreline ecological functions.</i></p>
93-95	<p>(8) Geoduck aquaculture.</p> <p>(a) A Conditional Use Permit is required for new commercial geoduck aquaculture.</p> <p>(b) Geoduck aquaculture should be located where sediments, land and water access,</p>	<p>(8) Geoduck aquaculture.</p> <p>(g) A Conditional Use Permit is required for new commercial geoduck aquaculture.</p> <p>(h) Geoduck aquaculture should be located where sediments, land and water access,</p>	<p><i>To ensure consistency across the SMP planning goals and development regulations, and in particular the goal of 6C-2.7</i></p>

[http://www.academia.edu/20269011/Salmon aquaculture and coastal ecosystem health in Chile Analysis of regulations environmental impacts and bioremediation systems](http://www.academia.edu/20269011/Salmon_aquaculture_and_coastal_ecosystem_health_in_Chile_Analysis_of_regulations_environmental_impacts_and_bioremediation_systems). Ocean & Coastal Management is a peer reviewed journal.

	<p>and topography support geoduck aquaculture without significant clearing or grading.</p> <p>(e) A Conditional Use Permit for geoduck aquaculture:</p> <ul style="list-style-type: none"> i. may include conditions to avoid or limit impacts from geoduck aquaculture siting and operations; ii. must identify that the permit entails a right to harvest planted geoduck; iii. must include mitigation measures as necessary to ensure no net loss of ecological functions; iv. must include reasonable monitoring and reporting requirements to verify the permitted activity is in compliance with permit conditions. The County may rely on documentation submitted by an aquaculture operator to federal or state agencies to satisfy any monitoring or reporting requirement. <p>(f) Notice of an application for geoduck aquaculture must be provided to all property owners within 300 feet of the proposed project boundary and to tribes with usual and accustomed fishing rights to the area.</p>	<p>and topography support geoduck aquaculture without significant clearing or grading.</p> <p>(e) A Conditional Use Permit for geoduck aquaculture:</p> <ul style="list-style-type: none"> i. may must include conditions to avoid or limit impacts from geoduck aquaculture siting and operations; ii. must identify that the permit entails a right to harvest planted geoduck; iii. must include mitigation measures as necessary to ensure no net loss of ecological functions; iv. must include reasonable monitoring and reporting requirements to verify the permitted activity is in compliance with permit conditions. The County may rely on documentation submitted by an aquaculture operator to federal or state agencies to satisfy any monitoring or reporting requirement. <p>(f) Notice of an application for geoduck aquaculture must be provided to all property owners within 300 1000 feet of the proposed project boundary and to tribes with usual and accustomed fishing rights to the area.</p>	<p><i>(and WAC 173-26-241(3)(b)(i)(C)) that “new and expanded aquaculture should not be permitted in areas where it would result in a net loss of ecological functions, adverse impacts to eelgrass and macroalgae,...,” we recommend that the County adopt specific requirements to avoid, first and foremost, any impacts to eelgrass and macroalgae.</i></p> <p><i>To meet this goal, any clearing and grading of the shoreline must be prevented because any clearing and grading of the shoreline for commercial geoduck operations is significant and would thus contravene the goal.</i></p> <p><i>Further, eelgrass and macroalgae protection and recovery is a state and federal priority and should be a county priority as well given the huge amount estimated to have already been lost. We are concerned that the SMP</i></p>
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			<p><i>does not provide a process for monitoring no net loss of ecological functions and/or cumulative impacts analysis to eelgrass and macroalgae from geoduck aquaculture.</i></p> <p><i>We recommend that the language in 14.26.415(8)(f) be expanded beyond the suggested 300 yards to 1000 yards to capture property owners who may be situated across the bay or inlet and thus would be impacted by geoduck operations. We fully support notification to all Tribes with usual and accustomed fishing rights to the area, and request that similar notice be provided for all new, existing, and expanded aquaculture facilities.</i></p>
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14.26.420 Boating Facilities and Related Structures and Uses

97	<p>(4) Development Standards. (a) Generally. Structures and uses must:</p>	<p>(4) Development Standards. (a) Generally. Structures and uses must: (i) <u>be located at least twenty-five feet (measured horizontally from the</u></p>	<p><i>When constructed over submerged aquatic vegetation, overwater structures cause impacts to</i></p>
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		<p><u>nearest edge of the structure) and four vertical feet away from seagrass and kelp beds (measured at extreme low water);</u></p> <p>(ii) <u>in documented herring spawning areas, be located at least twenty-five feet (measured horizontally from the nearest edge of the structure) and four vertical feet from macroalgae beds on which herring spawn (measured at extreme low water);</u></p> <p>(iii) <u>if artificial nighttime lighting is used in the project, use low-intensity lights that are located and shielded to prevent light from attracting fish or disrupting fish migration behavior, unless there are safety constraints.</u></p>	<p><i>their viability by shading out sunlight, even when grated.⁴</i></p> <p><i>Thus, the revisions are necessary to consistency with the most current, accurate, and complete scientific and technical information available, as well as WDFW regulations at 220-660-380(3)(b), which will avoid confusion for applicants.</i></p>
99	<p>(b) Docks.</p> <p>(i) Standards for all docks.</p> <p>(B) Minimum height.</p> <p>(I) The bottom of any piers or the landward edge of any ramp must be the maximum practical height from the ground, but not less than 1.5 ft above the OHWM.</p>	<p>(B) Minimum height.</p> <p>(I) The bottom of any piers or the landward edge of any ramp must be the maximum practical height from the ground, but not less than <u>6</u></p>	<p><i>This will provide consistency with WDFW regulations at WAC 220-660-380(4)(a) and decrease shading per the BAS.</i></p>

⁴ See K. Fresh, et al., *Using light-permeable grating to mitigate impacts of residential floats on eelgrass Zostera marina L. in Puget Sound, Washington*, Ecol. Eng. (2006), doi:10.1016/j.ecoleng.2006.04.012 (concluding that grating up to 50% of a float deck either did not affect dock shading impacts on seagrass or that such effect could not be detected), attached hereto as Attachment R; W. Gladstone and G. Courtenay, *Impacts of docks on seagrass and effects of management practices to ameliorate these impacts*, Estuarine, Coastal and Shelf Science 136, 53-60 (2014) (concluding that grating reduced, but did not eliminate, the loss of seagrass biomass under docks), attached hereto as Attachment S.

		1.5 ft above the bed at the <u>landward end</u> OHWM.	
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14.26.435 Dredging and Dredge Material Disposal

110	<p>(e) Dredging is prohibited in the following locations, except for maintenance dredging and for beneficial public purposes consistent with this SMP:</p> <ul style="list-style-type: none"> (i) In estuaries, natural wetlands, and marshes. (ii) Along net positive drift sectors and where geohydraulic processes are active and accretion shoreforms would be damaged or irretrievably lost. (iii) In shoreline areas and bottom soils that are prone to sloughing, refilling, and continual maintenance dredging. (iv) In officially designated fish, shellfish, and wildlife spawning, nesting, harvesting, and concentration areas. (v) Where water quality would be degraded below permitted state and federal standards. (vi) Where current and tidal activity are significant, requiring excessive maintenance dredging. 	<p>(e) Dredging is prohibited in the following locations, except for maintenance dredging, <u>and only if the impacts are fully addressed through application of the mitigation sequence</u> and for beneficial public purposes consistent with this SMP:</p> <ul style="list-style-type: none"> (i) In estuaries, natural wetlands, and marshes. (ii) Along net positive drift sectors and where geohydraulic processes are active and accretion shoreforms would be damaged or irretrievably lost. (iii) In shoreline areas and bottom soils that are prone to sloughing, refilling, and continual maintenance dredging. (iv) In officially designated fish, shellfish, and wildlife spawning, nesting, harvesting, and concentration areas. (v) Where water quality would be degraded below permitted state and federal standards. 	<p><i>For consistency with the BAS regarding the significant impacts associated with dredging, new dredging should be prohibited in these ecologically and geologically sensitive areas. Further, any impacts from maintenance must be addressed through mitigation.</i></p>
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		(vi)Where current and tidal activity are significant, requiring excessive maintenance dredging.	
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14.26.460 Mining

126	<p>(2) When Allowed. These uses are allowed in the shoreline environment designations listed in SCC 14.26.405 Uses and Modifications Matrix, subject to the following:</p> <p>(a) Mining is only allowed when the Administrative Official determines it is dependent on a shoreline location based on an evaluation of geologic factors such as the distribution and availability of mineral resources in the County; the need for such mineral resources; and economic, transportation, and land use factors.</p> <p>(b) For marine and lake shorelines, mining waterward of the OHWM is prohibited.</p> <p>(c) For rivers and streams, mining waterward of the OHWM is prohibited unless:</p> <p>(i) Removal of specified quantities of sand and gravel or other materials at specific locations will not adversely affect the natural processes of gravel transportation for the system as a whole; and</p> <p>(ii) The mining and any associated permitted activities will not have significant adverse impacts to habitat for priority species nor cause a net</p>	<p>(2) When Allowed. These uses are allowed in the shoreline environment designations listed in SCC 14.26.405 Uses and Modifications Matrix, subject to the following:</p> <p>(a) Mining is only allowed when the Administrative Official determines it is dependent on a shoreline location based on an evaluation of geologic factors such as the distribution and availability of mineral resources in the County; the need for such mineral resources; and economic, transportation, and land use factors; <u>and where there are no known or suspected geologic hazards.</u></p> <p>(b) For marine and lake shorelines, mining waterward of the OHWM is prohibited.</p> <p>(c) For rivers and streams, mining waterward of the OHWM is prohibited unless:</p> <p>(i) Removal of specified quantities of sand and gravel or other materials at specific locations will not adversely affect the natural processes of gravel transportation for the system as a whole; and</p> <p>(ii) The mining and any associated permitted activities will not have</p>	<p><i>Consistent with the most current science, and public safety standards, as well as critical areas regulations that require avoidance if the risk cannot be reduced or mitigated (WAC 365-190-120), mining should not be allowed in areas of coastal geologic hazards.</i></p>
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	<p>loss of ecological functions of the shoreline.</p> <p>(iii) Evaluation of impacts should be integrated with the relevant environmental review requirements of SEPA.</p>	<p>significant adverse impacts to habitat for priority species nor cause a net loss of ecological functions of the shoreline-; <u>and</u></p> <p>(iii) Evaluation of impacts should be integrated with the relevant environmental review requirements of SEPA-; <u>and</u></p> <p>(iv) <u>There are no known or suspected geologic hazards.</u></p>	
126	<p>(3) Application Requirements. In addition to the requirements in SCC 14.26.710 Applications, and the special use permit application requirements in SCC 14.16.440 Mineral Resource Overlay, an application requires the following:</p>	<p>(3) Application Requirements. In addition to the requirements in SCC 14.26.710 Applications, and the special use permit application requirements in SCC 14.16.440 Mineral Resource Overlay, an application requires the following:</p> <p>(a) <u>Identification of any geologically hazardous areas within 200 feet of the parcel to be mined and evaluation of the risk that the proposed mining poses to those geologically hazardous areas.</u></p>	<p><i>This addition is necessary to ensure that mining applications are reviewed for consistency with coastal geologic hazards.</i></p>

14.26.465 Recreational Development

132	<p>(4) Development Standards.</p> <p>(e) Fertilizers, pesticides, and herbicides.</p> <p>(i) Recreational developments requiring the use of fertilizers, pesticides, and herbicides must leave a chemical free swath at least 25 feet in width from water bodies and wetlands, unless another BMP achieving equivalent results can be incorporated or near-</p>	<p>(4) Development Standards.</p> <p>(e) Fertilizers, pesticides, and herbicides.</p> <p>(i) Recreational developments requiring the use of fertilizers, pesticides, and herbicides must leave a chemical free swath at least 25 <u>100</u> feet in width from water bodies and wetlands, unless another BMP achieving equivalent results can be incorporated or near-</p>	<p><i>We recommend revising the separation between pesticides and water bodies from 25 to 100 feet, consistent with Best Management Practices identified in the Washington Department of Ecology’s 2014 and 2019 Stormwater Management</i></p>
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	shore or waterward application is deemed necessary and applied consistent with manufacturer specifications	shore or waterward application is deemed necessary and applied consistent with manufacturer specifications	<i>Manuals for Western Washington, as adopted by Skagit County.</i>
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14.26.470 Residential Development

133	<p>(4) Development Standards. In addition to the general provisions of SMP Part III, development must comply with the following standards:</p> <ul style="list-style-type: none"> (a) Plats and subdivisions must be designed, configured and developed in a manner that ensures that no net loss of ecological functions results from the plat or subdivision at full build-out of all lots. (b) Residential development must be located and designed to avoid the need for flood hazard reduction measures, including shoreline stabilization. (c) The use of fill for expansion or creation of upland areas to support residential development is prohibited, except for supporting infrastructure such as roads when there is no feasible alternative. (d) Wherever feasible, utilities for new residential development must be installed underground and consistent with SCC 14.26.490 Utilities. (e) Residential development must implement Low-Impact Development where feasible 	<p>(4) Development Standards. In addition to the general provisions of SMP Part III, development must comply with the following standards:</p> <ul style="list-style-type: none"> (a) Plats and subdivisions must be designed, configured and developed in a manner that ensures that no net loss of ecological functions results from the plat or subdivision at full build-out of all lots. (b) Residential development must be located and designed to avoid the need for flood hazard reduction measures, including shoreline stabilization. (c) The use of fill for expansion or creation of upland areas to support residential development is prohibited, except for supporting infrastructure such as roads when there is no feasible alternative. (d) Wherever feasible, utilities for new residential development must be installed underground and consistent with SCC 14.26.490 Utilities. (e) Residential development must implement Low-Impact Development where feasible 	<p><i>We recommend adding the proposed language for consistency with SCC 14.26.465 (Recreational Development) and Part V Critical Areas.</i></p>
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	<p>through compliance with MR5 in the Stormwater Management Manual.</p> <p>(f) Residential development must comply with SCC 14.26.380 Vegetation Conservation.</p>	<p>through compliance with MR5 in the Stormwater Management Manual.</p> <p>(f) Residential development must comply with SCC 14.26.380 Vegetation Conservation.</p> <p>(g) <u>Residential development requiring the use of fertilizers, pesticides, and herbicides must leave a chemical free swath at least 100 feet in width from water bodies and wetlands, unless another BMP achieving equivalent results can be incorporated or near-shore or waterward application is deemed necessary and applied consistent with manufacturer specifications</u></p>	
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14.26.475 Shoreline Habitat and Natural Systems Enhancement Projects

133	<p>(1) Applicability.</p> <p>(a) This section applies to activities proposed and conducted specifically for the purpose of establishing, restoring, or enhancing habitat for priority species in shorelines, including, but not limited to:</p> <ul style="list-style-type: none"> (i) floodplain restoration projects; (ii) fish passage barrier removal or improvement; (iii) projects to increase shoreline habitat complexity; or 	<p>(1) Applicability.</p> <p>(a) This section applies to activities proposed and conducted specifically for the purpose of establishing, restoring, or enhancing habitat for priority species in shorelines, including, but not limited to:</p> <ul style="list-style-type: none"> (i) floodplain restoration projects; (ii) fish passage barrier removal or improvement; (iii) projects to increase shoreline habitat complexity; or 	<p><i>For consistency with the impacts that the BAS identifies for hard elements like boulders, we recommend that shoreline habitat and natural systems enhancement projects omit boulders from the materials to be used.</i></p>
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	<p>(iv) stabilization of eroding banks provided that the purpose of the project is restoration or enhancement of the natural character and ecological functions of the shoreline, and the project uses appropriate erosion control techniques and approaches, including limited use of rock as stabilization only at the toe of the bank as necessary, with primary emphasis on using native vegetation to control erosive forces.</p>	<p>(iv) stabilization of eroding banks provided that the purpose of the project is restoration or enhancement of the natural character and ecological functions of the shoreline, and the project uses appropriate erosion control techniques and approaches, including limited use of rock as stabilization only at the toe of the bank as necessary, with primary emphasis on using native vegetation to control erosive forces.</p>	
134	<p>(2) Application Requirements. In addition to the requirements SCC 14.26.710 Applications, an application must include the following:</p> <p>(a) Detailed construction plans that include the following:</p> <p>(i) Plan and cross-section views of the existing and proposed shoreline configuration, showing accurate existing and proposed topography and OHWMs.</p> <p>(ii) Detailed construction sequence and specifications for all materials, including gravels, cobbles, boulders, logs, and vegetation. The sizing and placement of all materials must be selected to accomplish the following objectives:</p>	<p>(2) Application Requirements. In addition to the requirements SCC 14.26.710 Applications, an application must include the following:</p> <p>(a) Detailed construction plans that include the following:</p> <p>(i) Plan and cross-section views of the existing and proposed shoreline configuration, showing accurate existing and proposed topography and OHWMs.</p> <p>(ii) Detailed construction sequence and specifications for all materials, including gravels, cobbles, boulders, logs, and vegetation. The sizing and placement of all materials must be selected to accomplish the following objectives:</p>	<p><i>For consistency with the impacts that the BAS identifies for hard elements like boulders, we recommend that shoreline habitat and natural systems enhancement projects omit boulders from the materials to be used.</i></p>

14.26.480 Structural Shoreline Stabilization

<p>133</p>	<p>(1) Applicability.</p> <p>(a) This section applies to “structural shoreline stabilization,” meaning physical improvements to address erosion impacts to property and dwellings, businesses, or structures caused by natural processes, such as current, flood, tides, wind, or wave action.</p> <p>(i) “Hard shoreline stabilization” means shoreline stabilization involving solid, hard surfaces, such as concrete bulkheads.</p> <p>(ii) “Soft shoreline stabilization” may include the use of gravels, cobbles, boulders, and logs, as well as vegetation</p>	<p>(1) Applicability.</p> <p>(a) This section applies to “structural shoreline stabilization,” meaning physical improvements to address erosion impacts to property and dwellings, businesses, or structures caused by natural processes, such as current, flood, tides, wind, or wave action.</p> <p>(i) “Hard shoreline stabilization” means shoreline stabilization involving solid, hard surfaces, such as concrete bulkheads.</p> <p>(ii) “Soft shoreline stabilization” <u>means shore erosion limitation structures and measures that maintain or enhance ecological functions and are composed of primarily semi-rigid or flexible materials, bioengineering tailored to site-specific natural conditions, and vegetation, organized in a nonlinear, sloping arrangement, that dissipates wave energy and minimizes erosion in a way that mimics natural shoreline processes. Soft stabilization</u> may include the use of <u>sands, gravels, cobbles, boulders, and logs, and as well as</u> as vegetation</p>	<p><i>With the priority given soft armoring over hard armoring, these proposed changes better reflect the type of construction necessary to prevent some of armoring’s impacts.</i></p>
<p>134</p>	<p>(2) When Allowed. These modifications are allowed in the shoreline environment</p>	<p>(2) When Allowed. These modifications are allowed in the shoreline environment</p>	<p><i>Consistent with the most current science description of</i></p>

	<p>designations listed in SCC 14.26.405 Uses and Modifications Matrix.</p> <p>(a) New hard shoreline stabilization structures are prohibited, except when an analysis confirms that that there is a significant possibility that an existing primary structure will be damaged within three years as a result of shoreline erosion in the absence of such hard shoreline stabilization structures, or where waiting until the need is immediate results in the loss of opportunity to use measures that would avoid impacts on ecological functions.</p> <p>(b) In all cases, the feasibility of soft shoreline stabilization must be evaluated prior to a request for hard structural stabilization.</p> <p>(c) New or enlarged stabilization structures are prohibited except in the following situations:</p> <p>(i) To protect an existing primary structure, including a residence, when conclusive evidence, documented by a geotechnical analysis, is provided that the structure is in danger from shoreline erosion caused by currents or waves. Normal sloughing, erosion of steep bluffs, or</p>	<p>designations listed in SCC 14.26.405 Uses and Modifications Matrix.</p> <p>(a) New hard shoreline stabilization structures are prohibited, except when an analysis confirms that that there is a significant possibility that an existing primary structure will be damaged within three years as a result of shoreline erosion in the absence of such hard shoreline stabilization structures, or where waiting until the need is immediate results in the loss of opportunity to use measures that would avoid impacts on ecological functions.</p> <p>(b) In all cases, the feasibility of soft shoreline stabilization must be evaluated prior to a request for hard structural stabilization.</p> <p>(c) New or enlarged stabilization structures are prohibited except in the following situations:</p> <p>(i) To protect an existing primary structure, including a residence, when conclusive evidence, documented by a geotechnical analysis, is provided that the structure is in danger from shoreline erosion caused by currents or waves. Normal sloughing, erosion of steep bluffs, or</p>	<p><i>the many ecological impacts associated with armoring, as well as the Puget Sound Partnership goal to reduce the amount of armoring and the US Endangered Species Act requirement to recover listed species harmed by armoring, like the endangered Puget Sound Chinook and Southern Resident Killer Whales, armoring should not be allowed for new development. New development must be designed, located, and constructed to avoid the need for new armoring.</i></p> <p><i>Two excellent references discuss the harm that armoring causes: (1) northweststraitsfoundation.org; and (2) Shoreline Master Program Planning and Implementation Guidance by Kelsey Gianou, MS through Dept. Of Ecology. <u>Soft Shoreline Stabilization: Shoreline Master Program Planning and Implementation Guidance</u> (Number of pages: 117) (Publication Size: 6752KB):</i></p> <p><i>Due to concerns about shoreline armoring impacts to the</i></p>
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	<p>shoreline erosion itself, without a scientific or geotechnical analysis, is not demonstration of need. The geotechnical analysis should evaluate onsite drainage issues and address drainage problems away from the shoreline edge before considering hard or soft shoreline stabilization.</p> <p>(ii) In support of new non-water-dependent development, including single-family residences, when all of the conditions below apply:</p> <p>(A) The erosion is not being caused by upland conditions, such as drainage and the loss of vegetation.</p> <p>(B) Nonstructural measures, such as placing the proposed development farther from the shoreline, planting vegetation, or installing onsite drainage improvements, are not feasible or not sufficient to adequately address erosion impacts.</p> <p>(C) The need to protect primary structures from damage due to erosion is demonstrated through a</p>	<p>shoreline erosion itself, without a scientific or geotechnical analysis, is not demonstration of need. The geotechnical analysis should evaluate onsite drainage issues and address drainage problems away from the shoreline edge before considering hard or soft shoreline stabilization.</p> <p>(ii) In support of new non-water dependent development, including single family residences, when all of the conditions below apply:</p> <p>(A) The erosion is not being caused by upland conditions, such as drainage and the loss of vegetation.</p> <p>(B) Nonstructural measures, such as placing the proposed development farther from the shoreline, planting vegetation, or installing onsite drainage improvements, are not feasible or not sufficient to adequately address erosion impacts.</p> <p>(C) The need to protect primary structures from damage due to erosion is demonstrated through a</p>	<p><i>nearshore environment, the Puget Sound Partnership has developed the following Shoreline Armoring Target: More armoring removed than added during the time period of 2011-2020. In 2005-2010 there was a net gain of about 6 miles of armoring, despite armoring regulations and armoring removal restoration projects. There was also about 14.5 miles of replacement armoring. Single-family residences accounted for 76% of the new shoreline armoring length and 25% of armoring removal length (Puget Sound Partnership, 2012). Therefore, single family residences represent an opportunity to impact the PSP Shoreline Armoring Target and other environmental policy goals through new armoring prevention, armoring removal, and implementation of hard armoring alternatives such as soft shoreline stabilization.</i></p>
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	<p>geotechnical analysis. The damage must be caused by natural processes, such as currents or waves.</p> <p>(iii) In support of water-dependent development when all of the conditions below apply:</p> <p>(A) The erosion is not being caused by upland conditions, such as drainage and the loss of vegetation.</p> <p>(B) Nonstructural measures, such as planting vegetation, or installing onsite drainage improvements, are not feasible or not sufficient to adequately address erosion causes or impacts.</p> <p>(C) The need to protect primary structures, including residences, from damage due to erosion is demonstrated through a geotechnical analysis.</p> <p>(iv) To protect projects for the restoration of ecological functions or for hazardous substance remediation projects pursuant to Chapter 70.105D RCW when nonstructural measures, planting vegetation, or installing onsite drainage</p>	<p>geotechnical analysis. The damage must be caused by natural processes, such as currents or waves.</p> <p>(iii) In support of water-dependent development when all of the conditions below apply:</p> <p>(A) The erosion is not being caused by upland conditions, such as drainage and the loss of vegetation.</p> <p>(B) Nonstructural measures, such as planting vegetation, or installing onsite drainage improvements, are not feasible or not sufficient to adequately address erosion causes or impacts.</p> <p>(C) The need to protect primary structures, including residences, from damage due to erosion is demonstrated through a geotechnical analysis.</p> <p>(iv) To protect projects for the restoration of ecological functions or for hazardous substance remediation projects pursuant to Chapter 70.105D RCW when nonstructural measures, planting vegetation, or installing onsite drainage improvements, are not</p>	
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	improvements, are not feasible or not sufficient to adequately address erosion causes or impacts.	feasible or not sufficient to adequately address erosion causes or impacts.	
143	(4) Development standards (i) The soft shoreline stabilization design must size and arrange any gravels, cobbles, logs, and boulders so that the project remains stable during a two- year flood event on rivers and under typical boat- and wind-driven wave conditions on lakes and marine waters, including storm and tidal events, and dissipates wave and current energy, without presenting extended linear faces to oncoming waves or currents.	(4) Development standards (ii) The soft shoreline stabilization design must size and arrange any gravels, cobbles, <u>and logs</u> , and boulders so that the project remains stable during a two- year flood event on rivers and under typical boat- and wind-driven wave conditions on lakes and marine waters, including storm and tidal events, and dissipates wave and current energy, without presenting extended linear faces to oncoming waves or currents.	<i>As discussed above, boulders are an element of hard shoreline stabilization and should not be included in soft stabilization measures.</i>

Part V: Critical Areas

14.26.515 Standard Critical Areas Review and Site Assessment

157	(3) Determination that Critical Areas are not Present or Affected. (a) If the Administrative Official determines that critical areas or critical area buffers are not present within 300 feet of the proposed activity or within a distance otherwise specified in this Part; or (b) The project does not expand an existing single-family residence by more than 200 square feet of floor area and does not adversely impact or encroach into critical areas or their buffers; or	(3) Determination that Critical Areas are not Present or Affected. (a) If the Administrative Official determines that critical areas or critical area buffers are not present within 300 feet of the proposed activity or within a distance otherwise specified in this Part; or (b) The project does not expand an existing structure single-family residence by more than 200 square feet of floor area, <u>does not alter the use or increase septic affluent</u> , and does not adversely impact or	<i>We recommend combining paragraphs (b) and (d) to apply the same critical area protections evenly to both residential and non-residential development that would impact critical areas.</i> <i>We also recommend inserting language into paragraph (3)(c) to ensure that applicants understand</i>
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	<p>(c) The vertical expansion of an existing single-family residence located within a critical area or its buffer may be allowed if the expansion does not adversely impact or encroach into critical areas of their buffers; or</p> <p>(d) The project does not expand an existing structure, other than a single-family residence, by more than 200 square feet of floor area, does not alter the use or increase septic effluent, and does not adversely impact or encroach into critical areas or their buffers; then</p> <p>(e) The review required pursuant to this Part is complete. Any proposed change in use or scope of activity from that contained in the application shall be subject to further review under this Part.</p>	<p>encroach into critical areas or their buffers; or</p> <p>(c) The vertical expansion of an existing single-family residence located within a critical area or its buffer may be allowed if the expansion <u>complies with height limitations established elsewhere in this code and</u> does not adversely impact or encroach into critical areas of their buffers; or</p> <p>(d) The project does not expand an existing structure, other than a single family residence, by more than 200 square feet of floor area, does not alter the use or increase septic effluent, and does not adversely impact or encroach into critical areas or their buffers; then</p> <p>(e) The review required pursuant to this Part is complete. Any proposed change in use or scope of activity from that contained in the application shall be subject to further review under this Part.</p>	<p><i>that vertical limitations other than critical areas standards may apply.</i></p>
158-59	<p>(4) Determination that Critical Areas are Present or Affected. If the Administrative Official determines that critical area indicators are present within 200 feet of the proposed activity or within a distance otherwise specified in this Part, then the Administrative Official shall note this determination in the application file and the applicant shall be required to provide the critical areas site assessment</p>	<p>(4) Determination that Critical Areas are Present or Affected. If the Administrative Official determines that critical area indicators are present within 200 <u>300</u> feet of the proposed activity or within a distance otherwise specified in this Part, then the Administrative Official shall note this determination in the application file and the applicant shall be required to provide the critical areas site assessment</p>	<p><i>We recommend using a 300-foot distances for reviews for consistency with the CAO and proposed 14.26.515(2).</i></p> <p><i>We also recommend removing the discretion to adjust the area of review based on applicant's wishes rather than a standardized</i></p>

	<p>specified in this Part. Development of a site assessment may precede a County site visit; provided, that no disturbance of vegetation or land surface occurs prior to County authorization. If the applicant chooses, the site assessment may be limited to 300 feet surrounding a proposed development only if there are no other activities occurring or proposed on the remainder of the parcel which are in conflict with this Part. If the applicant, together with assistance from the Administrative Official, cannot obtain permission for access to properties within 300 feet of the project area, then the site assessment may also be limited accordingly. The site assessment shall be completed as follows:</p> <p>(a) The site assessment shall be prepared by a qualified professional for the type of critical area or areas involved and shall contain the information specified for each type of critical area. The qualified professional may consult with the Administrative Official prior to or during preparation of the site assessment to obtain County approval of modifications to the contents of the site assessment.</p> <p>(b) The site assessment shall use scientifically valid methods and studies in the analysis of critical areas data and field reconnaissance and reference the source of science used.</p>	<p>specified in this Part. Development of a site assessment may precede a County site visit; provided, that no disturbance of vegetation or land surface occurs prior to County authorization. If the applicant chooses, the site assessment may be limited to 300 feet surrounding a proposed development only if there are no other activities occurring or proposed on the remainder of the parcel which are in conflict with this Part. If the applicant, together with assistance from the Administrative Official, cannot obtain permission for access to properties within 300 feet of the project area, then the site assessment may also be limited accordingly. The site assessment shall be completed as follows:</p> <p>(a) The site assessment shall be prepared by a qualified professional for the type of critical area or areas involved and shall contain the information specified for each type of critical area. The qualified professional may consult with the Administrative Official prior to or during preparation of the site assessment to obtain County approval of modifications to the contents of the site assessment.</p> <p>(b) The site assessment shall use scientifically valid methods and studies in the analysis of critical areas data and field reconnaissance and reference the source of science used.</p>	<p><i>approach.</i></p> <p><i>We recommend removing the unlimited authorization to modify the contents of the site assessment, and reliance on the standard provisions below for site assessments.</i></p> <p><i>The maintenance corridor provision should locate that corridor outside of critical areas and buffers to avoid unnecessary impacts to those areas.</i></p>
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	<p>(c) The site assessment shall include:</p> <ul style="list-style-type: none"> (i) Project description that includes a detailed narrative describing the project, its relationship to the critical area and its potential impact to the critical area; and (ii) A copy of the site plan for the project proposal including a map to scale depicting critical areas, buffers, the development proposal, and any areas to be cleared; and (iii) Identification and characterization of all critical areas and buffers adjacent to the proposed project area; and (iv) An assessment of the probable cumulative impacts to critical areas resulting from development of the site and the proposed development; and (v) A description of the proposed stormwater management plan for the development and consideration of impacts to drainage alterations; and (vi) A description of efforts made to apply mitigation sequencing pursuant to SCC 14.26.305; and (vii) A proposed mitigation plan including land use restrictions and landowner management, maintenance and monitoring responsibilities; and (viii) Regulatory analysis including a discussion of any Federal, State, 	<p>(c) The site assessment shall include:</p> <ul style="list-style-type: none"> (i) Project description that includes a detailed narrative describing the project, its relationship to the critical area and its potential impact to the critical area; and (ii) A copy of the site plan for the project proposal including a map to scale depicting critical areas, buffers, the development proposal, and any areas to be cleared; and (iii) Identification and characterization of all critical areas and buffers adjacent to the proposed project area; and (iv) An assessment of the probable cumulative impacts to critical areas resulting from development of the site and the proposed development; and (v) A description of the proposed stormwater management plan for the development and consideration of impacts to drainage alterations; and (vi) A description of efforts made to apply mitigation sequencing pursuant to SCC 14.26.305; and (vii) A proposed mitigation plan including land use restrictions and landowner management, maintenance and monitoring responsibilities; and (viii) Regulatory analysis including a discussion of any Federal, State, 	
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	<p>Tribal, and/or local requirements, or special management recommendations which have been developed for species and/or habitats located on the site.</p> <p>(ix) If necessary, designate a maintenance corridor to provide an area for construction and maintenance of buildings and other structures. The standard width of the maintenance corridor shall be 15 feet. This distance may be modified with approval of the Administrative Official. The following may be allowed within the maintenance corridor area:</p> <p>(A) Landscaping with non-invasive species only;</p> <p>(B) Uncovered decks;</p> <p>(C) Building overhangs if such overhangs do not extend more than 18 inches into the setback area;</p> <p>(D) Impervious ground surfaces, such as driveways and patios; provided, that such improvements may be subject to special drainage provisions adopted for the various critical areas; and</p> <p>(E) Trails.</p>	<p>Tribal, and/or local requirements, or special management recommendations which have been developed for species and/or habitats located on the site.</p> <p>(ix) If necessary, designate a maintenance corridor <u>outside of critical areas and their buffers</u> to provide an area for construction and maintenance of buildings and other structures. The standard width of the maintenance corridor shall be 15 feet. This distance may be modified with approval of the Administrative Official. The following may be allowed within the maintenance corridor area:</p> <p>(A) Landscaping with non-invasive species only;</p> <p>(B) Uncovered decks;</p> <p>(C) Building overhangs if such overhangs do not extend more than 18 inches into the setback area;</p> <p>(D) Impervious ground surfaces, such as driveways and patios; provided, that such improvements may be subject to special drainage provisions adopted for the various critical areas; and</p> <p>(E) Trails.</p>	
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	(d) If necessary to ensure compliance with this Part, the Administrative Official may require additional information from the applicant, separate from the critical areas site assessment	(d) If necessary to ensure compliance with this Part, the Administrative Official may require additional information from the applicant, separate from the critical areas site assessment	
159-160	<p>(5) General Mitigation Requirements.</p> <p>(a) Mitigation. All proposed alterations to critical areas or associated buffers shall require mitigation sufficient to ensure no net loss of ecological functions, prevent risk from a critical areas hazard, where applicable, and shall give adequate consideration to the reasonable and economically viable use of the property.</p> <p>(6) Financial Assurance. The Administrative Official shall require the mitigation proposed in the site assessment to be completed prior to final approval of the development permit. For all projects with an estimated mitigation cost of \$10,000 or more, the Administrative Official may require financial assurance which will guarantee compliance with the mitigation plan if the mitigation proposed in the site assessment cannot be completed prior to final approval of the development permit. Financial assurance shall be in the form of either a surety bond, performance bond, assignment of savings account or an irrevocable letter of credit guaranteed by an acceptable financial institution with terms and conditions acceptable to the County Prosecuting</p>	<p>(5) General Mitigation Requirements.</p> <p>(a) Mitigation. <u>Where All proposed alterations to critical areas or associated buffers are permitted by this Shoreline Master Program to allow reasonable use of a property, they shall require mitigation sufficient to ensure no net loss of ecological functions and, prevent risk from a critical areas hazard, where applicable, and shall give adequate consideration to the reasonable and economically viable use of the property.</u></p> <p>(6) Financial Assurance. The Administrative Official shall require the mitigation proposed in the site assessment to be completed prior to final approval of the development permit. For all projects with an estimated mitigation cost of \$10,000 or more, the Administrative Official <u>may shall</u> require financial assurance which will guarantee compliance with the mitigation plan if the mitigation proposed in the site assessment cannot be completed prior to final approval of the development permit. Financial assurance shall be in the form of either a surety bond, performance bond, assignment of savings account or an irrevocable letter of credit guaranteed by an</p>	<p><i>Consistent with the most current science, alterations of shoreline critical areas and buffers should be limited to those instances where the Shoreline Master Program would otherwise prevent all reasonable, economically viable use of the property.</i></p> <p><i>The financial assurance must guarantee compliance with the mitigation plan. Per Ecology's SMP Handbook, counties must demonstrate that an alternate approach will address cumulative impacts and no net loss of shoreline ecological functions and will include:</i></p> <ul style="list-style-type: none"> <i>· Mitigation for any associated adverse impacts.</i> <i>· Significant public benefits, such as shoreline ecological restoration.</i> <i>· Significant public access to enhance opportunities</i>

	<p>Attorney, shall be in the amount of 125% of the estimated cost of the uncompleted actions or construction, and shall be assigned in favor of Skagit County Planning and Development Services. The term of the financial assurance shall remain in place until the required mitigation is complete.</p>	<p>acceptable financial institution with terms and conditions acceptable to the County Prosecuting Attorney, shall be in the amount of 125% of the estimated cost of the uncompleted actions or construction, and shall be assigned in favor of Skagit County Planning and Development Services. The term of the financial assurance shall remain in place until the required mitigation is complete.</p>	<p><i>for the public to enjoy the shoreline.</i></p>
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14.26.520 Protected Critical Areas (PCA) Requirements

<p>160-61</p>	<p>(2) PCA Field Identification and Buffer Edge Markers. (a) Temporary Markers. During construction phases of development, distinct temporary marking consisting of flagging and/or staking shall be maintained along the outer limits of the delineated PCA or the limits of the proposed site disturbance outside of the PCA. Prior to the start of construction activity, and as necessary during construction, temporary markings shall be inspected by the Administrative Official or qualified professional. Written confirmation is to be included in the record as to whether or not the flagging has been installed consistent with the permit</p>	<p>(2) PCA Field Identification and Buffer Edge Markers. (a) Temporary Markers. During construction phases of development, distinct temporary marking consisting of flagging and/or staking shall be maintained along the outer limits of the delineated PCA or the limits of the proposed site disturbance outside of the PCA. Prior to the start of construction activity, and as necessary during construction, temporary markings shall be inspected by the Administrative Official or qualified professional. Written confirmation is to be included in the record as to whether or not the flagging has been installed consistent with the permit</p>	<p><i>To ensure that future activities will not harm critical area buffers and to avoid the significant expense for future property owners of re-marking critical area buffer boundaries, the County should not establish an exception to the permanent marker provisions.</i></p>
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	<p>requirements prior to commencement of the permitted activity.</p> <p>(b) Permanent Buffer Edge Markers. Except as provided under Subsection (2)(b)(i) of this Section, the outer edges of all PCAs, with the exception of aquifer recharge areas, shall be clearly marked on-site by the applicant or landowner with permanent stakes and critical areas markers. Critical areas markers may be either approved critical areas signs or inexpensive steel posts painted a standard color approved by the Administrative Official that is clearly identifiable as a critical areas marker. Installation of permanent markers shall be the responsibility of the landowner.</p> <p>(i) The Administrative Official may waive or modify the requirement for permanent buffer edge markers; provided, that any such decision shall be based on a site-specific determination that future verification of PCA locations will not be substantially more difficult without the placement of permanent markers and that such waiver or modification will not result in reduced long-term protection of critical areas.</p>	<p>requirements prior to commencement of the permitted activity.</p> <p>(b) Permanent Buffer Edge Markers. Except as provided under Subsection (2)(b)(i) of this Section, the outer edges of all PCAs, with the exception of aquifer recharge areas, shall be clearly marked on-site by the applicant or landowner with permanent stakes and critical areas markers. Critical areas markers may be either approved critical areas signs or inexpensive steel posts painted a standard color approved by the Administrative Official that is clearly identifiable as a critical areas marker. Installation of permanent markers shall be the responsibility of the landowner.</p> <p>(i) The Administrative Official may waive or modify the requirement for permanent buffer edge markers; provided, that any such decision shall be based on a site-specific determination that future verification of PCA locations will not be substantially more difficult without the placement of permanent markers and that such waiver or modification will not result in reduced long-term protection of critical areas.</p>	
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14.26.522 Hazard Tree Removal

<p>164</p>	<p>(1) In a critical area or critical area buffer, removal of hazardous, diseased or dead trees and vegetation by the landowner may be permitted when necessary to:</p> <ul style="list-style-type: none"> (a) Control fire; or (b) Halt the spread of disease or damaging insects consistent with the State Forest Practice Act, Chapter 76.09 RCW; or (c) Avoid a hazard such as landslides; or (d) Avoid a threat to existing structures or aboveground utility lines. 	<p>(1) In a critical area or critical area buffer, removal of hazardous, diseased or dead trees and vegetation by the landowner may be permitted when necessary to:</p> <ul style="list-style-type: none"> a. Control fire; or b. Halt the spread of disease or damaging insects consistent with the State Forest Practice Act, Chapter 76.09 RCW; or c. Avoid a hazard such as landslides; or d. Avoid <u>an imminent threat of physical damage to an existing primary</u> structures or aboveground utility lines. 	<p><i>We recommend that hazard trees not be defined to include all trees that could contribute to fire because combustibility is an inherent characteristic of all trees, and thus any tree could be characterized as a hazard tree and be subject to removal.</i></p> <p><i>Tree removal should be limited to those that actually pose a threat to a structure, and dead trees generally should be retained due to their high value habitat.</i></p>
<p>164</p>	<p>(2) Before hazardous, diseased or dead trees and vegetation may be removed by the landowner pursuant to Subsection (1) of this Section:</p> <ul style="list-style-type: none"> a. Unless there is an emergency pursuant to SCC14.26.720, the landowner shall obtain prior written approval from Planning and Development Services. This consent shall be processed promptly and may not be unreasonably withheld. If the Administrative Official fails to respond to a hazard tree removal request within 10 business days, the landowner’s request shall be conclusively allowed; and 	<p>(2) Before hazardous, diseased or dead trees and vegetation may be removed by the landowner pursuant to Subsection (1) of this Section:</p> <ul style="list-style-type: none"> a. <u>The landowner shall obtain and submit to Planning and Development Services a report from a qualified professional that: (1) the tree or trees sought to be removed have a high probability of falling due to disease; and (2) removal of the tree will halt the spread of disease or damaging insects, avoid a hazard such as landslides, or avoid an imminent threat of physical damage to an existing</u> 	<p><i>This commonsense and broadly used measure will help ensure that only truly hazardous trees will be removed.</i></p>

	<p>b. The removed tree or vegetation should be left within the critical areas or buffer unless the Administrative Official, or a qualified professional, warrants its removal to avoid spreading the disease or pests; and</p> <p>c. Any removed tree or vegetation shall be replaced by the landowner with an appropriate native species in appropriate size. Replacement shall be performed consistent with accepted restoration standards for critical areas within 1 calendar year;</p> <p>d. For this Section only, a “qualified professional” shall mean a certified arborist, certified forester or landscape architect.</p>	<p><u>primary structure or aboveground utility lines.</u></p> <p>b. Unless there is an emergency pursuant to SCC14.26.720, the landowner shall obtain prior written approval from Planning and Development Services. This consent shall be processed promptly and may not be unreasonably withheld. If the Administrative Official fails to respond to a hazard tree removal request within 10 business days, the landowner’s request shall be conclusively allowed; and</p>	
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14.26.533 Wetland Protection Standards

166	<p>(1) Wetland Buffer Widths.</p> <p>(a) Standard Wetland Buffers. Standard buffers are based on land use impact. The following standard buffers shall be required for regulated wetlands unless otherwise provided for in this Section:</p>	<p><u>(1) Wetland Buffer Setbacks.</u></p> <p><u>(a) New and expanded development shall be setback a minimum of 30 feet from the outer edge of wetland buffers to avoid the need to impact the buffer to conduct maintenance activities on that development or to clear trees in the buffer to achieve defensible space around that development as a fire consideration.</u></p>	<p><i>We recommend a 30-foot setback consistent with recommendations by state agencies, such as that found at: DNR.wa.gov/fightingfire. This is also consistent with the National Fire Protection Association recommendations for preparing homes for wildlife.⁵</i></p>
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⁵ Nation Fire Protection Association “preparing homes for wildfire” webpage, available at: <https://www.nfpa.org/Public-Education/By-topic/Wildfire/Preparing-homes-for-wildfire> (last visited June 7, 2021).

14.26.534 Wetland Performance-based Buffer Alternatives and Mitigation Standards

168	<p>(2) Buffer Width Averaging. Buffer averaging allows limited reductions of buffer width in specified locations, while requiring increases in others. Averaging of required buffer widths will be allowed only if the applicant demonstrates that all of the following criteria are met:</p> <p>(a) Averaging is necessary to accomplish the purpose of the proposal and no reasonable alternative is available; and</p> <p>(b) Averaging width will not adversely impact the wetland functions and values; and</p> <p>(1)</p> <p>(c) The total area contained within the wetland buffer after averaging is no less than that contained within the standard buffer prior to averaging; and</p> <p>(d) The buffer width shall not be reduced below 75% of the standard buffer width.</p> <p>(e)</p>	<p>(2) Buffer Width Averaging. Buffer averaging allows limited reductions of buffer width in specified locations, while requiring increases in others. Averaging of required buffer widths will be allowed only if the applicant demonstrates that all of the following criteria are met:</p> <p>(a) Averaging is necessary to <u>achieve reasonable use of the parcel</u> accomplish the purpose of the proposal and no reasonable alternative is available; and</p> <p>(b) Averaging width will <u>improve</u> the wetland functions and values; and</p> <p>(c) The total area contained within the wetland buffer after averaging is no less than that contained within the standard buffer prior to averaging; and</p> <p>(d) The buffer width shall not be reduced below 75% of the standard buffer width.</p>	<p><i>These revisions are necessary for compliance with the most current scientific information.⁶ According to that Ecology wetland guidance, buffer averaging would be limited to those instances where it “will <u>improve</u> the protection of wetland functions, or if it is the only way to allow for reasonable use of a parcel.”⁷ In addition “[t]he width of the buffer at any given point after averaging <u>should be no smaller than 75% of the standard buffer.</u>”⁸ Ecology’s buffer approach is based on a moderate-risk approach with a medium likelihood of causing impacts.</i></p> <p><i>In describing the importance of buffers, the wetlands guidance states that, “[t]he scientific literature is unequivocal that buffers are necessary to protect wetland functions and values.”⁹ In</i></p>
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⁶ Wash. Dept. of Ecology, *Wetland Guidance for CAO Updates, Western Washington Version*, Pub. No. 16-06-001, 13 (June 2016), attached hereto as Attachment U.

⁷ *Id.* (emphasis added).

⁸ *Id.* (emphasis added).

⁹ ECY Guidance, at 11 (emphasis in original).

			<p><i>addition, “Ecology’s buffer recommendations are also based on the assumption that the buffer is well vegetated with native species appropriate to the ecoregion.”¹⁰ Where the buffer does not contain vegetation adequate to protect the wetland functions, it should either be planted or increased in size.¹¹</i></p>
169	<p>(3) Buffer Width Decreasing. Prior to considering buffer reductions, the applicant shall demonstrate application of mitigation sequencing as required in SCC 14.26.305. In all circumstances where a substantial portion of the remaining buffer is degraded, the buffer reduction plan shall include replanting with native vegetation in the degraded portions of the remaining buffer area and shall include a five-year monitoring and maintenance plan.</p> <p>(a) High impact land use projects may apply moderate intensity buffers if measures to minimize impacts to wetlands from high impact land uses are implemented. Some of the measures that may be used can be found in Department of Ecology Publication No. 05-06-008, Wetlands in Washington State, Volume 2, Appendix 8C</p>	<p>(4) Buffer Width Decreasing. Prior to considering buffer reductions, the applicant shall demonstrate application of mitigation sequencing as required in SCC 14.26.305. In all circumstances where a substantial portion of the remaining buffer is degraded, the buffer reduction plan shall include replanting with native vegetation in the degraded portions of the remaining buffer area and shall include a five-year monitoring and maintenance plan.</p> <p>(b) High impact land use projects may apply moderate intensity buffers if measures to minimize impacts to wetlands from high impact land uses are implemented. Some of the measures that may be used can be found in Department of Ecology Publication No. 05-06-008, Wetlands in Washington State, Volume 2, Appendix</p>	<p><i>There is no science to support buffer width decreases generally.</i></p> <p><i>In addition, such decreases are inconsistent with the Washington Growth Management Hearings Board’s decision in <u>ReSources, Inc. v. City of Blaine</u>, where it rejected buffer averaging that allowed reductions of 40% and 60%, even where “all anticipated impacts to the critical area and its required buffer have been mitigated and, for averaging, the total buffer area is not reduced</i></p>

¹⁰ ECY Guidance, at 13.

¹¹ Id.

	(as updated in 2014), listed in the Impact Minimization Measures table	8C (as updated in 2014), listed in the Impact Minimization Measures table	<i>below the area that would result from use of the standard buffer.”¹² The Board noted the lack of BAS to justify the buffer reductions, and quoted with approval Ecology recommendations that, [t]he widths of buffers may be averaged if this <u>will improve the protection of wetland functions, or if it is the only way to allow for reasonable use of a parcel. There is no scientific information available to determine if averaging the widths of buffers actually protects functions of wetlands.</u>”¹³</i>
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14.26.535 Wetland Alternative Compensation Projects

171-72	(1) Off-Site Compensation. On-site compensation is generally preferred over off-site compensation. Off-site compensation allows replacement of wetlands away from the site on which the wetland has been impacted by a regulated activity. The following conditions apply to off-site compensation: (a) Off-site compensation shall occur within shoreline jurisdiction of the same drainage	(1) Off Site Compensation. On-site compensation is generally preferred over off-site compensation. Off-site compensation allows replacement of wetlands away from the site on which the wetland has been impacted by a regulated activity. The following conditions apply to off-site compensation: (a) Off-site compensation shall occur within shoreline jurisdiction of the same	<i>We recommend deleting section 14.26.535 as inapplicable in a Critical Area.</i>
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¹² WWGMHB No. 09-2-0015, FDO, 17 (March 29, 2010).

¹³ Id. (emphasis in original)

	<p>basin of the same watershed where the wetland loss occurs; provided, that Category IV wetlands may be replaced outside of the watershed if there is no reasonable alternative. In such instances, the stormwater storage function provided by Category IV wetlands must be provided for within the design of the development project.</p> <p>(b) Off-site compensation can be allowed only under 1 or more of the following circumstances:</p> <ul style="list-style-type: none"> (i) On-site compensation is not feasible due to hydrology, soils, or other physical factors; (ii) On-site compensation is not practical due to probable adverse impacts from surrounding land uses or would conflict with a Federal, State or local public safety directive; (iii) Potential functions and values at the site of the proposed restoration are greater than the lost wetland functions and values; (iv) When the wetland to be altered is of a limited function and value and is degraded, compensation shall be of the wetland community types needed most in the location of compensation and those most likely to succeed with the highest functions and values possible. 	<p>drainage basin of the same watershed where the wetland loss occurs; provided, that Category IV wetlands may be replaced outside of the watershed if there is no reasonable alternative. In such instances, the stormwater storage function provided by Category IV wetlands must be provided for within the design of the development project.</p> <p>(b) Off site compensation can be allowed only under 1 or more of the following circumstances:</p> <ul style="list-style-type: none"> (i) On-site compensation is not feasible due to hydrology, soils, or other physical factors; (ii) On-site compensation is not practical due to probable adverse impacts from surrounding land uses or would conflict with a Federal, State or local public safety directive; (iii) Potential functions and values at the site of the proposed restoration are greater than the lost wetland functions and values; (iv) When the wetland to be altered is of a limited function and value and is degraded, compensation shall be of the wetland community types needed most in the location of compensation and those most likely to succeed with the highest functions and values possible. 	
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173	<p>(4) Innovative Wetland Mitigation Projects. The Administrative Official may encourage, facilitate and approve innovative wetland mitigation projects. Advance compensation or mitigation banking are examples of innovative compensation projects allowed under the provisions of this Section wherein 1 or more applicants, or an organization with demonstrated capability, may undertake a compensation project together if it is demonstrated that all of the following circumstances exist:</p> <ul style="list-style-type: none"> (a) Creation of 1 or several larger wetlands may be preferable to many small wetlands; and (b) The group demonstrates the organizational and fiscal capability to act cooperatively; and (c) The group demonstrates that long-term management of the compensation area will be provided; and (d) There is a clear potential for success of the proposed compensation at the identified compensation site; and (e) Wetland mitigation banking programs consistent with the provisions outlined in the Department of Ecology’s publications No. 06-06-011A and No. 06-06-011B (Wetland Mitigation in Washington State, Part 1 and Part 2), Chapter 90.84 RCW and Chapter 173-700 WAC will be considered 	<p>(4) Innovative Wetland Mitigation Projects. The Administrative Official may encourage, facilitate and approve innovative wetland mitigation projects. Advance compensation or mitigation banking are examples of innovative compensation projects allowed under the provisions of this Section wherein 1 or more applicants, or an organization with demonstrated capability, may undertake a compensation project together if it is demonstrated that all of the following circumstances exist:</p> <ul style="list-style-type: none"> (a) <u>The innovative project is anticipated to replace the same kind and type of functions and values and at a replacement ratio of 3:1.</u> (b) Creation of 1 or several larger wetlands may be preferable to many small wetlands; and (c) The group demonstrates the organizational and fiscal capability to act cooperatively; and (d) The group demonstrates that long-term management of the compensation area will be provided; and (e) There is a clear potential for success of the proposed compensation at the identified compensation site; and (f) Wetland mitigation banking programs consistent with the provisions outlined in the Department of Ecology’s publications 	<p><i>Given the experimental nature of innovative wetland mitigation projects, we recommend that the replacement ratio include a margin for error.</i></p>
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	as a method of compensation for unavoidable, adverse wetland impacts associated with future development.	No. 06-06-011A and No. 06-06-011B (Wetland Mitigation in Washington State, Part 1 and Part 2), Chapter 90.84 RCW and Chapter 173-700 WAC will be considered as a method of compensation for unavoidable, adverse wetland impacts associated with future development.	
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14.26.540 Aquifer recharge areas intent

173	(2) Existing and future beneficial uses of groundwater shall be maintained and protected. Degradation of groundwater quality that would interfere with or become injurious to beneficial uses shall be avoided or minimized.	Existing and future beneficial uses of groundwater shall be maintained and protected. Degradation of groundwater quality that would interfere with or become injurious to beneficial uses shall be avoided or minimized.	<i>Consistent with Washington's drinking water laws, we recommend avoiding the degradation of groundwater quality that would interfere with beneficial use.</i>
174	(3) Wherever groundwater is determined to be of a higher quality than the criteria established for said waters under this Section, the existing water quality shall be protected, and contaminants that will reduce the existing quality thereof shall not be allowed to enter such waters, except in those instances where it can be demonstrated that: (a) An overriding consideration of the public interest will be served; and (b) All contaminants proposed for entry into said groundwater(s) shall be provided with all known, available, and reasonable methods of prevention, control, and treatment prior to entry.	(3) Wherever groundwater is determined to be of a higher quality than the criteria established for said waters under this Section, the existing water quality shall be protected, and contaminants that will reduce the existing quality thereof shall not be allowed to enter such waters, except in those instances where it can be demonstrated that: (a) An overriding consideration of the public interest will be served; and (b) All contaminants proposed for entry into said groundwater(s) shall be provided with all known, available, and reasonable methods of prevention, control, and treatment prior to entry.	<i>Consistent with state water quality laws and principles of anti-degradation, the SMP should not allow contamination of groundwater.</i>

14.26.543 Aquifer recharge areas site assessment requirements

177	(3) Additional Site Assessment Elements. After the initial project review, 1 or more of the site assessment elements listed below may be required based upon the proposed project activity, aquifer recharge area classification, complexity of underlying hydrogeological conditions, and/or the perceived potential to adversely impact hydraulically downgradient receptors. One or more of these additional site assessment elements may also be required if the applicant chooses to demonstrate that certain mitigation measures are not necessary to protect the quantity or quality of the underlying aquifer(s), or that the project does not pose a detrimental risk to hydraulically downgradient receptors. Additional site assessment elements include:	(3) Additional Site Assessment Elements. After the initial project review, 1 or more of the site assessment elements listed below may <u>shall</u> be required <u>if warranted</u> based upon the proposed project activity, aquifer recharge area classification, complexity of underlying hydrogeological conditions, and/or the perceived potential to adversely impact hydraulically downgradient receptors. One or more of these additional site assessment elements may also be required if the applicant chooses to demonstrate that certain mitigation measures are not necessary to protect the quantity or quality of the underlying aquifer(s), or that the project does not pose a detrimental risk to hydraulically downgradient receptors. Additional site assessment elements include:	<i>This language clarifies the intent to let site conditions dictate when additional review should be required.</i>
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14.26.563 Geologically hazardous area mitigation standards.

195	The mitigation plan shall be prepared by a qualified professional and include a discussion on how the project has been designed to avoid and minimize the impacts discussed under SCC 14.26.562 and meet the provision for no net loss of ecological functions. The plan shall also make a recommendation for the minimum setback from the geologic hazard. Mitigation plans shall include the location and methods of drainage, locations and methods of erosion control, a vegetation management and/or restoration plan and/or other means for maintaining long-term stability of geologic hazards. The plan shall also address the	The mitigation plan shall be prepared by a qualified professional <u>using Best Available Science and Best Management Practices</u> and include a discussion on how the project has been designed to avoid and minimize the impacts discussed under SCC 14.26.562 and meet the provision for no net loss of ecological functions. The plan shall also make a recommendation for the minimum setback from the geologic hazard. Mitigation plans shall include the location and methods of drainage, locations and methods of erosion control, a vegetation management and/or restoration plan and/or other means for	<i>We recommend this change as a reminder of the standards that apply to mitigation plans.</i>
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	<p>potential impact of mitigation on the hazard area, the subject property and affected adjacent properties. The mitigation plan must be approved by the Administrative Official and be implemented as a condition of project approval.</p>	<p>maintaining long-term stability of geologic hazards. The plan shall also address the potential impact of mitigation on the hazard area, the subject property and affected adjacent properties. The mitigation plan must be approved by the Administrative Official and be implemented as a condition of project approval.</p>	
196-97	<p>(1) Mitigation Standards.</p> <p>(a) A construction stormwater pollution prevention plan per SCC Chapter 14.32 (Stormwater Management).</p> <p>(b) A plan for the collection, transport, treatment, discharge and/or recycling of stormwater in accordance with the requirements of SCC Chapter 14.32, as amended. Surface drainage shall not be directed across the face of a landslide hazard (including marine bluffs or ravines). If drainage must be discharged from the hazard area into adjacent waters, it shall be collected above the hazard and directed to the water by tight line drain and provided with an energy dissipating device at the point of discharge.</p> <p>(c) All proposals involving excavation and/or placement of fill shall be subject to structural review under the appropriate provisions of the International Building Code (IBC) as amended by Skagit County.</p> <p>(d) Critical facilities as defined under Chapter 14.04 SCC shall not be sited within</p>	<p>(1) Mitigation Standards.</p> <p>(a) A construction stormwater pollution prevention plan per SCC Chapter 14.32 (Stormwater Management).</p> <p>(b) A plan for the collection, transport, treatment, discharge and/or recycling of stormwater in accordance with the requirements of SCC Chapter 14.32, as amended. Surface drainage shall not be directed across the face of a landslide hazard (including marine bluffs or ravines). If drainage must be discharged from the hazard area into adjacent waters, it shall be collected above the hazard and directed to the water by tight line drain and provided with an energy dissipating device at the point of discharge.</p> <p>(c) All proposals involving excavation and/or placement of fill shall be subject to structural review under the appropriate provisions of the International Building Code (IBC) as amended by Skagit County.</p>	<p><i>We recommend these underlined revisions to protect existing and future owners of the properties to be altered and the properties that would be affected by those alterations.</i></p>

	<p>designated geologically hazardous areas with the exception of volcanic hazard areas. No critical facilities shall be located within 1/4 mile of an active fault.</p> <p>(e) All infiltration systems, such as stormwater detention and retention facilities and curtain drains utilizing buried pipe or French drains, are prohibited in geologically hazardous areas and their buffers unless the mitigation plan indicates such facilities or systems will not affect slope stability.</p> <p>(f) Existing vegetation shall be maintained in landslide and erosion hazard areas and associated buffers. Any replanting that occurs shall consist of native trees, shrubs, and ground cover that is compatible with the existing surrounding native vegetation, meets the objectives of erosion prevention and site stabilization, and does not require permanent irrigation for long-term survival. Normal nondestructive pruning and trimming of vegetation for maintenance purposes; or thinning of limbs of individual trees to provide a view corridor, shall not be subject to these requirements.</p> <p>(g) A minimum buffer width of 30 feet shall be established from the top, toe and all edges of all landslide and erosion hazard areas. For landslide and erosion hazard areas with a vertical relief greater than 50 feet, the</p>	<p>(d) Critical facilities as defined under Chapter 14.04 SCC shall not be sited within designated geologically hazardous areas with the exception of volcanic hazard areas. No critical facilities shall be located within 1/4 mile of an active fault.</p> <p>(e) All infiltration systems, such as stormwater detention and retention facilities and curtain drains utilizing buried pipe or French drains, are prohibited in geologically hazardous areas and their buffers unless the mitigation plan indicates such facilities or systems will not affect slope stability.</p> <p>(f) Existing vegetation shall be maintained in landslide and erosion hazard areas and associated buffers. Any replanting that occurs shall consist of native trees, shrubs, and ground cover that is compatible with the existing surrounding native vegetation, meets the objectives of erosion prevention and site stabilization, and does not require permanent irrigation for long-term survival. Normal nondestructive pruning and trimming of vegetation for maintenance purposes; or thinning of limbs of individual trees to provide a view corridor, shall not be subject to these requirements.</p> <p>(g) <u>The proposed alteration includes all appropriate measures to avoid,</u></p>	
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	<p>minimum buffer shall be 50 feet. The buffer may be increased by the Administrative Official for development adjacent to a marine bluff or ravine which is designated as Unstable in the Coastal Zone Atlas, Washington, Volume Two, Skagit County (1978) or where the Administrative Official determines a larger buffer is necessary to prevent risk of damage to existing and proposed development</p> <p>(h) Structural development proposals within seismic hazard areas shall meet all applicable provisions of the IBC as amended by Skagit County. The Administrative Official shall evaluate documentation submitted pursuant to SCC 14.26.562(2) and condition permit approvals to minimize the risk on both the subject property and affected adjacent properties. All conditions shall be based on known, available, and reasonable methods of prevention, control and treatment. Evaluation of geotechnical reports may also constitute grounds for denial of the proposal.</p> <p>(i) No residential structures shall be located in geologic hazard areas or their buffers if that hazard cannot be fully mitigated.</p>	<p><u>eliminate, reduce, or otherwise mitigate risks to health and safety.</u></p> <p>(h) A minimum buffer width <u>measuring the same width as the height of the slope</u> of 30 feet shall be established from the top, toe and all edges of all landslide and erosion hazard areas. For landslide and erosion hazard areas with a vertical relief greater than 50 feet, the minimum <u>width of the buffer shall be 1.5 times the height of the slope</u> 50 feet. The buffer may be increased by the Administrative Official for development adjacent to a marine bluff or ravine which is designated as Unstable in the Coastal Zone Atlas, Washington, Volume Two, Skagit County (1978) or where the Administrative Official determines a larger buffer is necessary to prevent risk of damage to existing and proposed development</p> <p>(i) Structural development proposals within seismic hazard areas shall meet all applicable provisions of the IBC as amended by Skagit County. The Administrative Official shall evaluate documentation submitted pursuant to SCC 14.26.562(2) and condition permit approvals to minimize the risk on both the subject property and affected adjacent properties. All conditions shall be based on known, available, and</p>	
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		<p>reasonable methods of prevention, control and treatment. Evaluation of geotechnical reports may also constitute grounds for denial of the proposal.</p> <p>(j) No residential habitable structures shall be located in geologic hazard areas or their buffers if that hazard cannot be fully mitigated.</p> <p>(k) <u>Structures and improvements shall minimize alterations to the slope contour, and shall be designed to minimize impervious lot coverage unless such alterations or impervious surfaces are needed to maintain slope stability.</u></p> <p>(l) <u>The development will not decrease slope stability on adjacent properties. The development shall not increase the risk or frequency of landslide occurrences.</u></p> <p>(m) <u>The development will not increase or concentrate surface water discharge or sedimentation to adjacent properties beyond predevelopment conditions.</u></p> <p>(n) <u>The development is outside of the area of potential upslope or downslope surface movement or potential deposition in the event of a slope failure.</u></p> <p>(o) <u>The proposed alterations will not adversely impact other critical areas.</u></p>	
197	(2) Landslide or Erosion Hazard Buffer Reduction. Buffers of landslide or erosion hazard areas may be reduced to a minimum of 10 feet for	(2) Landslide or Erosion Hazard Buffer Reduction. Buffers of landslide or erosion hazard areas may be reduced to a minimum	<i>This section should be stricken to avoid increasing the risk of harm to people</i>

	development meeting all of the following criteria:	of 10 feet for development meeting all of the following criteria:	and development.
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14.26.573 Fish and wildlife habitat conservation area protection standards.

201	<p>(1) Riparian Buffers. Riparian buffers apply only to streams and rivers.</p> <p>(a) Intent of Riparian Buffers. The intent of riparian buffers is to protect the following 5 basic riparian forest functions that influence in-stream and near-stream habitat quality:</p> <p>(i) Recruitment of Large Woody Debris (LWD) to the Stream. LWD creates habitat structures necessary to maintain salmon/trout and other aquatic organisms' productive capacity and species diversity.</p> <p>(ii) Shade. Shading by the forest canopy maintains cooler water temperatures and influences the availability of oxygen for salmon/trout and other aquatic organisms.</p> <p>(iii) Bank Integrity (Root Reinforcement). Bank</p>	<p>(1) Riparian Buffers. Riparian buffers apply only to streams and rivers.</p> <p>(a) Intent of Riparian Buffers. The intent of riparian buffers is to protect the following 5 <u>7</u> basic riparian forest functions that influence in-stream and near-stream habitat quality:</p> <p>i. Recruitment of Large Woody Debris (LWD) to the Stream. LWD creates habitat structures necessary to maintain salmon/trout and other aquatic organisms' productive capacity and species diversity.</p> <p>ii. Shade. Shading by the forest canopy maintains cooler water temperatures and influences the availability of oxygen for salmon/trout and other aquatic organisms.</p> <p>iii. Bank Integrity (Root Reinforcement). Bank integrity helps maintain</p>	<p><i>These additions to the functions are from all BAS, but taken directly from James S. Brennan, Marine Riparian Vegetation Communities of Puget Sound, Puget Sound Nearshore Partnership Technical Report 2007-02, 1-2 (2007).¹⁴</i></p> <p><i>In addition, this language does not indicate how lakeside ecological transition zones between aquatic and terrestrial habitats are protected or How lakeside vegetation functions and values such as shade, bank integrity, runoff filtration and wildlife habitat are protected.</i></p>
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¹⁴ Attached to the associated letter as Attachment V.

	<p>integrity helps maintain habitat quality and water quality by reducing bank erosion and creating habitat structure and in-stream hiding cover for salmon/trout and other aquatic organisms.</p> <p>(iv) Runoff Filtration. Filtration of nutrients and sediments in runoff (surface and shallow subsurface flows) helps maintain water quality.</p> <p>(v) Wildlife Habitat. Functional wildlife habitat for riparian-dependent species is based on sufficient amounts of riparian vegetation to provide protection for nesting and feeding.</p>	<p>habitat quality and water quality by reducing bank erosion and creating habitat structure and in-stream hiding cover for salmon/trout and other aquatic organisms.</p> <p>iv. Runoff Filtration. Filtration of nutrients and sediments in runoff (surface and shallow subsurface flows) helps maintain water quality.</p> <p>v. Wildlife Habitat. Functional wildlife habitat for riparian-dependent species is based on sufficient amounts of riparian vegetation to provide protection for nesting and feeding.</p> <p>vi. <u>Microclimate. Riparian vegetation creates small-scale microclimates upon which plants, fish, and wildlife depend.</u></p> <p>vii. <u>Nutrient inputs. Riparian vegetation supports substantial populations of insects, which are important for the diet of marine fishes like juvenile salmon.</u></p>	
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201-202	<p>(c) Standard Riparian Buffer Widths. Riparian areas have the following standard buffer widths:</p> <table border="1" data-bbox="241 300 735 779"> <thead> <tr> <th>DNR Water Type</th> <th>Riparian Buffer</th> </tr> </thead> <tbody> <tr> <td>S</td> <td>See SCC 14.26.310</td> </tr> <tr> <td>F > 5 feet wide*</td> <td>150 feet</td> </tr> <tr> <td>F ≤ 5 feet wide*</td> <td>100 feet</td> </tr> <tr> <td>Np</td> <td>50 feet</td> </tr> <tr> <td>Ns</td> <td>50 feet</td> </tr> </tbody> </table> <p>*Bankfull width of the defined channel (WAC 222-16-010).</p>	DNR Water Type	Riparian Buffer	S	See SCC 14.26.310	F > 5 feet wide*	150 feet	F ≤ 5 feet wide*	100 feet	Np	50 feet	Ns	50 feet	<p>(c) Standard Riparian Buffer Widths. <u>Buffer widths in Riparian areas shall be equal to or greater than the Site Potential Tree Height (SPTH) for the area where the buffer is located, have the following standard buffer widths:</u></p> <table border="1" data-bbox="798 414 1291 901"> <thead> <tr> <th>DNR Water Type</th> <th>Riparian Buffer</th> </tr> </thead> <tbody> <tr> <td>S</td> <td>See SCC 14.26.310</td> </tr> <tr> <td>F > 5 feet wide*</td> <td>150 feet</td> </tr> <tr> <td>F ≤ 5 feet wide*</td> <td>100 feet</td> </tr> <tr> <td>Np</td> <td>50 feet</td> </tr> <tr> <td>Ns</td> <td>50 feet</td> </tr> </tbody> </table> <p>*Bankfull width of the defined channel (WAC 222-16-010).</p>	DNR Water Type	Riparian Buffer	S	See SCC 14.26.310	F > 5 feet wide*	150 feet	F ≤ 5 feet wide*	100 feet	Np	50 feet	Ns	50 feet	<p><i>We recommend that Skagit County apply buffer widths similar to the most current, accurate, and complete scientific and technical information available, which is the Washington Department of Fish and Wildlife’s Riparian Ecosystem management recommendations.¹⁵ WDFW recommends applying Riparian Management Zones similar to buffers, and sized the same regardless of stream type, to protect all streams because they “found no evidence that full riparian ecosystem functions along non-fish-bearing streams are less important to aquatic ecosystems than full riparian ecosystem functions along fish-bearing streams.”¹⁶ In addition, WDFW found that non-fish-bearing streams: (1) support a unique community of aquatic and riparian-obligate wildlife; (2) provide movement corridors for wildlife, particularly in the face of changing climate conditions; (3) provision fish-bearing streams with matter and energy; and (4) provide cool water to downstream reaches. These RMZs should be based on site potential tree height, and the following should be avoided within them: (1) clearing, grading, and filling; (2) new development that would require bank hardening; (3) on-site sewage systems without habitat monitoring plans; or (4) removal of hazard trees without proper evaluation and avoidance and</i></p>
DNR Water Type	Riparian Buffer																										
S	See SCC 14.26.310																										
F > 5 feet wide*	150 feet																										
F ≤ 5 feet wide*	100 feet																										
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¹⁵ WDFW, *Riparian Ecosystems, Volume 2: Management Recommendations*, 7-8 (Dec. 2020) (hereafter “Riparian Recommendations”).

¹⁶ WDFW, *Riparian Ecosystems, Volume 2: Management Recommendations*, 7-8 (Dec. 2020) (hereafter “Riparian Recommendations”).

			<p><i>minimization of impacts.¹⁷ In addition, WDFW notes that its recommendations for RMZs apply to urban areas as well as non-urban areas.¹⁸ In addition, the RMZs should begin at the outer edge of the Channel, Channel Migration Zone, or active floodplain, whichever is wider.¹⁹</i></p> <p><i>According to WDFW, “[p]rotection and restoration of riparian ecosystems continues to be critically important because: (a) they are disproportionately important, relative to area, for aquatic species (e.g., salmon) and terrestrial wildlife; (b) they provide ecosystem services such as water purification and fisheries...; and (c) by interacting with watershed-scale processes, they contribute to the creation and maintenance of aquatic habitats.²⁰</i></p>
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¹⁷ *Id.* at 25-27.

¹⁸ *Id.* at 29-30.

¹⁹ *Id.* at 5.

²⁰ *Id.* at 4.

14.26.574 Fish and wildlife habitat conservation area performance-based buffer alternatives and mitigation standards.

202	<p>(1) Buffer Width Increasing. The Administrative Official may require the standard buffer width to be increased or to establish a nonriparian buffer, when such buffers are necessary for 1 of the following:</p> <p>(a) To protect priority fish or wildlife using the HCA.</p> <p>(b) To provide connectivity when a Type S or F water body is located within 300 feet of:</p> <p>(i) Another Type S or F water body; or</p> <p>(ii) A fish and wildlife HCA; or</p> <p>(iii) A Category I, II or III wetland;</p>	<p><u>(1) Fish and Wildlife Habitat Conservation Areas Buffer Setbacks.</u></p> <p><u>(a) New and expanded development shall be setback a minimum of 30 feet from the outer edge of wetland buffers to avoid the need to impact the buffer to conduct maintenance activities on that development or to clear trees in the buffer to achieve defensible space around that development as a fire consideration.</u></p>	<p><i>We recommend a 30-foot setback consistent with recommendations by state agencies, such as that found at: DNR.wa.gov/fightingfire, as well as WDFW’s Riparian Handbook. This is also consistent with the National Fire Protection Association recommendations for preparing homes for wildlife.²¹</i></p>
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²¹ Nation Fire Protection Association “preparing homes for wildfire” webpage, available at: <https://www.nfpa.org/Public-Education/By-topic/Wildfire/Preparing-homes-for-wildfire> (last visited June 7, 2021).

204	<p>(2) Buffer Width Averaging. Buffer width averaging allows limited reductions of buffer width in specified locations, while requiring increases in others. Averaging of required buffer widths shall be allowed only where the applicant demonstrates to the Administrative Official that all of the following criteria are met:</p> <ul style="list-style-type: none"> (a) Averaging is necessary to accomplish the purpose of the proposal and no reasonable alternative is available; and (b) The habitat contains variations in sensitivity due to existing physical characteristics; and (c) Averaging will not adversely impact the functions and values of fish and wildlife conservation areas; and (d) Averaging meets performance standards for protecting fish species; and (e) The total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging; and (f) The buffer width shall not be reduced below 75% of the standard buffer width. 	<p>(2) Buffer Width Averaging. Buffer width averaging allows limited reductions of buffer width in specified locations, while requiring increases in others. Averaging of required buffer widths shall be allowed only where the applicant demonstrates to the Administrative Official that all of the following criteria are met:</p> <ul style="list-style-type: none"> (a) Averaging is necessary to <u>achieve reasonable use of the parcel</u> accomplish the purpose of the proposal and no reasonable alternative is available; and (b) The habitat contains variations in sensitivity due to existing physical characteristics; and (c) Averaging width will <u>improve</u> the wetland functions and values; and (d) Averaging meets performance standards for protecting fish species; and (e) The total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging; and <p>The buffer width shall not be reduced below 75% <u>25%</u> of the standard buffer width.</p>	<p><i>These revisions are necessary for compliance with the most current science, as noted above, which is Wash. Dept. of Ecology, Wetland Guidance for CAO Updates, Western Washington Version, Pub. No. 16-06-001, 13 (June 2016).</i></p>
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<p>(e) To allow for greater flexibility in a development proposal, an applicant has the opportunity to remove timber within the standard buffer widths shown above if the applicant's mitigation measures incorporate all of the performance standards based upon water type listed in the table below. In conformance with professional standards used by the Washington Department of Natural Resources for forest practices in sensitive areas, all removal of timber within HCA buffers shall be subject to conditioning specified by the Administrative Official in conjunction with an on-site technical team review in which participation by representatives of the proponent, Ecology, WDFW, WDNR and natural resource representatives of affected Indian tribes is solicited.</p> <p>The intent of this Section is to provide an additional opportunity for an applicant to propose some level of timber removal within the riparian habitat zone, as long as it can be demonstrated that the function of the buffer can be maintained at the levels described below. If the buffer, in its current state, cannot meet these standards, then the Administrative Official will not be able to give its approval for any activity which would inhibit recovery of or degrade the current buffer.</p> <p>The current performance of a given buffer area is compared to its potential performance</p>	<p>(e) To allow for greater flexibility in a development proposal, an applicant has the opportunity to remove timber within the standard buffer widths shown above if the applicant's mitigation measures incorporate all of the performance standards based upon water type listed in the table below. In conformance with professional standards used by the Washington Department of Natural Resources for forest practices in sensitive areas, all removal of timber within HCA buffers shall be subject to conditioning specified by the Administrative Official in conjunction with an on-site technical team review in which participation by representatives of the proponent, Ecology, WDFW, WDNR and natural resource representatives of affected Indian tribes is solicited.</p> <p>The intent of this Section is to provide an additional opportunity for an applicant to propose some level of timber removal within the riparian habitat zone, as long as it can be demonstrated that the function of the buffer can be maintained at the levels described below. If the buffer, in its current state, cannot meet these standards, then the Administrative Official will not be able to give its approval for any activity which would inhibit recovery of or degrade the current buffer.</p>	<p><i>We recommend removing this section because there is no BAS to allow logging in buffers generally and trees should be protected where possible to provide functions to FWHCAs like moderating water temperatures. For example, the Department of Ecology found in March 2020 that the eight Lower Skagit tributaries are impaired under the Clean Water Act, with water temperatures exceeding Total Maximum Daily Loads. Efforts to improve water temperature, an important variable in salmon survival, have fallen short because of the inability to reach voluntary tree planting goals within riparian buffers. The Puget Sound Partnership Leadership Council adopted a resolution to implement a strategy to improve the situation but it failed.</i></p> <p><i>Tree retention also provides carbon sequestration benefits that address climate change.</i></p>
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	<p>as rated by the Soil Conservation Service, Soil Survey of Skagit County, 1989. In consultation with a representative from the Natural Resource Conservation Service, Soil Conservation District or professional forester, the applicant will determine the capability of the site for woodland management, using the most suitable tree species according to the soil survey, and establish the stand characteristics that would be expected from a mature stand of those species established on site:</p> <p>If the current stand can exceed the riparian protection that could be expected based on site potential, then additional activity may be allowed provided the following performance standards can be met. For Type S streams, an alternative method may be utilized to allow limited timber harvest within the outer 100 feet of a buffer:</p>	<p>The current performance of a given buffer area is compared to its potential performance as rated by the Soil Conservation Service, Soil Survey of Skagit County, 1989. In consultation with a representative from the Natural Resource Conservation Service, Soil Conservation District or professional forester, the applicant will determine the capability of the site for woodland management, using the most suitable tree species according to the soil survey, and establish the stand characteristics that would be expected from a mature stand of those species established on site:</p> <p>If the current stand can exceed the riparian protection that could be expected based on site potential, then additional activity may be allowed provided the following performance standards can be met. For Type S streams, an alternative method may be utilized to allow limited timber harvest within the outer 100 feet of a buffer:</p>	
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14.26.575 Additional Provisions for Fish and Wildlife Habitat Conservation Areas

206	<p>(2) Critical Saltwater Habitat Standards. Any proposed uses or modifications may not intrude into or over critical saltwater habitats except when all of the conditions below are met:</p> <p>(a) The public's need for such an action or structure is clearly demonstrated and the</p>	<p>(2) Critical Saltwater Habitat Standards. Any proposed uses or modifications may not intrude into or over critical saltwater habitats except when all of the conditions below are met:</p> <p>(e) The public's need for such an action or structure is clearly demonstrated and</p>	<p><i>We recommend removing this section because there is no BAS that suggests that destruction of critical saltwater habitats is permissible in exchange for an unspecified "public need."</i></p>
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	<p>proposal is consistent with protection of the public trust, as embodied in RCW 90.58.020;</p> <p>(b) 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;</p> <p>(c) The project, including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat; and</p> <p>(d) The project is consistent with the state's interest in resource protection and species recovery.</p>	<p>the proposal is consistent with protection of the public trust, as embodied in RCW 90.58.020;</p> <p>(f) 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;</p> <p>(g) The project, including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat; and</p> <p>(h) The project is consistent with the state's interest in resource protection and species recovery.</p>	
206-207	<p>(4) The following additional activities may be permitted within fish and wildlife HCAs:</p> <p>(a) Water-dependent uses. Consistent with the use allowances for each environment designation, water-dependent uses and activities may be located at the OHWM or as prescribed by conditions added to a permit.</p> <p>(i) Uses, developments, and activities accessory to water-dependent uses should be located outside any applicable standard or reduced shoreline buffer unless at least one of the following is met:</p> <p>(A) a location in the buffer is necessary for operation of the</p>	<p>(4) The following additional activities may be permitted within fish and wildlife HCAs:</p> <p>(a) Water-dependent uses. Consistent with the use allowances for each environment designation, water-dependent uses and activities may be located at the OHWM or as prescribed by conditions added to a permit.</p> <p>i. Uses, developments, and activities accessory to water-dependent uses should <u>shall</u> be located outside any applicable standard or reduced shoreline buffer unless <u>all of the following conditions apply at least one of the following is met:</u></p>	<p><i>This section requires the recommended sideboards to prevent unnecessary impacts to critical habitats.</i></p>

	water- dependent use or activity (e.g., a road to a boat launch facility);	(B) <u>the water-dependent use or activity is essential for the public welfare and</u> a location in the buffer is necessary for operation of the water-dependent use or activity (e.g., a road to a boat launch facility);	
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Part VI: Legally Established Pre-Existing Uses and Structures

14.26.610 Purpose and Applicability

209	(1) Purpose. Consistent with RCW 90.58.620 and WAC 173-27-080, shoreline uses and developments that were legally established prior to the effective date of this SMP, but do not conform to the regulations of this SMP, enjoy certain limited rights to continuation, maintenance, and expansion. Single-family residences and appurtenant structures, located landward of the OHWM, that were legally established prior to the effective date of this SMP but do not conform to the regulations of this SMP, are considered conforming structures and uses for purposes of this SMP.	(1) Purpose. Consistent with RCW 90.58.620 and WAC 173-27-080, shoreline uses and developments that were legally established prior to the effective date of this SMP, but do not conform to the regulations of this SMP, enjoy certain limited rights to continuation, maintenance, and expansion. Single family residences and appurtenant structures, located landward of the OHWM, that were legally established prior to the effective date of this SMP but do not conform to the regulations of this SMP, are considered conforming structures and uses for purposes of this SMP.	<i>We recommend removal of this provision because previously-developed structures that are inconsistent with current regulations are, by definition, nonconforming, and this appellation allows their continued use.</i>
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14.26.620 Pre-Existing Single-Family Residences and Appurtenant Structures

209-210	(3) Enlargement or expansion. A pre-existing residential or appurtenant structure that is nonconforming with respect to dimensional	(3) Enlargement or expansion. A pre-existing residential or appurtenant structure that is nonconforming with respect to dimensional standards may be enlarged or expanded in	<i>We recommend this addition for consistency with the most current science and to provide clear notice to landowners of the</i>
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	<p>standards may be enlarged or expanded in accordance with the following provisions.</p> <p>(a) Minor. Enlargement or expansion by the addition of space to the main structure, or by the addition of space to an appurtenant structure, may be approved by the Administrative Official if all of the following criteria are met:</p> <ul style="list-style-type: none"> (i) the enlargement does not extend farther waterward than the existing primary residential structure or farther into the minimum side yard setback; (ii) the enlargement does not expand the footprint of the existing structure by more than 200 square feet; (iii) the enlargement does not cause the existing structure to exceed the height limit, or in the case of an existing over-height structure, the enlargement does not increase the structure’s existing height; (iv) potential adverse impacts to shoreline or critical area ecological functions or processes from the expansion are mitigated on site, in accordance with SCC 14.26.305; and (v) any applicable requirements of SCC 14.34 are met. 	<p>accordance with the following provisions.</p> <p>(a) Minor. Enlargement or expansion by the addition of space to the main structure, or by the addition of space to an appurtenant structure, may be approved by the Administrative Official if all of the following criteria are met:</p> <ul style="list-style-type: none"> (i) the enlargement does not extend farther waterward than the existing primary residential structure or farther into the minimum side yard setback; (ii) <u>the enlargement does not extend further into critical areas or their associated buffers or setbacks;</u> (iii) the enlargement does not expand the footprint of the existing structure by more than 200 square feet; (iv) the enlargement does not cause the existing structure to exceed the height limit, or in the case of an existing over-height structure, the enlargement does not increase the structure’s existing height; (v) potential adverse impacts to shoreline or critical area ecological functions or processes from the expansion are mitigated on site, in accordance with SCC 14.26.305; and 	<p><i>parameters for expansion.</i></p>
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		(vi) any applicable requirements of SCC 14.34 are met.	
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Part VII: Administration

14.26.710 Applications

215	<p>(2) Application Level. Shoreline applications are classified by application level in SCC Chapter 14.06 Permit Procedures.</p> <p>(a) Shoreline exemptions are a type of Level I application. A Notice of Development Application is not required for shoreline exemptions.</p>	<p>(2) Application Level. Shoreline applications are classified by application level in SCC Chapter 14.06 Permit Procedures.</p> <p>(a) Shoreline exemptions are a type of Level I application. A Notice of Development Application is not required for shoreline exemptions.</p>	<p><i>Consistent with every other Level I and Level II decision, letters of exemption must require public notice.</i></p>
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14.26.730 Conditional Use Permit

219-220	<p>(2) Review Criteria. A Shoreline Conditional Use Permit may be granted only if the applicant can demonstrate all of the following:</p> <p>(b) That the proposed use will be consistent with the policies of RCW 90.58.020, WAC 173-27-160, and the policies of this SMP; and with the regulations in any applicable use sections in Part IV;</p> <p>(c) That the proposed use will not interfere with the normal public use of public shorelines;</p> <p>(d) That the proposed use of the site and design of the project is compatible with other authorized uses within the area and with</p>	<p>(2) Review Criteria. A Shoreline Conditional Use Permit may be granted only if the applicant can demonstrate all of the following:</p> <p>(a) That the proposed use will be consistent with the policies of RCW 90.58.020, WAC 173-27-160, and the policies of this SMP; and with the regulations in any applicable use sections in Part IV;</p> <p>(b) <u>The proposal is appropriate in design, character and appearance with the goals and policies for the land use designation in which the proposed use is located;</u></p>	<p><i>We recommend these revisions for consistency with standard CUP criteria.</i></p>
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	<p>uses planned for the area under the comprehensive plan and this SMP;</p> <p>(e) That the proposed use will result in no significant adverse effects or a net loss to the shoreline environment in which it is to be located;</p> <p>(f) That the public interest will suffer no substantial detrimental effect; and</p> <p>(g) That the proposed use will not result in substantial adverse effects or net loss of shoreline ecosystem functions and that consideration has been given to the cumulative impact of additional requests for like actions in the area</p>	<p>(c) That the proposed use will not interfere with the normal public use of public shorelines;</p> <p>(d) That the proposed use of the site and design of the project is compatible with other authorized uses within the area and with uses planned for the area under the comprehensive plan and this SMP;</p> <p>(e) That the proposed use will result in no significant adverse effects or a net loss to the shoreline environment in which it is to be located;</p> <p>(f) That the public interest will suffer no substantial <u>significant</u> detrimental effect; and</p> <p>(g) That the proposed use will not result in substantial adverse effects or net loss of shoreline ecosystem functions and that consideration has been given to the cumulative impact of additional requests for like actions in the area</p> <p>(h) <u>The cumulative impact of additional requests for like actions (the total of the conditional uses over time or space) will not produce significant adverse effects to the</u></p>	
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		<p><u>environment that cannot be mitigated by conditions of approval;</u></p> <p>(i) <u>Approval of the proposed use will not confer a special privilege on the applicant that is not enjoyed by others in the vicinity of the property.</u></p>	
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14.26.735 Shoreline Variance

220	<p>(2) Types. There are two types of variances: administrative variances and Hearing Examiner variances.</p> <p>(a) Administrative variance. An application to reduce a standard buffer width by 50% or less is an administrative variance.</p> <p>(b) Hearing Examiner variance. Any other variance application, e.g., for relief from specific bulk, dimensional, or performance standards of this SMP, is a Hearing Examiner variance.</p>	<p>(2) Types. There are two types of variances: administrative variances and Hearing Examiner variances.</p> <p>(a) Administrative variance. An application to reduce a standard buffer width by 50<u>25</u>% or less is an administrative variance.</p> <p>(b) Hearing Examiner variance. Any other variance application, e.g., for relief from specific bulk, dimensional, or performance standards of this SMP, is a Hearing Examiner variance.</p>	<p><i>To avoid granting excess discretion at the staff level and to ensure proper public review of significant variance requests, we recommend limiting the amount of variance that may be approved by staff to a maximum of 25%.</i></p>
221	<p>(4) Review Criteria. These criteria apply to the review of both administrative and Hearing Examiner variances.</p> <p>(a) The Shoreline Variance may be authorized only if the structure will not obstruct views from public property or a substantial number of residences, as informed by the view analysis.</p>	<p>(4) Review Criteria. These criteria apply to the review of both administrative and Hearing Examiner variances.</p> <p>(a) The Shoreline Variance may be authorized only if the structure will not obstruct views from public property or a substantial</p>	<p><i>We recommend the proposed revisions for clarity and to avoid impacts to wetlands, a critical area.</i></p>

	<p>(b) Per WAC 173-27-170(2), for development or a use to be located landward of the OHWM, or landward of any wetland as defined in RCW 90.58.030(2)(h), a variance may be authorized if the applicant can demonstrate all of the following:</p> <ul style="list-style-type: none"> (i) That the strict application of the bulk, dimensional, or performance standards set forth in this SMP precludes, or significantly interferes with, reasonable use of the property; (ii) That the hardship described in criterion (i) of this subsection is specifically related to the property, and is the result of unique conditions such as irregular lot shape, size, or natural features and the application of this SMP, and not, for example, from deed restrictions or the applicant's own actions; (iii) That the design of the project is compatible with other authorized uses within the area and with uses planned for the area under the comprehensive plan and this SMP and will not cause adverse impacts to the shoreline environment; (iv) That the variance will not constitute a grant of special privilege not 	<p>number of residences, as informed by the view analysis.</p> <p>(b) Per WAC 173-27-170(2), for development or a use to be located landward of the OHWM, or landward of any wetland as defined in RCW 90.58.030(2)(h), a variance may be authorized <u>only</u> if the applicant can demonstrate all of the following:</p> <ul style="list-style-type: none"> (i) That the strict application of the bulk, dimensional, or performance standards set forth in this SMP precludes, or significantly interferes with, reasonable use of the property; (ii) That the hardship described in criterion (i) of this subsection is specifically related to the property, and is the result of unique conditions such as irregular lot shape, size, or natural features and the application of this SMP, and not, for example, from deed restrictions or the applicant's own actions; (iii) That the design of the project is compatible with other authorized uses within the area and with uses planned for the area under the comprehensive plan and this SMP and will not cause adverse impacts to the shoreline environment; 	
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	<p>enjoyed by the other properties in the area;</p> <p>(v) That the variance requested is the minimum necessary to afford relief; and</p> <p>(vi) That the public interest will suffer no substantial detrimental effect.</p> <p>(c) Per WAC 173-27-170(3), for development or a use to be located waterward of the OHWM, or within any wetland as defined in RCW 90.58.030(2)(h), a variance may be authorized if the applicant can demonstrate all of the following:</p> <p>(i) That the strict application of the bulk, dimensional, or performance standards set forth in this SMP precludes all reasonable use of the property;</p> <p>(ii) That the proposal is consistent with the other review criteria of subsections (a) and (b)(ii) – (vi) above; and....</p> <p>(iii) That the public rights of navigation and use of the shorelines will not be adversely affected.</p>	<p>(iv) That the variance will not constitute a grant of special privilege not enjoyed by the other properties in the area;</p> <p>(v) That the variance requested is the minimum necessary to afford relief; and</p> <p>(vi) That the public interest will suffer no substantial detrimental effect.</p> <p>(c) Per WAC 173-27-170(3), for development or a use to be located waterward of the OHWM, or within any wetland as defined in RCW 90.58.030(2)(h), a variance may be authorized if the applicant can demonstrate all of the following:</p> <p>(i) That the strict application of the bulk, dimensional, or performance standards set forth in this SMP precludes all reasonable use of the property;</p> <p>(ii) That the proposal is consistent with the other review criteria of subsections (a) and (b)(ii) – (vi) above; and....</p> <p>(iii) That the public rights of navigation and use of the shorelines will not be adversely affected.</p>	
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14.26.780 Permit Appeals

<p>224</p>	<p>(1) Administrative appeals must be in accordance with SCC Chapter 14.06. Where standards or procedures in this Part differ from those in SCC Chapter 14.06, the provisions of this Part control.</p> <p>(a) Any person aggrieved by the granting, denying, rescinding or revision of a conditional use, or Hearing Examiner shoreline variance permit may request a reconsideration before the Hearing Examiner or submit an appeal to the Board of County Commissioners in accordance with SCC 14.06, provided all requests for reconsideration or appeals must be submitted within five days of the date of the Hearing Examiner’s written decision, or decision after reconsideration.</p>	<p>(1) Administrative appeals must be in accordance with SCC Chapter 14.06. Where standards or procedures in this Part differ from those in SCC Chapter 14.06, the provisions of this Part control.</p> <p>(a) Any person aggrieved by the granting, denying, rescinding or revision of a conditional use, or Hearing Examiner shoreline variance permit may request a reconsideration before the Hearing Examiner or submit an appeal to the Board of County Commissioners in accordance with SCC 14.06, provided all requests for reconsideration or appeals must be submitted within five <u>fourteen</u> days of the date of the Hearing Examiner’s written decision, or decision after reconsideration.</p>	<p><i>We recommend revising the time period for filing an administrative appeal from five to fourteen days to ensure adequate opportunity to appeal and to address due process considerations.</i></p>
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14.26.790 Monitoring

<p>224-25</p>	<p>(1) Skagit County must track all shoreline permits and exemption activities to evaluate whether this SMP is achieving no net loss of shoreline ecological functions.</p> <p>(2) Consistent with WAC 173-26-201(2)(b), Skagit County must conduct system-wide monitoring of shoreline conditions and development activity that occur in shoreline jurisdiction outside of critical areas and their buffers, whenever practical. Such monitoring should include permit tracking of development,</p>	<p>(2) Consistent with WAC 173-26-201(2)(b), Skagit County must conduct system-wide monitoring of shoreline conditions and development activity that occur in shoreline jurisdiction outside of critical areas and their buffers, whenever practical. Such monitoring should <u>must</u> include permit tracking of</p>	<p><i>We recommend the proposed revisions to help identify all areas of necessary information.</i></p> <p><i>With regard to 14.26.790, we have not seen evidence in this process of a tracking mechanism for all shoreline permits and exempt activities.</i></p>
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	<p>conservation, restoration, and mitigation, such as:</p> <ul style="list-style-type: none"> (b) new shoreline development; (c) Shoreline Variances and the nature of the variance; (d) compliance issues; (e) net changes in impervious surface areas, including associated stormwater management; (f) net changes in fill or armoring; (g) net change in linear feet of levee and distance between OHWM and any levees; (h) net changes in vegetation including in area and character. <p>(3) Using this information and information about the outcomes of other actions and programs of other County departments, the Administrative Official must prepare a no-net-loss report every eight years as part of the SMP evaluation or Comprehensive Plan Update process. If the no-net-loss report shows degradation of the baseline condition documented in the County's Shoreline Analysis Report (2012), the Administrative Official must propose changes to this SMP, or Shoreline Restoration Plan, or both, at the time of the eight-year update to prevent further degradation and address the loss of ecological function.</p>	<p><u>conditions of approval, mitigation requirements, and required landowner maintenance and/or monitoring responsibilities for all approvals, including the following development or information, conservation, restoration, and mitigation, such as:</u></p> <ul style="list-style-type: none"> (a) new shoreline development; (b) Shoreline Variances and the nature of the variance; (c) <u>shoreline conditional use permits;</u> (d) <u>shoreline development approved pursuant to an exemption;</u> (e) compliance issues; (f) net changes in impervious surface areas, including associated stormwater management; (g) net changes in fill or armoring; (h) net change in linear feet of levee and distance between OHWM and any levees; <u>and</u> (i) net changes in vegetation including in area and character. 	<p><i>With regard to 14.26.790(3), we have not seen a no net loss report as part of this SMP update process notwithstanding that it is a required component.</i></p>
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Comment 29

Comment 29 is a submission of the “State of the Sound Report” released by Puget Sound Partnership in 2019.

Citation:

Puget Sound Partnership. (2019). *State of the Sound Report*. <https://www.psp.wa.gov/sos.php>

Comment 30-36

Comments 30-36 comprise the entirety of the “2020 State of Our Watersheds” report by the Northwest Indian Fisheries Commission.

Citation:

Northwest Indian Fisheries Commission. (2020). *2020 State of Our Watersheds*.

<https://nwifc.org/publications/state-of-our-watersheds/>

Comment 30: pages 1-48

Comment 31: pages 103-164

Comment 32: pages 49-102

Comment 33: pages 165-217

Comment 34: pages 218-269

Comment 35: pages 270-334

Comment 36: pages 335-390

*Comments are numbered in the order in which they were received/uploaded

Comment 37

Comment 37 is a scientific paper titled "Fixing Compensatory Mitigation: What Will it Take" published in Ecological Applications in 1996.

Citation:

Race, Margaret S., & Fonseca, Mark S. (1996). Compensatory Mitigation: What Will it Take? *Ecological Applications*, 6(1), 94-101. <https://www.jstor.org/stable/2269556>

Comment 38

Comment 38 is a submission of the “Preparing for a Changing Climate” report released by the Washington State Department of Ecology in 2012.

Citation:

Washington State Department of Ecology. (2012). *Preparing for a Changing Climate*.
<https://apps.ecology.wa.gov/publications/documents/1201004.pdf>

Comment 39

Comment 39 is a scientific paper titled "Forecasting the effects of accelerated sea-level rise on tidal marsh ecosystem services" published in Frontiers in Ecology and the Environment in 2009.

Citation:

Craft, C., Clough, J., Ehman, J., Joye, S., Park, R., Pennings, S., Guo, H. and Machmuller, M. (2009). Forecasting the effects of accelerated sea-level rise on tidal marsh ecosystem services. *Frontiers in Ecology and the Environment*, 7, 73-78. <https://doi.org/10.1890/070219>

Comment 40

Comment 40 is a submission of Appendices A-C of the “Preparing for a Changing Climate” report released by the Washington State Department of Ecology in 2012.

Citation:

Washington State Department of Ecology. (2012). *Preparing for a Changing Climate*.
<https://apps.ecology.wa.gov/publications/documents/1201004.pdf>

Comment 41

Comment 41 is a scientific paper titled "Using light-permeable grating to mitigate impacts of residential floats on eelgrass Zostera marina L. in Puget Sound, Washington" published in Ecological Engineering in 2006.

Citation:

Fresh, K., Wyllie-Echeverria, T., Wyllie-Echeverria, S., and Williams, B. (2006). Using light-permeable grating to mitigate impacts of residential floats on eelgrass *Zostera marina* L. in Puget Sound, Washington. *Ecological Engineering*, 28(4), 354-362. <https://doi.org/10.1016/j.ecoleng.2006.04.012>

Comment 43

June 17, 2021

Scott Andrews
119 N. 39th Pl
Mount Vernon, WA 98273

Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

Re: the Skagit County Shoreline Master Program Comprehensive Update and Periodic Review

Director Hart and Members of the Planning Commission:

These comments represent my personal views as a citizen of Skagit County.

The proposed draft update is an improvement over the existing Shoreline Management Plan, however it has a number of shortcomings regarding insufficient protection of the environment and shoreline habitats. It does not provide adequate protections for riparian buffers, allowing too high of percentage for the riparian forest setback reductions. Nor does it provide adequate protection for shoreline resources from the impacts of armoring. The draft plan also completely fails to address Sea Level Rise.

There can be no reasonable denial of Sea Level Rise, the science and data are overwhelming. While there is a range of prediction on the elevation of the rise, in part dependent upon actions throughout the world in the next decade or two, the fact of Sea Level Rise (SLR) must be addressed. Actual measured SLR is on the upper end of predictions from a decade ago, supporting predictions of a more rapid rise than the “consensus” estimates of 10 years ago.

The issue of SLR and its potential inclusion in the Skagit SMP is not new. SLR was clearly included in the report from the Technical Advisory Group on the update, on which I served. It was included in County staff reports to the Planning Commission, and the Washington Department of Ecology guidelines on SMPs strongly encourage it to be included. Yet Sea Level Rise was not included in the draft plan 5 years ago, upon which this update is based. This omission was short-sighted then and doubly so now.

Failure to plan for Sea Level Rise now, will only make it more difficult, more expensive and more dangerous to deal with in the future. This failure to plan and to act will magnify impacts to infrastructure, homes and lives, as well as to shoreline ecological resources in the future.

Failure to address Sea Level Rise now, will lead to more homes being built in harms way. It will leave fewer options to avoid impacts and manage strategic retreat from the rising sea. That will in turn lead to more pressure to allow impacts to shoreline ecological resources through measures such as hard armoring.

This is poor planning. We know Sea Level Rise has already started and will continue with growing impacts and increasing risks. Yet the plan fails to even acknowledge this critical problem, much less address it.

As the sea level rises up a sloping shore, the shoreline itself will migrate upwards and inland from its previous location. While some shoreline values and functions may be lost, allowing this migration can potentially save much of the functions and resources in many places. The critical factor is this shoreline migration must not be blocked by shoreline structures such as bulkheads, riprap and dikes. By placing a bulkhead or a dike in the path of shoreline migration it becomes like a bathtub filling with water, rising up the vertical sides and leaving no room for beaches, tidelands and estuarine wetlands. Areas critical to shoreline functions and values will be destroyed. This impact is particularly problematic in relation to two uses on Skagit County shorelines, residential hard armoring and agricultural dikes.

Residential Development, it states in the current draft (6C-15.2) “should be located ...to avoid [frequently flood areas] and storm tides or surges...without placement of extensive flood hazard management facilities or hard shoreline stabilization.” Here the storm tide and surge language is useful in the SLR context, but is not sufficient for the long-term. Language should be added regarding avoiding such tidal and storm surge areas at elevations predicted to be impacted for the lifetime of the proposed structure. The following underlined language should be added.

14.26.320 (1)(a) – New Development must be located / designed to avoid the need for future shoreline stabilization during the lifetime of the structure including consideration of projections of sea level rise.

Agricultural Areas and SLR

Projections of SLR in Skagit County by the Skagit Climate Change Consortium and the U.S. Geological Survey indicate a significant area of agricultural lands at low elevation will likely be inundated by SLR and increased river flooding due to changes in precipitation and temperature. Dikes are only a short-term response for many areas and will have significant adverse impacts on shoreline values and functions. As the sea rises against dikes that will have to be built ever higher. As the sea rises higher on dikes this will drown critical estuarine habitat on the waterward side. These diked farm lands will become harder and more expensive to drain and manage over time. Farm lands, at higher elevation that may be protected should be identified, dikes removed and rebuilt further inland. Areas outside the relocated dikes should be restored as estuarine wetlands to replace those being lost at the waterward edge of the sea’s advance. Rather than ignore this difficult issue the County should begin planning now, acknowledging it in the Comprehensive plan.

6C- 1.1 (d) Agricultural. This section notes “creation of new agricultural lands by diking or filling of tidelands, tidal marshes and associated wetlands ...should be discouraged.” This does not provide sufficient protection. Such diking and filling should be prohibited. This is especially true since it would be a losing battle. It will become increasingly

difficult and expensive to defend low-lying ag lands against the rising sea. Creating more such land, and destroying critical tidelands and wetlands in the process, is a doubling of losses.

Shoreline Stabilization Structures.

Shoreline stabilization structures, in particular hard armoring, have major impacts on shoreline values and functions. Recent studies have especially singled out this use as a major driver of habitat loss for forage fish species, such as sand lance and surf smelt. These losses in turn impact species up the food chain including salmon, orca and marine birds. Regulations in the proposed plan are not sufficiently protective of shoreline resources from the impacts of hard armoring. Suggested changes are noted below.

14.26.480 (2)(a) i. *New hard shoreline stabilization structures are prohibited except...to protect an existing primary structure [likely to be] damaged within 3 years.*

This is a good provision as far as it goes. However, the problem is that with SLR more and more structures, if allowed, will be built in future harm's way and then claim they are likely to be damaged. To get ahead of the problem, this provision should only apply to homes now existing, not ones built in the future. The following change is suggested:

14.26.480(2)(a) i. *New hard shoreline stabilization structures are prohibited except...to protect a primary structure existing at the date of adoption of this Shoreline Management Plan.*

14.26.480 (1)(a)(ii) *“soft shoreline stabilization” may include use of ...boulders...*

This language opens the door for far too great of use of boulders which are a form of hard armoring. The language should clarify that boulders may be used as a minor component of a soft armoring project, primarily to tie-in the soft components with existing hard armoring of adjacent properties. This is consistent with 14.26.480(4)(e)(i) and accepted practice in Puget Sound.

14.26.480 (4)(b)(v) – the criteria for allowing new, expanded or replacement hard armoring here are not sufficiently protective of key shoreline ecological resources often adversely impacted by such structures, add additional criteria at:

14.26.480(4)(b)(v)(D) – Minimize impacts to shoreline ecological resources from impacts of hard shoreline stabilization structures, including to sand lance and surf smelt spawning beaches, eel grass beds and critical habitat for Threatened and Endangered species.

I strongly urge the Planning Commission to address Sea Level Rise in this Shoreline Management Program update. Please plan ahead for the good of the resources and the good of the people of Skagit County. I also urge you to strengthen regulatory protections for shoreline resources from the impacts of hard armoring.

Sincerely,

Scott A. Andrews,
Mount Vernon

Comment 50

Skagit County Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

Re: Skagit County Shoreline Master Program Comprehensive Update & Periodic Review

Dear Skagit County PDS,

I am fortunate to live where the natural environment is extraordinarily beautiful, relatively clean and incredibly diverse, including rare and abundant shorelines. But our shorelines increasingly need protection. Thank you for this opportunity to comment on this.

Even in 1971 threats to shorelines was recognized under the Shoreline Management Act (SMA) stating: “the shorelines are fragile and the increasing pressure of additional uses being placed on them necessitated increased coordination in their management and development.” The primary purpose of the SMA is “to protect the state shorelines as fully as possible.”

Two “shorelines of statewide significance” exist in Skagit County: Skagit Bay and Padilla Bay, and so to protect these shorelines I ask that you take the following actions in the Shoreline Master Program update:

Prohibit new commercial net pens. Net pen aquaculture harms native salmon with excessive waste, limits biodiversity, increases algae growth, introduces chemical and drug contaminants, disrupts marine food webs, escaped farmed salmon may transmit disease, and compete with wild salmon. I believe this change is consistent with the SMP Guidelines requirements for no net loss of ecological function. We learned about this firsthand with the net pen collapse off Cypress Island.

Address sea level rise. We know sea level rise will happen and must plan for it, with estimates projecting at least 1 ½ feet by 2100 in Skagit County. Please make sure that new buildings are constructed outside areas likely to be affected by sea level rise and that new buildable lots are also outside this area.

Avoid new armoring and do not classify boulders as soft armor. Shoreline armoring destroys nearshore habitat and diminishes food for juvenile salmon. New development must be designed, located, and constructed to avoid the need for new armoring.

Prevent uses or modifications, like piers and docks, into or over important saltwater plants like seagrasses and macroalgae.

Establish and defend adequate riparian buffers. Riparian buffers provide shade and cooler water temperatures for vulnerable salmonids, stabilize banks, retain runoff during peak flows, provide detritus for aquatic insects, and filter toxins before they reach streams. They provide habitat for birds and amphibians, and resting and rearing places for mammals like river otter

and beaver. These buffers should be as wide as a mature tree. Please do not allow timber harvest in riparian buffers or allow Planning Staff to decrease buffers.

Protect Drinking Water from Seawater Intrusion. I understand there have been updated provisions addressing seawater intrusion and Skagit County understands its authority to regulate well drilling to prevent seawater intrusion impacts. We know this a documented problem on Guemes Island and are glad the County will enforce rules to protect the drinking water supply there and anywhere else under its jurisdiction.

On A Positive Note: There are elements in the draft SMP that are commendable and should be retained. Sections on Vegetation Conservation and Designating Habitats and Species of Local Importance are comprehensive and reflect the importance of protecting shoreline vegetation and special habitats. These are excellent examples for other municipalities as they update SMPs and Critical Area Ordinances.

Requirements to permanently sign Protected Critical Areas and their buffers is a good practice as is **mandatory field site assessments** for permit applications. Please retain sections of the code that allow officials to access property to monitor permit compliance and mitigations, which are essential for the success of this code.

Consideration of the Cumulative Impacts of Granting Shoreline Variances. In granting variances consideration must be given to cumulative impacts to avoid adverse effects to the shoreline environment.

Thank you for this opportunity to comment on Skagit County's draft Shoreline Master Program.

Sincerely,

Julia Hurd
19396 Ashe Lane
Burlington, WA 09233

Comment 58

June 21, 2021

SUBMITTED ELECTRONICALLY

Skagit County Shoreline Master Program Comprehensive Update & Periodic Review

Planning and Development Services

1800 Continental Place

Mount Vernon, WA 98273

Subject: Skagit County Shoreline Master Program Comprehensive Update and Periodic Review
– Comments from Washington Department of Natural Resources

Dear Betsy Stevenson:

The Aquatic Resources Division of the Washington State Department of Natural Resources (DNR AQR) offers the following comments to Skagit County on the proposed amendments to the Shoreline Master Plan (SMP). DNR reaches out in accord with WAC 332-30-107(4)(c), which calls on DNR to participate in shoreline planning and suggest ways to incorporate and balance statewide values with those of the municipality.

DNR AQR observes that provisions of the current SMP already provide substantial protection for state-owned aquatic lands that DNR manages. DNR AQR has not identified any significant opportunities for improvement during this update.

DNR AQR is not opposed to the few proposed changes affecting state-owned aquatic lands, namely the retention of the development standards table 14.26.420-1, the narrower width for docks on lakes, and the approach to design flexibility for pre-existing docks.

Thank you for the opportunity to provide input on this important planning tool that in turn will assist DNR in determining future leasing decisions in Skagit County. If you have any questions, please feel free to contact me at dennis.clark@dnr.wa.gov or 360-708-7357.

Sincerely,

/s/ due to COVID-19

Dennis Clark

Assistant Division Manager

Aquatic Resources Division, Orca-Straits District

Comment 60



June 22, 2021

Skagit Land Trust
P.O. Box 1017
1020 S. Third Street
Mount Vernon, WA 98273

Skagit County Shoreline Master Program
Comprehensive Update & Periodic Review
Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

Re: Skagit County Shoreline Master Program Comprehensive Update and Periodic Review

Dear Director Hart:

I am writing on behalf of Skagit Land Trust to offer comments on the *Skagit County Shoreline Master Program Comprehensive Update and Periodic Review*. We appreciate the care and attention you and your staff have devoted to the long-needed revision of this plan, and we appreciate the lengths to which you went to provide information to the public as the work proceeded.

Among the properties Skagit Land Trust has conserved are many subject to the Shoreline Master Program (SMP). These include lands the Trust owns in fee and manages, others the Trust purchased and transferred to agencies, and properties owned by other private parties on which the Trust holds conservation easements. The provisions of the Shoreline Management Act and the Shoreline Master Program are among the tools essential in carrying out our organization's mission to "conserve wildlife habitat, agricultural and forest lands, scenic open space, wetlands, and shorelines for the benefit of our community and as a legacy for future generations." By protecting the environmental resources of shorelines and providing public access and enjoyment opportunities, Skagit Land Trust contributes significantly to accomplishing the purposes of the Shoreline Management Act in Skagit County.

Please accept the following comments on the draft update and periodic review of Skagit County's Shoreline Master Program.

No net loss of ecological functions as a standard for shoreline uses

We appreciate the repetition of this standard throughout the policies and regulations comprising the SMP. Assessing the effects which proposed actions or developments may have on ecological functions is clearly challenging. In applying the No Net Loss standard, we urge you to use the best available science, employ the expertise of appropriate and recognized experts, and when there is uncertainty, err on the side of protecting the environment.

Shoreline Environment Designation Maps

We note that many of Skagit Land Trust's shoreline properties are coded on the SMP Environment Designation Maps as "Rural Conservancy" rather than "Natural." For example, the

Kelly's Point Conservation Area on Guemes Island, protecting Yellow Bluff and its shoreline, is shown as "Rural Conservancy" while just a short distance away along the shore, San Juan Preservation Trust's Peach Preserve is designated "Natural." For consistency and given the legal purpose of Kelly's Point Conservation Area, it too should be coded "Natural." Barney Lake is another Skagit Land Trust property dedicated to conservation but shown as "Rural Conservancy" rather than "Natural" on the maps. There are many additional examples on the Skagit and Samish Rivers, Diobsud Creek, etc., of properties Skagit Land Trusts owns and manages for their natural values which fit the criteria at SMP 6B-3.1 for designation as "Natural". We would be happy to work with your staff on bringing the maps up to date regarding the properties Skagit Land Trust protects and to which the SMP applies.

Climate Change and Sea Level Rise

The SMP portrays a welcome emphasis on protecting the ecological integrity of shoreline environments and protecting shoreline processes. This emphasis makes all the more striking the near complete omission of attention to climate change in relation to changes in river flooding, sea level rise, and related storm surges and coastal flooding. Given the science, sea level rise (SLR) is a certainty. To a certain extent it has already been "baked in" to the global atmospheric system by past greenhouse gas emissions. Reducing global greenhouse gas emissions (GHG) over the coming decades will reduce the rate of SLR but not prevent a significant rise from happening. Recent studies have found that the actual rate of SLR happening now is on the upper end of projections from a decade ago and likely to be between 18 inches and 3 feet by 2100 depending on the reduction of GHG emissions over the next several decades.

While we recognize that counties and municipalities are not presently required to consider the effects of climate change in revising their SMPs, this will quite likely be a requirement in the future. Whether it becomes one or not, the effects on Skagit County's shorelines will be increasingly impossible to ignore.

We understand the Department of Ecology will be offering grants to counties to incorporate consideration of climate change in their SMPs. We urge Skagit County to take advantage of this opportunity as soon as possible. In addressing the effects of climate change on the development, protection, and restoration of shorelines, there is no time to lose. The next required update of the SMP is eight years away. It is important that Skagit County not wait so long to face this very significant reality. At a minimum, we urge you to tap into the expertise of the Skagit Climate Science Consortium (www.skagitclimatescience.org) to review the draft SMP and suggest how it might be modified in light of what will be very different conditions in the future.

Suggestions on including sea level rise in the SMP

Sea level rise is affecting Skagit County shorelines now, and these impacts will increase. If we do not address SLR impacts and adaptation now there will be greater future impacts to shoreline values and functions, homes, infrastructure, and agricultural lands. The longer we delay, the more costly fixes will be. We will have missed opportunities and spent funds on structures and actions that will have to be undone in the future.

State law does not explicitly require Skagit County to address SLR in the SMP update, but it is encouraged, and the language of RCW 90.58.020 regarding preferred shoreline uses supports its

inclusion. The guidelines for master programs at RCW 90.58.100(e) urge that those preparing SMPs, “Utilize all available information regarding hydrology, geography, topography, ecology, economics, and other pertinent data.” The evidence for climate change and its present and likely future effects, including on river flows and flooding and on sea level rise, are certainly pertinent to preparing an adequate SMP for Skagit County.

In the spirit of the Shoreline Management Act, addressing SLR will help protect statewide interests, preserve the natural character, resources, and ecology of the shoreline, and elevate long-term over short-term benefits. To not address SLR means falling short of meeting all of these.

The *Goals, Objectives, and Policies* (Comprehensive Plan portion of the SMP) briefly address SLR in just two sections. The Transportation section at 6F-1.1 (e) “Hazardous Areas”, notes that, “Transportation facilities should be located... to avoid flooding, storm tides and storm surges and near-term sea level rise...” The Utilities section has similar language. These inclusions are welcome but far from sufficient. First, why address only near-term sea level rise when clearly the Comprehensive Plan and SMP are to prioritize long-term over short-term planning and benefits? Secondly, transportation and utility uses are not the only ones that should be kept clear of areas at risk from sea level rise. Home builders should also not put themselves or others at risk by building in areas that are or will become hazardous. The regulations keep parking lots out of these areas. They should clearly also prevent building homes and commercial structures in them.

While there is much to be done for the SMP to incorporate measures needed for adapting to sea level rise and the other present and future effects of climate change, we offer the following additional suggestions as a start.

Sea level rise has serious implications for agricultural lands and wetlands.

Another area of special concern in the *Goals, Objectives, and Policies* regarding shorelines and SLR is Agricultural activities. Projections of SLR in Skagit County indicate a significant area of agricultural land will be either inundated or rendered economically not viable due to flooding and drainage issues. Dikes are only a temporary fix for some areas and will have significant adverse impacts on shoreline values and functions. Building dikes higher as the sea rises will squeeze out critical estuarine habitat on the waterward side. Farmland that can be feasibly protected should be identified and dikes pulled back and rebuilt further inland. Areas outside the relocated dikes should be restored as estuarine wetlands to replace those being lost at the waterward edge as the sea advances. Rather than ignore this difficult issue the County should begin planning now and acknowledge the need in the *Goals, Objectives, and Policies* of the SMP.

Goals for residential development should reflect climate-change projections.

Residential development, as noted in the SMP draft at 6C-15.2, “should be located ...to avoid [frequent flood areas] and storm tides or surges...without placement of extensive flood hazard management facilities or hard shoreline stabilization.” Here the reference to storm tide and surge reflects the reality of SLR, but the goal should be more forward looking. Language should be added regarding avoiding construction in tidal and storm surge areas at elevations projected as reasonably likely to be impacted for some specified period into the future. For example, to

“avoid SLR and storm surge impacts for the next 50 years” or, alternatively, “for the lifetime of the planned structure.”

In addressing Flood Hazard Reduction, the SMP addresses freshwater rivers and streams but not marine shorelines.

Flood Hazard Reduction, Section 6 I in the draft, deals with freshwater rivers and streams. A complementary section, 6 I (b), is needed for marine shorelines subject to high tides and storm surge flooding as projected to increase with SLR. The section could, in part, include (suggested new wording underlined):

1. Plans, regulations, and programs related to tidal flooding and storm surge should be coordinated and integrated with the Comprehensive Plan, marine flood hazard plans, National Flood Insurance, and regulations for critical areas and the SMP.
2. Non-Structural tidal flooding and storm surge hazards reduction measures are preferred over structural. When evaluating alternative measures, the removal or relocation of structures in the tidal flood and storm surge prone areas should be considered.
3. Tidal flood and storm surge hazard protection measures should result in No Net Loss of ecological functions and ecosystem-wide processes associated with marine and estuarine shorelines.
4. Marine and estuarine ecological systems should be returned to and maintained in the future in a more natural state where feasible including by removal of structures and hard armoring blocking the upward shoreline migration due to sea level rise.

Further improvement is needed in the standards regarding hard armoring of marine shorelines (6C-16.1 Shoreline Stabilization Structures).

While the draft SMP is somewhat stricter than the current regulations, there remain far too many loopholes allowing this ecologically destructive practice. Impacts from hard armoring to shoreline values and functions are significant, and SLR will exacerbate them. Recent studies have especially singled out this use as a major driver of habitat loss for forage fish species, in turn impacting salmonids, orca, and seabirds.

The draft proposes “limited use” of such hard armoring, but this standard is too vague and permissive. We suggest language to this effect: “Use of hard armoring is prohibited except where there is no reasonable alternative to protect a structure existing as of the adoption of this code amendment.

While existing hard armoring is already having major ecological impacts, these will worsen significantly under SLR without stricter control. As sea level rises it will squeeze out shoreline habitat against armoring, and those hard structures will prevent shoreline habitat from migrating upslope. If new structures are built now within the SLR risk zones of the future, owners will want protection and more and more armoring as SLR increases. New structures should be located where or in a manner that will not require hard armoring of the shoreline for protection over the lifetime of the structures.

Mitigation for hard armoring and new development

The SMP draft at 6C-16.2 calls for shoreline stabilization structures to be designed and located to minimize and mitigate impacts to the shoreline. There needs to be stronger mitigation language to meet the requirements of No Net Loss. Every new or expanded foot of hard armoring leads to loss of shoreline function and values. Mitigation actions contemplated in the plan would reduce those impacts but not eliminate them. Any new or expanded hard armoring installed should be fully mitigated through the removal of another existing hard armor section on the shoreline or by other specific habitat restoration actions sufficient to provide for No Net Loss of shoreline values and ecological functions.

Suggestions for modifying the SMP Development Regulations to address the issues mentioned above

- 14.26.320 (1)(a) – *New Development must be located / designed to avoid the need for future shoreline stabilization to the extent feasible.*

This language in the current draft could be used to avoid armoring in the future as SLR increases but should be more explicit. We suggest adding:

..., to the extent feasible, during the lifetime of the structure considering best available science including projections of sea level rise.

- 14.26.350 – Flood Hazard Reduction. This section addresses flood hazard areas associated with freshwater rivers and streams. It does not address flood hazards associated with marine shorelines including from SLR.

Add the following section:

14.26.355 – Marine Tidal Flooding and Storm Surge Hazard Reduction.

This would address similar issues to those in the freshwater flood hazard section, but specific to marine shorelines and the threat of SLR. It should implement the policies outlined in the proposed additional Comprehensive Plan section 6 I (b) draft provided above.

- 14.26.470(4)(b) Residential Development Standards

Residential development must be located and designed to avoid the need for flood hazard reduction measures and for tidal flooding and storm surge protection measures, including shoreline stabilization.

The underlined language above should be added to address marine shoreline flood hazards from SLR.

- 14.26.480 (2)(a) Shoreline Stabilization Structures (When allowed)

i. New hard shoreline stabilization structures are prohibited except...to protect an existing primary structure [likely to be] damaged within 3 years.

With this approach, absent sufficient regulation, more and more structures will be built in future harm's way given SLR. Owners will then claim the structures are likely to be damaged. To get ahead of the problem, this option should only apply to homes now existing, not to ones built in the future in disregard of what is known now about SLR and related effects such as storm surge. We suggest the following change:

14.26.480(2)(a) i. ... to protect a primary structure existing at the date of adoption of this Shoreline Management Plan update.

- 14.26.480 (2)(c) i – should be edited to mirror the above underlined language as well.
- 14.26.480 (2)(c) ii – allows new non-water dependent development, including single family residences, to be built in certain circumstances where new hard armoring would be needed to protect them.

This subsection should be deleted. No new non-water dependent development should be built after the adoption of the SMP code update that will require protection from hard armoring.

We appreciate the opportunity to comment on the revision and update of Skagit County's Shoreline Master Program. Further modifying it now to meet the reality of climate change will help avoid the need for emergency revision before the next required eight-year review.

Sincerely,



Mark Hitchcock
President, Skagit Land Trust

Comment 62

To: Betsy Stevenson
Planning & Development Services
Skagit County
1800 Continental Place
Mount Vernon, WA 98273
Submitted via online form

June 21, 2021

**RE: Code and Comprehensive Plan Amendments for Mineral Resource Lands
(PLN2019-00010, PLN2019-00011, and PLN2017-00004)**

Dear Ms. Stevenson:

Thank you for taking the time to consider our comments on the comprehensive update to Skagit County's Shoreline Management Program (SMP). Given that Skagit County has not comprehensively updated the SMP since the implementation of the Shoreline Management Act, this is a key opportunity to further recover important fish and wildlife resources, such as Chinook salmon, and to begin addressing the adverse effects of climate change — particularly sea level rise.

RE Sources is a non-profit organization located in northwest Washington and founded in 1982. We work to protect the health of northwest Washington's people and ecosystems through the application of science, education, advocacy, and action. RE Sources has thousands of supporters in Whatcom, Skagit, and San Juan counties, and we submit these comments on their behalf.

We applaud the great work of Skagit County and the Watershed Company in making significant improvements from the current code. However, we wish to draw your attention to the significant gaps remaining to address sea level rise, the impacts of finfish net pen aquaculture, development within the shorelines and other critical issues:

1. Incorporate policies and regulations to prepare for accelerating sea level rise impacts.

The Shoreline Management Act and Shoreline Master Program (SMP) Guidelines require shoreline master programs to address the flooding that will be caused by sea level rise.¹ RCW 90.58.100(2)(h) requires that shoreline master programs "shall include" "[a]n element that gives consideration to the statewide interest in the prevention and minimization of flood damages ..." WAC 173-26-221(3)(b) provides in part that "[o]ver the long term, the most effective means of flood hazard reduction is to prevent or remove development in flood-prone areas ..." "Counties and cities should consider the following when designating and classifying frequently flooded

¹ Although the Shoreline Master Program (SMP) Guidelines are called "guidelines," they are actually binding state agency rules and shoreline management program updates must comply with them. RCW 90.58.030(3)(b) & (c); RCW 90.58.080(1) & (7).

areas ... [t]he potential effects of tsunami, high tides with strong winds, sea level rise, and extreme weather events, including those potentially resulting from global climate change² The areas subject to sea level rise are flood prone areas just the same as areas along bays, rivers, or streams that are within the 100-year flood plain. RCW 90.58.100(1) and WAC 173-26-201(2)(a) also require “that the ‘most current, accurate, and complete scientific and technical information’ and ‘management recommendations’ [shall to the extent feasible] form the basis of SMP provisions.”³ This includes the current science on sea level rise.

Sea level rise is a real problem that is happening now. Sea level is rising and floods and erosion are increasing. In 2012 the National Research Council concluded that global sea level had risen by about seven inches in the 20th Century.⁴ A recent analysis of sea-level measurements for tide-gage stations, including the Seattle, Washington tide-gauge, shows that sea level rise is accelerating.⁵ Virginia Institute of Marine Science (VIMS) “emeritus professor John Boon, says ‘The year-to-year trends are becoming very informative. The 2020 report cards continue a clear trend toward acceleration in rates of sea-level rise at 27 of our 28 tide-gauge stations along the continental U.S. coastline.’”⁶ “Acceleration can be a game changer in terms of impacts and planning, so we really need to pay heed to these patterns,’ says Boon.”⁷ The Seattle tide gage was one of the 27 that had an accelerating rate of sea level rise.⁸

The report *Projected Sea Level Rise for Washington State – A 2018 Assessment* projects that for a low greenhouse gas emission scenario there is a 50 percent probability that sea level rise will reach or exceed 1.6 feet by 2100 along all Skagit County shorelines. For a higher emission scenario there is a 50 percent probability that sea level rise will reach or exceed 2 feet by 2100.⁹

The extent of the sea level rise currently projected for Skagit County can be seen on the NOAA Office for Coastal Management Digitalcoast Sea Level Rise Viewer available at: <https://coast.noaa.gov/digitalcoast/tools/slr.html>. Please see map images at the end of this letter (Exhibit A) detailing the changes in water elevation from the current mean higher high water (MHHW) to two feet of sea level rise.

² WAC 365-190-110(2). This regulation is part of the State of Washington Department of Commerce Minimum Guidelines to Classify Agriculture, Forest, Mineral Lands and Critical Areas.

³ *Taylor Shellfish Company, Inc., et al., v. Pierce County and Ecology (Aquaculture II)*, Final Decision and Order Central Puget Sound Region Growth Management Hearings Board Case No. 18-3-0013c (June 17, 2019), at 10 of 8.

⁴ National Research Council, *Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* p. 23, p. 156, p. 96, p. 102 (2012) last accessed on Feb. 26, 2021 at: <https://www.nap.edu/download/13389>.

⁵ William and Mary Virginia Institute of Marine Science, *U.S. West Coast Sea-Level Trends & Processes Trend Values for 2020* last accessed on Feb. 26, 2021 at: https://www.vims.edu/research/products/slrc/compare/west_coast/index.php

⁶ David Malmquist, *U.S. sea-level report cards: 2020 again trends toward acceleration* Virginia Institute of Marine Science website (Jan. 24, 2021) last accessed on Feb. 26, 2021 at: https://www.vims.edu/newsandevents/topstories/2021/slrc_2020.php.

⁷ *Id.*

⁸ William and Mary Virginia Institute of Marine Science, *U.S. West Coast Sea-Level Trends & Processes Trend Values for 2020*.

⁹ Please see the data for the following Skagit County locations. Each reflects that a low emissions scenario with 50% probability will result in 1.6 feet of rise and a high emissions scenario will result in at least 2 feet of sea level rise. [La Conner area](#), [Fir Island](#), [Padilla Bay](#), [Samish Island](#), and [Samish Bay](#).

Projected sea level rise will substantially increase flooding. As Ecology writes, “[s]ea level rise and storm surge[s] will increase the frequency and severity of flooding, erosion, and seawater intrusion—thus increasing risks to vulnerable communities, infrastructure, and coastal ecosystems.”¹⁰ Not only our marine shorelines will be impacted, as Ecology writes “[m]ore frequent extreme storms are likely to cause river and coastal flooding, leading to increased injuries and loss of life.”¹¹

Zillow recently estimated that 31,235 homes in Washington State may be underwater by 2100, 1.32 percent of the state’s total housing stock. The value of the submerged homes is an estimated \$13.7 billion.¹² Zillow wrote:

It’s important to note that 2100 is a long way off, and it’s certainly possible that communities [may] take steps to mitigate these risks. Then again, given the enduring popularity of living near the sea despite its many dangers and drawbacks, it may be that even more homes will be located closer to the water in a century’s time, and these estimates could turn out to be very conservative. Either way, left unchecked, it is clear the threats posed by climate change and rising sea levels have the potential to destroy housing values on an enormous scale.¹³

Sea level rise will have an impact beyond rising seas, floods, and storm surges. The National Research Council wrote that:

Rising sea levels and increasing wave heights will exacerbate coastal erosion and shoreline retreat in all geomorphic environments along the west coast. Projections of future cliff and bluff retreat are limited by sparse data in Oregon and Washington and by a high degree of geomorphic variability along the coast. Projections using only historic rates of cliff erosion predict 10–30 meters [33 to 98 feet] or more of retreat along the west coast by 2100. An increase in the rate of sea-level rise combined with larger waves could significantly increase these rates. Future retreat of beaches will depend on the rate of sea-level rise and, to a lesser extent, the amount of sediment input and loss.¹⁴

These impacts are why the Washington State Department of Ecology recommends “[l]imiting new development in highly vulnerable areas.”¹⁵

¹⁰ State of Washington Department of Ecology, *Preparing for a Changing Climate Washington State’s Integrated Climate Response Strategy* p. 90 (Publication No. 12-01-004: April 2012) last accessed on Feb. 26, 2021 at: <https://fortress.wa.gov/ecy/publications/publications/1201004.pdf>.

¹¹ *Id.* p. 17.

¹² Krishna Rao, *Climate Change and Housing: Will a Rising Tide Sink all Homes?* ZILLOW webpage (Jun. 2, 2017) last accessed on March 1, 2021 at: <http://www.zillow.com/research/climate-change-underwater-homes-12890/>.

¹³ *Id.*

¹⁴ National Research Council, *Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* p. 135 (2012).

¹⁵ State of Washington Department of Ecology, *Preparing for a Changing Climate Washington State’s Integrated Climate Response Strategy* p. 90 (Publication No. 12-01-004: April 2012).

Unless wetlands and shoreline vegetation can migrate landward, their area and ecological functions will decline.¹⁶ If development regulations are not updated to address the need for vegetation to migrate landward in feasible locations, wetlands and shoreline vegetation will decline. This loss of shoreline vegetation will harm the environment. It will also deprive marine shorelines of the vegetation that protects property from erosion and storm damage by modifying soils and accreting sediment.¹⁷ Images at the end of this letter (Exhibit B) detail the landward migration of marshes and wetlands in Skagit County.

Floodplain regulations are not enough to address sea level rise for three reasons. *Projected Sea Level Rise for Washington State – A 2018 Assessment* explains two of them:

Finally, it is worth emphasizing that sea level rise projections are different from Federal Emergency Management Agency (FEMA) flood insurance studies, because (1) FEMA studies only consider past events, and (2) flood insurance studies only consider the 100-year event, whereas sea level rise affects coastal water elevations at all times.¹⁸

The third reason is that floodplain regulations allow fills and pilings to elevate structures and also allow commercial buildings to be flood proofed in certain areas.¹⁹ While this affords some protection to the structure, it does not protect the marshes and wetlands that need to migrate.

Because of these significant impacts on people, property, and the environment, “[n]early six in ten Americans supported prohibiting development in flood-prone areas (57%).”²⁰ It is time for Washington state and local governments to follow the lead of the American people and adopt policies and regulations to protect people, property, and the environment from sea level rise. We recommend the addition of the following policies and regulations as part of the shoreline master program comprehensive update.

¹⁶ Christopher Craft, Jonathan Clough, Jeff Ehman, Samantha Joye, Richard Park, Steve Pennings, Hongyu Guo, and Megan Machmuller, *Forecasting the effects of accelerated sea-level rise on tidal marsh ecosystem services* FRONT ECOL ENVIRON 2009; 7, doi:10.1890/070219 p. *6 last accessed on Feb. 26, 2021 at: <http://nsmn1.uh.edu/steve/CV/Publications/Craft%20et%20al%202009.pdf>. Frontiers in Ecology and the Environment is a peer-reviewed scientific journal. Frontiers in Ecology and the Environment Journal Overview webpage last accessed on Feb. 26, 2021 at: <https://esajournals.onlinelibrary.wiley.com/journal/15409309>.

¹⁷ R. A. Feagin, S. M. Lozada-Bernard, T. M. Ravens, I. Möller, K. M. Yeagei, A. H. Baird and David H. Thomas, *Does Vegetation Prevent Wave Erosion of Salt Marsh Edges?* 106 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA pp. 10110-10111 (Jun. 23, 2009) last accessed on Aug. 11, 2020 at: <http://www.pnas.org/content/106/25/10109.full>. This journal is peer-reviewed. *Id.* p. 10113.

¹⁸ Miller, I.M., Morgan, H., Mauger, G., Newton, T., Weldon, R., Schmidt, D., Welch, M., Grossman, E., *Projected Sea Level Rise for Washington State – A 2018 Assessment* p. 8 of 24 (A collaboration of Washington Sea Grant, University of Washington Climate Impacts Group, Oregon State University, University of Washington, and US Geological Survey. Prepared for the Washington Coastal Resilience Project: updated 07/2019).

¹⁹ SCC 14.34.160 Specific standards for construction in special flood hazard areas.

²⁰ Bo MacInnis and Jon A. Krosnick, *Climate Insights 2020: Surveying American Public Opinion on Climate Change and the Environment Report: Natural Disasters* p. 8 (Washington, DC: Resources for the Future, 2020) accessed on Feb. 26, 2021 at: <https://www.rff.org/publications/reports/climateinsights2020-natural-disasters/>.

Critical Areas policies:

- 6G-2.3: Protect and manage shoreline-associated wetlands, including maintenance of sufficient volumes of surface and subsurface drainage into wetlands as well as the landward migration of wetlands as a result of sea level rise, to sustain existing vegetation and wildlife habitat.
- 6G-2.8: Limit new development in floodplains and areas of marine shorelines likely to be inundated by sea level rise.
- 6G-2.9: Regulate development within the 100-year floodplain and areas of marine shorelines likely to be inundated by sea level rise to avoid adverse impacts to shoreline ecological functions and to avoid risk and damage to property and loss of life.

Flood Hazard Reduction policies:

- 6I-1.x: Skagit County shall monitor the impacts of climate change on shorelands, the shoreline master program's ability to adapt to sea level rise and other aspects of climate change at least every periodic update, and revise the shoreline master program as needed. Skagit County shall periodically assess the best available sea level rise projections and other science related to climate change within shoreline jurisdiction and incorporate them into future program updates, as relevant.
- 6I-1.xx: New lots and new expanded development should be located so they will not interfere with the landward expansion and movement of wetlands and aquatic vegetation as sea level rises.

New subsection added to General Regulations, 14.26: Sea Level Rise

X. New lots shall be designed and located so that the buildable area is outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.

X2. Where lots are large enough, new structures and buildings shall be located so that they are outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.

X3. New and substantially improved structures shall be elevated above the likely sea level rise elevation in 2100 or for the life of the building, whichever is less.

2. Definition needed of critical saltwater habitat

Critical saltwater habitat is referenced throughout the SMP; however, no definition is provided in either the SMP or CAO. Please add the following definition per WAC 173-27-221(2)(c)(iii): Critical saltwater habitats include all kelp beds, eelgrass beds, spawning and holding areas for forage fish, such as herring, smelt and sandlance; subsistence, commercial and recreational shellfish beds; mudflats, intertidal habitats with vascular plants, and areas with which priority species have a primary association.

3. Protect critical saltwater habitats from boating facilities

The current code does not include general requirements to protect critical saltwater habitats from boating facilities and related structures or uses. Please add the following to 14.26.420(4)(a):

(xviii) prohibit structures within feeder bluffs and accretion shoreforms; marshes and other wetlands; kelp and eelgrass beds; and areas of high energy or shallow sloping bottoms (<2% gradient) in the marine environment.

(xix) avoid locating structures within estuaries; tidal pools on rock shores; spawning and holding areas for forage fish; and other critical saltwater or freshwater habitats unless no alternative location is feasible.

4. Mitigation required for expansion into critical areas (not included)

SCC 14.26.515(3)(b) - (d) allows expansions into critical areas and/or their buffers without mitigation. This appears to violate the purpose of no net loss of ecosystem functions and values and should be removed. Please strike 14.26.515(3)(b) - (d).

5. Prohibit nonnative finfish net pens

The risk of finfish net pens are more than apparent with the collapse of salmon net pens in Skagit County in 2017. Atlantic salmon were found swimming up the Skagit River as far east as Concrete months after the net pen collapse. Finfish net pens concentrate contaminants, can prey upon forage fish and native juvenile salmon, and can pass along disease to native salmon. Skagit County cannot allow new facilities to operate in the future.

Amend Table 14.26.405-1, Shoreline Use, for Aquaculture Net Pens from a Conditional Use (CU) to a prohibited (X).

Amend SCC 14.26.415(7) Net Pens by striking the current language and replacing with: (a) New commercial net pen aquaculture operations to propagate non-native finfish or native finfish species in marine waters is prohibited.

6. Mining in the channel migration zone

Given the sensitivity of rivers and streams in supporting salmonid habitat, mining waterward of the OHWM and in the CMZ should be prohibited. Skagit County has sufficient land designated for gravel and other mineral resources; therefore, these sensitive areas should be left out. Please amend SCC 14.26.460(2)(c): For rivers and streams, mining in the CMZ and waterward of the OHWM is prohibited ~~unless...~~.

7. Boulders as hard shoreline stabilization

SCC 14.26.480(1)(a)(ii) classifies boulders as soft shoreline stabilization. This is counter to guidance. Please amend SCC 14.26.480(1)(a) as follows:

(i) "Hard shoreline stabilization" means shoreline stabilization involving solid, hard surfaces, such as concrete bulkheads and boulders.

(ii) "Soft shoreline stabilization" may include the use of gravels, cobbles, ~~boulders~~, and logs, as well as vegetation.

8. Administrative variance buffer reduction

Please allow up to 25% of a buffer reduction through an administrative variance rather than 50%. Other options are available such as buffer averaging to provide flexibility.

9. Limits on hard surfaces in Rural Conservancy environment designation

Table 14.26.310-1 Dimensional Standards: Please change all hard surface limits in the Rural Conservancy environment designation from 30% to 10%. WAC 173-26-211(5)(b)(ii)(D) requires rural conservancy shoreline environments to limit impervious surfaces to 10% of the lot. Research by the University of Washington in the Puget Sound lowlands has shown that when total impervious surfaces exceed five to 10 percent and forest cover declines below 65 percent of the basin, then salmon habitat in streams and rivers is adversely affected.²¹

Thank you for considering our comments. If there are any questions, please contact Karlee Deatherage at karleed@re-sources.org.

Sincerely,

Karlee Deatherage
RE Sources Land & Water Policy Manager

²¹ Christopher W. May, Richard R. Horner, James R. Karr, Brian W. Mar, Eugene B. Welch, The Cumulative Effects of Urbanization on Small Streams in the Puget Sound Lowland Ecoregion pp. 19 – 20 of 26. This report was identified as best available science in Washington State Office of Community Development. Citations of Best Available Science for Designating and Protecting Critical Areas p. 17 (March 2002) accessed on July 24, 2020 at: <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKewiMgKWj2dLeAhViLH0KHxfdBBoQFjAAegQICBAC&url=https%3A%2F%2Fwww.ezview.wa.gov%2FDesktopModules%2FDocuments%2FView.aspx%3FtabID%3D36890%26alias%3D1949%26mid%3D68545%26itemID%3D4092&usg=AOvVaw0UCCoZhWjqD2uPnyKdnsnY>.

Exhibit A: Sea level rise elevation changes in Skagit County

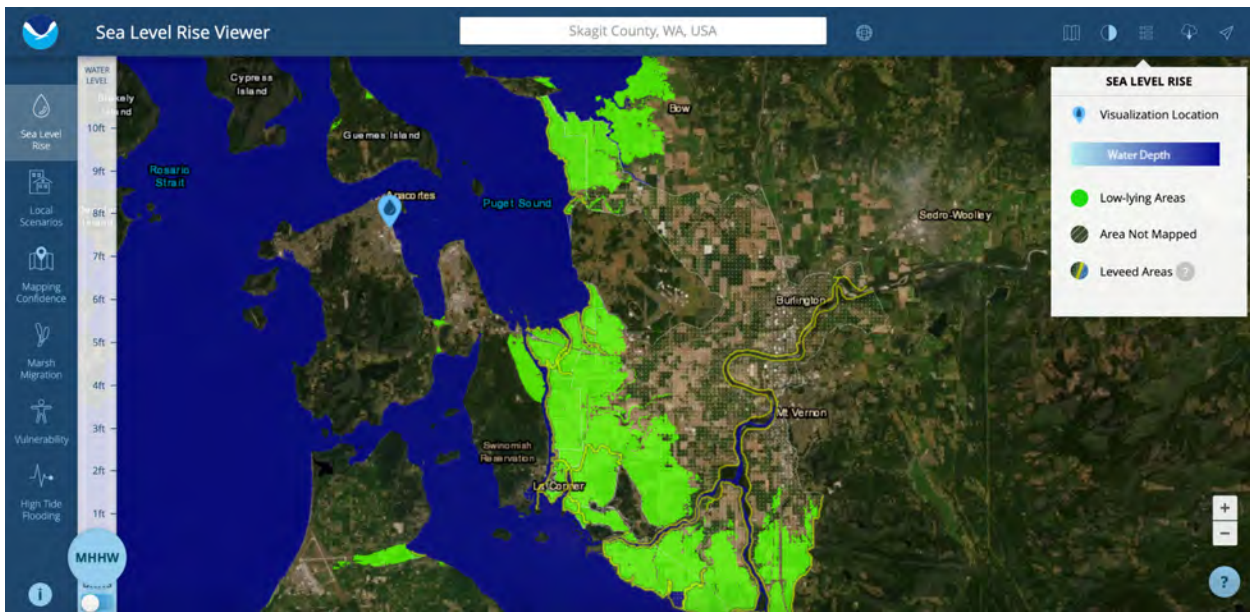


Image 1: Current Mean Higher High Water levels in Skagit County.

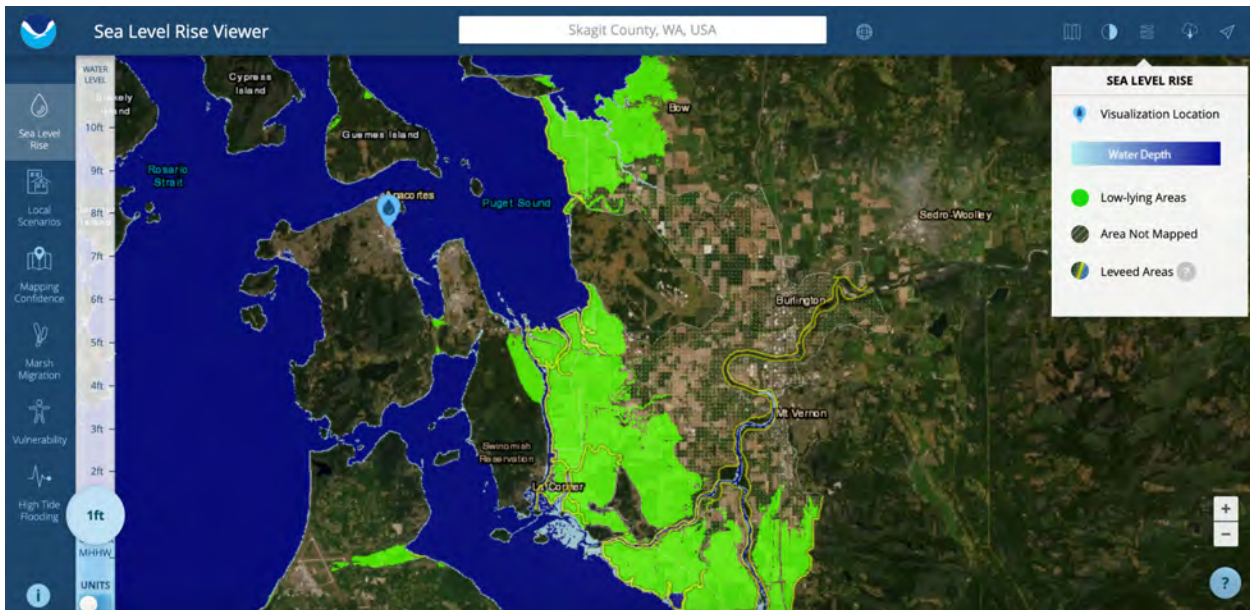


Image 2: One foot of sea level rise in Skagit County.

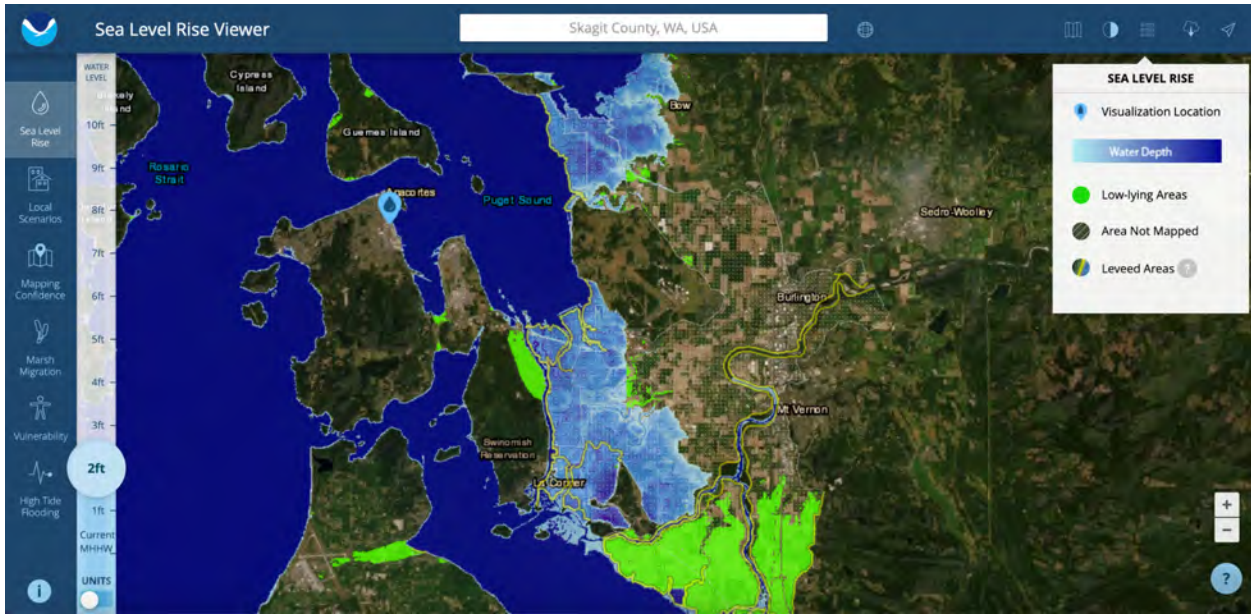


Image 3: Two feet of sea level rise in Skagit County.

Exhibit B: extent of marshes and wetlands in Skagit County

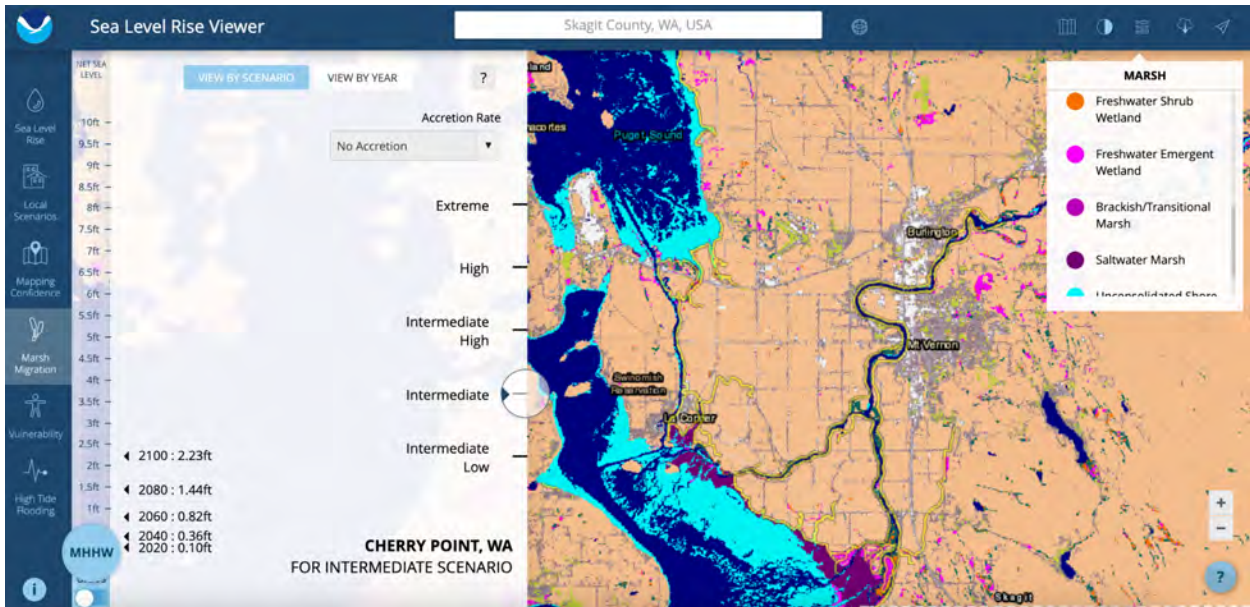


Image 1: Current extent of marshes and wetlands in Skagit County.

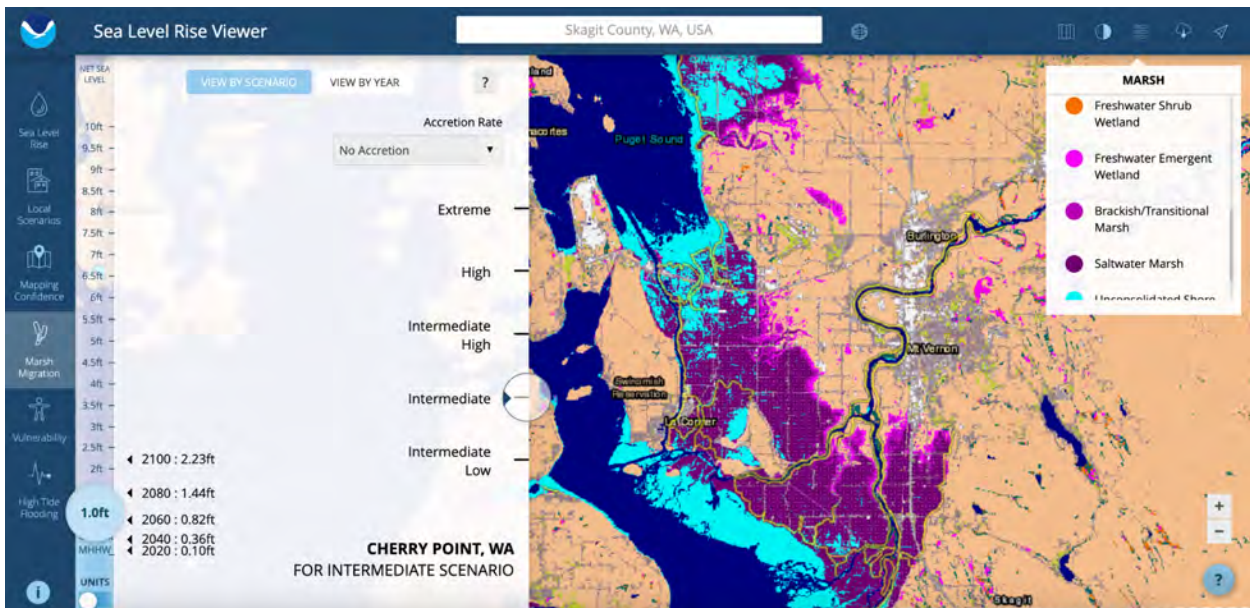


Image 2: Extent of marshes and wetlands with one foot of sea level rise.

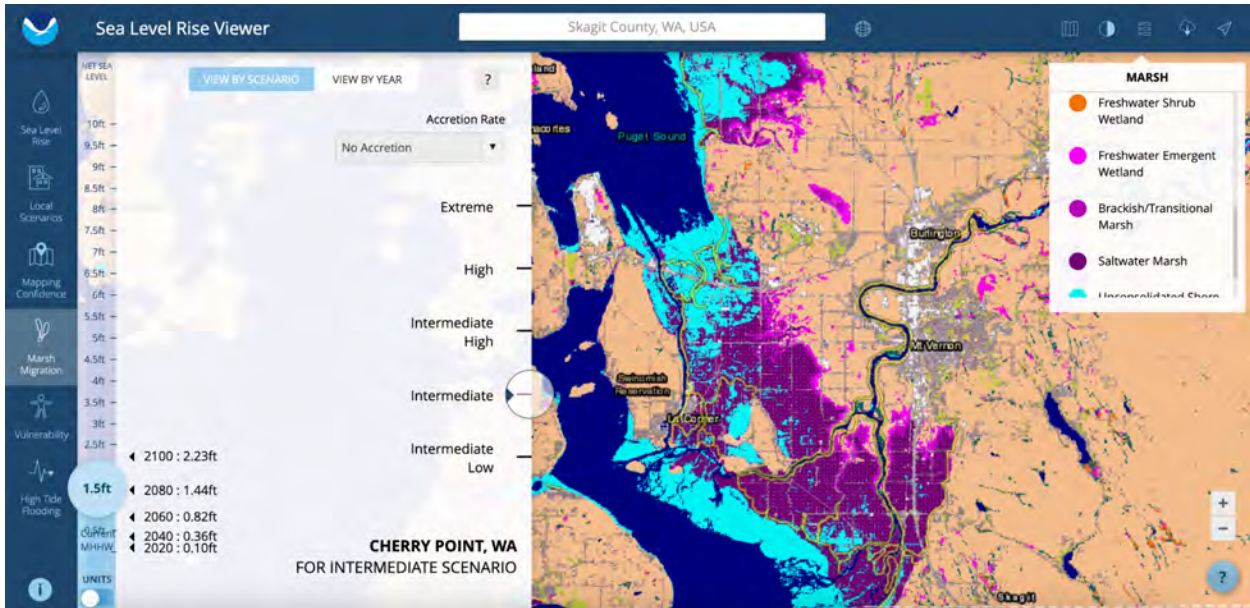


Image 3: Extent of marshes and wetlands with one and a half feet of sea level rise.

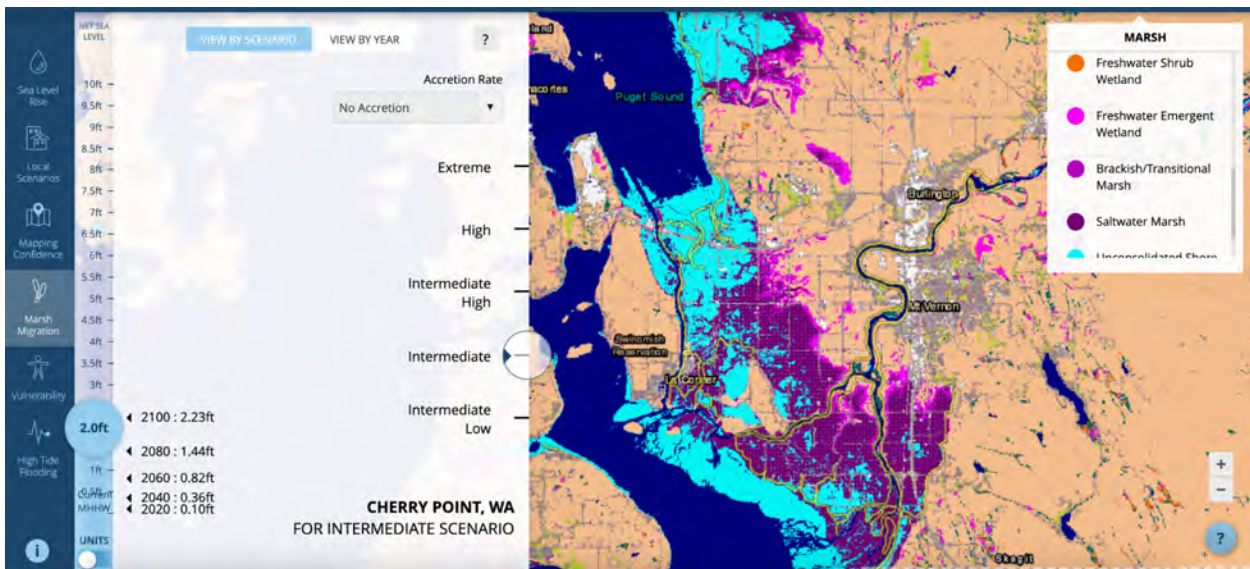


Image 4: Extent of marshes and wetlands with two feet of sea level rise.

Comment 63

June 22, 2021

To: Skagit County Planning and Development Services
Skagit County Board of Commissioners

From: Guemes Island Planning Advisory Committee

Re: Skagit County Shoreline Master Program Comprehensive Update & Periodic Review

To Skagit County PDS and the BoCC,

The Guemes Island Planning Advisory Committee (GIPAC) submitted combined comments with Evergreen Islands, ReSources and the Washington Environmental Council on Skagit County's draft Shoreline Master Program Comprehensive Update and Periodic Review.

The mission of the Guemes Island Planning Advisory Committee is to sustain the Island's rural character and natural environment. We are a nonprofit organization of community-elected volunteers who advocate the appropriate implementation of Guemes Island Subarea Plan as adopted by Skagit County.

While the proposed Shoreline Master Plan is an improvement over the woefully out of date plan currently guiding Skagit County, the success of the new plan will ultimately rely on how well the County implements and enforces these policies. It is our perception that, partly due to the lack of staffing in Planning and Development Services, there has been insufficient review and/or greenlighting of projects on Guemes Island that do not honor the intent of the Shoreline Management Act and the Guemes Island Subarea Plan under the Growth Management Act. This impact is further hampered by the County's inability to monitor and enforce the permits it does issue. Without adequate staffing and a commitment to rigorous application of the Shoreline Master Program, the County cannot meet its legal obligations to protect and restore its significant shoreline resources under the Shoreline Management Act.

To provide some context, we highlight three projects that were permitted on Guemes Island dealing with armoring, well drilling and tree removal all within the Shoreline Management zone.

Armoring:



This is an image of shoreline armoring that was permitted in early 2007 but not installed until mid-2017. The house is setback well above the water line and the only structure endangered was a ramp to the beach, which was deemed an "existing use" that needed protection. Per county permit records posted on line, the County's approval was for rip rap at the **toe of** the slope, with a number of conditions that don't appear to have been enforced: materials were to arrive by barge, 6 Douglas firs were to be planted to replace 3 larger trees which were

cut down, and the County's written approval was required for any vegetation removal in the Protected Critical Area above the bulkhead. (Did the County ever inspect?) It appears that the permit was allowed to stay in place for over 10 years without any reassessment, even though the consultant's Fish and Wildlife Habitat assessment is marked to expire in late 2008. The final result shows considerably more vegetation removal and armoring than was permitted.

Well Drilling:



This well, drilled May 1, 2020, fails to meet several provisions in current Skagit County policy: it was drilled within 100' of an existing well (brown stand pipe on opposite side of green tank), and while it is on a high bank it may be within 200 ft of OMHW. It is located in an area with known seawater intrusion, and where the Department of Ecology had requested in the past that no additional wells be drilled. GIPAC's efforts to enforce adherence to the Skagit County Code, via an amendment originally introduced in 2016, known as P-2, was delayed, then denied by the Skagit County Planning Commission in February, 2020. The denial was based in large part on a County generated legal opinion, which the County refused to provide to the public, that the County had no authority to regulate any wells on Guemes Island. There is no apparent coordination between Ecology and Skagit County to protect Guemes Island's federally designated sole source

aquifer from more drilling of new wells in this Critical Area.

Tree Removal:



This is a recent, January 2021, example of the removal of a significant portion of trees above the shoreline, including trees on a steep slope. While the project was permitted, the scale of the tree removal, including those necessary for bank stabilization in a Critical Area is quite significant and likely fails to meet Shoreline Master Program and Critical Area protection rules. It is not clear what kind of mitigation is being required (such as the replanting of trees) but even if it is being required, replanting small tree

starts does not come close to providing the ecological values and shoreline protections of the old, big trees that were harvested.

GIPAC is also concerned that data used to undergird the update of the Shoreline Master Plan is dated and not an accurate reflection of current conditions. The collection of baseline data and analysis of shoreline functions was completed in 2012, almost 9 years ago. If both the Comprehensive Update and the Periodic Update are adopted at this time, it will be at least eight more years before the County undertakes any additional analysis of our shorelines and aquatic resources, meaning that baseline conditions might not be revisited until as much as 20 years after the latest reports were completed. We already know of a number of changed conditions on Guemes Island: further eroded bluffs, significant shoreline vegetation removal, and formation of a new lake draining into Guemes Channel. Meanwhile, according to the 2017 GMA population projection done by OFM, Skagit County's population will have increased by 25% between 2010 and 2030, putting additional pressures on environmental systems.

Rather than Skagit County being perennially behind state law as to how it manages the county's growth and rather substantial natural resources, GIPAC recommends that the County adopt the Comprehensive Update now, but postpone the periodic update. The County's public review process this spring (when we learned for the first time this update would serve as both the comprehensive SMP update and the 8-year periodic review) was carefully focused on incremental changes made to the 2016 draft SMP, rather than providing a clear invitation for the public to comment on changed conditions as part of scoping the 8-year periodic review. We suggest the periodic review should be undertaken over the next few years, complete with a public review process that enables citizens to help identify changed conditions and the county to respond to the latest updated guidance from Ecology and state legislation currently in the pipeline.

Comment 64

June 21, 2021

Skagit County Shoreline Master Program Comprehensive Update & Periodic Review
Planning and Development Services
1800 Continental Place
Mount Vernon, Washington 98273

Dear Planning and Development Services staff:

**Subject: Comments on the Skagit County Shoreline Master Program
Comprehensive Update and Periodic Review.**

Submitted through the official comment form

Thank you for the opportunity to comment on the Skagit County Shoreline Master Program Comprehensive Update and Periodic Review. While Futurewise supports periodic reviews and updates and appreciates that Skagit County has resumed the update, we do have concerns and suggestions to provide for the recovery of important fish and wildlife resources such as the Chinook salmon and southern resident orcas and to begin addressing the adverse effects of global warming including sea level rise. Futurewise also strongly supports the comments and recommendations from Evergreen Islands, the Washington Environmental Council, RE Sources, and the Guemes Island Planning Advisory Committee in their June 16, 2021, letter and attachment.

Futurewise works throughout Washington State to support land-use policies that encourage healthy, equitable and opportunity-rich communities, and that protect our most valuable farmlands, forests, and water resources. Futurewise has members and supporters throughout Washington State including Skagit County.

Incorporate regulations to address accelerating sea level rise.

The Shoreline Management Act and Shoreline Master Program (SMP) Guidelines require shoreline master programs to address the flooding that will be caused by sea level rise.¹ RCW 90.58.100(2)(h) requires that shoreline master programs “shall include” “[a]n element that gives consideration to the statewide interest in the prevention and minimization of flood damages ...” WAC 173-26-221(3)(b) provides in part that “[o]ver the long term, the most effective means of flood hazard reduction is to prevent or remove development in flood-prone areas ...” “Counties and cities should consider the following when designating and classifying frequently flooded areas ... [t]he potential effects of tsunami, high tides with strong winds, sea level rise, and extreme weather events, including those

¹ Although the Shoreline Master Program (SMP) Guidelines are called “guidelines,” they are actually binding state agency rules and shoreline management program updates must comply with them. RCW 90.58.030(3)(b) & (c); RCW 90.58.080(1) & (7).

potentially resulting from global climate change ...”² The areas subject to sea level rise are flood prone areas just the same as areas along bays, rivers, or streams that are within the 100-year flood plain. As the State of Washington Department of Ecology’s (Ecology) *Shoreline Master Program Handbook Appendix A: Addressing Sea Level Rise in Shoreline Master Programs* states “SMPs must address flood hazards and seek to reduce the damage caused by floods. Goals and policies addressing flood hazards are another opportunity to address sea level rise and the increased threat from flooding that will accompany it.”³

RCW 90.58.100(1) and WAC 173-26-201(2)(a) also require “that the ‘most current, accurate, and complete scientific and technical information’ and ‘management recommendations’ [shall to the extent feasible] form the basis of SMP provisions.”⁴ This includes the current science on sea level rise.

Sea level rise is a real problem that is happening now. Sea level is rising and floods and erosion are increasing. In 2012 the National Research Council concluded that global sea level had risen by about seven inches in the 20th Century.⁵ A recent analysis of sea-level measurements for tide-gage stations, including the Seattle, Washington tide-gauge, shows that sea level rise is accelerating.⁶ Virginia Institute of Marine Science (VIMS) “emeritus professor John Boon, says ‘The year-to-year trends are becoming very informative. The 2020 report cards continue a clear trend toward acceleration in rates of sea-level rise at 27 of our 28 tide-gauge stations along the continental U.S. coastline.’”⁷ “‘Acceleration can be a game changer in terms of impacts and planning, so we really need to pay heed to these patterns,’ says Boon.”⁸ The Seattle tide gage was one of the 27 that had an accelerating rate of sea level rise.⁹

The report *Projected Sea Level Rise for Washington State – A 2018 Assessment* projects that for a low greenhouse gas emission scenario there is a 50 percent probability that sea level rise will reach or

² WAC 365-190-110(2) underlining added. This regulation is part of the State of Washington Department of Commerce Minimum Guidelines to Classify Agriculture, Forest, Mineral Lands and Critical Areas.

³ State of Washington Department of Ecology, *Shoreline Master Program Handbook Appendix A: Addressing Sea Level Rise in Shoreline Master Programs* p. 8 (Publication Number 11-06-010: rev. 12/17) last accessed on June 17, 2021 at: <https://apps.ecology.wa.gov/publications/SummaryPages/1106010.html> and enclosed with this letter. The appendix is also at this Dropbox Link https://www.dropbox.com/sh/hr5kxb0sitoxfk8/AAC_br6R66ByUaVpKScKOC8Ra?dl=0 with the filename: “1106010part19.pdf.”

⁴ *Taylor Shellfish Company, Inc., et al., v. Pierce County and Ecology (Aquaculture II)*, Final Decision and Order Central Puget Sound Region Growth Management Hearings Board Case No. 18-3-0013c (June 17, 2019), at 10 of 81 footnote omitted.

⁵ National Research Council, *Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* p. 23, p. 156, p. 96, p. 102 (2012) last accessed on Feb. 26, 2021 at: <https://www.nap.edu/download/13389> and at the Dropbox link in the email transmitting this letter with the filename: “13389.pdf.”

⁶ William and Mary Virginia Institute of Marine Science, *U.S. West Coast Sea-Level Trends & Processes Trend Values for 2020* last accessed on June 18, 2021 at: https://www.vims.edu/research/products/slr/compare/west_coast/index.php and at the Dropbox link in the email transmitting this letter with the filename: “U.S. West Coast _ Virginia Institute of Marine Science Trend Values 2020.pdf.”

⁷ David Malmquist, *U.S. sea-level report cards: 2020 again trends toward acceleration* Virginia Institute of Marine Science website (Jan. 24, 2021) last accessed on June 18, 2021 at: https://www.vims.edu/newsandevents/topstories/2021/slr_2020.php and at the Dropbox link in the email transmitting this letter with the filename with the filename: “U.S. sea-level report cards_ 2020 again trends toward acceleration _ Virginia Institute of Marine Science.pdf.”

⁸ *Id.*

⁹ William and Mary Virginia Institute of Marine Science, *U.S. West Coast Sea-Level Trends & Processes Trend Values for 2020*.

exceed 1.6 feet by 2100 in Skagit County at Latitude 48.3 degrees north and Longitude -122.4 degrees west.¹⁰ *Projected Sea Level Rise for Washington State – A 2018 Assessment* projects that for a higher emission scenario there is a 50 percent probability that sea level rise will reach or exceed 2.1 feet by 2100 in Skagit County at Latitude 48.3 degrees north and Longitude -122.4 degrees west.¹¹ Projections are available for all of the marine shorelines in Skagit County and Washington State.¹²

The extent of the sea level rise currently projected for Skagit County can be seen on the NOAA Office for Coastal Management Digitalcoast Sea Level Rise Viewer available at: <https://coast.noaa.gov/digitalcoast/tools/slr.html>. A copy of the map from the viewer showing two feet of sea level rise is at the Dropbox link in footnote 2 of this letter with the filename: “Skagit Cty 2 ft Sea Level Rise.pdf.”

Projected sea level rise will substantially increase flooding. As Ecology writes, “[s]ea level rise and storm surge[s] will increase the frequency and severity of flooding, erosion, and seawater intrusion—thus increasing risks to vulnerable communities, infrastructure, and coastal ecosystems.”¹³ Not only our marine shorelines will be impacted, as Ecology writes “[m]ore frequent extreme storms are likely to cause river and coastal flooding, leading to increased injuries and loss of life.”¹⁴

Zillow recently estimated that 31,235 homes in Washington State may be underwater by 2100, 1.32 percent of the state’s total housing stock. The value of the submerged homes is an estimated \$13.7 billion.¹⁵ Zillow wrote:

It’s important to note that 2100 is a long way off, and it’s certainly possible that communities [may] take steps to mitigate these risks. Then again, given the enduring

¹⁰ University of Washington Climate Impacts Group, *Visualization #1: Projected sea level change by year for Projected sea level change by year Lat 48.3 Long 122.4 Skagit County*, accessed on June 18, 2021 at: <https://cig.uw.edu/our-work/applied-research/wcrp/sea-level-rise-data-visualization/> and at the Dropbox link in the email transmitting this letter with the filename: “Projected sea level change by year Lat 48.3 Long -122.4 Skagit Cty.pdf.” The methodology used for these projections is available in Miller, I.M., Morgan, H., Mauger, G., Newton, T., Weldon, R., Schmidt, D., Welch, M., Grossman, E., *Projected Sea Level Rise for Washington State – A 2018 Assessment* (A collaboration of Washington Sea Grant, University of Washington Climate Impacts Group, Oregon State University, University of Washington, and US Geological Survey. Prepared for the Washington Coastal Resilience Project: updated 07/2019) last accessed on Feb. 26, 2021 at: https://cig.uw.edu/wp-content/uploads/sites/2/2019/07/SLR-Report-Miller-et-al-2018-updated-07_2019.pdf and at the Dropbox link in the email transmitting this letter with the filename: “SLR-Report-Miller-et-al-2018-updated-07_2019.pdf.”

¹¹ University of Washington Climate Impacts Group, *Visualization #1: Projected sea level change by year for Projected sea level change by year Lat 48.3 Long 122.4 Skagit County*.

¹² Miller, I.M., Morgan, H., Mauger, G., Newton, T., Weldon, R., Schmidt, D., Welch, M., Grossman, E., *Projected Sea Level Rise for Washington State – A 2018 Assessment* p. 6 & p. 9 of 24 (A collaboration of Washington Sea Grant, University of Washington Climate Impacts Group, Oregon State University, University of Washington, and US Geological Survey. Prepared for the Washington Coastal Resilience Project: updated 07/2019).

¹³ State of Washington Department of Ecology, *Preparing for a Changing Climate Washington State’s Integrated Climate Response Strategy* p. 90 (Publication No. 12-01-004: April 2012) last accessed on June 18, 2021 at: <https://fortress.wa.gov/ecy/publications/publications/1201004.pdf> and at the Dropbox link in the email transmitting this letter with the filename: “1201004.pdf.”

¹⁴ *Id.* p. 17.

¹⁵ Krishna Rao, *Climate Change and Housing: Will a Rising Tide Sink all Homes?* ZILLOW webpage (Jun. 2, 2017) last accessed on June 18, 2021 at: <http://www.zillow.com/research/climate-change-underwater-homes-12890/>.

popularity of living near the sea despite its many dangers and drawbacks, it may be that even more homes will be located closer to the water in a century's time, and these estimates could turn out to be very conservative. Either way, left unchecked, it is clear the threats posed by climate change and rising sea levels have the potential to destroy housing values on an enormous scale.¹⁶

Sea level rise will have an impact beyond rising seas, floods, and storm surges. The National Research Council wrote that:

Rising sea levels and increasing wave heights will exacerbate coastal erosion and shoreline retreat in all geomorphic environments along the west coast. Projections of future cliff and bluff retreat are limited by sparse data in Oregon and Washington and by a high degree of geomorphic variability along the coast. Projections using only historic rates of cliff erosion predict 10–30 meters [33 to 98 feet] or more of retreat along the west coast by 2100. An increase in the rate of sea-level rise combined with larger waves could significantly increase these rates. Future retreat of beaches will depend on the rate of sea-level rise and, to a lesser extent, the amount of sediment input and loss.¹⁷

These impacts are why the Washington State Department of Ecology recommends “[l]imiting new development in highly vulnerable areas.”¹⁸

Unless wetlands and shoreline vegetation can migrate landward, their area and ecological functions will decline.¹⁹ If development regulations are not updated to address the need for vegetation to migrate landward in feasible locations, wetlands and shoreline vegetation will decline. According to Ecology “[d]evelopment of coastal areas and shoreline armoring (e.g., bulkheads, seawalls) prevent habitat areas from reestablishing inland” in response to sea level rise.²⁰ Ecology provides more detailed documentation of these adverse impacts:

The prospect of more flooding, erosion, and storm damage may lead communities and property owners to seek to build seawalls, dikes, and tidal barriers. The construction and placement of these structures will have a direct and immediate

¹⁶ *Id.*

¹⁷ National Research Council, *Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* p. 135 (2012).

¹⁸ State of Washington Department of Ecology, *Preparing for a Changing Climate Washington State's Integrated Climate Response Strategy* p. 90 (Publication No. 12-01-004: April 2012).

¹⁹ Christopher Craft, Jonathan Clough, Jeff Ehman, Samantha Joye, Richard Park, Steve Pennings, Hongyu Guo, and Megan Machmuller, *Forecasting the effects of accelerated sea-level rise on tidal marsh ecosystem services* FRONT ECOL ENVIRON 2009; 7, doi:10.1890/070219 p. *6 last accessed on Feb. 26, 2021 at:

<http://nsmn1.uh.edu/steve/CV/Publications/Craft%20et%20al%202009.pdf>. Frontiers in Ecology and the Environment is a peer-reviewed scientific journal. Frontiers in Ecology and the Environment Journal Overview webpage last accessed on Feb. 26, 2021 at: <https://esajournals.onlinelibrary.wiley.com/journal/15409309>. Both at the Dropbox link in footnote 2 of this letter with the filename: “Craft et al 2009.pdf” and “Frontiers in Ecology and the Environment - Journal Overview” respectively.

²⁰ Washington State Department of Ecology, *Preparing for a Changing Climate: Washington State's Integrated Climate Response Strategy* p. 68 (Publication No. 12-01-004: April 2012).

impact on natural shoreline environments. These structures will also lead to the progressive loss of beach and marsh habitat as those areas are squeezed between the rising sea and a more intensively engineered shoreline. Predicted decreases in size or transitions in tidal marshes, salt marshes, and tidal flats will affect the species these habitats support. It is predicted that while some species may be able to locate alternate habitats or food sources, others will not (Glick, 2007).

Shellfish, forage fish, shorebirds, and salmon are among those identified as examples of species at risk (Glick, 2007). Sea level rise will also lead to other changes in coastal ecosystems, such as shifting of stream mouths and tidal inlets, reconfigured estuaries and wetlands, and more frequently disturbed riparian zones.²¹

“Loss of salt marsh and related habitats may be significant in systems constrained by surrounding development.”²² This loss of shoreline vegetation will harm the environment. It will also deprive marine shorelines of the vegetation that protects property from erosion and storm damage by modifying soils and accreting sediment.²³ This will increase damage to upland properties. Enclosed with this letter are maps showing the extent of wetlands at mean higher high water and at two feet of sea level rise in western Skagit County.²⁴ A comparison of these maps shows that there will be migration of wetlands in Skagit County if the wetlands are not blocked by development.

Flood plain regulations are not enough to address sea level rise for three reasons. *Projected Sea Level Rise for Washington State – A 2018 Assessment* explains two of them:

Finally, it is worth emphasizing that sea level rise projections are different from Federal Emergency Management Agency (FEMA) flood insurance studies, because (1) FEMA studies only consider past events, and (2) flood insurance studies only consider the 100-year event, whereas sea level rise affects coastal water elevations at all times.²⁵

The third reason is that flood plain regulations allow fills and piling to elevate structures and also allow commercial buildings to be flood proofed in certain areas. While this affords some protection to the structure, it does not protect the marshes and wetlands that need to migrate.

²¹ State of Washington Department of Ecology, *Shoreline Master Program Handbook Appendix A: Addressing Sea Level Rise in Shoreline Master Programs* pp. 3 – 4 (Publication Number 11-06-010: rev. 12/17).

²² *Id.* p. 4.

²³ R. A. Feagin, S. M. Lozada-Bernard, T. M. Ravens, I. Möller, K. M. Yeagei, A. H. Baird and David H. Thomas, *Does Vegetation Prevent Wave Erosion of Salt Marsh Edges?* 106 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA pp. 10110-10111 (Jun. 23, 2009) last accessed on June 21, 2021 at: <http://www.pnas.org/content/106/25/10109.full> and at the Dropbox link in the email transmitting this letter with the filename: “10109.full.pdf.” This journal is peer-reviewed. *Id.* p. 10113.

²⁴ At the Dropbox link in the email transmitting this letter with the filenames: “Marsh Skagit Cty MHHW.pdf” and “Marsh Migration Skagit Cty 2 ft Sea Level Rise.pdf.” Three maps of the same view are needed to show the three parts of the legend, so that is why there are three pages in the Marsh Migration Skagit Cty 2 ft Sea Level Rise.pdf.

²⁵ Miller, I.M., Morgan, H., Mauger, G., Newton, T., Weldon, R., Schmidt, D., Welch, M., Grossman, E., *Projected Sea Level Rise for Washington State – A 2018 Assessment* p. 8 of 24 (A collaboration of Washington Sea Grant, University of Washington Climate Impacts Group, Oregon State University, University of Washington, and US Geological Survey. Prepared for the Washington Coastal Resilience Project: updated 07/2019).

Because of these significant impacts on people, property, and the environment, “[n]early six in ten Americans supported prohibiting development in flood-prone areas (57%).”²⁶ It is time for Washington state and local governments to follow the lead of the American people and adopt policies and regulations to protect people, property, and the environment from sea level rise. We recommend the addition of the following regulations as part of the shoreline master program periodic update:

X. New lots shall be designed and located so that the buildable area is outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.

X2. Where lots are large enough, new structures and buildings shall be located so that they are outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.

X3. New and substantially improved structures shall be elevated above the likely sea level rise elevation in 2100 or for the life of the building, whichever is less.

Also, to avoid flooding, erosion, and other adverse impacts on shoreline resources, we strongly recommend that the County take a comprehensive approach to adapting to sea level rise and its adverse impacts modeled on the process California’s coastal counties and cities use. The process includes six steps.²⁷

1. Determine the range of sea level rise projections relevant to Skagit County’s shorelines subject to tidal influence. The California Coastal Commission recommends analyzing intermediate and long-term projections because “development constructed today is likely to remain in place over the next 75-100 years, or longer.”²⁸
2. Identify potential physical sea level rise impacts in Skagit County’s shorelines subject to tidal influence.
3. Assess potential risks from sea level rise to the resources and development on the shorelines subject to tidal influence.
4. Identify adaptation strategies to minimize risks. The *California Coastal Commission Sea Level Rise Policy Guidance* includes recommended adaptation strategies to consider.²⁹

²⁶ Bo MacInnis and Jon A. Krosnick, *Climate Insights 2020: Surveying American Public Opinion on Climate Change and the Environment Report: Natural Disasters* p. 8 (Washington, DC: Resources for the Future, 2020) accessed on Feb. 26, 2021 at: <https://www.rff.org/publications/reports/climateinsights2020-natural-disasters/> and at the Dropbox link in the email transmitting this letter with the filename: “Climate_Insights_2020_Natural_Disasters.pdf.”

²⁷ *California Coastal Commission Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits* pp. 69 – 95 (Nov. 7, 2018) last accessed on June 18, 2021 at: <https://www.coastal.ca.gov/climate/slrguidance.html> and at the Dropbox link in the email transmitting this letter with the filename: “0_Full_2018AdoptedSLRGuidanceUpdate.pdf.”

²⁸ *Id.* p. 74.

²⁹ *Id.* pp. 121 – 162.

5. Adopt an updated shoreline master program incorporating the selected adaption strategies.
6. Implement the updated shoreline master program and monitor and revise as needed. Because the scientific data on sea level rise is evolving, the California Coastal Commission recommends modifying “the current and future hazard areas on a five-to-ten-year basis or as necessary to allow for the incorporation of new sea level rise science, monitoring results, and information on coastal conditions.”³⁰

Based on this proven model, we recommend that the following proposed policy be adopted as part of the shoreline master program periodic update.

Policy X. Skagit County shall monitor the impacts of climate change on Skagit County’s shorelands, the shoreline master program’s ability to adapt to sea level rise and other aspects of climate change at least every periodic update and revise the shoreline master program as needed. Skagit County shall periodically assess the best available sea level rise projections and other science related to climate change within shoreline jurisdiction and incorporate them into future shoreline master program updates as needed.

Adopt up-to-date riparian buffers in Table 14.26.310-1 Dimensional Standards on pages 60 and 61 to protect Chinook habitat and other aquatic habitats.

As has been reported in media and scientific reports, the southern resident orcas, or killer whales, are threatened by (1) an inadequate availability of prey, the Chinook salmon, “(2) legacy and new toxic contaminants, and (3) disturbance from noise and vessel traffic.”³¹ “Recent scientific studies indicate that reduced Chinook salmon runs undermine the potential for the southern resident population to successfully reproduce and recover.”³² The shoreline master program update is an opportunity to take steps to help recover the southern resident orcas, the Chinook salmon, and the species and habitats on which they depend.

The Shoreline Master Program (SMP) Guidelines, in WAC 173-26-221(3)(c), provides in part that “[i]n 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.”

³⁰ *Id.* p. 94.

³¹ State of Washington Office of the Governor, Executive Order 18-02 Southern Resident Killer Whale Recovery and Task Force p. 1 (March 14, 2018) last accessed on Feb. 26, 2021 at: https://www.governor.wa.gov/sites/default/files/exe_order/eo_18-02_1.pdf and at the Dropbox link in the email transmitting this letter with the filename: “eo_18-02_1.pdf.”

³² *Id.*

The State of Washington Department of Fish and Wildlife has recently updated the Priority Habitat and Species recommendations for riparian areas. The updated management recommendations document that fish and wildlife depend on protecting riparian vegetation and the functions this vegetation performs such as maintaining a complex food web that supports salmon and maintaining temperature regimes to name just a few of the functions.³³

The updated *Riparian Ecosystems, Volume 1: Science synthesis and management implications* scientific report concludes that the “[p]rotection and restoration of riparian ecosystems continues to be critically important because: a) they are disproportionately important, relative to area, for aquatic species, e.g., salmon, and terrestrial wildlife, b) they provide ecosystem services such as water purification and fisheries (Naiman and Bilby 2001; NRC 2002; Richardson et al. 2012), and c) by interacting with watershed-scale processes, they contribute to the creation and maintenance of aquatic habitats.”³⁴ The report states that “[t]he width of the riparian ecosystem is estimated by one 200-year site-potential tree height (SPTH) measured from the edge of the active channel or active floodplain. Protecting functions within at least one 200-year SPTH is a scientifically supported approach if the goal is to protect and maintain full function of the riparian ecosystem.”³⁵ These recommendations are explained further in *Riparian Ecosystems, Volume 2: Management Recommendations A Priority Habitats and Species Document of The Washington Department of Fish and Wildlife*.³⁶

Based on these new scientific documents, we recommend that shoreline jurisdiction should include the 100-year flood plain³⁷ and that the buffers for rivers and streams in shoreline jurisdiction be increased to use the newly recommended 200-year SPTH and that this width should be measured from the edge of the channel, channel migration zone, or active floodplain whichever is wider. New development, except water dependent uses should not be allowed within this area.³⁸ This will help maintain shoreline functions and Chinook salmon habitat.

³³ Timothy Quinn, George F. Wilhere, and Kirk L. Krueger, technical editors, *Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications* pp. 265 – 68 & p. 270 (A Priority Habitat and Species Document of the Washington Department of Fish and Wildlife, Olympia, WA: Updated July 2020) last accessed on June 18, 2021 at: <https://wdfw.wa.gov/publications/01987/> and at the Dropbox link in the email transmitting this letter with the filename: “wdfw01987.pdf.” This report was peer-reviewed. *Id.* pp. 11 – 12.

³⁴ *Id.* p. 270.

³⁵ *Id.* p. 271.

³⁶ Amy Windrope, Terra Rentz, Keith Folkerts, and Jeff Azerrad, *Riparian Ecosystems, Volume 2: Management Recommendations A Priority Habitats and Species Document of The Washington Department of Fish and Wildlife* (Dec. 2020) last accessed on June 18, 2021 at: https://wdfw.wa.gov/publications/01988 and at the Dropbox link in the email transmitting this letter with the filename: “wdfw01988.pdf.”

³⁷ Authorized by RCW 90.58.030(2)(d)(i).

³⁸ Timothy Quinn, George F. Wilhere, and Kirk L. Krueger, technical editors, *Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications* pp. 270 – 71 (A Priority Habitat and Species Document of the Washington Department of Fish and Wildlife, Olympia, WA: Updated July 2020).

Adopt better impervious surface limits and lot width requirements for areas outside the urban growth area in Table 14.26.310-1 Dimensional Standards on pages 60 and 61.

The Shoreline Master Program Guidelines, in WAC 173-26-211(5)(b)(ii)(D), provide that “[s]cientific studies support density or lot coverage limitation standards that assure that development will be limited to a maximum of ten percent total impervious surface area within the lot or parcel, will maintain the existing hydrologic character of the shoreline.” So we recommend that the hard surface limits for the Rural Conservancy and Urban Conservancy shoreline environments be limited to ten percent.

We also recommend that Table 14.26.310-1 include minimum lot widths for lots outside urban growth areas. In shoreline areas there is a strong incentive to have narrow lots along the shoreline since waterfront lots are highly valued. This can lead to narrow lots and buildings that are built cheek-by-jowl along the water – which is the historic practice of cramming as many water-access lots in as possible – cutting the wildlife in the uplands off from the water areas and vice-versa. *Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications* documents that “[c]onnectivity in riparian areas occurs not only parallel to the stream (previous section), but also orthogonally to the channel in a lateral dimension — from the stream through the riparian area into uplands—and the vertical dimension in the hyporheic zone.”³⁹ These movements include surface and ground water, sediment, large wood, other organic debris,⁴⁰ and animals that may spend part of their day or year in upland areas and part of the day or year along the water body. While modern rural lot area requirements reduce this likelihood, reasonable lot width requirements prevent long narrow lots that can meet area requirements and still place houses close together. Minimum lot widths need to allow wildlife to pass through residential areas to use upland areas and to use shorelines. A simple lot length to width ratio of 3:1 can address this problem. Another alternative would be to establish 300’ lot widths for the Conservancy and Natural shoreline environments.

Skagit County Code (SCC) 14.26.340, Archaeological, Historic, and Scientific Resources, needs to require predevelopment investigations for areas where archaeological resources are likely to be located. See pages 66 – 67.

We appreciate and support the archaeological, historic, and scientific resources policies and regulations. Many historical and cultural sites are located in shoreline jurisdiction due to the availability of water, food sources, and transportation routes. The Washington State Department of Archaeology and Historic Preservation has developed an archaeological predictive model that can predict where archaeological resources are likely to be located and where the department recommends archaeological surveys should be completed before earth disturbing activities and other

³⁹ *Id.* p. 256.

⁴⁰ *Id.*

uses and activities that can damage archaeological sites are undertaken.⁴¹ The results of the predictive model are available for Skagit County to use in planning and project reviews from the Washington State Department of Archaeology and Historic Preservation's WISAARD (Washington Information System for Architectural & Archaeological Records Data) online mapping tool. You can access WISAARD here: <https://dahp.wa.gov/project-review/wisaard-system> Many shoreline areas in Skagit County, and Washington State, are rated "survey recommended moderate risk", "survey highly advised high risk," and "survey highly advised very high risk." See the WISAARD website.

Addressing archaeological resources upfront before projects begin can save money. For example, the Jefferson County Public Utility District's (PUD) contractor building a community septic system at Becket Point in Jefferson County encountered human bones and Native American artifacts.⁴² The contractor had to stop construction. An archaeologist was called in and conducted an investigation that allowed the project to be redesigned and to be completed. However, PUD staff "estimated the delays and additional engineering incurred because of the artifacts added about \$90,000 to the project's cost."⁴³ Much of that money could have been saved by an upfront archeological investigation. So to both protect archaeological resources and to forestall project stoppages, we recommend that SCC 14.26.340(3) and (5) be modified to read as follows with our additions underlined and our deletions struck through.

- (3) Site inspection and evaluation. Proposals for shoreline development or use in or on areas within 200 feet of a site rated as rated "survey recommended moderate risk," "survey highly advised high risk," and "survey highly advised very high risk" by the current version of the Washington State Department of Archaeology and Historic Preservation's archaeological predictive model or documented to contain archaeological, historic, or scientific resources require site inspection and evaluation by qualified personnel prior to any development activity in or on the site. In areas within 200 feet of a site rated as rated "survey recommended moderate risk," "survey highly advised high risk," and "survey highly advised very high risk" by the current version of the Washington State Department of Archaeology and Historic Preservation's archaeological predictive model or documented to contain archaeological resources, site inspection and evaluation must be performed by a professional archaeologist in coordination with affected Indian tribes.
- (5) Adjacent and nearby development. Proposals for shoreline development or use adjacent to or nearby areas rated as rated "survey recommended moderate risk," "survey highly advised high risk," and "survey highly advised very high risk" by the current version of the Washington State Department of Archaeology and Historic Preservation's archaeological predictive model or documented to contain archaeological, historic, or

⁴¹ Russell Holter, Washington State Department of Archaeology and Historic Preservation, *Protecting the Past Using Tools of the Future: Archaeology Predictive Modeling* p. 5 (Presentation: 10/2/2014) last accessed on June 18, 2021 at: http://www.infrafunding.wa.gov/downloads/2014_Conference_Presentations/S53.pdf.

⁴² Jeff Chew, *Jefferson PUD sticks with Beckett Point Connections* p. 8 (Washington Public Utility Districts Association [WPUDA]: Winter 2008) last accessed on June 18, 2021 at: <https://www.yumpu.com/en/document/view/46547248/connections-washington-public-utility-district-association/11>.

⁴³ *Id.* at p. 9.

scientific resources must be located, designed, and operated to not adversely affect the purpose, character, or value of such resources.

Define critical saltwater habitats and better protect them.

SCC 14.26.415(4)(d) on page 91 refers to the “standards found in SCC 14.26.550 for critical saltwater habitats ...” But it appears that SCC 14.26.575 is the section that has the standards for critical saltwater habitats.

The shoreline master program does not define critical saltwater habitats. We recommend that the definition of critical saltwater habitats from WAC 173-26-221(2)(c)(iii)(A) be added to the shoreline master program. That provision reads: “Critical saltwater habitats include all kelp beds, eelgrass beds, spawning and holding areas for forage fish, such as herring, smelt and sandlance; subsistence, commercial and recreational shellfish beds; mudflats, intertidal habitats with vascular plants, and areas with which priority species have a primary association.”

Buffer reductions of more than 25 percent must require a standard variance, not an administrative variance. See proposed 14.26.735(20(a) on page 220.

Allowing buffer reductions of more than 25 percent is inconsistent with best available science and should not be allowed except through a standard variance.⁴⁴ The administrative variance should be limited to a 25 percent reduction.

Amend SCC 14.26.460, Mining, so that it is consistent with amendments to state law and to protect the shoreline environment. See pages 125 through 130.

SCC 14.26.460(1)(b)(ii) exempts from the SMP “mining that complies with the Washington Department of Fish and Wildlife’s Gold and Fish Pamphlet.” In 2020, the legislature adopted RCW 90.48.615(2) which prohibits “[m]otorized or gravity siphon aquatic mining or discharge of effluent from such activity to any waters of the state that has been designated under the endangered species act as critical habitat, or would impact critical habitat for salmon, steelhead, or bull trout. This includes all fresh waters with designated uses of: Salmonid spawning, rearing, and migration.” We recommend that the SMP Update prohibit motorized or gravity siphon aquatic mining and discharging effluent from this type of mining in shorelines that are the critical habitat for salmon, steelhead, or bull trout and that salmonids use for spawning, rearing, and migration.

⁴⁴ T. Granger, T. Hruby, A. McMillan, D. Peters, J. Rubey, D. Sheldon, S. Stanley, E. Stockdale, *Wetlands in Washington State - Volume 2: Guidance for Protecting and Managing Wetlands* (Washington State Department of Ecology, Olympia, WA: April 2005, Publication #05-06-008) Appendix 8-C Guidance on Widths of Buffers and Ratios for Compensatory Mitigation for Use with the Western Washington Wetland Rating System p. 14 (July 2018 Modified Habitat Score Ranges) last accessed on June 18, 2021 at: <https://fortress.wa.gov/ecy/publications/summarypages/0506008.html> and at the Dropbox Link with the filename: “0506008part3.pdf.”

Gravel mining in flood plains, floodways, channel migration zones, and river bars, active channels, has the potential to adversely impact rivers and streams. As the Washington State Department of Natural Resources geology staff have written:

Seeking the lowest cost material, gravel miners commonly choose to excavate large, deep ponds adjacent to active river channels ... Wherever a channel shifts into a gravel pit or multiple pits that are large relative to the scale of the flood plain and the river's sediment transport regime, natural recovery of original flood plain environment and similar channel morphology could take millennia (Collins, 1997). The time for recovery is highly dependent on the availability of sediment, particle size, gradient, and the size of excavations to be filled. Regardless of the best planning and intentions, impacts of flood-plain mining may simply be delayed until the river is captured by the gravel pit. While capture may not occur in the next 100-year flood event, it is likely to occur in the future as development and consequent flood magnitude increase. In the long term, stream capture by gravel pits is a near certainty. Because the gravel pits have a lower base elevation, there is risk of rapid channel change into the pits during high flows, a process termed avulsion. The flooded pits "capture" the stream. The effects of avulsion are similar to those of in-stream mining discussed in Evoy and Holland (1989), Collins and Dunne (1990), Netsch and others (1981), Kondolf and Graham Matthews (1993), Kondolf (1993, 1994), and Williamson and others (1995a,b). They may include:

- lowering the river bed upstream and downstream of mining operations, causing river bed erosion and (or) channel incision and bank erosion and collapse,
- eroding of footings for bridges or utility rights-of-way,
- changing aquatic habitat,
- unnaturally simplifying the complex natural stream system,
- increasing suspended sediment, and
- abandoning reaches of spawning gravels or damaging these gravels by channel erosion or deposition of silts in spawning and rearing reaches.⁴⁵

If mining is going to be allowed in flood plains, floodways, and channel migration zones, which the County is proposing, then additional standards are needed. First, mines should be located outside the channel migration zone so that they do not increase the rate of channel migration. Second, mines should be no deeper than the bottom of the nearby streams and rivers so when the river moves into the mine, which is a certainty, the impacts will be reduced. Third the mine reclamation plan should have a design so that when the river or stream moves into the mine, the mine workings are not so wide that the captured sediments destabilize the river or stream or increase erosion risks on upstream properties.

⁴⁵ David K. Norman, C. Jeff Cederholm, and William S. Lingley, Jr, "Flood Plains, Salmon Habitat, and Sand and Gravel Mining" *Washington Geology*, vol. 26, no. 2/3, pp. 4 – 5 (Sept. 1998) accessed on June 21, 2021 at: http://file.dnr.wa.gov/publications/ger_washington_geology_1998_v26_no2-3.pdf and at the Dropbox directory with the file name: "ger_washington_geology_1998_v26_no2-3.pdf."

We recommend that the following new regulation be added on page 128 under “(e)”.

- (vi) Mines should be located outside the channel migration zone unless there is no feasible alternative site and no feasible source of sand and gravel.
- (vii) Mines in the 100-year flood plain, floodway, or channel migration zones shall be no deeper than the bottom of the nearby streams and rivers.
- (vii) In the 100-year flood plain, floodway, or channel migration zones, the mine reclamation plan shall have a design so that when the river or stream moves into the mine it is not so wide or deep that the captured sediments destabilize the river or stream or increase erosion risks to upstream properties.

Require analysis of all geological hazards which can adversely impact a proposed development and require case-by-case determinations of landslide buffers including landslide runout areas based on the risk to the proposed development. Please see SCC 14.26.562 and SCC 14.26.563 on pages 194 – 198.

The March 22, 2014, Oso landslide “claimed the lives of 43 people, making it the deadliest landslide event in United States history. Of the approximately 10 individuals who were struck by the landslide and survived, several sustained serious injuries.”⁴⁶ Several years before, a family of four was killed by shallow debris flow that initiated above Rolling Bay Walk on Bainbridge Island crushing their home.⁴⁷ So properly identifying geologically hazardous areas and protecting people from geological hazards is important.

Homeowner’s insurance does not cover the damage from landslides. “Insurance coverage for landslides is uncommon. It is almost never a standard coverage and is difficult to purchase inexpensively as a policy endorsement.”⁴⁸

⁴⁶ Jeffrey R. Keaton, Joseph Wartman, Scott Anderson, Jean Benoît, John deLaChapelle, Robert Gilbert, David R. Montgomery, *The 22 March 2014 Oso Landslide, Snohomish County, Washington* p. 1 (Geotechnical Extreme Events Reconnaissance (GEER): July 22, 2014) last accessed on March 1, 2021 at: http://www.geerassociation.org/index.php/component/geer_reports/?view=geerreports&layout=build&id=30. If the American territories are included, then the Oso landslide is the second deadliest landslide in American history. R.M. Iverson, D.L. George, K. Allstadt, *Landslide mobility and hazards: implications of the Oso disaster* 412 EARTH AND PLANETARY SCIENCE LETTERS 197, 198 (2015). The Geological Society of America gave an award to *The 22 March 2014 Oso Landslide, Snohomish County, Washington*. Hannah Hickey, Joseph Wartman, David Montgomery honored for Oso landslide report p. 1 (July 15, 2016).

⁴⁷ Edwin L. Harp, John A. Michael, and William T. Laprade, *Shallow-Landslide Hazard Map of Seattle, Washington* p. 2 (U.S. Geological Survey Open-File Report 2006–1139: 2006) last accessed on March 1, 2021 at: <http://pubs.usgs.gov/of/2006/1139/> and at the Dropbox link in the email transmitting this letter with the filename: “of06-1139_508.pdf.”

⁴⁸ Robert L. Schuster & Lynn M. Highland, *The Third Hans Cloos Lecture: Urban landslides: socioeconomic impacts and overview of mitigative strategies* 66 BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT 1, p. 22 (2007) last accessed on

None of the Oso victims' homes were covered by insurance for landslide hazards.⁴⁹ And that is common when homes are damaged by landslides.⁵⁰ For example, on March 14, 2011, a landslide damaged the home of Rich and Pat Lord.⁵¹ This damage required the homeowners to abandon their home on Norma Beach Road near Edmonds, Washington. Because their homeowner's insurance did not cover landslides, they lost their home.⁵² This loss of what may be a family's largest financial asset is common when homes are damaged or destroyed by landslides or other geological hazards.

Landslide buyouts are rare and when they occur the property owner often only recovers pennies on the dollar. The property owners bought out after the Aldercrest-Banyon landslide in Kelso, Washington destroyed their homes received 30 cents on the dollar.⁵³ This underlines why preventing development in geologically hazardous areas is just plain ordinary consumer protection.

Landslides in Western Washington can run out long distances. The 1949 Tacoma Narrows Landslide, in Tacoma "failed catastrophically along steep" 300 feet high bluffs and ran out 1,500 feet into Puget Sound.⁵⁴ This is five times the bluff height. The 2014 Oso slide ran out for over a mile (5,500 feet) even though the slope height was 600 feet.⁵⁵ This was nine times the slope height. Recent research shows that long runout landslides are more common than had been realized.⁵⁶ This research documents that over the past 2000 years, the average landslide frequency of long runout

March 1, 2021 at:

https://www.researchgate.net/publication/225794820_The_Third_Hans_Cloos_Lecture_Urban_landslides_socioeconomic_impacts_and_overview_of_mitigative_strategies.

⁴⁹ Sanjay Bhatt, *Slide erased their homes, but maybe not their loans* The Seattle Times (April 2, 2014) last accessed on March 1, 2021 at: http://old.seattletimes.com/html/latestnews/2023278858_mudslidefinancialxml.html.

⁵⁰ *Id.*

⁵¹ Ian Terry, *Abandoned and trashed after mudslide, Edmonds house now for sale* The Herald (Feb. 11, 2015). The house is for sale after the bank who held the Lords' mortgage took ownership of the home. *Id.* Last accessed on March 1, 2021 at: <http://www.heraldnet.com/article/20150211/NEWS01/150219829>.

⁵² *Id.* p. *6.

⁵³ Isabelle Sarikhan, *Sliding Thought Blog, Washington's Landslide Blog* Landslide of the Week – Aldercrest Banyon Landslide July 29, 2009 last accessed on March 1, 2021 at: <https://slidingthought.wordpress.com/2009/07/29/landslide-of-the-week-aldercrest-banyon-landslide/>.

⁵⁴ Alan F. Chleborad, *Modeling and Analysis of the 1949 Narrows Landslide, Tacoma, Washington* xxxi ENVIRONMENTAL AND ENGINEERING GEOSCIENCE 305 p. 305 (1994) last accessed on March 1, 2021 at: <https://pubs.geoscienceworld.org/aeg/eeg/article-abstract/xxxi/3/305/137520/modeling-and-analysis-of-the-1949-narrows?redirectedFrom=fulltext>. Environmental & Engineering Geoscience is a peer-reviewed journal. Environmental & Engineering Geoscience Complete Author Instructions p. 1 of 6 (May 8, 2012).

⁵⁵ Jeffrey R. Keaton, Joseph Wartman, Scott Anderson, Jean Benoit, John deLaChapelle, Robert Gilbert, David R. Montgomery, *The 22 March 2014 Oso Landslide, Snohomish County, Washington* p. 56 & p. 144 (Geotechnical Extreme Events Reconnaissance (GEER): July 22, 2014).

⁵⁶ Sean R. LaHusen, Alison R. Duvall, Adam M. Booth, and David R. Montgomery, *Surface roughness dating of long-runout landslides near Oso, Washington (USA), reveals persistent postglacial hillslope instability* GEOLOGY pp. *2 – 3, published online on 22 December 2015 as doi:10.1130/G37267.1; Geological Society of America (GSA) Data Repository 2016029, *Data repository for: Surface roughness dating of long-runout landslides near Oso, WA reveals persistent postglacial hillslope instability* p. 4. Geology is a peer-reviewed scientific journal. Geology – Prep webpage last accessed on Aug. 11, 2020 at: <http://www.geosociety.org/GSA/Publications/Journals/Geology/GSA/Pubs/geology/home.aspx#overview>.

landslides in the area near the Oso landslide is one landslide every 140 years.⁵⁷ The landslides ran out from 656 feet to the 6,561 feet of the 2014 landslide.⁵⁸ The 2013 Ledgewood-Bonair Landslide on Whidbey Island extended approximately 300 feet into Puget Sound.⁵⁹ In a study of shallow landslides along Puget Sound from Seattle to Everett, the average runout length was 197.5 feet (60.2 m) and the maximum runout length was 771 feet (235 m).⁶⁰ So only requiring development that is within 200 feet of a geological hazard as SCC 14.26.562(1) does will not adequately protect people and property. So we recommend that all construction, development, earth movement, clearing, drainage facilities, water diversions, or other site disturbance which may be adversely impacted by a geological hazard require a geological report and if necessary a geotechnical report.

The Joint SR 530 Landslide Commission recommends identifying “[c]ritical area buffer widths based on site specific geotechnical studies” as an “innovative development regulation[]” that counties and cities should adopt.⁶¹ So we recommend that all properties that may be adversely impacted by a geological hazard should have their buffers based on a critical areas report for that site. Construction should not be allowed in buffer areas. These standards are necessary to protect Skagit County families and their largest investment, their homes.

Thank you for considering our comments. If you require more information, please contact me at telephone 206-343-0681 Ext. 102 and email: tim@futurewise.org.

Very Truly Yours,



Tim Trohimovich, AICP
Director of Planning and Law

Enclosures via this Dropbox link:

https://www.dropbox.com/sh/hr5kxb0sitoxfk8/AAC_br6R66ByUaVpKScKOC8Ra?dl=0

⁵⁷ Sean R. LaHusen, Alison R. Duvall, Adam M. Booth, and David R. Montgomery, *Surface roughness dating of long-runout landslides near Oso, Washington (USA), reveals persistent postglacial hillslope instability* GEOLOGY p. *2, published online on 22 December 2015 as doi:10.1130/G37267.1.

⁵⁸ Geological Society of America (GSA) Data Repository 2016029, *Data repository for: Surface roughness dating of long-runout landslides near Oso, WA reveals persistent postglacial hillslope instability* p. 4.

⁵⁹ Stephen Slaughter, Isabelle Sarikhan, Michael Polenz, and Tim Walsh, *Quick Report for the Ledgewood-Bonair Landslide, Whidbey Island, Island County, Washington* pp. 3 – 4 (Washington State Department of Natural Resources, Division of Geology and Earth Resources: March 28, 2013) last accessed on March 1, 2021 at: http://www.dnr.wa.gov/publications/ger_qr_whidbey_island_landslide_2013.pdf.

⁶⁰ Edwin L. Harp, John A. Michael, and William T. Laprade, *Shallow-Landslide Hazard Map of Seattle, Washington* p. 17 (U.S. Geological Survey Open-File Report 2006–1139: 2006).

⁶¹ The SR 530 Landslide Commission, *Final Report* p. 31 (Dec. 15, 2014) last accessed on March 1, 2021 at: http://www.governor.wa.gov/sites/default/files/documents/SR530LC_Final_Report.pdf and at the Dropbox link in the email transmitting this letter with the filename: “SR530LC_Final_Report.pdf.”

Appendix A

Addressing Sea Level Rise in Shoreline Master Programs

Introduction

One widely accepted consequence of a changing climate is an increase in the rate of sea level rise (IPCC, 2007). Although there is scientific uncertainty about the precise amount of sea level rise by the end of this century, projections for Puget Sound range from 14 to 54 inches relative to year 2000 (Mauger et al, 2015). Rates could be higher or lower, depending on the rate of vertical land motion locally.

Sea level rise will have significant effects on both human and natural systems (Shipman, 2009), increasing the risk from coastal hazards and the pressure on shoreline resources. These effects present a serious challenge to shoreline planning and coastal management.



Figure A – 1: An unusually high tide in January 2010 caused water to spill over the seawall at Alki Beach in Seattle. Even modestly higher sea levels will cause the frequency of events such as this to increase, along with the potential for associated damage. (Photo by Hugh Shipman.)

The Shoreline Management Act (SMA) and the Shoreline Master Program (SMP) Guidelines contain no requirements for SMPs to address climate change or sea level rise. However, they require local jurisdictions to take into account scientific and technical information pertinent to shoreline management issues. The Guidelines require local governments use “the most current, accurate and complete scientific and technical information available” [WAC 173-26-201(2)(a)]. The Guidelines also encourage local governments to consult Ecology’s guidance for applicable new information on emerging topics such as sea level rise [WAC 173-26-090(1)].

Some local governments have already incorporated sea level rise considerations into their Comprehensive SMP updates. Ecology recommends local governments include SMPs into their broader planning framework for addressing rising seas. This SMP Handbook appendix presents background information on projected sea level rise in Washington State, potential impacts of sea level rise, and suggestions for local governments to address sea level rise in their SMP updates.

This appendix addresses only sea level rise, but climate change may also result in other environmental impacts that will affect shorelines and the ecosystems they support. Some anticipated effects of climate change include:

- Altered hydrological cycles that may affect flooding and water resources.
- Increased sediment in glacier-fed rivers that may result in increased aggradation, flooding and channel movement.
- Increased landslides, which may result in more sediment and wood inputs to streams, potentially increasing flooding, channel movement, and transport of wood to hazardous positions (Beason and Kennard, 2006).
- Changes in ocean chemistry driven by higher levels of atmospheric carbon dioxide that will impact marine ecosystems.
- The potential for invasive species to increase their ranges as the ocean warms.

More information about the anticipated effects of climate change on Washington’s coasts, as well as a number of other sectors such as water resources, endangered species, and human health, can be found at the University of Washington’s [Climate Impacts Group](#) website and Ecology’s [Climate Change](#) web pages.

Projected sea level rise in Washington State

When planning for sea level rise, it is helpful to understand the potential extent of sea level rise and the effects this will likely have on coastal areas in Washington State. Distinct regions of the Washington coast will experience different levels of sea level rise due to vertical land movement in those regions. This movement is driven primarily by tectonic forces such as those responsible for the formation of the Olympic Mountains. Western Washington is located on the edge of the North American continental plate, and as the Juan de Fuca oceanic plate moves underneath it a gradual uplift in the northwestern part of the state is produced.

Sea Level Rise in the Coastal Waters of Washington State, co-authored by the University of Washington’s Climate Impacts Group and Ecology, explains these variations and provides high,

Table A-1: Sea level rise projections

	Puget Sound	NW Olympic Peninsula	Central & Southern Outer Coast
2050	Low 3" Medium 6" High 22"	Low -5" Medium 0" High 14"	Low 1" Medium 5" High 18"
2100	Low 6" Medium 13" High 50"	Low -9" Medium 2" High 35"	Low 2" Medium 11" High 43"

Table A-1: Sea level change projections for 2050 and 2100 in Washington’s coastal regions. Note that the low projections for the NW Olympic Peninsula are negative values due to vertical land movement. Adapted From: *Sea Level Rise in the Coastal Waters of Washington State*.

medium, and low sea level change projection scenarios for three broad regions of Washington’s coasts. Table A- summarizes the report’s projections.

Environmental impacts of sea level rise

Sea level rise will have a variety of impacts on Washington state coastal areas. Increased sea level will allow high tides to reach farther into low-lying areas and higher against flood control structures such as dikes and tide gates. Coastal flooding will persist longer and will be more difficult to drain due to higher sea level. Higher water levels will result in faster rates of erosion on beaches and coastal bluffs (Shipman, 2009).

An important consequence of higher sea level will be increased frequency of high-tide flooding and the potential for storm damage. A rise in sea level of one foot might lead to as much as a ten-fold increase in the frequency of any particular flood event. This means that events that currently occur only once every decade may become annual events, increasing the severity and frequency of flood and storm-related damages to coastal development (Shipman, 2009). These events could pose an increasing threat to coastal development and infrastructure.

The prospect of more flooding, erosion, and storm damage may lead communities and property owners to seek to build seawalls, dikes, and tidal barriers. The construction and placement of these structures will have a direct and immediate impact on natural shoreline environments. These structures will also lead to the progressive loss of beach and marsh habitat as those areas are squeezed between the rising sea and a more intensively engineered shoreline. Predicted

decreases in size or transitions in tidal marshes, salt marshes, and tidal flats will affect the species these habitats support. It is predicted that while some species may be able to locate alternate habitats or food sources, others will not (Glick, 2007).

Shellfish, forage fish, shorebirds, and salmon are among those identified as examples of species at risk (Glick, 2007). Sea level rise will also lead to other changes in coastal ecosystems, such as shifting of stream mouths and tidal inlets, reconfigured estuaries and wetlands, and more frequently disturbed riparian zones.

Coastal landforms and impacts

The impacts of rising sea level will differ substantially between locations, based on landform (bluff, estuary, spit), the character of development (urban, agricultural, rural), and the capacity of the shoreline to adjust to changing conditions. Below is a list of areas particularly vulnerable or resilient to the impacts of sea level rise and anticipated impacts to these areas.

- Low-lying areas – river deltas, historically filled lands, spits and barrier beaches. These areas will experience more frequent and more persistent flooding and damage to infrastructure. In developed low lying areas, there will be an increased need for more robust dikes and drainage systems if the existing uses are to continue.
- Coastal bluffs. In general, sea level rise will result in higher erosion rates and greater instability of landslide prone areas. Demand for seawalls is expected to increase, as will the adverse effects of such structures on shoreline habitat and on erosion patterns on nearby beaches.
- Spits and other barrier beaches. These low-lying features will be subject to increased flooding during storms and high tides and in many situations will experience more rapid erosion.
- Tidal environments – beaches and tide flats. These areas are expected to experience additional inundation and either be lost or undergo conversion to another habitat type.
- Marshy shorelines found in small estuaries and river deltas. These areas will be subject to increased flooding and increased erosion. Loss of salt marsh and related habitats may be significant in systems constrained by surrounding development.
- Developed shorelines – ports, marinas, roads and railroads, urban and residential shorelines. Typically, these are heavily armored with seawalls and riprap. Their level of vulnerability may be largely a function of their elevation. Developed shorelines of all types in low-lying areas will be vulnerable to losses from erosion, storms, or flooding.
- Rocky shorelines. Fairly resilient to modest increases in sea level.

Addressing sea level rise in SMPs

In the absence of advance planning, human reaction to sea level rise will likely be driven by our incremental responses to damaging storms and floods, not by our desire to reduce the long-term impacts of a gradually rising sea. SMPs are among many planning measures that local governments may need to deploy to assure the wise development of coastal areas and the protection of public resources as sea level increases. Many potential problems associated with

sea level rise will intensify existing management challenges such as development in flood prone areas, construction of shoreline armoring, protection of beaches and salt marshes, and siting a variety of shoreline uses.

Local governments that are evaluating potential ways to adapt to or prepare for rising sea levels should consider how these plans may be reflected in their SMPs. The guidance below identifies different areas of SMP planning where sea level rise can be considered.

Shoreline jurisdiction

As sea level rises, the ordinary high water mark (OHWM) will move inland as well, altering the line from which shoreline jurisdiction is measured. Although the SMA does not specifically mention shifts in shoreline jurisdiction due to sea level rise, it does identify that the OHWM is located “as it may naturally change” [RCW 90.58.030 (2)(c)]. The location of the OHWM often changes, even without sea level rise, due to erosion, accretion, or shoreline modification.

Local governments may respond to new sea level rise projections or local data by updating shoreline jurisdiction maps. In some cases, this may call for adjustments to environment designations, policies, or regulations.

Public participation

Sea level rise has the potential to generate considerable interest among shoreline property owners and other interested citizens and organizations and can be incorporated into public participation activities. Local information could be presented to the public along with options for addressing sea level rise in the SMP update. Sea level rise adaptation should be part of most if not all public participation activities.

For example, the City of Olympia presented technical information to the public about the anticipated impacts of climate change to hydrologic regimes and area sea levels. The meeting closed with a presentation by city staff about the SMP update process and their plans to incorporate climate change adaptation into the update process. Providing this information during the early stages of the SMP allows local governments to alert interested parties about potential ways the draft SMP can address sea level rise or other climate change adaptation elements.

Shoreline inventory and characterization

The inventory and characterization provides an opportunity to identify shoreline areas that will be particularly vulnerable or resilient to rising sea level. One fairly straightforward way to characterize vulnerability is to classify the shoreline according to coastal landform. Landform types include coastal bluffs, marshes, rocky shorelines, and armored shorelines. Each type of landform will experience different long-term effects of rising sea level.

Once coastal landforms have been mapped, local governments can determine the level of vulnerability to sea level rise for the extent of the shoreline. This type of characterization does not require a precise estimate of the rate of sea level rise.

Some urban jurisdictions have used high resolution coastal topographic data to develop maps of low-lying areas subject to inundation by higher water levels. Such maps can be used to illustrate the consequences of different sea level scenarios and storm and tide combinations. This type of approach can be useful for identifying coastal areas subject to increased flooding and to help direct appropriate future land use or development types to appropriate locations. These maps and projections may be particularly helpful for guiding engineering questions, such as structural elevations, drainage requirements, construction techniques, and hazard mitigation measures.

Some local governments have already prepared a detailed analysis of sea level rise predictions and potential effects. These local products have been produced by academic researchers, independent consultants, and local government public works departments or other agencies responsible for stormwater or wastewater infrastructure. For an example of a detailed local analysis, view the City of Olympia's "[Sea Level Rise](#)" web page. Olympia's vulnerability assessment illustrates why a comprehensive assessment is needed – the areas subject to flooding at all projected sea level rates extend far beyond shoreline jurisdiction.

Public access

As part of the shoreline inventory and characterization, local governments identify existing physical and visual public access sites and opportunities. During this process, sites where sea level rise may pose a threat to public access can be identified. For example:

- Parks in low lying areas may be subject to increased flooding.
- Public tidelands may become inaccessible if shoreline armoring prevents the tidelands from migrating inland.
- Publicly accessible spits may be lost to erosion.
- Visual access sites along coastal bluffs may become hazardous due to landslides.

Local governments also may be able to identify opportunities to preserve or replace those sites. For example, consider expanding the upland reach of coastal parks to accommodate shifting shorelines in low lying areas, or planning for new public access sites in areas less vulnerable to flooding or erosion. Additional potential techniques for ensuring that public access is provided in the future include:

- Building public docks and piers that are more resilient to sea level rise.
- Removing shoreline armoring or moving it inland to allow the public to walk on the beach even as the sea level rises.
- Locating boardwalks or trails above the elevation of projected sea level rise.

Shoreline use analysis

In conducting the shoreline use analysis, take into account the effects of rising sea levels on existing and projected development. The use analysis estimates the future demand for shoreline space and identifies projected development trends and potential use conflicts. The objective is to ensure that shorelines are available for uses that are unique to or dependent on the shoreline. The

use analysis can be helpful in identifying developed and undeveloped areas that may be vulnerable to sea level rise.

Where possible, use analyses should build upon the inventory and characterization to project areas where future infrastructure will be necessary to address sea level rise impacts. This may include corridors along developed shorelines for new or expanded flood control structures, elevation of structures, or locations for pump stations and larger storm drainage facilities. These types of efforts will require detailed planning beyond the SMP and large public and private investments.

Goals, policies, and regulations

SMP goals, policies, and regulations can address sea level rise adaptation. These sea level rise provisions can help to create awareness of the impacts of sea level rise and other climate change effects among shoreline property owners and development proponents. Enhanced awareness of impacts may in turn result in project designs that incorporate measures to decrease the risk of flooding and storm damage to these developments as sea level rises.

Sea level rise adaptation can be incorporated into several different sections of the goals, policies, and regulations. Examples of goals and policies addressing sea level rise are provided below.

General policies

The King County SMP contains the following explanation and policies related to climate change.

F. Preparing for Climate Change

As discussed in Chapter 4 of the King County Comprehensive Plan, climate change has the potential for significant impacts on shorelines and shoreline habitats. Sea-level rise and storm surges may place at risk infrastructure, habitat restoration projects, and other development, including residential development. New development and maintenance or replacement of existing development should take into account the potential for harm that may result from sea-level rise (VII, Environment Protection Policies).

S-650 King County shall ensure that new projects for and major maintenance or replacement of utilities, roads, and other public infrastructure consider the impacts of sea-level rise in the location, design, and operation of the projects.

S-651 Habitat protection and restoration projects in the shoreline jurisdiction shall consider implications of sea-level rise and other climate change impacts to promote resiliency of habitats and species.

Shoreline use policies

Consideration of sea level rise can be incorporated into shoreline use goals and policies. Jefferson County's SMP contains the following shoreline use goal:

10. Encourage all use and development to address potential adverse effects of global climate change and sea level rise (Article 3, 7. Shoreline Use, B. Goals).

The City of Seattle's SMP call for strategies to balance shoreline uses with protection of ecological functions.

LUG52 Address and minimize the impacts of sea level rise on the shoreline environment with strategies that also protect shoreline ecological functions, allow water-dependent uses and provide public access (Shoreline protection and restoration).

Island County's SMP incorporates sea level rise in the shoreline use element.

II.D. 6. Sea level rise and increased frequency and magnitude of extreme storm events as a result of climate change should be taken into account when considering and evaluating shoreline uses.

Flood hazard policies

SMPs must address flood hazards and seek to reduce the damage caused by floods. Goals and policies addressing flood hazards are another opportunity to address sea level rise and the increased threat from flooding that will accompany it. The Jefferson County SMP provides an example of a policy designed to reduce future flooding from sea level rise:

2. Proponents of a development on no-bank or low bank marine shorelines are encouraged to locate the bottom of a structure's foundation higher than the level of expected future sea-level rise (Article 6, 4. Shoreline Setbacks and Height, A. Policies).

The City of Burien's SMP includes a sea level rise policy in the Flood Prevention element. This policy articulates the intention to incorporate updated sea level rise predictions in their future SMP updates and alter policies as needed:

Pol. FLD 4 - Monitor sea level rise and accordingly adjust development standards and building setbacks to minimize flooding potential (Chapter II, 20.20.045, Flood Prevention and Minimization Element).

Island County's flood hazard policies call for future sea level projections to be incorporated into site-specific development review to minimize flood damage.

V.C.6. When reviewing projects that could be affected by sea level rise, adjust development standards such as building setbacks or elevation as necessary to minimize potential damage from flooding.

Shoreline modifications policies

As sea level rises, some property owners may wish to install shoreline armoring. If there are particular sections of the shoreline where armoring is not appropriate and is prohibited, state this clearly in the shoreline modifications policies and regulations. Incorporate planning for sea level rise into permit conditions for shoreline modifications. Policies and regulations should recognize the role that shoreline erosion and accretion play in preserving ecological functions, and to encourage softer armoring techniques where appropriate.

King County's SMP encourages developers to consider sea level rise in projects along marine shorelines. This policy will help to prevent future unnecessary shoreline armoring.

S-778 King County should notify all prospective developers of new development along Vashon and Maury Islands that their development may be impacted by sea-level rise and should encourage all such new development to be set back a sufficient distance to avoid the need for shoreline protection during the expected life of the development (VIII, Shoreline Use and Shoreline Modification).

Development regulations

Shoreline buffers and setbacks are one way to ensure that future development is not threatened by sea level rise. Buffers and setbacks along with restrictive building standards near low lying or erosion prone shorelines will help reduce flooding and the need for shoreline armoring.

In intensely developed urbanized settings, the likely policy response to sea level rise will be to defend the existing developed area. In these locations, it might be appropriate to establish a setback to accommodate a future dike or elevated sea wall. The level of investment and intended life of the improvement are important considerations in addressing long-term sea level rise issues.

Environment designations

Environment designations should reflect the results of the inventory and characterization and take into account existing shoreline development. Undeveloped areas that are designated as "natural" will remain less developed and therefore less likely to contain infrastructure that may be damaged by storms or flooding exacerbated by sea level rise. These shorelines may also prove better able to shift and change in response to sea level rise than those in more highly developed areas. Environment designation regulations can also state where and what types of armoring are or are not acceptable.

Restoration plan

Developing a restoration plan provides an excellent opportunity to implement sea level rise adaptation measures. Restoration plans may identify restoration actions that improve resilience to sea level rise. Projects that protect and restore natural geomorphic processes such as erosion, sediment transport, tidal flooding, and marsh accretion are likely to be more successful than



Figure A -2: A high tide event at a restored beach in the City of Seattle. Restoration projects such as this pocket beach should be selected and designed in ways that accommodate rising sea levels. Photo by Hugh Shipman.

those that target the creation of historic habitat configurations that may be inundated or sustain increased flood damage due to sea level rise.

In addition, sea level rise predictions should be factored into restoration planning, perhaps including larger inland areas in restoration or habitat protection efforts to accommodate increasing inundation and to allow the shoreline to shift farther inland.

Jefferson County recognized the potential need to alter the restoration plan as the effects of sea level rise become more evident. The “Obstacles and Challenges” section of County’s Restoration Plan includes the following text:

Climate change: Rising temperatures and sea levels have the potential to dramatically alter Jefferson County’s shoreline jurisdiction, processes, and functions over time. Depending on the scale of change and time period over which changes occur, restoration priorities could shift substantially within a relatively short period of time.

Language such as this would allow local governments to alter their restoration plan over time to address emerging impacts from climate change.

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Comment 66

June 21, 2021

Skagit County Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273
Submitted electronically via
<https://www.skagitsmpopenhouse.com/submit-a-comment>

Re: Skagit County Shoreline Master Program Comprehensive Update and Periodic Review

Dear Skagit County PDS:

Please accept our public comment on the Skagit County Shoreline Master Program Comprehensive Update and Periodic Review (hereinafter "SMP").

The SMP presents an opportunity for the County to ensure the long-term resilience of Skagit's fragile shorelines, tidelands, unique estuarine habitats, communities and farmlands, even in the face of expected sea level rise.

The Legislative finding in the Shoreline Management Act, RCW 90.050, recognizes that ..." the shorelines of the state are among the most valuable and fragile of its natural resources... ." The finding's list of uses preferences are particularly important in Skagit, because under the Act, both Padilla Bay and Skagit Bay have been designated "shorelines of statewide significance."

We recognize that in some ways the draft SMP is an improvement on the current one and we thank you for the changes that better protect our shorelines. In some important respects, however, the draft fails to move the County forward in meeting foreseeable future challenges. This comment addresses items of particular concern to us. We consider each of these items as equally important to maintain healthy shorelines and protect ecological functions for Skagit's shorelines of statewide significance. Please ensure that the following changes are made to the SMP:

Prohibit new commercial net pens. The SMP must prohibit these net pens especially in light of the failure of net pens off Cypress Island in 2017 that released thousands of Atlantic Salmon. These released salmon were found swimming up the Skagit River as far east as Concrete even months after the net pen collapse. Mapes, Linda V. (December 12, 2018). Escaped Atlantic salmon found 42 miles up Skagit River. The Seattle Times.
<https://www.seattletimes.com/seattle-news/environment/escaped-atlantic-salmon-found-42-miles-up-skagit-river/>. (Accessed June 21, 2021). Finfish net pens introduce chemical and drug contaminants, concentrate contaminants, increase growth of algae, disrupt marine food webs and can pass along disease to wild native salmon. Fish from accidental releases can prey on forage fish and juvenile salmon and compete for food with wild salmon. The SMP must be revised to: 1.) amend Table 14.26.405-1,

Shoreline Use and Modifications Matrix for Aquaculture Net Pens from a Conditional Use (CU) to a prohibited (X) and 2.) amend 14.26.415(7), Net Pens, by striking the current language and replacing with: (a) New commercial net pen aquaculture operations to propagate non-native finfish or native finfish species in marine waters is prohibited.

Address sea level rise in the SMP. This critically important issue must not continue to be ignored in the County's SMP. The facts and data concerning sea level rise are widely known, understood, and accepted. The impacts are already being experienced during storm tides and surges. With increasing sea level rise, Skagit's shorelines will move upward and inland; wetlands and aquatic vegetation will likely migrate. Skagit County has been projected to experience sea level rise between 1½ and 2.1 feet by 2100. See, for example, Cauvel, Kimberly (July 31, 2018). Study shows 2 feet of sea level rise likely for Skagit by 2100. Skagit Valley Herald. https://www.goskagit.com/news/study-shows-2-feet-of-sea-level-rise-likely-for-skagit-by-2100/article_b5f0e8b4-593f-5384-9c05-6f628a438fc5.html (accessed 6/18/2021.) Ongoing global events may well result in even higher or faster rise.

The SMP must equip our County with a clear-eyed, candid plan for future impacts of sea level rise. The failure to adequately address this issue in the draft SMP would result in new residential building structures being subject to inundation. This would harm property owners and residents, public health, and infrastructure and require future expenditures of perhaps even billions of dollars to relocate people and structures. Additionally, it would damage forage fish and juvenile salmon habitat.

Instead, language must be included in the SMP applying the 2100 sea level rise predictions. New lots must be required to contain buildable areas outside the 2021 inundation zone and outside areas in which wetlands and aquatic vegetation will likely migrate during that time. For new lots that are sufficiently large enough to contain areas outside predicted 2100 inundation zones, there must be building setback requirements so that new buildings cannot be constructed on those lots within inundation areas or areas in which wetlands and aquatic vegetation will likely migrate. Provisions must require new and substantially improved structures to be elevated above the 2100 predicted sea level rise elevation over the useful life of these buildings. The setback requirement must last over the duration of the buildings' useful lives. (We note that this additional language as well as all in SMP 6C-15 relating to protection of shorelines, would better serve the urgency of the situation if stated in terms of requirements using "musts" rather than "shoulds.")

Without any reference in 6C-15.3(c) to sea level rise prediction and a requirement for residential buildings to be sustainable against sea level rise over their useful lifetimes, the current draft's admonition to avoid "future shoreline stabilization" methods could be rendered toothless. For example, if residential homes are planned for construction in an area subject to future sea level rise (as predicted), a permit might be issued now and then post construction a claim could be made pursuant to SMP 14.26.480(2)(a) (based on current studies and data) raising a significant

possibility that sea level rise might cause damage “within three years” or more immediately. The county would then allow the addition of shoreline stabilization structures. This loophole must be closed in the final SMP to protect shoreline ecological functions, beaches, tidelands, marine species and estuarine wetlands.

The failure to to plan sensibly now to adequately address the ongoing, predicted sea level rise would will only create larger problems later and needlessly put communities and Skagit’s shorelines of statewide significance in peril, undermining the intent of the Act.

Factor in sea level rise to strengthen agricultural land provisions.

Sea level rise along with changes in precipitation and temperature are predicted to impact a significant area of low elevation agricultural lands. These lands will be subject to inundation and river flooding. For example, Rising Sea Levels. Skagit Climate Science Consortium (2015).

<http://www.skagitclimatescience.org/skagit-impacts/sea-level-rise/>

(accessed June 21, 2021). Adding new dikes and filling to create new farmlands will only subject such newly created lands to the adverse impacts of sea level rise while destroying critically important tidelands, tidal marshes and associated wetlands. Defending new low lying farmlands will be costly and ultimately futile. Yet section 6C- 1.1 (d) of the draft only notes that “creation of new agricultural lands by diking or filling of tidelands, tidal marshes and associated wetlands ...*should be discouraged.*” (Emphasis added.) Instead, diking and filling to create new farmlands in low lying areas must be prohibited.

Revise residential hard armoring sections and reclassify boulders.

The SMP draft’s stabilization structures sections need revision to avoid exacerbating the problems arising from the draft’s failure to address sea level rise. It is well known that shoreline armoring harms nearshore habitat and destroys prey food of juvenile salmon and marine birds.

As discussed in the example given above, as currently written, SMP draft 14.26.480(2)(a) creates a loophole for construction in areas currently within the sea level rise predictions to allow shoreline stabilization structures post permitting and construction. To close this loophole, the draft should be worded to make it applicable only to residences that exist as of the date the SMP is adopted.

14.26.480 (1)(a)(ii) includes boulders within the definition of “soft armoring.” Instead, they should be included as hard armoring because they have hard solid surfaces and their use can have the same harmful effects as bulkheads. Additionally their use fits within the provisions for “hard structural stabilizing measures” in 14.26.480 (4)(b)(i) and (ii)(B).

Establish and defend adequate riparian buffers. The sections concerning riparian buffers need to be strengthened. Particularly in a warming climate and hotter years,

it is essential to preserve riparian buffers to provide shade and cooler water temperatures for vulnerable salmonids. These buffers also work to stabilize banks, retain runoff during peak flows, provide detritus for aquatic insects, and filter toxins before they reach streams. They provide valuable habitat for birds and amphibians, and resting and rearing places for mammals like river otter and beaver. To protect ecological functions, buffers must be as wide as a mature tree. In light of the critical need to meet the challenges of a warming climate and what is known about the importance of buffers to salmon, drafters should carefully consider whether continuing to allow timber harvest in riparian buffers is still appropriate or whether section 14.26.574 needs to be more restrictive. Based on the urgent need to protect riparian buffers going forward, the Shoreline Variance provision, 14.26.735(a), should not allow administrative variances to reduce riparian buffers by 50%. Buffer widths should not be allowed to be decreased, 14.26.534, under any circumstances.

Thank you for your careful consideration of our comments on the SMP.

Sincerely,
Mary Ruth and Phillip Holder
201 S. 7th St.
Mount Vernon, WA 98274
Ph: (360) 336-1908
Email: mruthholder@gmail.com

Comment 68

Skagit County Drainage and
Irrigation District Consortium, LLC
2017 Continental Place, Suite 4
Mount Vernon, WA 98273

Skagit County Dike District No. 17
P.O. Box 2926
Mount Vernon, WA 98273

June 21, 2021

Sent via e-filing

Skagit County Planning & Development
Mr. Hal Hart, AICP, Director
Ms. Betsy Stevenson, AICP, Senior Planner, Team Supervisor
1800 Continental Place
Mount Vernon, WA 98273

Skagit County Planning Commission
1800 Continental Place
Mount Vernon, WA 98273

Re: Comments, Skagit County Shoreline Master Program Comprehensive Update and Periodic Review

Dear Mr. Hart, Ms. Stevenson, and Members of the Skagit County Planning Commission:

This is written on behalf of the Skagit County Drainage and Irrigation District Consortium, LLC, a Washington limited liability company, comprised of twelve dike, drainage, and irrigation improvement Special Purpose Districts in Skagit County (“Consortium”) and Skagit County Dike District No. 17, also a Special Purpose District (“Dike District No. 17”). The Consortium and Dike District No. 17 have reviewed the Skagit County Shoreline Master Program public review draft (“SMP”) and its effect on their obligation to protect the people, property, and infrastructure in their respective districts as well as in the greater Skagit County community. Please accept the following comments in response to the proposed SMP. We ask that our comments be included in the record and considered in the public hearing as the current, official position of the Consortium, and that of each of its Member Special Purpose Districts, together with Dike District No. 17.

Background.

The Consortium, formed on December 19, 2018, is comprised of the following twelve Skagit County Special Purpose Districts:

- Dike District 3
- Dike, Drainage, and Irrigation Improvement District 5
- Dike District, Drainage, and Irrigation Improvement District 12

- Drainage and Irrigating Improvement District 14
- Drainage and Irrigating Improvement District 15
- Drainage and Irrigating Improvement District 16
- Drainage and Irrigation Improvement District 17
- Drainage and Irrigating Improvement District 18
- Drainage and Irrigating Improvement District 19
- Drainage and Irrigating Improvement District 22
- Consolidated Dike, Drainage, and Irrigation Improvement District 22
- Dike, Drainage and Irrigation Improvement District 25

Each of the Consortium’s Member Districts, as well as Dike District No. 17, are Washington Special Purpose Districts with a long history in Skagit County, all having been authorized and formed pursuant to state law. Collectively we serve and protect approximately 60,000 acres of prime farmland, residential, light industrial, commercial development, infrastructure, medical facilities and city and county improvements with an assessed property value of over four billion dollars with billions of additional dollars invested in dike, levee, and drainage infrastructure.

We are both obligated and committed to sustain our county’s dike and levee protection. In addition, we work independently, as well as collectively, on a number of land (including shoreline) and water use policies, always striving for improved environmental quality and enhanced improvements. We also proactively work with Skagit County and the Dike District Partnership to develop Natural Hazard Mitigation Plans and plan for future development changes so as to reduce the risk from natural hazards, including that of flooding. It is through this lens that we have reviewed and considered the SMP.

Comments to the SMP

The Consortium, its Member Districts, and Dike District No. 17 submit the following comments with respect to the SMP:

1. About this Document, Goals and Policies of the Shoreline Master Program. In addition to balancing development, public access, and shoreline protection we submit there are additional considerations to balance, including those obligations the Special Purpose Districts owe to those residing and/or owning property and improvements within our Districts, particularly relating to the protection of people, property, and infrastructure. We request that the SMP’s opening recital include a statement that the SMP also balances the management of flood protection and control as well as drainage.

2. Section 6B-4. Rural Conservancy. The definition of Rural Conservancy together with the supporting maps depicting the shoreline designation should include those locations in which the Rural Conservancy designation extends landward of existing dikes, levees, and tidegates. These areas are reflected in the attached annotated maps, incorporated herein by this reference. As noted in the attached maps, the areas landward of existing tidegates are managed by Special Purpose Districts and should not be mapped as a shoreline. In other instances, areas have

been restored and the area's classification has changed to natural. Specifically, these restored areas, from east to west, include Fisher Slough, Wiley Slough, and Fir Island Farm.

The mapped Rural Conservancy boundaries should also specify whether dikes, levees, and tidegates fall within the shoreline designation or, alternatively, whether they fall outside of the shoreline designation. If the shoreline designation is intended to include a footprint of the existing dikes, levees, and tidegates, there should be a clear statement that the inspection and routine maintenance of the existing dikes, levees, and drainage infrastructure are exempt from the SMP. Also, dike, levee, and drainage infrastructure repair and restoration, and certainly all flood fighting activities, should also be exempt from the SMP.

3. 14.26.350 Flood Hazard Reduction.

(1) Applicability. The Applicability Section of 14.26.350 is in need of additional clarification and certainty relating to flood hazard reduction. The following details and exemptions should be included in Section 14.26.350:

- i. The use of tidegates as a specific hazard reduction measure;
- ii. The exemption of inspection, maintenance, repair, and restoration of structural measures;
- iii. The exemption of existing marine dikes operated and maintained by Special Districts
- iv. The exemption of those levees that are enrolled in the PL84-99 Program; and
- v. An affirmative statement should be included stating the Special Purpose Districts have the authority to engage, undertake, and complete actions and work needed to prevent and reduce flood damage and hazard reduction measures.

(2) Application Requirements. Section 14.26.350(2) should clearly distinguish and address the difference between "new" and "existing" reduction measures in order to maintain Skagit County's dike and levee system viability repair, maintenance, and restoration. Seepage berms, erosion protection, dike leveling, dike and levee restoration and maintenance, and other similar measures to reduce flood risk should be defined as "existing" work, not falling within the scope of the SMP. These flood risk reduction measures are subject to the respective Special District requirements and that of the Army Corps of Engineers and should not also fall within the SMP.

(3) Development Standards. Is the Skagit County Code reference set forth in Section 14.26.350(3)(d) intended to reference SCC 14.26.370 rather than .360? With respect to the substance of Section 14.26.350(3) we are very concerned about the consequences of requiring public access to new public structural flood hazard reduction measures, including dikes and levees

as provided for in Section 14.26.350(3)(b). Eighty percent of the land on which our dikes and levees are constructed is owned by private landowners. Understandably, private landowners are very likely to be opposed to providing public access to their land. Public access triggers additional maintenance obligations for the landowner together with additional risk and liability. As with private landowners, the Special Purpose Districts would also incur risk and liability should public access be permitted to the land that they own – purchased and maintained at the expense of those that own property within their Member Districts. Restricted access also provides partnership opportunities that would not otherwise be possible, for example the setback levees constructed in Special Purpose Districts No. 3 (SF Dike Setback), District No. 3 (Fisher Slough) and consolidated Dike District No. 22, (Fir Island) are partnering together on habitat restoration and levee setback opportunities. This valuable work would not be possible if the access were open to the public.

With respect to subsection (e) of Section 14.26.350, each of the drainage Member Districts of the Consortium have pragmatic permits for dredging work and currently obtain shoreline exemptions for this work. Section 14.26.350(3)(e) should include a specific exemption for such work.

4. Flood Fighting Exemption. The SMP should include a specific exemption providing that all flood fighting activities are exempt from the scope of the SMP. Such activities are essential to flood control and flood protection. The Member Districts and Dike District No. 17 have statutory powers, and obligations, to undertake such activity for the protection of our community. Working with the Army Corps of Engineers, it is imperative that the Dike Districts have the ability to safely carry out flood fighting measures and activities.

Conclusion.


In summary, we ask that the Skagit County Planning & Development Services and the Skagit County Planning Commission adopt and include in the SMP the comments set forth in this letter. The Consortium, its Member Districts, and Dike District No. 17 protect major population centers and critical infrastructure in Skagit County. They are responsible for the operation and maintenance of levees protecting the cities of Burlington, Mount Vernon, and La Conner, Interstate 5, medical facilities, governmental agencies, infrastructure, BNSF, major oil and gas pipelines, and the water intake for the city of Anacortes, which also serves Naval Air Station Whidbey Island and several major west coast refineries. Flood risk reduction, including the inspection, maintenance, repair, and restoration of existing dikes/levees and drainage infrastructure, is critical for our community. We ask that these measures be considered and balanced with the other objectives of the SMP.


Thank you for your consideration. Should you have any questions or comments with respect to our collective comments, please do not hesitate to contact us.

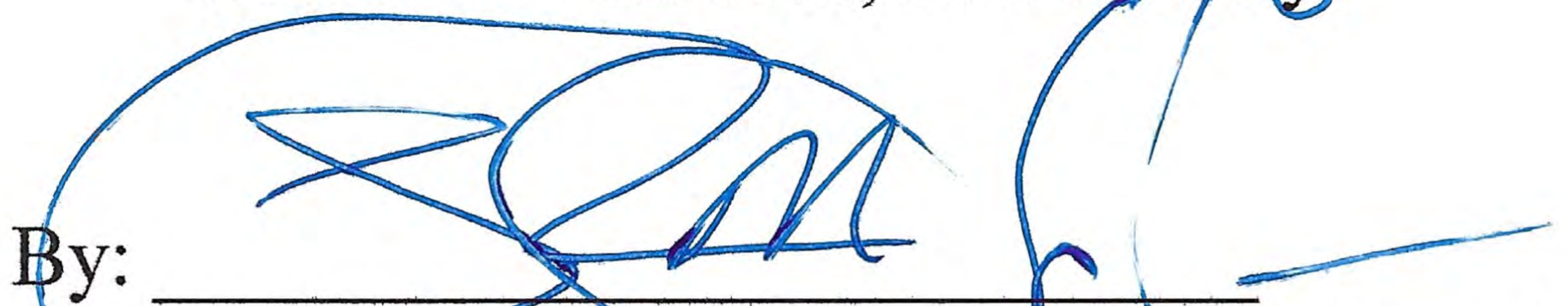
Sincerely,

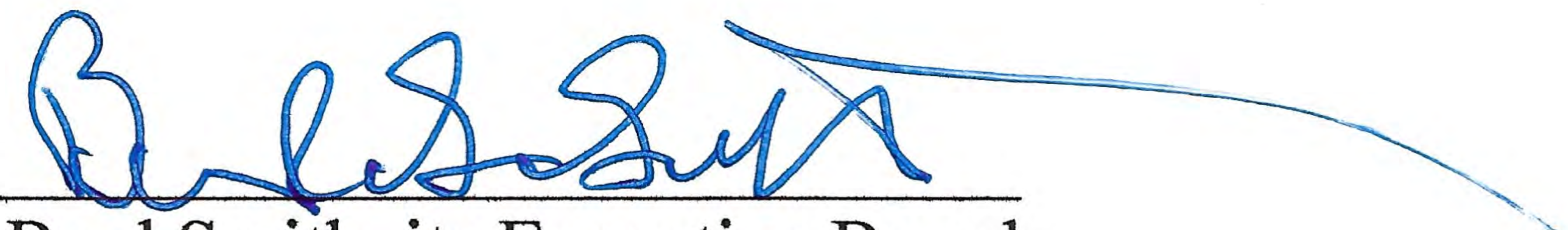
SKAGIT COUNTY DRAINAGE AND
IRRIGATION DISTRICT CONSORTIUM, LLC

By: 
John Wolden, its Chair

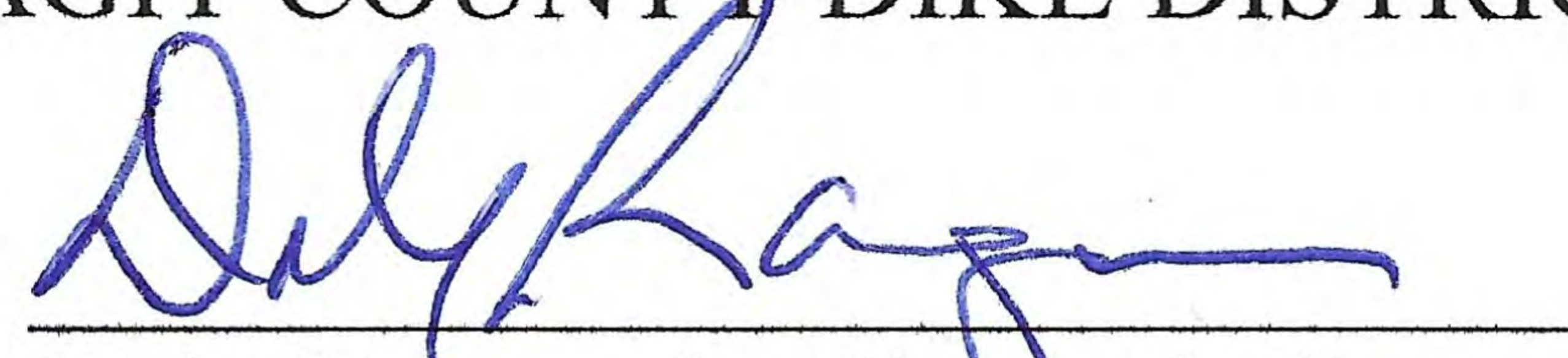
By: 
William M. Roozen, its Secretary


By: 
Norman Hoffman, its Vice-Chair

By: 
Steven Sakuma, its Executive Board
Member

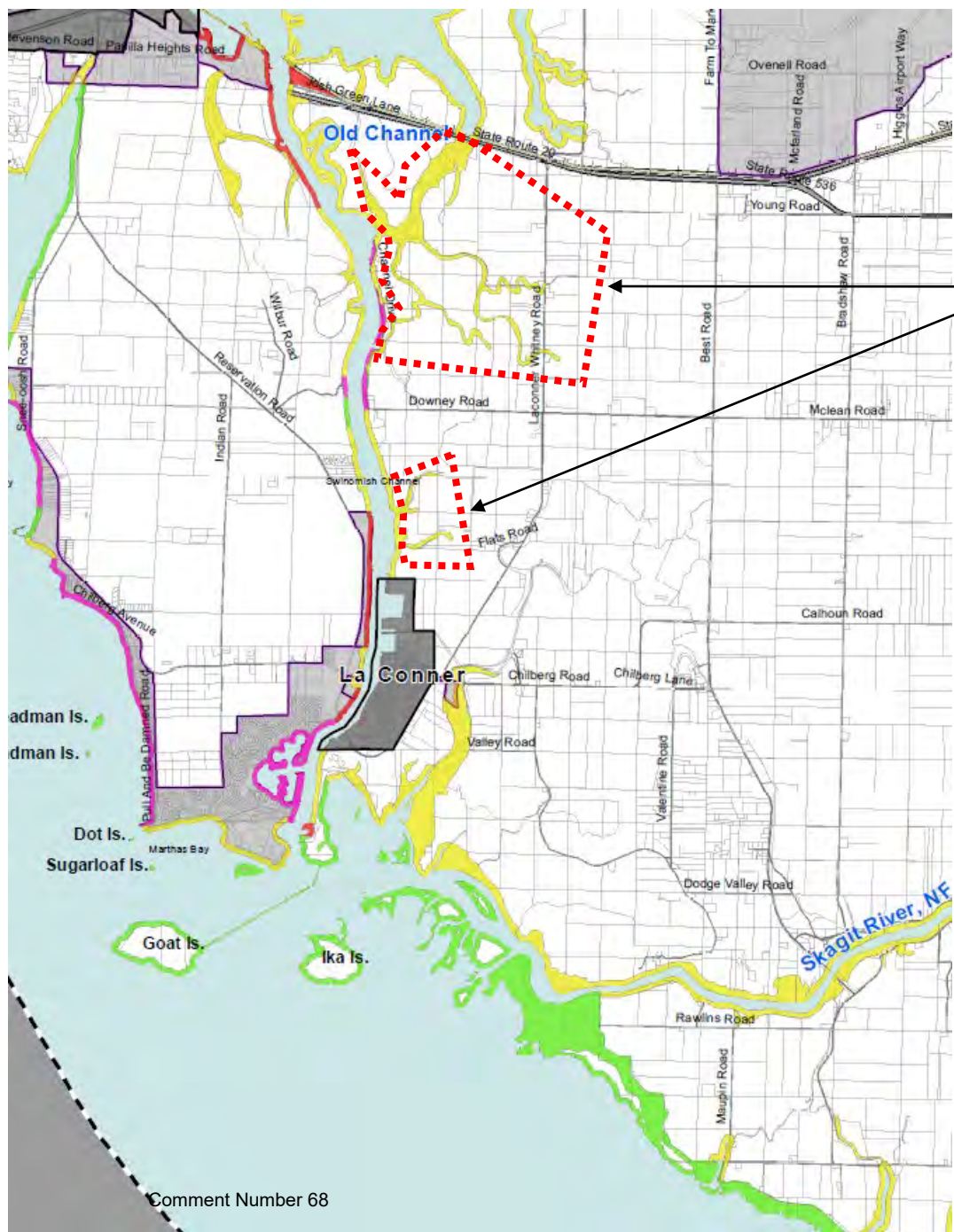
By: 
Brad Smith, its Executive Board
Member

SKAGIT COUNTY DIKE DISTRICT NO. 17

By: 
Dale Ragan, its Commissioner

By: 
Jeff Kaptein, its Commissioner

By: _____
Ryan Knight, its Commissioner



These areas are landward of existing tidegates and are managed by the drainage district and should not be mapped as a shoreline.

MAPa.



SKAGIT COUNTY SHORELINE MASTER PROGRAM

UPDATE

SKAGIT COUNTY SHORELINE MASTER PROGRAM

DRAFT

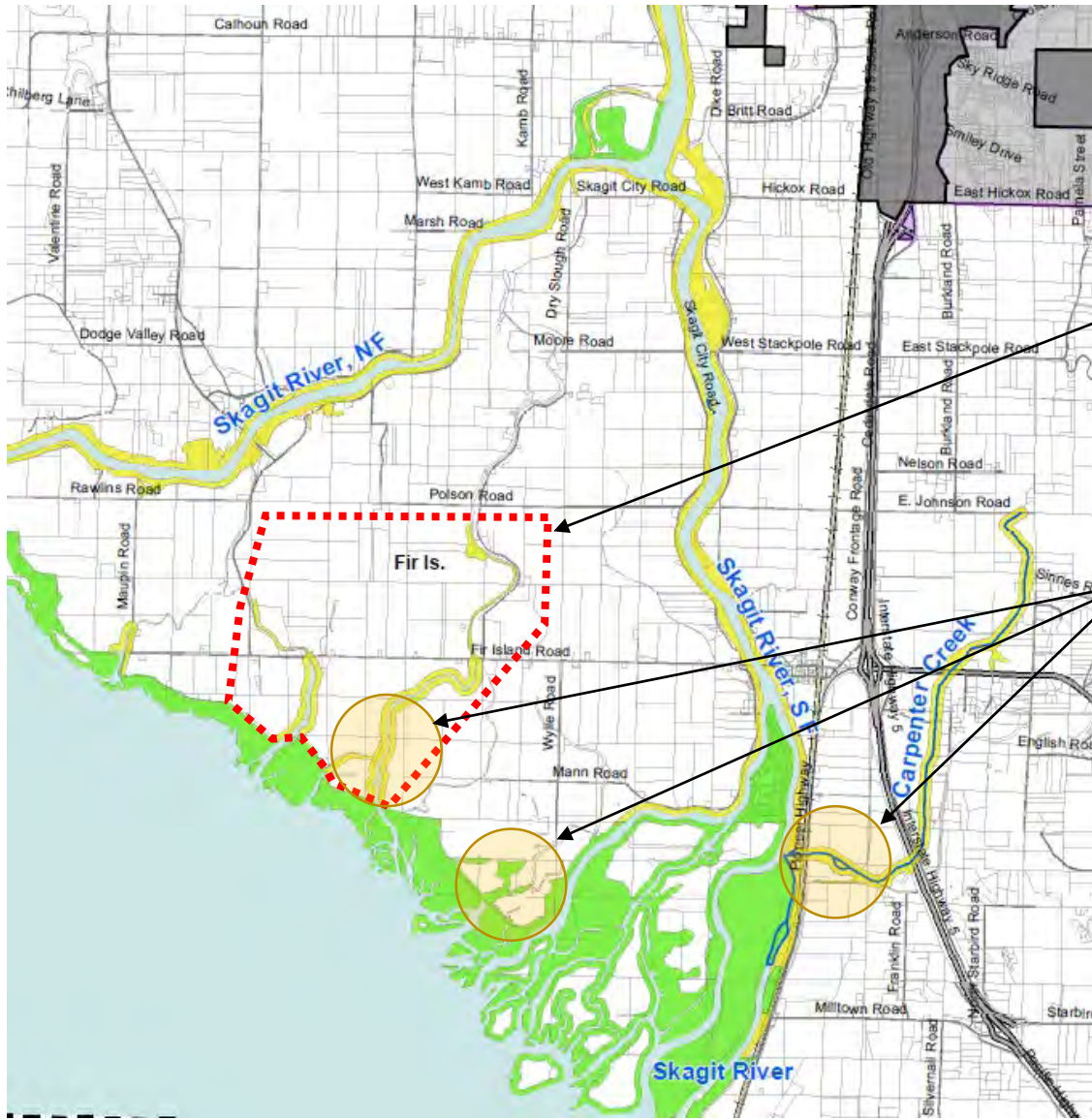
MAP LEGEND

Environment Designation*

- High Intensity
- Natural
- Rural Conservancy
- Rural Conservancy - Skagit Floodway
- Shoreline Residential
- Urban Conservancy
- City Boundaries
- UGA Boundaries

* Refer to Proposed Environment Designation Process document for details.

Note:
All areas waterward of the Ordinary High Water Mark (OHWM) have an Aquatic designation.



These areas are landward of existing tidegates and are managed by the drainage district and should not be mapped as a shoreline.

These areas have been restored and should be updated to natural; from east to west: Fisher Slough, Wiley Slough, Fir Island Farm

MAP a.



SKAGIT COUNTY SHORELINE MASTER PROGRAM

UPDATE

SKAGIT COUNTY SHORELINE MASTER PROGRAM

DRAFT

MAP LEGEND

Environment Designation*

- High Intensity
- Natural
- Rural Conservancy
- Rural Conservancy - Skagit Floodway
- Shoreline Residential
- Urban Conservancy
- City Boundaries
- ▭ UGA Boundaries

* Refer to Proposed Environment Designation Process document for details.

Note:
All areas waterward of the Ordinary High Water Mark (OHWM) have an Aquatic designation.

Comment 69

June 22, 2021

Shoreline Master Program Comments

Thank you for the opportunity to comment on the Shoreline Master Program (SMP). Agriculture and natural landscapes run hand in hand with each other. It is sometimes hard to tell where one ends and the other begins. Programs like the SMP need to be careful to implement policies to protect the environment while also protecting our agricultural economy.

Section 6B-4. Rural Conservancy

The maps showing the areas of shoreline are not accurate to actual practice. There are areas on Fir Island as well as the north and west of Downey Road and La-Conner Whitney Rd that are shown to possess shorelines. These areas are landward of existing tide gates and other flood control devices and therefore would not fall under shoreline rules. Additionally, areas of recent restoration work area not depicted correctly meaning the maps need updating.

Chapter 14.26.350 Flood Hazard Reduction

Maintenance and repairs of flood control devices (dikes, levees, tide gates, pumps, etc.) are vital to the economic wellbeing of the region. This chapter should explicitly allow for maintenance and repairs of flood control devices.

Public access should not be allowed to the flood control areas. These structures run along and on top of private property, not available for public use. Public access to these areas also would hamper agricultural activities, as many normal practices need to be halted if bystanders are too close. Public access also increases the odds of trash being discarded along with human waste, which creates a food safety problem and issues for farmers taking their produce to market.

Additionally, during emergency events, public access would be a dangerous scenario for the public as well as the workers. High waters are dangerous enough, additional bystanders would make this much worse.

In closing, the maps of shoreline locations needs to be evaluated in the agricultural zone to reflect the practices in the area. Drainage and irrigation ditches should not be included in shoreline planning. Additionally, recent restoration work should be noted and classified properly. Second, flood control devices should be explicitly exempted for maintenance and repair work. These projects are vital for human life and property safety. The flood control devices are only for those purposes. Public access can be detrimental to the structures themselves and to neighboring properties, therefore public access should be excluded.

Thank you for taking these comments into consideration,

A handwritten signature in black ink that reads "Michael Hughes". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Michael Hughes
Chair, Skagit County Agricultural Board

Comment 70

June 22, 2021

Skagit County Shoreline Master Program
Comprehensive Update & Periodic Review
Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

Re: Skagit County Shoreline Master Program Comprehensive Update and Periodic Review

Dear Director Hart:

We are writing on behalf of Skagit Audubon Society to comment on Skagit County's *Shoreline Master Program Comprehensive Update and Periodic Review* (SMP). Our organization's 379 members share an interest in the protection and restoration of birds, other wildlife, and the habitat they require. The provisions of the Shoreline Management Act support our interests, and we favor a Shoreline Master Program which rigorously complies with both the letter and the intent of the act.

We appreciate your attention to the following comments.

Climate change and sea level rise

Extensive research by the National Audubon Society, of which our organization is a chapter, has shown climate change to be the most serious threat to birds. Habitat loss due to development has long been detrimental to bird populations. Climate change is accelerating that loss as the essential habitat characteristics needed by each species change beyond their ability to adapt. In reviewing the SMP we were struck by the absence of attention to climate change and, especially in this context, to the sea level rise predicted to continue as the climate warms.

Particularly in winter, Skagit County provides essential habitat for large populations of waterfowl, seabirds, and shorebirds. As sea level rises, wetlands that are waterward of dikes and which provide very important bird habitat, will be destroyed and will be unable to migrate inland because of the dikes. These wetlands are essential for other wildlife too, including rare and endangered species such as Chinook and Steelhead. The SMP needs to address sea level rise for this as well as for many reasons related to human use of the shore.

Hard armoring needs to be more strictly limited.

Hard armoring along Salish Sea shorelines has ruined many spawning beaches formerly used by Pacific smelt and sand lance. These forage fish are essential in the diets of many seabirds that winter here as well as being important for salmon, other fish, and marine mammals. As is well known, the decline of forage fish and the many fish, birds, and mammals dependent on them has broad implications for the marine environment, for cultures, and for the economy.

If the SMP is to truly meet the stated standard of No Net Loss of Ecological Function, preventing additional shoreline armoring and removing existing armoring as quickly as possible are essential. We urge you to embody this more energetic approach in the SMP rather than the rather lenient treatment of shoreline armoring presently in the draft.

We endorse the comments submitted by Skagit Land Trust and by Evergreen Islands et al. We have had the opportunity to review the SMP comment letters submitted by Skagit Land Trust and by Evergreen Islands et al. The points those letters make concerning the importance of addressing sea level rise and the need for stringent policies concerning hard armoring of shorelines, timber harvest in buffers, and other matters address our concerns well. We support both comment letters in their entirety as well as the text changes described in "Attachment A, Table of Recommended Revisions" submitted by Evergreen Islands et al.

We appreciate your attention to our concerns. You can reach Skagit Audubon Society at P.O. Box 1101, Mount Vernon, WA 98273 or conservation@skagitaudubon.org.

Sincerely,



Jeff Osmundson
President
Skagit Audubon Society



Timothy Manns
Conservation Chair
Skagit Audubon Society

Comment 72

**MT. BAKER GROUP
WASHINGTON STATE CHAPTER SIERRA CLUB**



Chair

Rick Eggerth

Vice-Chair

Susan Kane-Ronning

Secretary

Lynn Colson

Treasurer

Ron Colson

At Large

Judith Akins/Mike Sennett

mtbaker@washington.sierraclub.org

June 22, 2021

By Web Portal

Skagit County Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

Re: Skagit County Shoreline Master Program Comprehensive Update & Periodic Review – Joinder in Combined Comments of Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Advisory Committee

Dear Skagit County PDS:

The Mt. Baker Group (MBG) of Sierra Club's Washington State Chapter represents over 3,000 members, and thousands more supporters, in Whatcom, San Juan and Skagit counties. MBG agrees with, joins into, and adopts as its own the combined comments as to Skagit County's SMP Comprehensive Update and Periodic Review in the June 16, 2021 letter and attachments to Skagit County PDS by Evergreen Islands, Washington Environmental Council, RE Sources, and Guemes Island Planning Committee.

Thank you.

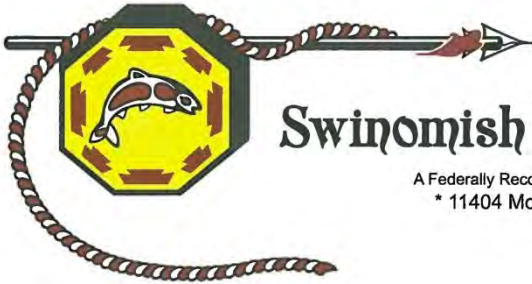
Sincerely,

/s/

Rick Eggerth

Chair, Mt. Baker Group Executive Committee

Comment 73



Main Office: 360.466.3163
Facsimile: 360.466.5309

Swinomish Indian Tribal Community

A Federally Recognized Indian Tribe Organized Pursuant to 25 U.S.C. § 476
* 11404 Moorage Way * La Conner, Washington 98257 *



June 22, 2021

Skagit County Planning and Development Services
Hal Hart, Director
Shoreline Master Program Comprehensive Update & Periodic Review
1800 Continental Place
Mount Vernon, WA 98273

Dear Hal:

Please accept the following comments on Skagit County's Draft Shoreline Master Program ("SC SMP") on behalf of the Swinomish Indian Tribal Community ("SITC," "Swinomish" or the "Tribe") and the Skagit River System Cooperative ("SRSC"). Swinomish and SRSC appreciate the work invested in this effort by many individuals in the Skagit County ("County") government and in the larger community. However, Swinomish and SRSC have many concerns with the SC SMP and supporting analyses, including those set forth below and thus do not believe that the SC SMP in its current form meets either the letter or spirit of the Shoreline Management Act and implementing regulations. These concerns are in addition to those previously articulated by Swinomish and the Skagit River Systems Cooperative at earlier junctures in the County's SMP development process, and those comments are incorporated by reference.

I. Background

A. The Swinomish Tribe

The Swinomish Indian Tribal Community is "a community of Coast Salish peoples that descended from tribes and bands that originally lived in the Skagit Valley and Samish River Valley, the coastal areas surrounding Skagit, Padilla, and Fidalgo bays, Saratoga Passage, and numerous islands including Fidalgo, Camano, Whidbey, and the San Juan Islands."¹ The area affected by the SC SMP is located within the Swinomish Tribe's social, familial, ancestral, and treaty lands and waters based on Swinomish traditional history and cultural and historical affiliation. These lands and waters are an elemental part of the Swinomish traditional, cultural,

¹ Swinomish Indian Tribal Community, "The Swinomish People," <https://swinomish-nsn.gov/who-we-are/the-swinomish-people.aspx>.

emotional, and sacred land/waterscape. As Swinomish has stated repeatedly, our natural resource interests are also part of and inextricably linked to the Tribe’s cultural resources. In order for the Tribe to continue its cultural practices, natural resources throughout the Skagit River basin and coastal areas affected by the SC SMP must be fully understood, honored, protected, and restored.

The Swinomish Tribe is a federally recognized Indian tribe and present-day successor in interest to certain tribes and bands that signed the 1855 Treaty of Point Elliott (“Treaty”) with the United States.² Among the rights reserved by the Tribe in this Treaty are various fishing, hunting and gathering rights.³ The Swinomish Reservation is located on Fidalgo Island in Skagit County, Washington, at the mouth of the Skagit River. Since time immemorial, the Swinomish Tribe and its predecessors have occupied and utilized vast areas of land and water in northern Puget Sound to support the Swinomish way of life.

Fish and fish habitat are crucial to the cultural, spiritual, subsistence and commercial activities of the Swinomish Tribe, and the Tribe exercises Treaty-reserved fishing rights in our “usual and accustomed” fishing areas (U&As), which include an extensive portion of marine waters of the Salish Sea in the northern Puget Sound, the entirety of the Skagit River and its tributaries, and the Samish River system.⁴ The Tribe’s Treaty-protected hunting and gathering rights also extend throughout the Skagit River basin and coastal areas affected by the SC SMP, among other places.

B. The Skagit River System Cooperative

The Skagit River System Cooperative (SRSC) provides natural resource management and technical services for the Sauk-Suiattle Indian Tribe and the Swinomish Indian Tribal Community. On behalf of these two sovereign nations, SRSC works to actively improve fisheries management within their usual and accustomed fishing areas. These areas include the Skagit and Samish River basins, and were ceded to the United States through treaties signed in 1855. Fisheries management carried out by SRSC includes harvest and hatchery management, research, environmental review, habitat restoration, and a range of other activities.

C. The Shoreline Management Act in Context

The State of Washington’s Shoreline Management Act (Act), RCW 90.58, provides a statewide framework for managing and protecting state shorelines, which includes adjacent shorelands.⁵ Under the Act, local governments such as the County are tasked with developing local shoreline

² Treaty of Point Elliot, Jan. 22, 1855, 12 Stat. 927 (1859).

³ *Id.* Article 5 provides, in part, that “[t]he right of taking fish at usual and accustomed grounds and stations is further secured to said Indians, in common with citizens of the Territory, and of erecting temporary houses for the purposes of curing ...”

⁴ See, *United States v. Washington*, 384 F. Supp 312 (W.D. Wash. 1974)(the “Boldt decision”); *United States v. Washington*, 459 F. Supp. 1020 (W.D. Wash. 1978)(Swinomish usual & accustomed fishing places). The term “fish,” as used here and throughout these comments (unless the context suggests otherwise) is understood to include all species of fish, including shellfish. See also, *United States v. Washington*, 873 F. Supp. 1422 (W.D. Wash. 1994)(the “Rafeedie decision”).

⁵ RCW 90.58.020, .030.

master programs (SMPs); SMPs are subject to the approval of the Washington State Department of Ecology (“Ecology”). While the State legislature recognized that “the shorelines of the state are among the most valuable and fragile of its natural resources,” the Act on its face nonetheless excepts certain categories of uses on private property from its various requirements. The Act, of course, is a creature of state law. As such, while it can constrain local governments’ management options, it cannot confer authority on its political subdivisions beyond that which the State itself possesses. Similarly, it cannot transfer rights to private property owners of greater scope than those which the State is authorized to give.

Among other sources of law, the State’s authority in this respect is constrained by the treaties entered into between the tribes and the United States. As the United States Supreme Court held in *U.S. v. Winans*, the treaties are “not a grant of rights to the Indians, but a grant of rights *from* them, – a reservation of those not granted.”⁶ Subsequent federal courts have gone on to elaborate various facets of tribes’ fishing rights reserved by means of the Treaty of Point Elliott and the other similar treaties.⁷ Among these is the recognition that “neither the treaty Indians nor the state ... may permit the subject matter of these treaties to be destroyed.”⁸ To this end, we note that it is in the statewide interest to ensure that local governments do not undermine the State’s ability to fulfill this obligation.⁹

While this discussion is not intended to be exhaustive, it provides important context for considering the Act and the SC SMP. Importantly, the Act cannot authorize exceptions to nor incursions upon the Tribe’s Treaty-reserved rights. By offering these comments on the SC SMP and within the framework of the Act, the Swinomish Tribe should not be taken to suggest that it views the Act as appropriately discharging the State’s responsibilities under the Treaty, nor that it agrees, for example, with the relevant temporal baselines applied under the Act to assess the “net loss” of shoreline ecological functions and processes.

D. The Swinomish Tribe’s Sovereign Status and Unique Expertise

The Swinomish Tribe is a guardian of the Skagit River basin and coastal areas and a leader in advancing habitat recovery and scientific understanding of the freshwater and saltwater

⁶ *U.S. v. Winans*, 198 U.S. 381 (1905)(interpreting fishing rights the Yakama Nation had reserved in another of the “Stevens” treaties, in a nearly identical provision to Article V of the Treaty of Point Elliott).

⁷ See, *United States v. Washington*, 384 F. Supp 312 (W.D. Wash. 1974) and various subproceedings since.

⁸ *United States v. Washington*, 520 F.2d 676, 685 (9th Cir. 1975).

⁹ The Skagit County’s Assistant Prosecutor recently suggested that the County understands the obligation to uphold the Treaty promises to be incumbent upon all successors-in-interest to the United States, with the rights reserved by the Treaty Tribes constituting a “perpetual environmental servitude.” See, Letter from Will Honea, Office of the Skagit County Prosecuting Attorney, to Cascadia Law Group, Re: Seattle City Light Skagit Project (April 2, 2021)(stating that “[p]ursuant to the 1855 Treaty of Point Elliott, the Skagit Treaty Tribes peaceably gave up the Skagit land base to a colonizing society on the promise that harvestable levels of anadromous species would remain in the Skagit ecosystem – forever. This is a specifically enforceable right, i.e., it is not reducible to money, and can’t be bought out. As a result, the entirety of the Skagit ecosystem is subject to a perpetual environmental servitude, judicially recognized, a collective national obligation, requiring, in practical terms, that all those with an impact on the Skagit reasonably carry their weight. It is an obligation that impacts and influences virtually everything that occurs in Skagit County”).

ecosystems that are home to the salmon and other aquatic and terrestrial species. The Tribe is a co-manager of Washington fisheries with the State,¹⁰ and has worked with the Washington Department of Fish & Wildlife (WDFW) for many years in this capacity to ensure protection and restoration of fishery resources. The Tribe was a founding member of the Skagit System Cooperative in 1976, a tribal consortium among the Swinomish, Sauk-Suiattle and Upper Skagit Tribes for research, environmental review, habitat protection, and restoration on the Skagit River. Since 2005 the Swinomish Tribe has played a leading role in a successor entity, the Skagit River System Cooperative (SRSC), which is a tribal consortium with the Sauk-Suiattle Tribe dedicated to scientific research and salmon habitat restoration on the Skagit River. SRSC co-authored the 2005 Skagit Chinook Recovery Plan with WDFW. Swinomish and SRSC have worked extensively with other tribal governments, local governments and local stakeholders on a variety of salmon recovery, habitat restoration, and scientific research projects over the past three decades.

The Swinomish Tribe’s expertise as custodian of the Treaty fish resources stems from generations of residency in place, with scientific knowledge gleaned over millennia and honed through to the present day. Tribes’ sovereign status and particular subject-matter expertise in matters of natural resources management was recently recognized by the federal district court in *Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers (Standing Rock VI)*.¹¹ There, the court took the U.S. Army Corps of Engineers to task for attempting to “treat the Tribes and their experts as more akin to non-governmental entities” rather than as sovereign nations, with their own governmental departments possessing “subject-matter expertise.”¹²

The State of Washington, too, has recognized the sovereign status of the Swinomish Tribe, including through the Centennial Accord.¹³ In recognition of this status, the State has committed its agencies to working with the Tribe on a government-to-government basis. The Act, for its part, directs that, in preparing or amending SMPs, Ecology and local governments shall consult with and obtain the comments of governmental agencies “having any special expertise with respect to any environmental impact.”¹⁴ Ecology’s regulations elaborate that local governments shall consult with and solicit comments from, among others, tribes “having interests or responsibilities relating to the subject shorelines or any special expertise with respect to any environmental impact.”¹⁵

¹⁰ See, *United States v. Washington*, 19 F. Supp. 3d 1252, 1256–57 (W.D. Wash. 1997).

¹¹ *Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers*, 440 F. Supp. 3d 1 (D.D.C. 2020)(*Standing Rock VI*).

¹² *Id.* at 16. The court elaborated that “these sovereign nations prepared expert comments with the help of not only third-party consultants but also their own relevant governmental departments, including its Department of Water Resources, Department of Game and Fish, Tribal Emergency Management Commission, Department of Environmental Regulation, and a five-member ‘Technical Consulting Team’.” *Id.*

¹³ Washington State Governor’s Office of Indian Affairs, “Centennial Accord,” <https://goia.wa.gov/relations/centennial-accord>.

¹⁴ RCW 90.58.100 (“In preparing the master programs, and any amendments thereto, the department and local governments shall to the extent feasible: ... (b) Consult with and obtain the comments of any federal, state, regional, or local agency having any special expertise with respect to any environmental impact.”).

¹⁵ WAC 173-26-100 (“At a minimum, local government shall ... (3) Consult with and solicit the comments of any persons, groups, federal, state, regional, or local agency, and tribes, having interests or responsibilities relating to the subject shorelines or any special expertise with respect to any environmental impact.”)

In sum, given the Swinomish Tribe’s sovereign status, legally protected rights and interests in its Treaty-reserved resources, as well as its and SRSC’s unique subject-matter expertise the County must consult with the Tribe not only in the preparation but also the implementation of its SMP, as suggested in further comments below. In addition to providing these comments, the Tribe and SRSC hereby request consultation on a government-to-government basis regarding this update to Skagit County’s SMP.

II. Overarching Issues

A. SC SMP Does Not Meet the Act’s Standards for Shorelines of the State and, in Particular, the Standards for Shorelines of Statewide Significance.

The SC SMP does not meet the standards set by the Act for protecting shorelines of the state and, in particular, for shorelines of statewide significance (Shorelines of Statewide Significance), which comprise and/or are affected by much of the area governed by the SC SMP. The Act states that Ecology “shall approve the segment of a master program relating to shorelines unless it determines that the submitted segments are not consistent with the policy of RCW 90.58.020 and the applicable guidelines [i.e., Ecology’s regulations].”¹⁶ At the heart of this policy is the legislature’s recognition that “the shorelines of the state are among the most valuable and fragile of its natural resources.”¹⁷

The Act sets an even higher bar when Shorelines of Statewide Significance are affected. It states that Ecology “shall approve those segments of the master program relating to shorelines of statewide significance *only after determining the program provides the optimum implementation of the policy of this chapter to satisfy the statewide interest.*”¹⁸ The legislature made clear, moreover, that it intended this heightened standard for Shorelines of Statewide Significance to have teeth, as it provided for instances in which a local government’s SMP did not meet this bar and so could not be approved. In the next sentence of RCW 90.58.090 (5), the Act states that if Ecology “does not approve a segment of a local government master program relating to a shoreline of statewide significance, the department may develop and by rule adopt an alternative to the local government's proposal.”¹⁹

When Shorelines of Statewide Significance are at stake, the Act is adamant that local desires not subvert the good of the whole: “the interests of all of the people *shall be paramount* in the management of shorelines of statewide significance.”²⁰ The Act then elaborates a hierarchy of

¹⁶ RCW 90.58.090(3). Although the term “guidelines” is used here and elsewhere, this refers to Ecology’s implementing regulations at WAC ch. 173-26, which have the force of regulation (as opposed to guidance). For clarity, the term “Ecology’s regulations” will be used throughout this document unless quoted material refers to “guidelines.”

¹⁷ RCW 90.58.020.

¹⁸ RCW.90.58.090(5)(emphasis added). See also, WAC 173-120(3)(iii)(B) (heightened standard for Ecology approval of “parts of a master program relating to shorelines of statewide significance”).

¹⁹ *Id.*

²⁰ RCW 90.58.020.

preferred uses that, when Shorelines of Statewide Significance are affected, override the preferences that local governments might otherwise wish to support. Both Ecology and local governments, in their respective roles, “shall give preference to uses in the following order of preference.”²¹ These preferred uses, in order, “recognize and protect the statewide interest over local interest; preserve the natural character of the shoreline; result in long term over short term benefit; protect the resources and ecology of the shoreline; increase public access to publicly owned areas of the shorelines; and increase recreational opportunities for the public in the shoreline.” The Act thus sets forth particular constraints for those segments of local governments’ SMPs that affect Shorelines of Statewide Significance, dictating that they protect statewide interests, preserve and protect shoreline natural resources, and ensure the benefit of these resources for the well-being of future generations – all in preference over local growth, short-term economic gains, and unchecked private (as opposed to public) use and enjoyment of the shorelines.

The SC SMP affects many shorelines of statewide significance designated under RCW 90.58.030, thereby impressing the higher standard for approval and particular substantive protection requirements applicable to Shorelines of Statewide Significance. Indeed, some of the most majestic and consequential shorelines of the state are governed by the SC SMP.²² To highlight but a few superlatives, the Skagit River watershed is by far the largest in the Puget Sound;²³ the Skagit River provides some 35% of the Sound’s freshwater input and 40% of its sediment load.²⁴ The Skagit River is home to all five species of Pacific salmon, as well as steelhead and trout;²⁵ it is the only river in the Lower 48 states that still has all species of wild Pacific salmon spawning in its waters. It is considered the most important in Puget Sound for the recovery of ESA-listed threatened Chinook salmon and steelhead trout – without recovery of Skagit River salmon populations, the Puget Sound ESU cannot be delisted.²⁶ The Skagit River’s salmonids, including Chinook, provide a crucial source of prey for ESA-listed critically endangered Southern Resident Killer Whales (SRKW) – prey that has been identified as the

²¹ RCW 90.58.020. See also, WAC 173-26-181 (“special policy goals” of the Act and guidelines “for shorelines of statewide significance”).

²² By the County’s tally, Shorelines of Statewide Significance include the following: “All areas waterward of the extreme low tide throughout Puget Sound are considered Shorelines of Statewide Significance. Additionally, Skagit Bay and adjacent area from Brown Point to Yokeko Point along with Padilla Bay, from March Point to William Point, are identified as specific estuarine areas and are considered Shorelines of Statewide Significance waterward from the ordinary high water mark. All streams and rivers that have mean annual flow of 1,000 cfs or greater are considered Shorelines of Statewide Significance. This applies to the Skagit, Baker, Cascade, Sauk, and Suiattle Rivers. All lakes larger than 1,000 acres are also considered Shorelines of Statewide Significance. Only Shannon Lake meets this criterion.” The Watershed Company, *No Net Loss Report for the Skagit County Shoreline Master Program 2* (2016) <https://www.skagitcounty.net/PlanningAndPermit/Documents/SMP/Skagit%20County%20NNL%20Report.%20022516.pdf>.

²³ Northwest Indian Fisheries Commission, *State of Our Watersheds*, Swinomish Chapter, 2 (2020).

²⁴ Hood, et al., *Assessing Tidal Marsh Vulnerability to Sea-Level Rise in the Skagit Delta*, 90 Northwest Science 79, 80 (2016).

²⁵ Northwest Indian Fisheries Commission, *State of Our Watersheds*, Swinomish Chapter, 2 (2020).

²⁶ Three Skagit salmonid populations are currently listed as threatened under the federal Endangered Species Act: Puget Sound Chinook salmon, Puget Sound steelhead, and bull trout. 64 Fed. Reg. 14,308 (March 24, 1999); 72 Fed. Reg. 26,722 (May 11, 2007).

primary limiting factor to SRKW survival and recovery.²⁷ Skagit County “boasts 275 miles of marine shoreline, including rocky islands and tidelands, bays and pocket estuaries, and countless sloughs, that provide important habitat for a diverse range of fish, shellfish, waterfowl, marine mammals, and other wildlife.”²⁸

Yet, reading through the SC SMP, one would be hard-pressed to discern that Shorelines of Statewide Significance or the ESA-listed species they affect hang in the balance. For the many segments of the SC SMP that affect Shorelines of Statewide Significance, the County fails to recognize, let alone demonstrate, that its approaches are the “optimum implementation” of the Act’s policy directives regarding Shorelines of Statewide Significance. Taken together, the SC SMP’s policies and regulations fall far short of what would be necessary to protect the “paramount” statewide “interest of all the people.”²⁹ Rather, they largely enshrine a business-as-usual approach that sanctions individual and cumulative uses and activities – while externalizing their costs in the form of damage to the shoreline aquatic and marine nearshore habitat and resources. This approach undermines the state’s ability to uphold its treaty obligations, to discharge its public trust responsibilities, and to preserve and protect the natural resources it is charged with managing or co-managing. In short, the County’s approach allows precisely the harm to statewide interests that is contrary to the requirements of the Act. Thus, the SC SMP fails to meet the Act’s heightened burden for approval relevant to Shorelines of Statewide Significance.

The SC SMP’s shortcomings in this respect permeate its policies and regulations affecting Shorelines of Statewide Significance. They are manifested, for example, in everything from the County’s choice of the minimum option for shoreline jurisdiction to its permissive regulation of aquaculture and various other uses and activities, to its under-protective rules for setbacks on marine feeder bluffs.³⁰ To the extent that particular comments below suggest more protective approaches, they follow from this general point regarding Shorelines of Statewide Significance. The comments below also recommend the addition of provisions to acknowledge and elevate the statewide interest in Shorelines of Statewide Significance; in many instances identical or similar provisions have been adopted by other local governments in recognition of their respective roles in ensuring protection of these significant resources.

B. SC SMP Fails to Use the “Most Current, Accurate and Complete Scientific and Technical Information Available.”

²⁷ See, e.g., Lacy, et al., *Evaluating Anthropogenic Threats to Endangered Killer Whales to Inform Effective Recovery Plans*, 7 *Scientific Reports* 14119 (2017). See also, State of Washington Office of the Governor, Executive Order 18-02, Southern Resident Killer Whale Recovery and Task Force (March 14, 2018). The existence of the Governor’s SRKW Task Force itself underscores the statewide interest in the ecological health and functioning of those Shorelines of Statewide Significance, including the Skagit River system and adjacent marine waters, that support the conditions necessary for orcas’ survival and recovery.

²⁸ Skagit Marine Resources Committee, “About Us,” <http://www.skagitmrc.org/about-us/>.

²⁹ RCW 90.58.020.

³⁰ These examples are intended to be illustrative, not exhaustive.

Ecology’s SMP regulations direct local governments to base SMPs on the “most current, accurate and complete scientific and technical information available.”³¹ As Ecology makes clear, local governments are “require[d]” to use the most current, accurate, and complete data available.³² Local governments’ analyses must “incorporate” this data³³ – they are not free to ignore the most recent science, nor merely to include it in the record but depart from it where they see fit. Furthermore, as Ecology explains in its SMP Handbook, the Act’s high standard applies equally to provisions regulating Critical Areas that are incorporated into local governments’ SMPs:

“For all SMP provisions, the Guidelines require use of “the most current, accurate and complete scientific and technical information available” [WAC 173-26-201(2)(a)]. Local governments that plan to integrate CAOs into SMPs must review the existing CAO regulations to ensure they meet Act requirements for critical area protection. CAO regulations that do not meet the standards of the SMP Guidelines must be changed to meet those standards before being incorporated into the SMP.”³⁴

The SC SMP fails to meet this high standard. Among other things, during the years that the County allowed its planning process to languish, scientific data continued to be generated. Rather than incorporate this new information, the County simply revived analyses that are now dated and incomplete. Yet there have been considerable developments in the science relevant to Skagit County’s shoreline environment and resources in the intervening time. For example, researchers have mapped the extent of urban runoff mortality syndrome that threatens coho salmon across 40% of Puget Sound basins,³⁵ and isolated the “smoking gun” chemical, a quinone transformation product of 6PPD in tire rubber, from among thousands of candidate pollutants.³⁶ Agencies and other expert entities, too, have published updated scientific and technical information that is important to shoreline evaluation and management. Examples include WDFW, *Priority Habitats and Species: Riparian Ecosystems, Volume 2: Management*

³¹ WAC-173-26-201(2)(a). “To satisfy the requirements for the use of scientific and technical information in RCW 90.58.100(1), local governments shall ... base master program provisions on an analysis incorporating the most current, accurate, and complete scientific or technical information available.”

³² *Id.*; Ecology, *Shoreline Master Programs Handbook*, Ch. 18, “Integration of Critical Areas Ordinances,” at 3. (“For all SMP provisions, the Guidelines require use of “the most current, accurate and complete scientific and technical information available”)

³³ WAC-173-26-201(2)(a).

³⁴ Washington Department of Ecology, *Shoreline Master Programs Handbook*, Ch. 18, “Integration of Critical Areas Ordinances,” at 3.

³⁵ Feist, et al., *Roads to Ruin: Conservation Threats to a Sentinel Species Across an Urban Gradient*, 27 *Ecological Applications* 2382 (2017). Researchers have found that urban runoff is harmful to Chinook salmon as well. See, e.g., McIntyre, *Urban Stormwater & Green Infrastructure*, Presentation to the Fish Barrier Removal Board, Slides 34-35 (Feb. 21, 2017)(finding mortality impacts to Chinook exposed to stormwater runoff, although at reduced rates as compared to coho).

³⁶ Tian, et al., *A Ubiquitous Tire Rubber-Derived Chemical Induces Acute Mortality in Coho Salmon*, 371 *Science* 185 (2021).

Recommendations (2020);³⁷ and NWIFC, *State of Our Watersheds* (2020).³⁸ Notably, as elaborated further below, scientific data regarding climate change and its implications have continued to be amassed. These examples are meant to be illustrative; additional scientific and technical authorities are cited throughout these comments.

In addition to its failure to identify and consider this more recent scientific data and information, the County’s analyses of the science from 2016 and before does not always incorporate the most current, accurate and complete scientific and technical information available. A conspicuous example is the SC SMP’s virtual silence regarding climate change and its implications, including sea level rise – an omission that renders many aspects of its assessment inaccurate and incomplete. This point is taken up further in the next section. Another stark example is the outdated scientific and technical information relied upon by the County to identify the upstream extent of its shoreline jurisdiction, a concern elaborated further below.

C. SC SMP Cannot Decline to Acknowledge and Account for the Scientific Reality of Climate Change.

The SC SMP cannot simply decline to acknowledge and account for climate change and its myriad implications, including sea level rise (SLR), and changes to streamflow, sediment transport, temperature, and other facets of the hydrologic system in the Skagit and Samish River basins. As discussed above, the County’s SMP must be founded on the “most current, accurate and complete scientific and technical information available.”³⁹ Ecology’s regulations require local governments to consider [available] scientific information that will enable them, among other things, to “identify ... [r]isks to ecological functions associated with master program provisions” and to “address potential risks.”⁴⁰

Ecology further directs that local governments “should consult the technical assistance materials” that it has produced, stating that “unless there is more current or specific information available,” these “shall constitute an element of the scientific and technical information ... the use of which is required by the [Act].”⁴¹ Among such relevant technical information is Ecology’s Shoreline Management Program Handbook, Appendix A (2010, 2017), which speaks to the requirements to address climate change and sea level rise in SMPs.⁴²

Ecology’s regulations instruct that the Act aims to protect shoreline natural resources “through protection and restoration of ecological functions necessary to sustain these resources” and

³⁷ Washington Department of Fish & Wildlife, *Priority Habitats and Species: Riparian Ecosystems, Volume 2: Management Recommendations* (2020)

<https://wdfw.wa.gov/sites/default/files/publications/01988/wdfw01988.pdf>

³⁸ Northwest Indian Fisheries Commission, *State of Our Watersheds*, Swinomish Chapter (2020).

³⁹ WAC-173-26-201(2)(a). “To satisfy the requirements for the use of scientific and technical information in RCW 90.58.100(1), local governments shall ... base master program provisions on an analysis incorporating the most current, accurate, and complete scientific or technical information available.”

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² Washington Department of Ecology, *Shoreline Master Programs Handbook*, App. A.

explains that “the concept of ecological functions recognizes that any ecological system is composed of a wide variety of interacting physical, chemical and biological components, that are interdependent in varying degrees and scales, and that produce the landscapes and habitats as they exist at any time.”⁴³ Ecology’s SMP Handbook, Appendix A highlights the anticipated effects of climate change on shorelines and the ecosystems they support, including sea level rise; altered hydrological cycles that may affect flooding and water resources; altered sediment regimes that may result in increased aggradation, flooding, and channel movement; increased landslides; alterations to wood inputs to streams; changes in ocean chemistry that will impact marine systems; and the potential for invasive species to increase their range.⁴⁴

It is no exaggeration to say that climate change affects each of the physical, chemical and biological components of the ecological system in the Skagit River basin, with current and future impacts on the shoreline natural resources that the County’s SMP is charged with protecting. Numerous scientific studies have documented climate change impacts on Skagit River basin resources, *within the planning horizon for shoreline management analysis*.⁴⁵ For example:

Lee, et al., (2016) found “that climate change is likely to cause substantial seasonal changes in both natural and regulated flow, with more flow in the winter and spring, and less in summer.” They also found that “[t]he regulated 100-year flood is projected to increase by 23% by the 2040s... noting that “both current and proposed alternative flood control operations are shown to be largely ineffective in mitigating increasing flood risks in the lower Skagit due to the distribution of flow in the basin during floods.”⁴⁶

Hood, et al., (2016) found “evidence for risk of SLR impacts to the Skagit Delta tidal marshes despite high sediment supply from the Skagit River,” and “evidence of significant wave erosion of Skagit marshes despite relatively fetch-limited conditions.” They concluded that the “Skagit tidal marshes are vulnerable ... due to global warming-induced SLR, changes in river hydrology, and more seasonal sediment delivery.”⁴⁷

Hamman, et al., (2016) found that “adding sea level rise to the historical FEMA 100-year flood resulted in a 35% increase in inundation area by the 2040s, compared to a 57% increase when both SLR and projected changes in river flow were combined.”⁴⁸

⁴³ WAC 173-26-201(2)(c).

⁴⁴ Washington Department of Ecology, *Shoreline Master Programs Handbook*, App A at 2.

⁴⁵ This point is recognized and supported, for example, by the Puget Sound Partnership (PSP) in its numerous documents, including the PSP Action Agenda, PSP Nearshore Implementation Strategy, and PSP Chinook Implementation Strategy. See Puget Sound Partnership, <https://www.psp.wa.gov/implementation-strategies.php>.

⁴⁶ Lee, et al., *Impacts of Climate Change on Regulated Streamflow, Hydrologic Extremes, Hydropower Production, and Sediment Discharge in the Skagit River Basin*, 90 Northwest Science 23, 37 (2016).

⁴⁷ Hood, et al., *Assessing Tidal Marsh Vulnerability to Sea-Level Rise in the Skagit Delta*, 90 Northwest Science 79, 80, 91 (2016).

⁴⁸ Hamman, et al., *Combined Effects of Projected Sea Level Rise, Storm Surge, and Peak River Flows on Water Levels in the Skagit Floodplain*, 90 Northwest Science 57 (2016).

As even these brief summaries illustrate,⁴⁹ there is “available scientific information that is applicable to the issues of concern” – scientific evidence that is particular to the Skagit River basin, and that elucidates the interrelated effects on shoreline natural resources within the timeframe relevant to the County’s shoreline management planning efforts. It is difficult to imagine how the County could credibly purport to have assessed ecological functions and processes, planned for future uses and development, or evaluated cumulative impacts and “no net loss” without considering this and other evidence of climate change. Climate change is not speculative;⁵⁰ consideration of its impacts cannot credibly be deferred until some future date. As the California Coastal Commission put it: “[c]limate change is upon us.”⁵¹

Yet there is not a single mention of “climate change” in the entire SC SMP. This term is similarly absent from the County’s supporting analyses, i.e., its “No Net Loss” report and “Cumulative Impacts Analysis.” And there is but one reference in the SC SMP to “sea level rise.” The County’s refusal to acknowledge and account for the scientific reality of climate change and its widespread impacts in its SMP persists despite repeated comments by the Swinomish Tribe and the Skagit River System Cooperative urging the importance of accounting for climate change and SLR.⁵² On the other hand, in response to questions at its March 9, 2021 public meeting, the County indicated that it did “recognize climate change” and that it anticipated considering climate change and SLR as a basis for a landowner’s demonstration of need, e.g., for structural shoreline stabilization, but that it did not otherwise plan to alter its policies or regulatory requirements. Thus, the County appears poised to entertain evidence of climate change and SLR *only* when this information might support weakening protections for shoreline resources – not only selectively considering the science, but doing so at its discretion and in a way that will operate as a one-way ratchet.

Nor may the County opt to wait until the next round of SMP updates to incorporate the climate change science relevant to the Skagit River basin. Although, as Ecology explains in its SMP

⁴⁹ Again, these are intended to be illustrative, not exhaustive, examples of the scientific information on climate change and sea level rise that is relevant to the SC SMP. See, e.g., Grossman, et al., *Sediment Export and Impacts Associated with River Delta Channelization Compound Estuary Vulnerability to Sea-Level Rise, Skagit River Delta, Washington, USA*, 430 Marine Geology 106336 (2020).

⁵⁰ The science is well established, beginning at least with the IPCC’s First Report in 1990. Intergovernmental Panel on Climate Change, Working Group Report, *Climate Change: The IPCC’s Response Strategies* (1990) <https://www.ipcc.ch/report/ar1/wg3/>. See also, National Research Council, *Sea Level Rise for the Coasts of California, Oregon, & Washington: Past, Present, and Future* (2012) <https://www.nap.edu/catalog/13389/sea-level-rise-for-the-coasts-of-california-oregon-and-washington>; and Mauger, et al., *State of Knowledge: Climate Change in Puget Sound* (2015)(prepared for the Puget Sound Partnership and the National Oceanic and Atmospheric Administration by the University of Washington Climate Impacts Group).

⁵¹ California Coast Commission, *Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits* 13 (2018) <https://www.coastal.ca.gov/climate/slrguidance.html>.

⁵² See, e.g., SRSC Comments, Draft Skagit County SMP Update (May 13, 2013)(stating that “[o]ne of the gravest shortcomings of the Skagit SMP is the absence of any regulations that govern coastal development and how to avoid the hazards of sea level rise (SLR). The Swinomish Tribe has been actively involved in regional and national SLR discussions, and the tribe suggested regulations that would have required development to *consider* the future impacts of SLR ...These suggestions were rebuffed ... The climate change and sea level rise issue is an important one, and will be the subject of a separate Swinomish letter devoted entirely to the topic.”)

Handbook, Appendix A, the terms “climate change” and “sea level rise” are not mentioned as requirements in the Act or the body of Ecology’s regulations, this does not relieve local governments of their obligation to base their SMPs on the “most current, accurate and complete scientific and technical information available.”⁵³ Additionally, of course, Ecology then goes on to lay out for local governments how they can address climate change and sea level rise in their SMPs. Thus, for example, Ecology discusses bases for identifying those shoreline areas that will be “particularly vulnerable or resilient to rising sea level,” e.g., by coastal landform type. Ecology also highlights issues – such as inland shifts to the location of the OHWM or increased flood hazards – to which local governments’ SMPs may need to respond. Ecology also discusses several ways in which “SMP goals, policies, and regulations” can address climate change and sea level rise – and provides examples from several jurisdictions that have done so.⁵⁴

Finally, it should be noted that there are numerous current scientific and technical resources and tools that permit the County to account for climate change and sea level rise, including those relevant to the Puget Sound and the Skagit River basin. In enumerating the sources of scientific and technical information to be incorporated in SMPs, Ecology’s regulations state that “local governments should also contact relevant state agencies, universities, [and] affected Indian tribes ...”⁵⁵ Among the readily available information from such sources are California Coastal Commission, *Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits* (2018);⁵⁶ University of Washington Climate Impacts Group, *Sea Level Rise: How to Choose* (2020);⁵⁷ WDFW, Climate and Culverts Tool, and the research repository of the Skagit Climate Science Consortium.⁵⁸

The County’s refusal to incorporate climate change science means that much of the SC SMP and its supporting analysis rests on outdated, inaccurate, and incomplete scientific and technical information. The SC SMP’s failure to incorporate climate change science calls into question the validity of its premises and ultimately its consistency with the Act and Ecology’s regulations. Additionally, several specific infirmities are highlighted in comments below.

⁵³ Washington State Department of Ecology, *Shoreline Master Programs Handbook*, App. A at 2 (stating that “[t]he Shoreline Management Act (Act) and the Shoreline Master Program Guidelines contain no requirements for SMPs to address climate change or sea level rise. However, they require local jurisdictions to take into account scientific and technical information pertinent to shoreline management issues. The Guidelines require local governments use ‘the most current, accurate and complete scientific and technical information available’ [WAC 173-26-201(2)(a)]. The Guidelines also encourage local governments to consult Ecology’s guidance for applicable new information on emerging topics such as sea level rise [WAC 173-26-090(1)].”

⁵⁴ In addition to the examples cited by Ecology, other jurisdictions have acknowledged and planned for climate change and SLR. See, e.g., Swinomish Indian Tribal Community, “Swinomish Climate Change Initiative,” <https://www.swinomish-climate.com/>; City of Bainbridge Island, Shoreline Master Program (2017, 2021) <https://www.bainbridgewa.gov/184/Shoreline-Master-Program>.

⁵⁵ WAC 173-26-201-(2)(a).

⁵⁶ California Coastal Commission, *Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits* (2018) <https://www.coastal.ca.gov/climate/slrguidance.html>.

⁵⁷ Raymond, et al., *How to Choose: A Primer for Selecting Sea Level Rise Projections for Washington State* (2020)(A collaboration of Washington Sea Grant and University of Washington Climate Impacts Group, prepared for the Washington Coastal Resilience Project).

⁵⁸ Skagit Climate Science Consortium: Research <http://www.skagitclimatescience.org/research/>.

D. SC SMP Fails to Demonstrate that its Policies and Regulations will Achieve No Net Loss of Shoreline Ecological Functions and Processes.

The SC SMP fails to demonstrate that its policies and regulations will achieve no net loss of shoreline ecological functions and processes (NNL). As Ecology’s regulations emphasize, ensuring “no net loss” is key to the Act’s “essential statewide policy goal” of “maintenance, protection, restoration, and preservation” of the shoreline environment.⁵⁹ Ecology’s regulations go on to “recognize[] that shoreline ecological functions may be impaired not only by shoreline development subject to the substantial development permit requirement of the [Act] but also by past actions, unregulated activities, and development that is exempt from the [Act’s] permit requirements.”⁶⁰ It thus mandates that local governments’ SMPs “shall include policies and regulations designed to achieve no net loss of those ecological functions,” at both the individual and programmatic level (including accounting for “exempt development in the aggregate.”⁶¹ It further requires that local governments’ SMPs not only “evaluate and consider cumulative impacts” on shoreline ecological functions, but “contain policies, programs, and regulations that address adverse cumulative impacts.”⁶²

The SC SMP and supporting analyses are deficient for several reasons. These deficiencies, moreover, are frequently compounded by the County’s failure to use the “most current, accurate, and complete scientific and technical information” and to account for climate change.

The Skagit County SMP No Net Loss Report’s conclusion that the SC SMP will “achieve no net loss of ecological functions in Skagit County’s shorelines”⁶³ is not supported by current information or analysis. It contains no rigorous assessment of the extent to which ecological functions and processes are expected to be lost but equivalent ecological functions and processes gained. Rather, it references the various provisions of the SC SMP and then simply *assumes that these will suffice* to accomplish NNL (taking into account the cumulative impacts discussed in its Cumulative Impacts Analysis), when considered together with restoration opportunities identified in the Skagit County Shoreline Restoration Plan.

This assumption is questionable for several reasons. For one, many of the SC SMP’s provisions are weak when compared to other jurisdictions’ SMPs. For example, Island County’s provisions governing shoreline armoring and the City of Bainbridge Island’s provisions governing critical areas are significantly more robust and protective than those contained the in SC SMP. Of course, while the fact that the SC SMP could do better does not *necessarily* mean that it is not

⁵⁹ WAC 173-26-186(8) and -186(8)(b).

⁶⁰ WAC 173-26-186(8).

⁶¹ WAC 173-26-186(8)(b).

⁶² WAC 173-26-186(8)(d).

⁶³ The Watershed Company, *No Net Loss Report for the Skagit County Shoreline Master Program 13* (2016) <https://www.skagitcounty.net/PlanningAndPermit/Documents/SMP/Skagit%20County%20NNL%20Report.%20022516.pdf>.

doing enough to meet the NNL standard, the 2016 SC NNL Report doesn't provide any basis to support its conclusory statement that the standard will be achieved.

A second issue stems from the temporal dimension of ecological function loss. While the County conducted its Inventory and Characterization as of 2011, it shelved its SMP update in 2016, reviving it only now, in 2021 – such that a decade has elapsed since its baseline assessment. During this time, loss to ecological functions and processes has surely been accruing. The population of Skagit County has increased by 11.6% during this time;⁶⁴ development continues to be permitted (e.g., for housing alone, there were 561 building permits issued in Skagit County in 2020⁶⁵); and since 2014, over 200 HPA permits have been issued in Skagit County, covering actions ranging from marine armoring, to dredging, to dock maintenance and repair.⁶⁶ It is well recognized in the habitat equivalency literature that an accurate assessment of loss requires accounting for the time period during which an impaired ecosystem is unable to perform its functions and services. Although the question was posed to the County during a public meeting, it is unclear whether the County will be able to account for the loss of habitat since 2011 – or whether this loss will effectively be allowed to occur off-ledger. The concern for fuzzy ecological math applies more generally as well, to any instance in which offsetting mitigation or restoration will take time (e.g., for significant trees to reach maturity and fully perform their ecological services) but for which appropriate mitigation ratios or other mechanisms to account for uncertainty have not been employed.

A third concern is that, although the SC SMP contains a useful definition of “cumulative impacts,” i.e., one that appropriately directs consideration of “past, present, and reasonably foreseeable future actions,” the SC SMP itself nonetheless fails to “contain policies, programs, and regulations” that actually “address” those cumulative impacts that are “adverse,” as required by Ecology’s regulations.⁶⁷ Part of the issue is that the County’s Cumulative Impacts Report is hobbled by the SC SMP’s failure to consider the “most current, accurate, and complete” science, including that regarding climate change.

A fourth concern is that, to the extent that the SC SMP and its supporting analyses rely on restoration that is not certain to occur as the basis for conclusions about addressing adverse cumulative impacts and offsetting ecological loss, it reflects magical thinking rather than clear-

⁶⁴ Washington State Employment Security Department, “Skagit County Profile,” www.esd.wa.gov/labormarketinfo/county-profiles/skagit. Estimates of Skagit County population growth during this time are approximate, as they compare population data from 2010 with that from 2020.

⁶⁵ United States Census Bureau, “Quick Facts: Skagit County, Washington,” www.census.gov/quickfacts/fact/table/skagitcountywashington/PST045219.

⁶⁶ According to WDFW data, HPAs issued in Skagit County (including in UGAs) for the years 2014-2021 include the following: Marine Shoreline Armor = 25; Foot Access (beach stairs, etc.) = 6; Bank Protection, Non-Marine = 105; Dock Maintenance/Repair = 48 (24 of which are in marine waters); Dredging (marine, marinas, freshwater, road maintenance, etc.) = 63 (43 of which are non-DFI). Washington Department of Fish and Wildlife, *Aquatic Protection Permitting System (APPS) Agency Portal*, https://www.govonlineas.com/WA/WDFW/Public/Client/WA_WDFW/Public/Pages/SubReviewList.aspx (viewed June 21, 2021).

⁶⁷ WAC 173-26-186(8)(d).

eyed analysis. Although the County’s Restoration Plan and NNL Report identify “opportunities” for restoration that might offset ecological loss, it makes no binding commitments – backed by funding – actually to ensure that restoration is undertaken. Additionally, we are concerned that the County’s Restoration Plan in many instances identifies supposed “opportunities for conservation of shoreline processes and functions,” but the SC SMP’s corresponding Shoreline Environmental Designations do not support that conservation. For example, on Samish Island, Scotts Point and Samish Point are highlighted as areas for conservation by the County’s Restoration Plan, and currently have very little development near the shoreline.⁶⁸ But they are included in a Rural Conservancy, rather than a Natural, SED – thus undermining the opportunity for conservation that the County identifies and presumably relies upon. And, publicly funded salmon restoration projects aimed at offsetting past environmental harm and recovering ESA-listed salmon species should not be accounted for as “mitigation” for future private development to achieve the no net loss requirement.

The third and fourth concerns are illustrated by considering the following example. As recounted by the Northwest Indian Fisheries Commission in *State of Our Watersheds* (2020):

In 2004, Washington State Department of Ecology established total maximum daily load (TMDL) limits for high stream temperatures on nine tributaries, including chinook, coho and steelhead streams, in the Lower Skagit Tributaries Temperature TMDL. The 2008 Lower Skagit TMDL Improvement Plan charted a path for these nine tributaries to become temperature compliant by 2080 if the TMDL implementation goal was met that “100 percent of all stream miles of these creeks to be protected by riparian shade or enrolled as part of larger creek restoration and improvement projects by 2020.” Unfortunately, Ecology has failed to meet its 100 percent goal of riparian planting by 2020. Ecology has relied entirely on voluntary programs to recover the water quality of these important salmon streams. For two decades, Swinomish has pointed out the insufficiency of this, noting that voluntary programs are part of the solution but alone would never be adequate to reach water quality standards within sufficient time for restoring degraded salmon habitat. Based on a recent LIDAR technical analysis, approximately 50% of overall stream length within the nine-tributary watershed is currently forested or planted in trees. In Nookachamps Creek, the largest salmon stream in the sub-basin that historically has been home to chinook and steelhead, only 30% of creek miles have been planted. That’s far short of the 100% goal that was supposed to be reached this year.⁶⁹

Furthermore, “the 2004 Lower Skagit Temperature TMDL called for average riparian buffers of a minimum 100 feet in width on either side of the stream, assuming water quality would not be further degraded by reduced streamflows.”⁷⁰ However, as noted above, altered streamflows and

⁶⁸ Skagit County, *Shoreline Restoration Plan* 45 (June 30, 2013).

⁶⁹ Northwest Indian Fisheries Commission, *State of Our Watersheds*, Swinomish Chapter, 10 (2020)(citations omitted).

⁷⁰ *Id.*

other impacts of climate change will in fact be an issue for the Skagit River basin.⁷¹ These projections compound the threat posed to Skagit River Chinook and steelhead, for whom high stream temperatures were identified as a limiting factor to Skagit River chinook survival and recovery in the 2005 Skagit River Chinook Recovery Plan and to Puget Sound steelhead recovery in the 2019 Puget Sound Steelhead Recovery Plan, respectively.⁷² Additionally, researchers have recently modelled the adverse impacts of higher stream temperatures, dissolved oxygen, and organophosphate pesticides under summer conditions in the Skagit River basin for Chinook survival and recovery – finding an elevated risk when these factors were considered in concert rather than accounted for singly.⁷³ Specifically, when considering all three stressors, Landis, et al. (2019) found an 80.2% risk that the Chinook population would not meet recovery goals when (“[r]isk was calculated as the probability of the Chinook salmon population being below the 500,000 target defined as a net loss in the Chinook population” over a twenty-year timeframe).⁷⁴

Thus, whereas Ecology had hoped that voluntary restoration efforts would lead to riparian shade planting and other restoration covering 100% of the stream miles in the area covered by its Lower Skagit Temperature TMDL, its optimism proved to be grossly misplaced: actual restoration has fallen drastically short, such as in the Nookachamps Creek – documented Chinook and Steelhead habitat – where a mere 30% of stream miles have been planted.⁷⁵ Moreover, a complete understanding of the lost ecological functions and consequent harms to Chinook salmon requires accounting for the cumulative impacts of multiple stressors in a changing climate. And, if the aquatic and marine habitat ledger is to be accurately balanced, as the Act clearly mandates, the temporal dimensions of the loss in ecological services must be fully accounted for.

While the SC SMP and its supporting analyses make assertions about achieving NNL and addressing adverse cumulative effects, these conclusions have no support in the record. The fact is, the County cannot account for or achieve NNL requirements without incorporating recent scientific studies, without having at all considered climate change, and without reliance on certain – rather than speculative – habitat restoration projects.

III. Additional SC SMP Issues, Comments, and Proposed Code Provisions

⁷¹ Lee, et al., *Impacts of Climate Change on Regulated Streamflow, Hydrologic Extremes, Hydropower Production, and Sediment Discharge in the Skagit River Basin*, 90 Northwest Science 23 (2016).

⁷² Northwest Indian Fisheries Commission, *State of Our Watersheds*, Swinomish Chapter, 10 (2020).

⁷³ Landis, et al., *Integration of Chlorpyrifos Acetylcholinesterase Inhibition, Water Temperature, and Dissolved Oxygen Concentration into a Regional Scale Multiple Stressor Risk Assessment Estimating Risk to Chinook Salmon*, 16 Integrated Environmental Assessment and Management 28 (2019).

⁷⁴ *Id.* at 35 and Table 4.

⁷⁵ In other instances, too, restoration in the Skagit is proceeding at too slow a pace to remedy ecological losses. See, e.g., Beamer & Wolf, *Chinook Status Habitat Monitoring and Trends: Change in Skagit Tidal Habitat Extent, 2004-2013* (SRSC Research Report, 2017)(finding that “[i]f restoration gains and natural losses continue at the overall observed 2004 – 2013 pace, the Skagit’s DFC for tidal delta extent will not be achieved until year 2096” and recommending future restoration at an “increased pace and magnitude” that “[e]xplicitly incorporate[s] sea level, storm surge, and sediment routing within the Skagit tidal delta into an updated recovery strategy for the Skagit tidal delta”).

A. Shoreline Jurisdiction

There are numerous issues with the SC SMP’s provisions respecting shoreline jurisdiction and mapping. First, we have concerns, as mentioned above, with the County’s selection of the minimum, rather than maximum, extent of shoreline jurisdiction permitted under the Act. In order best to uphold its responsibilities and ensure the protective policies of the Act, the SC SMP should include the maximum jurisdictional limits. Among other things, we recommend that the SC SMP make clear that the lateral extent of its jurisdiction includes not only “floodways and contiguous floodplains areas landward 200 feet from such floodways” but also “the full extent of the 100-year floodplain,” as authorized by RCW 90.58.030(2)(d)(i). Clallam County SMP appropriately chose this option. We note further that, in mapping and applying this jurisdictional term, the County must use the “most current, accurate, and complete scientific and technical information available;” and ensure compliance with the National Marine Fisheries Service Biological Opinion, Reasonable and Prudent Element 3 and App. 4 (FEMA, 2010).⁷⁶ Additionally, we were dismayed to see references to the channel migration zone (CMZ) largely removed between the 2016 and 2021 drafts of the SC SMP. As recommended by WDFW, “[p]rotecting the CMZ from incompatible land uses (e.g., development) is important for providing riparian ecosystem functions. Human alterations to river channels that limit channel migration and bank erosion can degrade aquatic and riparian habitats.... Proper delineation also helps landowners avoid siting homes and infrastructure in CMZs that coincide with geologically hazardous critical areas and floodplains.”⁷⁷

Second, where issues of jurisdiction implicate critical areas and their buffers, we have concerns with the SC SMP’s choice to limit jurisdiction only to critical areas and buffers necessary to protect critical areas that are “located wholly within” shoreline jurisdiction. Similar to our concerns that Skagit County opted for the minimum, rather than maximum, landward extent of jurisdiction as noted above, we believe that, in order best to uphold its responsibilities and ensure the protective policies of the Act, especially for Shorelines of Statewide Significance, the County’s SMP jurisdiction should extend also to critical areas and land necessary for buffers that are located *partly* within the shorelines of the state. As Ecology explains this option, citing RCW 90.58.030(2)(d)(ii): “[w]here a critical area or its buffer lies partly within the Act’s jurisdictional limit, the local government may extend its shoreline jurisdiction to include the entire critical area and all lands necessary for buffers.”⁷⁸ We are concerned that, as written, the SC SMP’s “located wholly within” approach may allow more lax treatment of such areas given, for example, “the reasonable use exceptions, administrative exemptions and waivers” afforded in CAOs but not

⁷⁶ We note that, based on observations to date, it is unclear that the County has been adequately ensuring compliance with the NMFS BiOp. Although the County has indicated that it is currently taking the “Door 3” approach, and reviewing projects for compliance on a case-by-case basis, we believe that more needs to be done to ensure that Skagit County Code provisions adequately implement and facilitate compliance with the NMFS BiOp.

⁷⁷ Washington Department of Fish & Wildlife, Priority Habitats and Species, *Riparian Ecosystems, Volume 2: Management Recommendations*, 13 (2020)(section explaining “The Importance of Channel Migration Zones (CMZs)”).

⁷⁸ Washington Department of Ecology, *Shoreline Master Programs Handbook*, Ch. 5, “Shoreline Jurisdiction,” 23-24 (citing RCW 90.58.030(2)(d)(ii)).

under the Act.⁷⁹ Additionally, as written, the SC SMP’s “located wholly within” approach creates a concern for good governance, insofar as the problem of “dual coverage” under the County’s SMP and CAOs may need to be navigated by all involved, including landowners. This problem is flagged by Ecology in its SMP Handbook.⁸⁰ We note that, again, Clallam County’s SMP appears to take the broader, more inclusive option that we strongly recommend Skagit County adopt.

Third, we believe that the aims of shoreline protection and management will be facilitated by having the County commit to maintaining a publicly available map and Geographic Information Systems database that depicts the approximate location, for planning purposes, of relevant coordinates and features, such as floodplain, floodway, wetlands, feeder bluffs, landslide hazard areas, and channel migration zones. We note that both Clallam County and Jefferson County include such a commitment in their respective SMPs, demonstrating the feasibility and practicality of such an approach.

Fourth, we have concerns about the methodology used to establish the upstream limit of shoreline jurisdiction for streams and rivers. Per the Act, the upstream limit of shoreline jurisdiction is that point where the mean annual flow shifts from 20 cubic feet per second (cfs) or greater to less than 20 cfs. The methodology used to determine these points is described in a 2011 memo on Skagit County’s SMP Update website, prepared by The Watershed Company.⁸¹ (We are not aware of any update to the methodology described in the memo). However, it appears that the methodology utilizes outdated data and tools to establish these jurisdictional reference points. Specifically, they were determined utilizing 1930-1957 mean annual precipitation data, and based on watersheds that were delineated in the 1960s – prior to the advent of GIS, DEMs, and LiDAR. Regressions were established utilizing gauged streamflows current to 1998. None of these data sources represent our modern state of knowledge. In light of the computational power available through modern computers and GIS, the methods used by Skagit County to establish these jurisdictional points are a relic, representing an outdated era of cartography. The data itself reflect climatological norms that no longer accurately represent Skagit County. In short, the methodology on which the County bases the upstream limits of its shoreline jurisdiction falls woefully short of the “most current, accurate, and complete scientific and technical information” available. As a consequence, the County’s jurisdictional maps and determinations will be underinclusive of the streams and rivers that, if accurately characterized, fall squarely within the Act’s definition.

⁷⁹ Washington Department of Ecology, *Shoreline Master Programs Handbook*, Ch. 18, “Integration of Critical Areas Ordinances,” 4.

⁸⁰ Washington Department of Ecology, *Shoreline Master Programs Handbook*, Ch. 5, “Shoreline Jurisdiction,” 23-24.

⁸¹ The Watershed Company, *Memo to Skagit County, Proposed Jurisdiction Summary* (Feb. 15, 2011), comprising Appendix A to the *Shoreline Analysis Report for Skagit County, Hamilton, and Lyman* (Sept. 1, 2011) https://www.skagitcounty.net/PlanningandPermit/FtpFiles/Documents/SMP/Appendix%20A_Proposed%20jurisdiction%20summary.pdf.

Fifth, we have concerns with the SC SMP’s failure to acknowledge the ambulatory nature of the OHWM, its expected landward migration in marine and fluvial/freshwater environments due to climate change and SLR, and the jurisdictional implications of these events.

The following changes are necessary to address the first three of these concerns (and one aspect of the fourth concern), in a manner that also accounts for the challenges of the present limitations in available mapping information and tools. The suggested language tracks closely that adopted by Clallam County and/or Jefferson County’s SMPs.

Replace the SC SMP “14.26.140 Shoreline Jurisdiction” with the following; and revise the conflicting definitions contained in the SC SMP “14.26.820 Definitions” addressing the terms “Floodplain,” and “Floodway” per the language below.

14.26.140 Shoreline Jurisdiction and Mapping.

(1) The jurisdictional limits of this Master Program correspond to the following areas, which are defined in RCW 90.58.030 as shorelines of the state and their associated shorelands:

- (a) all marine waters; and
- (b) rivers and streams where the mean annual flow is 20 cubic feet per second or greater; and
- (c) lakes and reservoirs 20 acres or larger in area; and
- (d) shorelands adjacent to the above water bodies subject to the provisions of this Program that include: those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; all associated wetlands and river deltas; and the full extent of the 100-year floodplain pursuant to RCW 90.58.030 (2)(d)(i); as defined herein, and
- (e) shoreline jurisdiction also extends to critical areas and all lands necessary for buffers to protect those critical areas that are located partly within or otherwise coincident with the shoreline jurisdiction pursuant to RCW 90.58.030(2)(d)(ii).

(2) The portion of any individual parcel subject to shoreline jurisdiction shall be determined by the County on a case-by-case basis at the time shoreline development is proposed. The Administrator may require proponents of shoreline development proposals to provide site-specific information on the location or extent of the floodplain (including as covered by National Marine Fisheries Service Biological Opinion, Reasonable and Prudent Element 3 and App. 4 (FEMA, 2010)), the ordinary high water mark, and/or any associated wetlands or other critical areas to determine the extent of shoreline jurisdiction on a parcel-by-parcel basis.

(3) The County shall maintain a map, which shall be appended to this Master Program, showing the general location and approximate extent of shorelines subject to this Program. The County shall also maintain a Geographic Information Systems database that depicts the coordinates for locating the upstream extent of shoreline jurisdiction (that is, the location

where the mean annual stream flow is 20 cubic feet per second or greater). The database shall also show the approximate location of the floodplain, floodway, wetlands, feeder bluffs, landslide hazard areas, channel migration zones and other features that may have a determinant effect on the jurisdictional boundaries of the Program. The database shall show features that have been identified by local, state, tribal, and/or federal agencies using the most current, accurate, and complete scientific and technical information. The map and database shall be used for planning purposes only. The map and database shall be updated regularly as new information is made available and the public shall have access to the information upon request.

14.26.820 Definitions

Floodplain: per WAC 173-22-030, the 100-year floodplain, meaning that land area susceptible to inundation with a one percent chance of being equaled or exceeded in any given year, based on the floodplain maps adopted per SCC Chapter 14.34, Flood Damage Prevention or a reasonable method which meets the objectives of the Shoreline Management Act.

Floodway: the river or stream channel and adjacent overbank areas through which the base flood is discharged without cumulatively increasing the water surface elevation more than 1 foot. At a minimum, the floodway is that area that has been established in Federal Emergency Management Agency flood insurance rate maps or floodway maps within which encroachment or obstructions are prohibited. The floodway does not include those lands that can reasonably be expected to be protected from flood waters by flood control devices maintained by or maintained under license from the federal government, the state, or a political subdivision of the state.

To address the fourth concern, the methodology used by the County to determine the reference points for the upstream extent of jurisdiction on streams must utilize current data sources and tools. Mean Annual Precipitation data from recent decades must be used. Watershed delineations must be updated utilizing modern topographic data. Regressions must be matched to recent decades of gauged streamflows. In short, the County must revise its maps and jurisdictional determinations in accordance with methods that use the most current, accurate, and complete science and technical information. Going forward, a plan should also be established for updating these data sources regularly as climate change continues to affect both precipitation and streamflows throughout the coming century.

Finally, the fifth concern is related to the SC SMP's failure to acknowledge for climate change and SLR, discussed above, and was raised by Swinomish in its March, 2016 comment letter. Although the ambulatory nature of the land-water interface (whether in marine, riparian, or littoral contexts) and its implications for land ownership is recognized as a matter of textbook property law, particular issues arise with the expected landward migration of the OHWM or MHWMM with SLR. As pointed out by the Tribe, among these issues is what happens when structures, including shore protection structures, that were formerly landward of the OHWM/MWHM come to be waterward of it with as the sea level rises. The Tribe reiterates its recommendation that “[p]olicies should be established regarding when and where such

‘trespassing’ structures should be removed to allow the landward migration of the shoreline,” as well its recommendation that the County refer to the Swinomish Tidelands Ordinance (STC Title 23, Chapter 11) to this end.⁸²

B. Shoreline Environment Designations

We have several comments regarding the SC SMP’s provisions respecting shoreline jurisdiction and mapping. First, as mentioned in previous comments by Swinomish and the SRSC, we appreciate the addition of the “Rural Conservancy – Skagit Floodway” Shoreline Environment Designation (SED). Second, we believe, however, that the SC SMP does not fully make use of SEDs to ensure an adequate level of protection to shoreline resources and note that other local governments have done so. To this end, we recommend that a “Priority Aquatic” SED be added to the SC SMP policies, regulations, and map. Third, we also have particular suggestions for corrections to the SC SMP SED maps; these are indicated in Appendix A.

With respect to a new “Priority Aquatic” SED, we recommend adding provisions to sections 14.26.200 and 14.26.210 that afford additional protection to areas and resources otherwise within the “Aquatic” SED, but that, due to their unique or sensitive nature or due to the presence of particular threats or other issues, should be identified for greater and/or particular protections. Both the Jefferson County SMP and the City of Bainbridge Island (COBI) SMP take this approach. For example, whereas the purpose of Jefferson County’s Aquatic SED reads much like the SC SMP’s purpose statement, Jefferson County distinguishes the Primary Aquatic SED for protection “to the highest degree possible.” The COBI SMP elaborates further in this same vein and we suggest language below that largely tracks the COBI SMP.

To this end, we recommend adding a new “Priority Aquatic” SED statement of purpose to SC SMP “6B – Environment Designations” as follows:

Purpose

The purpose of the Priority Aquatic designation is to protect, preserve, restore and manage aquatic areas of sensitive and unique ecological value that include those portions of the marine waters of that exist in a relatively natural state, free of human influence, or which contain resources, biological diversity, or other features that are particularly sensitive to human activity, or which contain unique, historical, archeological, cultural, or educational features that merit special protection. The Priority Aquatic designation is intended to afford the highest degree of protection possible.

We note that among the Jefferson County SMP’s designation criteria, this SED is “assigned to the most vital salmon streams and nearshore areas and the highest value marine shellfish habitats” including intact drift cell processes; forage fish spawning habitats (herring, surf smelt,

⁸² Accord, California Coastal Commission, *Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits* (2018).
<https://www.coastal.ca.gov/climate/slrguidance.html>.

sandlance); and important intertidal and subtidal shellfish areas. The COBI SMP’s designation criteria state: “Tidal lagoons and sensitive portions of tidal inlets will require protection in terms of water salinity and quality, sediment quality and quantity, native vegetation on adjacent shorelines, and remaining areas of native salt-tolerant vegetation. Other types, such as aquatic vegetation, have similar requirements.” The COBI SMP then goes on to set forth appropriate management policies and regulations, e.g., prohibiting or significantly regulating such uses and developments as overwater structures, boat moorage, aquaculture, and structural shoreline stabilization.

In Skagit County’s SMP, a Priority Aquatic SED should employ similar designation criteria to afford the highest level of protection to appropriate areas and resources. For example, Rubin, et al. (2018) documented the importance of eelgrass habitat in the Skagit River delta for fish, especially out-migrating juvenile Chinook and forage fish such as Pacific herring.⁸³ Both of these fish species, of course, are in peril – but are of importance for their own sake, and vital for the health of the ecosystem as a whole, including those who depend on Chinook for food, such as SRKW and humans. Skagit County should look to the “most current, accurate, and complete” science and work with the Swinomish Tribe to map areas and resources appropriate for this SED and identify appropriate management policies and regulations that would afford them the highest degree of protection possible.

C. Environmental Protection – Shorelines of Statewide Significance

As discussed above, the SC SMP fails to meet the heightened standards for protecting shorelines of statewide significance. Among other things, there should be a separate section in Part III’s General Regulations that highlights and provides clearly defined regulations for the considerable amount of existing areas qualifying as Shorelines of Statewide Significance that are affected by the SC SMP. The COBI SMP, for example, makes use of this approach (see COBI SMP, 4.4.1); see also the Island County SMP, Goals and Policies, Ch. IV.

The provisions in this new section to be added to the SC SMP Part III should emphasize the Act’s mandate that the “interests of all of the people *shall be paramount* in the management of shorelines of statewide significance;” and, taking the Act’s hierarchy of preferences as a framework, elaborate each and also set forth regulatory requirements to ensure the Act’s policy preference is upheld. The new section speaking to Shorelines of Statewide Significance should follow the COBI SMP model, with the additions described below.

⁸³ Rubin, et al., *Juvenile Chinook Salmon and Forage Fish Use of Eelgrass Habitats in a Diked and Channelized Puget Sound River Delta*, 10 Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science 435 (2018) (finding that “Chinook Salmon were more abundant in eelgrass than in unvegetated habitat in June–July and were relatively more abundant in eelgrass compared with unvegetated habitat in regions with intact eelgrass than offshore from a channelized distributary outlet. Abundances of Pacific Herring *Clupea pallasii* and Shiner Perch *Cymatogaster aggregata* were consistently severalfold higher in eelgrass than in unvegetated habitat. Surf Smelt *Hypomesus pretiosus* were more abundant in eelgrass than in unvegetated habitat at some locations, but never less abundant in eelgrass”).

One important example stems from the Act’s highest preference, i.e., “recognize and protect the statewide interest over local interest.” After stating the language of this preference, the new section in the SC SMP should elaborate the need for the County to ascertain the “statewide interest,” and how this would be best served in view of the next three preferences, such as to “preserve the natural character of the shoreline,” “result in long term over short term benefit,” and “protect the resources and ecology of the shoreline.” As other local governments have recognized, ascertaining the statewide interest is not a matter for a county or city acting on its own. To this end, the COBI SMP instructs the City to seek out expertise (“solicit comments, opinions, and advice from individuals with expertise in ecology, geology, limnology, aquaculture, and other scientific fields pertinent to shoreline management”) and consider input and priorities from “adjacent jurisdictions,” statewide interest groups, and others. The Island County SMP contains a similar instruction, and makes clear that the County should solicit and consider such input not only “by circulating the Master Program, [and] Master Program amendments,” but also “requests for substantial development permits” in Shorelines of Statewide Significance (see Island County SMP Goals and Policies, Ch IV (1)(a)).

The SC SMP should include a similar provision requiring Skagit County to inquire as to the statewide interest, given the numerous well known statewide interests of Skagit River salmon. This new SC SMP provision should specify the Swinomish Tribe among those to be consulted to this end, given the Tribe’s unique status, rights, interests, and expertise. As with other “adjacent jurisdictions,” the Tribe is an adjacent government whose own resource management, protection, and restoration efforts are impacted by the County’s decisions. As with other subject-matter specialists, the Tribe possesses crucial scientific and technical expertise. Beyond this, the Tribe holds unmatched knowledge of its homelands and waters, gleaned over generations of residency in place and honed up through the present. And the potential for impacting the Tribe’s treaty-secured rights and resources – the protection of which is a matter of statewide interest, as noted above – further weights the necessity of soliciting and considering the Tribe’s input. We recommend that the Tribe’s input be sought to this end not only at the programmatic level, but also where the County’s review of proposed development, uses, or activities within shorelines of statewide significances per the new section recommended below (following COBI SMP 4.1.1.2) suggests that the Tribe’s rights or interests may be implicated, or its expertise may be helpful to ascertain the statewide interest and how best to protect it.

To take another example, in order to ensure that the SC SMP will “result in long-term over short-term benefit,” it should recognize the interests of future generations and prohibit uses or development that would cause irreversible harm. The COBI SMP provides, among other things, that “In general, preserve resources and values of shoreline of state-wide significance for future generations and restrict or prohibit development that would irreversibly damage shoreline resources.” Whatcom County and the City of Bellingham similarly give specific recognition to the interests of future generations in various relevant provisions.

In order to operationalize these requirements, the SC SMP should insert a new section early in Part III, General Regulations – e.g., following the current 14.26.300 but before 14.26.305. It

should provide, at the outset of this new section, as the COBI SMP does (see COBI SMP, 4.1.1.2), that:

Proposed development, use, and activity within shorelines of statewide significance shall be reviewed in accordance with preferred policies listed in 14.26.3XX (see new section below). The Administrator may reduce, alter, or deny proposed development, use, or activity to satisfy the preferred policy.

Then, the SC SMP should add the following language:

14.26.3XX Shorelines of Statewide Significance

Where Shorelines of Statewide Significance are impacted, the following policies (In order of preference) and requirements shall govern:

- (1) Recognize and protect the statewide interest over local interest.
 - a. Solicit and consider comments and input from groups and individuals representing statewide interests by circulating the Master Program, and any amendments thereto, and requests for substantial development permits affecting Shorelines of Statewide Significance, to state agencies, adjacent jurisdictions including the Swinomish Tribe, citizen’s advisory committees, local officials, and state-wide interest groups.
 - b. Recognize and take into account state agencies’ policies, programs, and recommendations in developing and administering use regulations, and in approving shoreline permits.
 - c. Solicit comments, opinions, and advice from individuals with expertise in ecology, geology, limnology, fisheries biology, and other scientific fields pertinent to shoreline management.
- (2) Preserve the natural character of the shoreline.
 - a. Designate and administer shoreline designation and use regulations to avoid and minimize damage to the ecology and environment of the shoreline as a result of human-made intrusions on the shorelines.
- (3) Result in long-term over short-term benefit.
 - a. Evaluate the short-term economic gain or convenience of developments relative to the long-term and potentially costly impairments to the natural shoreline.
 - b. In general, preserve resources and values of shoreline of state-wide significance for future generations and restrict or prohibit development that would irreversibly damage shoreline resources.
 - c. Employ the precautionary principle when evaluating complex systems or analyzing data characterized by uncertainty.
 - d. Actively promote aesthetic and cultural considerations when contemplating new development, redevelopment of existing facilities, or general enhancement of shoreline areas.

- (4) Protect the resources and ecology of the shoreline.
 - a. Avoid and minimize development activity that will interfere with the natural functioning of the shoreline ecosystem including, but not limited to, shoreline stability, drainage, sediment regimes, and water quality.
 - b. All shoreline development should be located, designed, constructed, and managed to avoid disturbance of, and to minimize adverse impacts on, fish and wildlife resources including spawning, nesting, rearing, and habitat areas and migratory routes.
 - c. Restrict or prohibit public access onto areas that cannot be maintained in a natural condition under human uses.
 - d. Shoreline materials including, but not limited to, bank substrate, soils, beach sands, and gravel bars should be left undisturbed by shoreline development.

- (5) Increase public access to publicly owned areas of the shorelines.
 - a. Give priority to developing appropriate paths and trails to allow public shoreline areas and viewpoints.
 - b. Locate development landward of the ordinary high water mark.
 - c. Limit public access when environmental or habitat values warrant such limitations.

- (6) Increase recreational opportunities for the public on the shoreline.
 - a. Plan for and encourage appropriate development of facilities for recreational use of the shorelines.

Finally, in order to meet the heightened standard of “optimum implementation” of protections for Shorelines of Statewide Significance, policies and regulations throughout the SC SMP that affect Shorelines of Statewide Significance need to be made much more protective.

D. Environmental Protection -- Mitigation

As Swinomish and SRSC have emphasized in previous comments to the County, mitigation provisions are “an important (and required) component in any shoreline plan” and foundational to demonstrating no net loss of ecological functions, processes, and values.⁸⁴ We appreciate that the SC SMP has made some progress in 14.26.305(4)-(6) toward addressing these issues. However, many of the concerns we highlighted in our earlier input remain, and we recommend that the mitigation provisions (including related policies and regulations) be strengthened in several ways.

First, the SC SMP’s related policy statement at 6G -1 “Environmental Protection” inappropriately appears to weaken or undermine the requirements of the Act. Among other things, this section uses the term “should,” which the County has redefined to mean “may” (e.g., “use and development should be carried out in a manner that prevents or mitigates” both on-site

⁸⁴ SRSC Comments, Draft Skagit County SMP Update (May 13, 2013) (2013); SRSC Comments, Skagit County Shoreline Master Program Update (April 4, 2016).

and off-site impacts; in assessing the potential for NNL, “project specific and cumulative impacts should be considered”). Given the Act’s requirement that NNL be achieved at the programmatic and project level, the County must instead use the mandatory term “shall.” Additionally, the SC SMP statements, as written, obscure the full import of the Act’s NNL requirements (e.g., “so that the resulting ecological condition does not become worse than the current condition” – which misstates the NNL inquiry and touchstone). Rather, they should make clear that NNL applies to ecological functions, processes, and values on both local and ecosystemic scales, and otherwise track the language of the Act and Ecology’s regulations. Other local governments’ statements use preferable language (see, e.g., COBI SMP, 4.1.2.1). To address this issue, the following changes are necessary to the policy statements in the SC SMP, at 6G-1:

Policies

6G-1.1 ~~All shoreline use, and development and activity shall~~ be located, designed, constructed, managed, and maintained ~~carried out~~ in a manner that ~~prevents~~ avoids, minimizes, and/or mitigates adverse impacts to the shoreline environment, both on site and, to the extent that impacts may propagate, off site. The preferred mitigation sequence (avoid, minimize, rectify, reduce, or compensate for the environmental impact) shall follow that listed in WAC 173-26-201(2)(e). ~~, so that the resulting ecological condition does not become worse than the current condition.~~

6G-1.2 In approving shoreline development, the County shall ensure that shoreline development, use, and/or activities will result in no net loss of ecological functions and ecosystem-wide processes necessary to sustain shoreline resources, including loss that may result from the cumulative impacts of various developments over time, and shall ensure protection of all critical areas and their buffers consistent with constitutional and statutory limitations on the regulation of private property. ~~This means ensuring no net loss of ecological functions and processes relative to the existing condition, protecting shoreline critical areas and their buffers, and protecting additional shoreline buffers in a manner consistent with all relevant constitutional and other legal limitations on the regulation of private property.~~

- a. Shoreline ecological functions that should be protected include, but are not limited to: fish and wildlife habitat, food chain support, and water temperature maintenance.
- b. Shoreline ecological processes that should be protected include, but are not limited to: water flow; erosion and accretion; infiltration; ground water recharge and discharge; sediment delivery, transport, and storage; large woody debris recruitment; organic matter input; nutrient and pathogen removal; and stream channel formation and maintenance.

6G-1.23 Development standards (e.g. setbacks, impervious surface coverage limitations) should protect existing shoreline ecological functions and processes.

6G-1.34 ~~In assessing the potential for net loss of ecological functions or processes, project specific and cumulative impacts should be considered.~~ In assessing the potential for new uses, activities and developments to cause adverse impacts, take into account all of the following:

- a. Effects on ecological functions and ecosystem-wide processes, including temporal loss of functions; and
- b. Effects that occur on-site and effects that may occur off-site; and
- c. Direct and indirect effects and long-term effects of the project; and
- d. Effects of the project and the incremental or cumulative effects resulting from the project added to other past, present, and reasonably foreseeable future actions; and
- e. Compensatory mitigation actions that offset adverse impacts of the development action and/or use

6G-1.5 Ensure, through appropriate monitoring and enforcement measures, that all required conditions are met, and compensatory mitigation measures are undertaken and properly maintained. In order to ensure No Net Loss over the life of a development, landowners should demonstrate sensitivity to mitigation areas and allow no disturbance or development within areas approved as mitigation for a development.

Relatedly, the COBI SMP carries this mandatory language through in its regulatory provisions; makes explicit the tie to the Act’s NNL standard; and makes clear that NNL must be achieved at both the programmatic and project level, e.g., by speaking specifically to preferred or exempt uses. To address this issue, the following changes are necessary to be included in the SC SMP (see COBI SMP, 4.1.2.4):

14.26.305 Environmental Protection

(2) Impact Analysis and No Net Loss Standard. All shoreline development, use and activities, including preferred uses, and uses that are exempt from a shoreline substantial permit, shall be located, designed, constructed, and maintained in a manner that protects ecological functions and ecosystem-wide processes.

In order to accommodate the above new subsection (2), the existing subsections (2) (Protection of critical areas) and (3)(Protection of Buffers), both of which speak to Critical Areas and their buffers, should be combined into subsection (3).

Second, although SC SMP 14.26.305 Mitigation Sequence repeats the items in order specified by Ecology’s regulations, it fails to convey the required “top priority” for the first step of avoiding the impact altogether, per WAC 173-26-201(2)(e)(i) and (i)(A).⁸⁵ To address this issue, the following changes are necessary:

14.26.305 Environmental Protection

⁸⁵ WAC 173-26-201(2)(e)(i) (“Master programs shall indicate that, where required, mitigation measures shall be applied in the following sequence of steps listed in order of priority, with (e)(i)(A) of this subsection being top priority: (A) Avoiding the impact altogether by not taking a certain action or parts of an action”).

(5) Mitigation Sequence. Anywhere mitigation is required under this SMP, mitigation measures shall be applied in the following sequence listed in order of priority, with avoidance being top priority. In order to ensure that development activities contribute to meeting the no net loss provisions by avoiding, minimizing, and mitigating for adverse impacts to ecological functions or ecosystem-wide processes, an An applicant required to complete a mitigation analysis pursuant to SCC 14.26.305(34) must describe how the proposal will follow the sequence of mitigation as defined below:...

Third, as we observed in previous comments and as empirical evidence suggests, “in practice many mitigation plans and projects fall far short of the no-net-loss standard.”⁸⁶ Among other correctives for this problem, the provisions for mitigation plans must recognize the need to account for the certainty of on-the-ground failures, for the projected effects of climate change on substitute resources’ future ability to perform compensatory ecological functions (see discussion of climate change above), for the temporal dimensions of lost ecosystem services and values until substitute resources become established and/or when mitigation is delayed (see discussion of NNL above), and for uncertainty generally. Yet the provisions for mitigation plans at 14.26.305(6) evince concern only in the other – wrong - direction, i.e., for mitigation “in excess of that necessary” to achieve NNL, which it says will not be required. Given that “excess” mitigation virtually is unheard of in reality, the County could ensure a balanced approach by adding a “reopener” provision, i.e., reserving the ability to require further mitigation work where this turns out to be necessary to achieve NNL within 5-7 years of the development. To address this issue, the following changes are necessary:

14.26.305 Environmental Protection

Mitigation Plan. All proposed alterations to shoreline development, uses and activities shall undertake the required mitigation sequence in 14.26.305(5); utilize effective erosion and scour control methods during project construction and operation; minimize adverse impacts to critical salt water habitat, fish and wildlife conservation areas, and/or other ecological functions and ecosystem-wide processes, such as those provided by shoreline vegetation; minimize interference with beneficial natural shoreline processes, such as water circulation, sediment transport, erosion, and accretion; avoid hazards to public health and safety; minimize the need for shoreline stabilization measures and flood protection in the future; and result in no net loss of ecological functions and processes necessary to sustain shoreline resources, including loss that may result from the cumulative impacts of similar developments over time. areas or associated buffers require mitigation sufficient to provide for and maintain the functions and values of the shoreline area or to prevent risk from a critical areas hazard and must In reviewing and approving shoreline development, use or activity, regardless of whether a permit is required, the Administrator shall condition the shoreline development, use, and/or activities such that it will meet these requirements and employ measures to mitigate adverse impacts on shoreline functions and, processes, and may give adequate

⁸⁶ SRSC Comments, Skagit County Shoreline Master Program Update (April 4, 2016); see also, SRSC Comments, Draft Skagit County SMP Update (May 13, 2013).

consideration to the reasonable and economically viable use of the property. If a proposed shoreline development, use or activity is determined by the Administrator to result in significant short-term, long-term, or cumulative adverse environmental impacts lacking appropriate compensatory mitigation, it shall be sufficient reason for the Administrator to deny a permit. The applicant must develop and implement a mitigation plan prepared by a qualified professional. Mitigation in excess of that necessary to ensure that development will result in no net loss of ecological functions will not be required by Skagit County, but may be voluntarily performed by an applicant. In addition to any requirements found in Part V, Critical Areas Regulations in Shoreline Jurisdiction, a mitigation plan must include:...

Additionally, as we have suggested in our earlier comments, concrete mechanisms must be included throughout the SC SMP regulatory provisions to address the known shortcomings of mitigation identified above. One such mechanism is to require mitigation at ratios well in excess of 1:1 by area/other relevant metrics (as opposed to the “at a minimum 1:1 ratio by area” required for new overwater structures under 14.26.420 Boating Facilities and Related Structures and Uses, (5) Mitigation).⁸⁷ Another mechanism we have recommended is to stipulate that the mitigation undertaken have a tight nexus to the species and environments adversely affected by the project – e.g., following up on the previous example from 14.26.420, recognizing that riparian plantings at a 1:1 ratio are a vastly inadequate compensation for the harms of overwater structures – and include a temporal component that acknowledges the loss of mature habitat, resulting here in stronger and more tailored requirements to ensure NNL from the specific perspective of those species and environments harmed. Another mechanism involves elaborating particular substantive requirements for compensatory mitigation, similar to the COBI SMP. Note that the COBI SMP requirements appropriately use mandatory “shall” language; speak to “the *quality* and quantity” of the replaced, enhanced, or substituted resources; specify that the mitigation site and associated vegetative planting “shall be *nurtured* and *maintained* such that *healthy native plant communities can grow and mature*;” mandates that mitigation “*shall*” be informed by “pertinent scientific and technical studies;” and requires monitoring and maintenance to ensure it actually “achieves” the “intended functions and values” (i.e., those justifying a finding of NNL) – all to be backed up by financial assurances, per the Surety provisions. We strongly recommend this language for the SC SMP (see COBI SMP, 4.1.2.6); specifically, the following changes are necessary:

14.26.305 Environmental Protection

- (9) When compensatory mitigation measures are required, all of the following shall apply:
- (a) The quality and quantity of the replaced, enhanced, or substituted resources shall be the same or better than the affected resources; and
 - (b) The mitigation site and associated vegetative planting shall be nurtured and maintained such that healthy native plant communities can grow and mature over time; and

⁸⁷ See NOAA Fisheries, West Coast Region, *Guidance on Assessing the Effects of Structures in Endangered Species Act (ESA) Section 7 Consultation* (April, 2018).

- (c) The mitigation shall be informed by pertinent scientific and technical studies, including but not limited to the Shoreline Inventory and Characterization Report, the Shoreline Restoration Plan and other background studies prepared in support of this SMP; and
- (d) The mitigation activity shall be monitored and maintained to ensure that it achieves its intended functions and values, pursuant to Sections 14.26.305(11) and (12).

(10) Where feasible, replacement compensatory mitigation should be required prior to impact and, if applicable, prior to final inspection and approval of building occupancy; and to ensure no net loss, the mitigation shall replace the functions as quickly as possible following the impact.

Fourth, given the reality of mitigation plans and projects that frequently fall short, the SC SMP should incorporate stronger requirements to confirm that mitigation work is actually completed and maintained; to provide increased monitoring to ensure its ongoing effectiveness (particularly for projects that are high-risk and/or involve particularly sensitive areas or undertakings); and to report the results to the County, so that its assessment of NNL can be evaluated and, as necessary, adaptive changes made. Among other things, this last point comports with the concern expressed in Ecology’s regulations that “[e]ffective shoreline management requires the evaluation of changing conditions and the modification of policies and regulations to address identified trends and new information”⁸⁸ (an issue taken up further below). Among the particular provisions to be strengthened to this end are more robust provisions for monitoring and maintenance, such as those included in the COBI SMP, including the heightened provisions for monitoring and maintenance for all new and replacement shoreline stabilization projects, given the particular concerns with projects of this sort. We note that reports required by the new section below would be important to evaluating NNL and should, of course, be available to the public and Ecology. To address this issue, the following changes are necessary: (see COBI SMP, 4.1.2.8).

14.26.305 Environmental Protection

(11) Monitoring and Maintenance. When mitigation is required, a periodic monitoring program shall be included as a component of the required mitigation plan, as follows:

(a) To ensure the success of the required mitigation, monitoring shall occur for a minimum duration of five years from the date of the completed development. The monitoring plan may also require that periodic maintenance measures be included as recommended by a qualified professional. The duration of monitoring may be extended if the project performance standards set forth in the approved mitigation plan fail to be accomplished, or, due to project complexity, the approved mitigation plan requires a longer period of monitoring.

(b) Monitoring programs may be forwarded for review and comment to state and/or federal resource agencies and affected tribes with jurisdiction.

(c) Monitoring programs shall meet the requirements established in Section 14.26.515, Critical Area Review and Site Assessment Procedures.

⁸⁸ WAC 173-26-201(b).

(d) All new and replacement shoreline stabilization projects shall complete and submit a minimum five-year monitoring and maintenance program that addresses the shoreline stabilization mitigation measures, and shall at a minimum include:

(i) An annual site visit by a qualified professional for each of the five (5) years to assess the effectiveness of the mitigation; and

(ii) A progress report submitted to the Administrator annually, which includes any monitoring or maintenance recommendations of the qualified professional.

(12) Notice on Title and Surety. To ensure that mitigation will be undertaken and maintained:

(a) The applicant/property owner shall provide assurance to the satisfaction of the Administrator, that the restoration area (including off-site mitigation) will be maintained in perpetuity are to be kept free of disturbance and development as a part of a development permit issued on that property. The assurance can be in the form of notice on title, conservation easement, or similar enforceable mechanism that provides notice in the chain of title, and runs with the land to bind succeeding property owners, and meets all of the requirements of 14.26.520(3).

(b) Except for projects undertaken by public entities, performance and/or maintenance bonds or other security shall be required by the County to assure that work is completed, monitored, and maintained. The bond/surety shall be refunded to the depositor upon completion of the mitigation activity and any required monitoring.

Additionally, for clarity, language should be added to “14.26.305(7) Alternative Mitigation” stipulating that the monitoring and maintenance, notice on title, and surety requirements of 14.26.305(11) and (12) remain applicable to any alternative mitigation approaches approved under section 14.26.305(7).

Finally, we urge that, where mitigation is required under various particular provisions throughout the SC SMP, that they cross-reference this section 14.26.305 appropriately.

E. General Provisions Waterward of the OHWM

We are concerned that the provisions do not sufficiently protect vegetation waterward of the OHWM and within the Channel Migration Zone (CMZ), and that any disturbance to the vegetation is not sufficiently mitigated. While section “14.26.380 Vegetation Conservation” does technically cover all Shoreline vegetation riparian habitat buffers as well as vegetation waterward of OHWM, we believe that emphasis must be placed on protecting, conserving, or replacing vegetation waterward of the OHWM and within the CMZ as this vegetation plays such an integral role in providing habitat, structure, and nutrients necessary for our aquatic species – particularly ESA-listed salmonids – to survive alongside shoreline development.

The protection of vegetation waterward of the OHWM warrants special emphasis, so that County staff and the public understand their role in protecting these vital habitat areas of the shoreline. To ensure this protection, all development should be required to comply with the 2014 NOAA Fisheries’ West Coast Eelgrass Mitigation Guidance policy, as revised, in all instances when dealing with native eelgrass habitat or other native macroalgae.

In order to address these concerns, the following changes are necessary:

14.26.330(11) Protection of bank and vegetation

(a) Alteration or disturbance of the bank and bank vegetation must adhere to the 16-foot buffer requirements from any native eelgrass habitat and be limited to the minimum necessary to perform the authorized in-water work. Provisions of SCC 14.26.380 apply to areas waterward of the OHWM.

(b) All disturbed areas must be immediately restored and protected to ensure no erosion using native vegetation or other similar means. Work must maintain natural features such as large in-water wood, log jams, and stumps. Where public safety concerns are paramount as determined and documented by the Administrator, removal of natural features should only occur if fully mitigated (SCC 14.26.305(4)).

We are concerned that the County is abandoning the effort to delineate Channel Migration Zones and incorporate those areas into the SMP. We were dismayed to see in SCC 14.26.330(12)(c) a revision that removes reference to the CMZ and replaces that term with “floodplain.” However, the definition for floodplain in the SC SMP references maps adopted under Flood Damage Prevention section 14.34. These Q3 maps are based upon the paper FEMA maps developed in the 1980s, with some revisions where LOMRs and other revisions to mapped floodplains have been completed. However, the Q3 floodplain maps do not utilize the *many* sources of modern information including Lidar topography, historic and current airphotos, soils maps, and other types of geospatial information, and we question why that is the case, given the obligation to use the “most current, accurate and complete scientific and technical information available” and given that the effect of not updating the floodplain maps is to reduce protection within this area.

Washington DNR and Forest Practices routinely identify CMZs as part of their Forest Practices requirements, and the same such protections must be ensured for CMZs outside of forest lands where residential and commercial development are able to put themselves and others at risk, and to perpetuate ecological damage. As such, the Q3 floodplain maps are painfully simplified representations of floodplains almost exclusively associated with the Skagit and Sauk Rivers. Floodplains (and Channel Migration Zones) associated with smaller tributary streams, even waterbodies as large as Day Creek, Red Cabin Creek, Diobsud Creek, or Bacon Creek are excluded from the archaic FEMA maps despite the fact that we can all observe channel migration activity and there is residential development in dangerous locations in the floodplain.

Furthermore, the NFIP BiOp stipulates that the Channel Migration Zone is a place for protection and limitation of developments and the County must ensure compliance with the National Marine Fisheries Service Biological Opinion, Reasonable and Prudent Element 3 and App. 4 (FEMA, 2010).⁸⁹ As noted by WDFW, “[p]rotecting the CMZ from incompatible land uses (e.g., development) is important for providing riparian ecosystem functions. Human alterations to river

⁸⁹ We note that, based on observations to date, it is unclear that the County has been adequately ensuring compliance with the NMFS BiOp. Although the County has indicated that it is currently taking the “Door 3” approach, and reviewing projects for compliance on a case-by-case basis, we believe that more needs to be done to ensure that Skagit County Code provisions adequately implement and facilitate compliance with the NMFS BiOp.

channels that limit channel migration and bank erosion can degrade aquatic and riparian habitats.... Proper delineation also helps landowners avoid siting homes and infrastructure in CMZs that coincide with geologically hazardous critical areas and floodplains.”⁹⁰

While we have recommended changes to the definition of “floodplain” above, we also urge that updated Channel Migration Zones become a part of this SMP more generally. If the CMZ analysis is not ready now (as the County suggested during one of the public meetings), we urge the County to complete the necessary analysis and delineation as quickly as possible. We also recommend, in the meantime, that the SMP should nonetheless retain appropriate placeholders, rather than wait until the next round of required SMP updates. We were dismayed to see that nearly every reference to the CMZ that had been present in the Feb. 2, 2021 version of the SC SMP had apparently been replaced with the term “floodplain” by the April 4, 2021 version. As part of this effort to address the above concerns, Policy 6C-8.5, Policy 6C-11.3, 14.26.220(1)(c), 14.26.330(12)(c), 14.26.350(3)(a), and 14.26.350(3)(b) retain the references to the CMZ in these several provisions, and should be changed as follows:

6C-8. Dredging and Dredge Material Disposal

6C-8.5 Dredge material disposal on land is generally preferred over open water disposal. The disposal of dredge material on shorelands or wetlands within a river’s ~~floodplain~~ channel migration zone should be discouraged.

6C-11. Instream Structural Uses

6C-11.3 New or expanding development or uses in the shoreline, including subdivision of land, that would likely require structural flood control works within a stream, river, ~~floodplain~~ channel migration zone, or floodway should not be allowed.

14.26.220(1) Boundary Line Determination.

(c) In the event of a physical change in a shoreline or wetland feature, boundaries must be construed as moving with the actual shoreline, channel migration zone, floodway, or floodplain.

14.26.330(12) Trash and unauthorized fill removal required

(c) Disposal should occur in an approved upland disposal location, outside of the shoreline jurisdiction if feasible but at a minimum landward of the OHWM and the ~~floodplain~~ CMZ. See SCC 14.26.435 Dredging and Dredge Material Disposal and SCC 14.26.440 Fill, Excavation and Grading for potentially applicable policies and regulations regarding dredging, fill and disposal.

⁹⁰ Washington Department of Fish & Wildlife, Priority Habitats and Species, *Riparian Ecosystems, Volume 2: Management Recommendations*, 13 (2020)(section explaining “The Importance of Channel Migration Zones (CMZs)”).

F. Flood Hazard Reduction

In light of the concerns set forth with the SC SMP’s need to reference the CMZ above, we similarly note our dismay that two of the scrubbed references to the CMZ were found in the provisions applicable to “Flood Hazard Reduction.” We thus recommend that the references to CMZ in section 14.26.350(3)(a) and (b) be reinstated. Additionally, we are concerned that the term “reasonably foreseeable” is too subjective in this context. This is a particular issue given the realities of climate change and SLR, discussed above. Although the science supports the California Coastal Commission’s observation that “climate change is upon us,” and thus the need to account for it is reasonably foreseeable, it is nonetheless possible that individual proponents of development or uses will argue this point. The use of a quantified time-frame, 75 years is the better approach; we note that this is the approach taken by the San Juan County SMP.

14.26.350(3) Development Standards

(a) New development or uses in shoreline jurisdiction, including the subdivision of land, are prohibited when ~~it is reasonably foreseeable that~~ the development or use would require structural flood hazard reduction measures within the floodplain, channel migration zone, or floodway ~~during the life of the~~ within 75 years of the development or use.

(b) The following uses and activities may be authorized where appropriate and necessary within the floodplain, channel migration zone, or floodway, provided they comply with the regulations of SCC 14.34, Flood Damage Prevention: ...

G. Outdoor Advertising and Signs

We are concerned about lighted signage within the shoreline area and its buffers. Artificial lighting can attract plankton, plankton attract small fish (e.g., juvenile salmon and forage fish), and small fish attract larger predatory fish. We are concerned that without stronger development standards, a lighted sign near aquatic resources may affect animal behavior and negatively impact fish species. In order to address these concerns, the following revisions are necessary:

14.26.360(4) Development Standards

(d) Lighting. Outdoor advertising may not move or fluctuate in lighting or position in any manner. Permanent outdoor lighted billboards are not permitted within shorelines or their buffers.

H. Vegetation Conservation

We have numerous issues with the provisions for vegetation conservation. First, we have concerns regarding the protection of water quality and habitat quality where agricultural management of watercourses, particularly typed (S, F, N) streams, is implemented. To address the highlighted concerns, the following revisions are necessary:

In Policy section “6C-1.4 Drainage” amend text to read: Vegetation management along drainage ditches should be allowed and should be conducted in accordance with this SMP as well as the guidelines and regulations of appropriate state and regional agencies (e.g. Northwest Clean Air Agency, Washington Department of Fish and Wildlife, Washington Department of Ecology, FEMA).

Second, native vegetation within a shoreline jurisdiction offers important ecological structure and function, yet the prioritization of vegetation retention and planting new vegetation in the shoreline areas is not clearly emphasized. The critical nature of these ecological functions is stressed, for example, by Ecology in the chapter of its SMP Handbook devoted entirely to vegetation conservation.⁹¹ To address this concern, we believe the following revisions are necessary.

14.26.380 Vegetation conservation

(3) Development standards

(d)(ii) Change the table included in this subsection to indicate that “Shoreline Residential” zoning should retain a minimum of 65% of significant trees outside the critical area and their buffers, similar to Urban and Rural Conservancy zoning districts in the table.

(d)(v)(B) Replacement trees may be placed in other locations on the property, as approved by the Administrative Official, with the priority being a location within the shoreline jurisdiction on a property.

Third, we have concerns about vague requirements for planning to retain onsite vegetation and the potential for confusion of terminology as between ‘vegetation retention’ and ‘tree retention;’ we suggest consistent language to offer clarity to County staff and the public.

Fourth, we are concerned that the 3:1 ratio for replacement is woefully insufficient, given the time it takes for trees to mature, and the potential for failure (which may be increased due to climate change). We note that the science simply does not support the notion that three small immature trees can adequately replace the ecological functions of a mature tree immediately upon planting, nor for a considerable time thereafter.

In order to address these third and fourth concerns, the following revisions are necessary:

In Policy 6G-3.3 amend text to read: The protection of existing vegetation ~~and~~ over the establishment of new native vegetation is preferred, and shall be required unless it is demonstrated to be infeasible.

In “Application Requirements 14.26.710(3)” amend text to add: (f) The applicant must submit a vegetation retention plan as required in SCC 14.26.380(2).

⁹¹ Washington Department of Ecology, Shoreline Master Programs Handbook, Ch 11, “Vegetation Conservation, Buffers, and Setbacks.”

In Code section 14.26.380(2)(c) amend text to read: significant trees, trees, and other vegetation to be retained;

In 14.26.380(3)(d)(iv) amend text to read: A ~~tree~~ vegetation retention plan may provide for the retention of fewer significant trees than required in this subsection only if the additional trees to be removed are replaced by native trees at a ratio of ~~three~~ thirty to one at a minimum.

In 14.26.380(3)(d)(v)(D) amend text to read: A ~~tree~~ vegetation retention plan must be prepared and meet the requirements for restoration plans set forth in (f)(ii)(A),(B),and (C) of this section.

In 4.26.380(3)(f)(i) amend text to read: Vegetation designated to be retained pursuant to an approved vegetation retention plan is damaged or dies prior to issuance of occupancy permits or release of any performance assurance bonding;

In 14.26.380(3)(f)(ii)(D) amend text to read: Removed trees must be replaced by native trees at a ratio of ~~three~~ thirty to one, consistent with the requirements for replacement trees in the vegetation retention plan requirements.

In 14.26.380(2) amend text to read: (g) designation of any trees and other vegetation to be removed and a plan for their replacement, where required.

Fifth, there need to be assurances that any trees and other vegetation that are planted by maintained and monitored, given the need to ensure that they become established and continue to be nurtured in the future, including as property changes ownership. To address this issue, the following language should be added to 14.26.380(3) that requires monitoring and maintenance, notice on title, and surety measures, as follows:

Add a new subsection 14.26.380(3)(d)(viii) The requirements of the vegetation retention plan shall be implemented and made enforceable in accordance with the provisions of 14.26.305(11) and (12).

Sixth, we have concerns that while County Policy indicates the prioritization of native coniferous species, per Policy 6G-3.2 “Retention and planting of conifers is particularly desired as a source of future large woody debris recruitment,” this prioritization of coniferous species is not carried forward into the Code provisions. Conifers contribute important ecological functions when alive in the form of shade, nutrient, and habitat. They continue to offer important ecological function after they are dead as large woody debris. Recruitment of conifers into our shoreline areas now is critical to supporting the habitats and species endemic to our watershed.⁹² At the same time, we

⁹² Accord, Washington Department of Ecology, Shoreline Master Programs Handbook, Ch 11, “Vegetation Conservation, Buffers, and Setbacks,” 11 (“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”). See also, Washington Department of Ecology, Lower Skagit River Tributaries Temperature Total Maximum Daily Load Study, Pub. No. 04-03-001 (2004).

know that landowners and developers often avoid planting coniferous species due to their height and shade, thus it should be a requirement given the needs of imperiled salmon species.

In order to address this fifth concern, the following revisions are necessary:

In 14.26.380(3)(d)(v)(A) revise text to read: Replacement trees must be planted and managed to replicate the vegetation types and densities appropriate to the site in species types and densities, with a priority on representation of coniferous species.

In 14.26.380(3)(c) amend text to read: Development or uses must be designed and located to avoid the following in descending order of priority:

- i. Native significant coniferous trees;
- ii. Native significant deciduous trees;
- iii. Non-native significant trees;
- iii. Native non-significant coniferous trees;
- iv. Native non-significant deciduous trees;
- v. Other native vegetation;
- vi. Other non-native vegetation.

- ~~i. Native significant trees;~~
- ~~ii. Non-native significant trees;~~
- ~~iii. Native non-significant trees;~~
- ~~iv. Other native vegetation;~~
- ~~v. Other non-native vegetation.~~

I. Water Quality, Stormwater, and Nonpoint Pollution

We note that there have been considerable recent scientific developments relevant to water quality, stormwater, and nonpoint pollution. This research has advanced our understanding of not only the nature and extent of the adverse impacts to Skagit salmon but also, in some cases, the causal agents and processes. For example, as noted above, Feist, et al. (2017) mapped the extent of urban runoff mortality syndrome that threatens coho salmon across 40% of Puget Sound basins.⁹³ Notably, although styled an issue of “urban” runoff, this study documented the extraordinary extent of the problem, including in less densely developed areas such as those in Skagit County.⁹⁴ As well, researchers have found that this runoff is harmful not only to coho, but also to Chinook salmon, albeit to a lesser degree.⁹⁵ And, as noted above, Tian, et al. (2021) isolated the “smoking gun” chemical, a quinone transformation product of 6PPD in tire rubber,

⁹³ Feist, et al., *Roads to Ruin: Conservation Threats to a Sentinel Species Across an Urban Gradient*, 27 *Ecological Applications* 2382 (2017).

⁹⁴ *Id.*

⁹⁵ McIntyre, *Urban Stormwater & Green Infrastructure*, Presentation to the Fish Barrier Removal Board, Slides 34-35 (Feb. 21, 2017)(finding mortality impacts to Chinook exposed to stormwater runoff, although at reduced rates as compared to coho).

from among thousands of candidate pollutants.⁹⁶ Recent research has also in important cases identified solutions. For example, McIntyre, et al. (2015) found that bioinfiltration readily reduces the toxicity of runoff from roads.⁹⁷ Additionally, recent and ongoing research has also pointed to contaminants of emerging concern (CEC).⁹⁸ The SC SMP, however, fails to mention these developments or to incorporate and address them in its various policy and regulatory provisions – despite the requirement that SMPs be founded on the “most current, accurate, and complete scientific and technical information.”

In order to begin to address this concern, the following amended language is necessary:

14.26.390 Water Quality, Stormwater, and Nonpoint Pollution

(1)(f) RCW Chapter 90.48, Water Pollution Control Act, as administered by State Department of Ecology.

(2) Construction materials. All development that may come in contact with surface or ground water must be constructed of materials that will not adversely affect water quality or aquatic plants or animals, such as untreated or approved treated wood, concrete, approved plastic composites, or steel. Decking or other structural materials must be used consistent with state or federal standards for contact with water to avoid discharge of pollutants from leaching, wave splash, rain, or runoff. Wood treated with creosote or pentachlorophenol is prohibited in shoreline water bodies and other waters. Construction materials employing tires, tire crumb, or tire crumb-based products are prohibited.

Further, we recommend that this recent scientific research should inform the location, size, and other aspects of roads that permit or facilitate vehicular traffic in proximity to salmon-bearing waters, including, but not limited to those associated with 14.26.370 Public Access facilities, and with 14.26.485 Transportation Facilities. If existing roads in such proximity are widened or repaved with materials that are known or suspected to impair the health of Pacific salmonids at any life stage, there must be adequate mitigation required.

⁹⁶ Tian, et al., *A Ubiquitous Tire Rubber-Derived Chemical Induces Acute Mortality in Coho Salmon*, 371 *Science* 185 (2021). See also, California Department of Toxic Substances, News Release, “California to Tire Makers: Please Remove Harmful Chemicals that Threaten Our Aquatic Life and Waterways,” (Jan. 12, 2021) <https://dtsc.ca.gov/2021/01/12/california-to-tire-makers-please-remove-harmful-chemicals-that-threaten-our-aquatic-life-and-waterways/> (reporting that “[t]he California Department of Toxic Substances Control (DTSC) today put tire manufacturers on notice that California wants them to explore alternatives to using zinc, a toxic chemical that harms aquatic life and burdens waterways”).

⁹⁷ McIntyre, et al., *Soil Bioretention Protects Juvenile Salmon and their Prey from the Toxic Impacts of Urban Stormwater Runoff*, 132 *Chemosphere* 213 (2015).

⁹⁸ See, e.g., Tian, et al, *Suspect and Nontarget Screening for Contaminants of Emerging Concern in an Urban Estuary*, 54 *Environmental Science & Technology* 2,889 (2020)(finding, among other contaminants, evidence of herbicides, transformation products of pesticides – “including two novel transformation products” – and “vehicle-related compounds”); Meador, et al., *Contaminants of Emerging Concern in a Large Temperate Estuary*, 213 *Environmental Pollution* 264 (2016).

Additionally, it is well known that water quality within and downstream of agricultural areas suffers from serious degradation. This is evidenced, for example, by the Skagit County Monitoring Program (SCMP) Water Year 2019 Annual Report.⁹⁹ The Freshwater Quality Index, which is an indicator of whether a stream is meeting Washington State Water Quality Standards, summarizes data on dissolved oxygen (DO), temperature, and fecal coliform for various stream sampling locations. Of the 21 sample sites located midstream or downstream of agriculture, 7 sites were categorized as “of highest concern” for 100% of years between 2006 and 2019.¹⁰⁰ Eleven sites were categorized as “of highest concern” more than 70% of the years between 2006 and 2019.¹⁰¹ And all agricultural sampling sites that were located on tributaries and sloughs (and not on rivers or the Swinomish Channel) west of Interstate 5 were categorized as “of highest concern” in at least 12 of the 14 years between 2006 and 2019.¹⁰²

As a result, it is necessary that the SC SMP enlist all possible measures to address this serious concern, ensuring that, at a minimum Washington State Water Quality Standards for DO, temperature, fecal coliform, and other pollutants are met.

J. Aquaculture

The SC SMP’s provisions for “Aquaculture” at 6C-2 and 14.26.415 raise several issues. The Swinomish Tribe and SRSC have urged many of these concerns in the strongest of terms in previous comments, which we reiterate here.¹⁰³ Additional concerns have emerged in light of recent disasters caused by commercial finfish net-pen operations and evolving commercial aquaculture practice, and in view of the latest scientific and technical developments.

First, the Tribe has serious concerns with commercial finfish net-pen operations, regardless of the species being reared, i.e., non-native, native, etc. Commercial net-pen operations pose significant harms to the health of wild Skagit River salmonids, adversely affecting survival and recovery for these sensitive and vital species. These operations also adversely impact the functioning of the ecosystem that is home to the salmon and other aquatic species. As experience has shown, the very real dangers of net pen collapses or fish escapes threaten significant detrimental impacts to Skagit salmon.¹⁰⁴ Furthermore, it is well recognized that net pens concentrate huge numbers of fish, making them breeding grounds for diseases and parasites,

⁹⁹ Skagit County Monitoring Program, *Annual Report: 2019 Water Year* (May, 2020). All annual water quality monitoring reports are available on the County’s website here:
<https://skagitcounty.net/Departments/publicworkssurfacewatermanagement/wq.htm>.

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ SRSC Comments, Draft Skagit County SMP Update (May 13, 2013); SRSC Comments, Skagit County Shoreline Master Program Update (April 4, 2016).

¹⁰⁴ See, e.g., Washington Department of Ecology, Department of Fish & Wildlife, and Department of Natural Resources, *2017 Cypress Island Atlantic Salmon Net Pen Failure: An Investigation and Review* (Jan., 2018)
https://www.dnr.wa.gov/sites/default/files/publications/aqr_cypress_investigation_report.pdf?vdqi7rk.

which can easily infect wild salmon in their vicinity.¹⁰⁵ Wild salmon are likely to be attracted to net pens due to these operations’ artificial feeding regime, which can create a high risk of pathogen transmission from the farmed finfish to wild Skagit salmon. Recent evidence from net-pen operations within the area governed by the SC SMP underscores these concerns: significant sea lice loads were recently observed on a wild salmonid near Cooke Aquaculture’s Hope Island facility. Another recent study found that open net-pen salmon farms are likely releasing viral particles into the waters surrounding the farm, where they can infect wild fish.¹⁰⁶ Nor are these concerns addressed when commercial net-pen operations raise native finish, such as the “native” steelhead reared at Cooke’s Hope Island facility. To the contrary, several of the threats (e.g., genetic risks; disease and parasite risks) may be increased relative to those posed by previous Atlantic salmon farming operations, due to the species-specific nature of many fish diseases and parasites. In fact, net-pen operations raising domesticated native Rainbow trout/Steelhead present a host of new, potentially adverse water quality impacts. These adverse impacts include antibiotic treatments for diseases like Rainbow trout fry syndrome, which has no vaccine but is pervasive.

Instead, the “most current, accurate, and complete scientific and technical information” calls into question the need for marine finfish net-pen operations to be located *in* the water at all – this means, among other things, that they can no longer be considered a water-dependent use.¹⁰⁷ The technology exists, and it is commercially viable, to grow fish in land-based, environmentally sustainable farms.¹⁰⁸ As a result, there is simply no reason to continue allowing what amount to “concentrated animal feeding operations (CAFOs)” that emit hundreds of thousands of pounds of fish feces, fish food, dead fish, and antibiotic-laced food into ecologically sensitive marine areas

¹⁰⁵ See, e.g., Andrew Nikiforuk, “Sea Lice Epidemic Overwhelms Fish Farms on Clayoquot Sound,” *The Tyee* (May 17, 2018) <https://thetyee.ca/Analysis/2018/05/17/Sea-Lice-Overwhelms-Fish-Farms-Clayoquot-Sound/> (reporting that “[d]ue to unnatural high population densities, industrial fish feedlots, which produce up to a half million fish per facility, can support massive outbreaks of billions of sea lice in places and at times where migrating salmon wouldn’t normally encounter the predator in such extreme numbers”); Lynda V. Mapes, “Virus spreads from B.C. fish farms to wild Chinook salmon, study finds.” *The Seattle Times* (May 27, 2021) <https://www.seattletimes.com/seattle-news/environment/virus-spreads-from-bc-fish-farms-to-wild-chinook-salmon-new-study-finds/>. See, generally, Georgia Strait Alliance, “Salmon Aquaculture,” <https://georgiastrait.org/issues/other-issues/salmon-aquaculture/> (describing multiple threats to wild salmon and coastal ecosystems from open net pen fish farms).

¹⁰⁶ Mordecai, et al., *Aquaculture Mediates Global Transmission of a Viral Pathogen to Wild Salmon*, 7 *Science Advances* eabe2592 (2021).

¹⁰⁷ This fact removes commercial finfish net-pen operations from the general requisite for “aquaculture,” per WAC 173-26-241(3)(b) (“[a]quaculture is dependent on the use of the water area”). Note, that commercial finfish net-pen operations also fail the subsequent caveat, namely “when consistent with control of pollution and prevention of damage to the environment,” that otherwise qualifies aquaculture as a “preferred use,” for the reasons elaborated in the text and supporting scientific authorities.

¹⁰⁸ For example, AquaCare Environment is a company based in Bellingham, WA that “was established in 1987 dedicated to developing and marketing cost-effective equipment and systems for modern, intensive land-based fish farming.” www.aquacare.com Additionally, Nordic Aquafarms, a Norwegian Company, is in the process of preparing a full Environmental Impact Report for its \$500 million proposed land-based fish farm on the Samoa Peninsula in Humboldt Bay, California. <https://lostcoastoutpost.com/2021/may/25/nordic-aquafarms-agrees-conduct-full-environmental/>. See also, Georgia Strait Alliance, “Salmon Aquaculture,” <https://georgiastrait.org/issues/other-issues/salmon-aquaculture/> (discussing viable options for land-based fish farming).

and designated critical habitat – particularly at the mouth of the Skagit River. Commercial finfish net-pen operations thus simply cannot be allowed consistent with Ecology’s regulations, which stipulate that “aquaculture *should not be permitted* in areas where it would result in a net loss of ecological functions,” which is the case in the marine waters covered by the SC SMP.¹⁰⁹ To address this issue, the following changes are necessary:

Replace the entirety of the current “14.26.415(7) Net pens” with the following:

14.26.415(7) Net pens

Commercial finfish net pen aquaculture is prohibited in marine waters.

An identical provision is contained in Island County’s SMP (see Island County SMP 17.05A.100(B)(14)).

Second, as Swinomish and SRSC have repeatedly emphasized, aquaculture has the potential for significant adverse impacts to marine and shoreline environments, including, for example, to eelgrass ecosystems, which provide vital habitat for Chinook salmon, forage fish, and other species, among other ecological services.¹¹⁰ Given this potential, we again request that the SC SMP strengthen the requirements for shoreline review and permitting, rather than seek to minimize the instances in which review and permits are triggered and/or seek to weaken the relevant substantive requirements. With respect to “14.26.415(2) When shoreline review is required,” we reiterate our previous concern that the definitions and provisions ensure review and permitting covering the broadest range of instances possible. Among other things, this is crucial to ensure that appropriate and up-to-date regulations and permit conditions are applied in response to e.g., eelgrass extent, and other ecological conditions.

A particular concern stems from a potential loophole to the distinction between “new” aquaculture or “expanded” operations, on the one hand, and “existing” operations, on the other. As the SRSC explained at length in its 2013 comment letter and reiterated again in 2016, it is important to have definitions of the relevant terms that are not susceptible to allowing aquaculture operations to be initiated or expanded into areas and/or under ecological conditions that could have significant adverse impacts on eelgrass and macroalgae, among other things. For example, without a clear definition of “existing” aquaculture that is not effectively gutted by a permissive process for making such determinations, the SC SMP “will allow expansion [of aquaculture] into hundreds, if not thousands, of acres of native eelgrass beds,” including in

¹⁰⁹ WAC 173-26-241(3)(b)(C). Note that this section goes on to mention specifically a concern for “spread[ing] disease to native aquatic life, establish[ing] new nonnative species which cause significant ecological impacts, or significantly impact[ing] the aesthetic qualities of the shoreline” – all of which are potential problems due to commercial finfish net-pen operations.

¹¹⁰ See, e.g., Rubin, et al., *Juvenile Chinook Salmon and Forage Fish Use of Eelgrass Habitats in a Diked and Channelized Puget Sound River Delta*, 10 *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 435 (2018).

Samish Bay.¹¹¹ As written, the SC SMP takes just this approach,¹¹² with the result that “areas that have been out of production for decades, or perhaps never farmed at all”¹¹³ are allowed to be put into cultivation without undergoing the permitting process that would generally be required for “new” aquaculture. Yet aquaculture operations in these areas would in fact be “new” under any ordinary understanding of the term, and ought to be considered in light of today’s standards and today’s understanding of the ecological functions and processes affected. Specifically, even if an area has been planted with aquaculture previously, if it has been allowed to sit fallow for more than 1 year, it must have a complete eelgrass delineation, consistent with standards followed by the National Marine Fisheries Service and the Army Corps of Engineers. Moreover, as SRSC stated 2016, the SC SMP’s approach would facilitate loss of eelgrass beds and other fragile habitat that is “unacceptable for a shoreline plan that purports to allow no net loss of ecosystem function.” Thus, without significant revision, the current SC SMP fails to protect this critical saltwater habitat that is essential to Skagit River salmon recovery.

We recognize that there are additional issues implicated by the definitional question. These include (A) issues arising from changing ecological conditions (e.g., native eelgrass itself grows in such a manner as to *move into* areas that are under cultivation by existing operations). These also include (B) issues stemming from an expansion of or significant change from existing aquaculture operations, whether by an expansion into a new area (including an area beyond a permitted area); or a change in culture technique; or a change in the species being cultivated.

To address this issue, the SC SMP should be written to accomplish the following:

- allow current documented footprint of ongoing operations to continue as “existing” aquaculture, even where native eelgrass has recovered and/or grown around the operations or moves into the area currently being cultivated (as described in (A)), and
- recognize that current operations should include those areas that can be demonstrated to have been fallowed within the last one year due to market or environmental conditions;
- require all other expansions, changes or new proposals in aquaculture operations (as described in (B)), to undergo the permitting process applicable to “new” aquaculture, including appropriate avoidance, buffer requirements and mitigation. This is because simulations have shown that sea level rise may foster an overall expansion of eelgrass within Padilla Bay over the next century as it migrates from the center of the bay shoreward.¹¹⁴ The important point is to thoughtfully plan to allow its landward migration under these circumstances.

¹¹¹ As pointed out by the SRSC in its 2013 comment letter, for example, much of the nearshore in Samish Bay for which treatment as “existing” aquaculture might be sought under a definition subject to interpretation and a permissive review process by the County, is native eelgrass according to DNR maps.

¹¹² To call out one feature of this approach, in the provisions setting forth the process by which the County is to determine whether an aquaculture area is “existing,” the SC SMP states that the County “must consult with the aquaculture operator,” but indicate no other entity, including scientists in the relevant fields, with whom the County “must consult” – ensuring a lack of balanced input to a process vesting considerable discretion in the County. See SC SMP 14.26.415(2)(b)(i)(B).

¹¹³ SRSC, Comments on Skagit County Shoreline Master Program Update (April 4, 2016).

¹¹⁴ Kairis & Rybczyk, *Sea Level Rise and Eelgrass (Zostera marina) Production: A Spatially Explicit Relative Elevation Model for Padilla Bay, WA*, 221 *Ecological Modelling* (2010) <https://doi.org/10.1016/j.ecolmodel.2009.01.025>.

To this end, the following changes are necessary to section 14.26.415(2):

(2) When shoreline review is required.

(a) New aquaculture. Shoreline review is required for the initial siting, construction, planting, or stocking of a facility or farm. An area that was previously cultivated but has not been cultivated in the past one (1) year shall be deemed no longer to constitute “existing aquaculture” within the meaning of 14.26.415(2)(b) and shall be “new aquaculture” requiring full shoreline review and a substantial development permit.

(b) Existing aquaculture.

(i) Determination of existing aquaculture area.

(A) Determination of the existing aquaculture area is made by the Administrative Official, in accordance with the definition above in 14.26.415(2)(a).

~~(B) The Administrative Official may determine that an area that was previously cultivated has been abandoned and no longer constitutes “existing aquaculture.” In its determination, the Administrative Official must consult with the aquaculture operator and may consider such factors as whether the property was acquired under the Bush or Callow Acts of 1895, the use of crop rotation and fallowing, state or federal permit requirements, pest infestations, seed or juvenile availability, market fluctuations, and pollution of the farm site from other uses or developments.~~

(ii) Changes in culture technique or changes in species cultivated. An operation that otherwise constitutes “existing aquaculture” under 14.26.415(2)(b) nonetheless needs to complete the full shoreline review required of “new aquaculture” under 14.26.415(2)(a) whenever it undertakes a change in culture technique (beyond a *de minimis* adjustment [less than .25 acres]) or a change in species cultivated. Ongoing maintenance, harvest, replanting, changing culture techniques or species does not require shoreline review unless cultivating a new species or using a new culture technique that has significant adverse environmental impacts (if not allowed by an existing shoreline permit).

(iii) Expansion of existing aquaculture. An operation that otherwise constitutes “existing aquaculture” under 14.26.415(2)(b) needs to complete the full shoreline review required of “new aquaculture” under 14.26.415(2)(a) whenever it expands into an area beyond that which was previously cultivated by more than 1% or 0.25 acres, whichever is smaller.

~~(A) For aquaculture without an existing shoreline permit, a shoreline permit is required for any expansion.~~

~~(B) For aquaculture permitted under this SMP, a shoreline permit is required when the activity expands beyond the permitted area.~~

~~(C) For aquaculture permitted under a previous version of this SMP, a shoreline permit is required when the activity expands more than 10%, or one acre, whichever is less, beyond the area cultivated on the effective date of this SMP, or when the expansion adversely creates unmitigated impacts to native plant and animal populations.~~

Third, the SC SMP’s generally applicable substantive requirements at “14.26.415(4)” are insufficiently protective and thus, among other things, cannot ensure>NNL of ecological functions and processes. Among other things, they should require a buffer between aquaculture

operations and eelgrass, such as the 5-meter buffer recommended by NMFS.¹¹⁵ In order to address these concerns, the following revisions are necessary:

(4) General requirements.

(a) Aquaculture operations must be designed and located to:

(i) ~~prevent~~ avoid the spread of disease to native aquatic life;

(ii) ~~prevent~~ avoid the establishment of new nonnative species which cause significant ecological impacts;

(iii) minimize impact to the aesthetic qualities of the shoreline, with consideration given to height, color, uniformity, and arrangement;

(iv) avoid significant conflict with navigation and other water-dependent uses.

(b) Upland structures accessory to an aquaculture use that do not require a waterside location or have a functional relationship to the water must be located landward of the shoreline buffers required by this SMP.

(c) Impacts to ecological functions must be avoided or mitigated according to the mitigation sequence described in SCC 14.26.305(4).

(d) An assessment and mitigation plan in accordance with SCC 14.26.305(5) is required. The standards found in SCC 14.26.550 for critical saltwater habitats must also be addressed in the assessment.

(e) Aquaculture operations must be designed, located, and managed to avoid ~~minimize~~ impacts to native eelgrass and macroalgae. Aquaculture operations must establish and maintain a 5-meter buffer between operations and eelgrass, subject to the following exceptions:

(i) Aquaculture operations are not required to avoid impacts on eelgrass or macroalgae that colonizes the specific footprint of an existing, active and ongoing aquaculture operation.

(ii) Aquaculture operations are not required to avoid impacts on non-native eelgrass.

(f) The harvesting of aquaculture products is subject to all applicable state and federal health regulations, as determined by applicable state and federal agencies.

(g) Chemicals used in aquaculture operations must be used in accordance with state and federal regulations, as determined by applicable state and federal agencies; except that no chemicals shall be used in aquaculture operations located in Samish Bay or Skagit Bay.

(h) Predator control measures used in aquaculture may not include those ~~intended to~~ that kill or injure wildlife. Invasive species control and predator control methods must comply with federal and state regulations, as determined by applicable federal and state agencies.

(i) Project applicants must obtain all required state and federal approvals to ensure compliance with established water quality standards and regulations relating to the introduction or transfer of aquatic organisms into or within the County's salt or fresh waters.

¹¹⁵ NOAA Fisheries, West Coast Region, *Washington Eelgrass and Shellfish Aquaculture Workshop Report* (2017). https://media.fisheries.noaa.gov/dam-migration/wa_eelgrass_and_shellfish_aquaculture_workshop_report_final_11-03-17.pdf. NOAA Fisheries, West Coast Region, *California Eelgrass Mitigation Policy and Implementing Guidelines* (2014). https://media.fisheries.noaa.gov/dam-migration/cemp_oct_2014_final.pdf.

(j) All aquaculture proposals requiring a shoreline permit must be accompanied, when applicable, by a Joint Aquatic Resources Permit Application (JARPA) and SEPA checklist.

(k) The County ~~must~~, should, to the greatest extent possible, minimize redundancy in the permit process and ~~rely on~~ may consider documentation submitted by the project applicant to federal or state agencies.

Fourth, the provisions in section 14.26.415, section “(6) Shorelines of Statewide Significance” present another instance in which the SC SMP falls short of meeting the heightened standards for Shorelines of Statewide Significance. To this point, the following revisions are necessary:

(6) Shorelines of Statewide Significance.

(a) Applications for new aquaculture within Shorelines of Statewide Significance shall not be permitted unless the applicant demonstrates that it satisfies the ~~must address the~~ policies of RCW 90.58.020.

(b) Mechanical disturbance of bottom materials for shellfish harvest is prohibited on Shorelines of Statewide Significance, except the traditional mechanical (drag) dredge shellfish harvest method may be allowed as a conditional use. All hydraulic harvest methods require a Conditional Use Permit.

Finally, the SC SMP should change its policy statement in 6C-2.1 to more accurately capture the qualified embrace of aquaculture in Ecology’s regulations. Island County’s SMP 17.05A.100(B)(14), for example, starts with caveat “when properly managed,” aquaculture is an activity of statewide interest. This or a similar caveat, either at the outset of the first or second sentence of policy 6C-2.1, is necessary.

K. Boating Facilities and Related Structures and Uses

We have several concerns with the provisions in SC SMP “14.26.420 Boating Facilities and Related Structures and Uses, Development Standards,” subsection (a), given that these facilities, structures, and uses clearly and immediately have the potential to adversely impact vital habitat and sensitive species. First, we are concerned that the dimensions referenced in Table 14.26.420-1 are unenforceable unless the table is specifically referenced in the SMP. To address this concern, the following addition is necessary:

14.26.420(4) Development Standards

(a)(xviii) adhere to the dimension standards in Table 14.26.420-1.

Second, we are concerned that the “Development Standards” for structures, including docks, do not mention any shading of dock lighting so as not to attract fish. Docks are already prone to harbor predatory fish, and become feeding stations at night when lights attract plankton, plankton attract small fish (e.g. juvenile salmon and forage fish) and small fish attract larger predatory fish.

To avoid structures such as docks from becoming an unnatural feeding station, with a disproportionate adverse effect on protected species, overwater lights should be hooded or screened, and we believe the following addition, which employs the “low-intensity lights” language of WAC 220-660-140(3)(d), is necessary:

14.26.420(4) Development Standards

(a)(xix) utilize low-intensity lights and shield artificial lighting to prevent light from attracting fish.

Third, we are concerned about chemical leaching into nearshore waterbodies and the resulting negative effects on aquatic species if inappropriate materials are used in dock construction. To ensure clarity to the public about allowable materials for construction of docks, we believe the following addition is necessary to clarify prohibited materials for in-water structures.

14.26.420(4) Development Standards

14.26.420(a)(xx) wood treated with creosote or pentachlorophenol is prohibited in shoreline water bodies and other waters.

We also have several concerns with the provisions in in SC SMP “14.26.420 Boating Facilities and Related Structures and Uses, Development Standards,” subsection (f) addressing mooring buoys. First, we have concerns that the placement of mooring buoys can often interfere with accessing reserved Treaty fishing areas, especially in areas with a higher density of mooring buoys. In order to protect access for fishing, including Treaty fishing, and navigation, we request the following revisions:

14.26.420(4) Development Standards

(f)(ii)(C) Mooring buoys may not be placed in a location that would interfere with access to private or public property-, nor where they will interfere with navigation or access to Tribal Treaty fishing areas.

Second, we have concerns about derelict and unpermitted buoys and the risks that these present to fish, wildlife, and the public. Outdated, derelict, and unpermitted mooring buoys present a navigational hazard if they lose buoyancy; threaten shellfish beds due to the increased risk of boat-waste discharges; and may be installed using methods and anchors that do not protect the sea floor. We have concerns that despite these impacts, there is no mechanism in place for the County to evaluate whether a buoy is permitted, installed correctly, or under what conditions problematic buoys may be removed. In order to address the concerns outlined above, we request the following revisions:

14.26.420(4) Development Standards

(f)(iii) Mooring buoys must be etched or labeled with SMP permit number.

(f)(iv) Mooring buoys in disrepair, showing poor buoyancy, causing seafloor scour, or lacking identification may be removed from the waterbody.

Third, we are concerned that some installations of mooring buoys can cause an excessive amount of damage to the seafloor, which could be avoided by stipulating installation methods. Anchor chains can drag on the seafloor if not properly buoyed causing scour. Anchors themselves can drag across the seafloor causing damage to both the seafloor and potentially other public or private property as well. In order to address the concerns outlined above, we request the following addition:

14.26.420(4) Development Standards

(f)(iii) When allowed, mooring buoys must be anchored with a helical screw and utilize a mid-water float to avoid scouring the marine or lakebed of aquatic vegetation per SCC 14.26.330(18).

Related to the above issues, we have concerns about the high density of mooring buoys in some embayments causing a concentrated impact on resources, scouring of aquatic vegetation, concentrated introduction of pollutants and resulting impacts to fish, shellfish, and vegetation. We are concerned that there is no monitoring mechanism for the County to track the density of mooring buoys or their impacts.

In order to address these concerns, the following addition to “14.26.790 Monitoring” is necessary:

14.26.790(2)(h) net change in mooring buoy density.

L. Dredging and Dredge Material Disposal

We have numerous concerns with the SC SMP provisions relating to dredging and dredge material disposal, including their relationship to provisions that speak to restoration. First, we appreciate that the SC SMP’s Policy 6C-8.1 indicates that “Dredging and dredge material disposal proposal should be consistent with the plans, policies, guidelines, and regulations of applicable federal, state, and local agencies.” However, in practice, the SC SMP allows dredging within typed streams, channel migration zones, and floodways where it is deemed an agricultural activity and the dredging is maintaining drainage.

Dredging of typed (N, F, S) streams generally takes place in the low-gradient valley floor areas where the stream bed gradient is so gentle that sediments settle out rather than transport past the reach. This area coincides with salmonid habitat located at the valley floor. The low-gradient reaches often prescribed for dredging can serve as important off-channel rearing areas in tributary streams, lower gradient spawning reaches, and through which migratory fish must traverse to reach higher gradient stream segments away from the dredging activities at the valley floor. To treat these occasionally- to frequently-dredged reaches of salmon-bearing streams like a ditch results in direct and indirect impacts to fish and their habitat. Impacts can be wide-ranging from habitat simplification, introduction of suspended sediment, entrainment of contaminated sediment, underwater noise, removal of desirable substrate materials, disruption of food webs, decreased refuge and hiding locations due to removal of vegetation and coarse material, and

increased heating of streams due to removal of vegetation.¹¹⁶ Unfortunately, direct mortality often results to aquatic species due to poor planning, incorrect assumptions about fish presence, and insufficient efforts at fish removal. Dredging in typed stream reaches should be prohibited outright or allowed only in very limited cases where broad public benefits are able to be obtained and impacts can be fully mitigated.

FEMA is a federal agency with jurisdiction over typed streams including Type S shorelines channel migration zones, and the floodway. The FEMA BiOp explicitly restricts development, with “dredging” and “filling” directly included in its definition of development, within the Riparian Buffer Zone (which includes Typed streams and their buffers, Channel Migration Zones and their buffers, and the mapped floodway) “unless the use is shown not to adversely affect water quality, water quantity, flood volumes, flood velocities, spawning substrate, and/or floodplain refugia for listed salmon” (BiOp, Appendix 4). FEMA does not have an exemption for agricultural dredging nor for beneficial public purposes, so dredging associated with agricultural activities and for public purposes still must satisfy these NFIP requirements of no adverse effects. Skagit County Code, and this SMP, must provide commensurate protection for the Riparian Buffer Zone in its implementation of County codes.

Agricultural dredging tends to entail excavating long reaches of a ditch. In some unfortunate situations, the “ditch” is also a typed stream that provides habitat for salmonids and other aquatic species. While we abhor the classification of any fish-bearing stream as a ditch, that is in fact the case in many situations around Skagit County. Any stream (Type S, F, and N) must be protected, regardless of its practical service to the agricultural sector as a ‘ditch’ or ‘drain.’ In order to address the ongoing impacts to ESA-listed and non-ESA listed salmonids from dredging identified above, the following revisions to SC SMP “14.26.435 Dredging and Dredge Material Disposal, (2) When Allowed” and “6C-8. Dredging and Dredge Material Disposal, Policies” are necessary:

14.26.435 Dredging and Dredge Material Disposal

14.26.435(2)(c)(iii) Maintenance of irrigation reservoirs, drains, canals, or ditches, for agricultural activities purposes with the exception of maintenance within typed S, F, and N waterbodies, within a Channel Migration Zone, or within a Floodway.

14.26.435(2)(c)(iv) Removal of accumulated sediment for flood control or to maintain existing drainage features, except in typed streams, channel migration zones, or floodways.

¹¹⁶ See National Marine Fisheries Service, ESA Recovery Plan for the Puget Sound Steelhead Distinct Population Segment (*Oncorhynchus mykiss*)(2019). See also, Washington State University and University of Washington, *A Study of Agricultural Drainage in the Puget Sound Lowlands to Determine Practice which Minimize Detrimental Effects on Salmonids*, (Report prepared for the King County Department of Natural Resources and Parks, Seattle, WA, 2008); Kondolf, et al, *Freshwater Gravel Mining and Dredging Issues*, (Report of the Center for Environmental Research Design, University of California, Berkeley, prepared for the Washington Department of Fish and Wildlife, Department of Ecology, and Department of Transportation, 2002). With respect to the adverse impacts of marine dredging, see, e.g., Nightingale & Simenstad, *Executive Summary – Dredging Activities: Marine Issues*, Washington State Transportation Center Technical Report, prepared for the Washington State Transportation Commission and the U.S. Department of Transportation WA-RD-507.1, 2001).

14.26.435(2)(e) Dredging is prohibited in the following locations, except for ~~maintenance dredging and for beneficial public~~ purposes consistent with this SMP:

14.26.435(2)(e)(iii) In shoreline areas and bottom soils that are prone to sloughing, ~~and refilling, and continual maintenance dredging.~~

14.26.435(2)(e)(vi) Where current and tidal activity are significant, ~~requiring excessive maintenance dredging.~~

6C-8. Dredging and Dredge Material Disposal:

Policy 6C-8.3 Dredging and dredge material disposal should be done in a manner that avoids ~~or minimizes significant ecological adverse impacts to water quality, water quantity, flood volumes, flood velocities, spawning substrate, and floodplain refugia for listed salmon.~~ Impacts that cannot be avoided ~~should~~ must be mitigated in a manner that ensures no net loss of shoreline ecological functions.

Policy 6C-8.5 Dredge material disposal on land is generally preferred over open water disposal. The disposal of dredge materials on shorelands or wetlands within a river's floodplain should be ~~prohibited~~ discouraged.

Second, a proposed code provision that aims to provide necessary protections for the types of habitats found in the Riparian Buffer Zone refers to “officially designated” fish and wildlife areas; there is no specificity in "officially designated." To address this concern, the following revisions are necessary (Note: in citing SCC 14.26.570(1) we intend to refer to this section as revised per our suggestion below to add “other forage fish”):

14.26.435 Dredging and Dredge Material Disposal

14.26.435(2)(e)(iv) In ~~officially designated known or documented fish, shellfish, and wildlife spawning, nesting, harvesting, and concentration areas~~ fish and wildlife habitat conservation areas as defined in 14.26.570(1) WAC 365-190-130.

Third, we believe that more needs to be done to ensure that Policy 6J-1.2 is carried forward into the regulatory requirements of 14.26.435(2). We want to ensure that projects denominated as “restoration” do in fact restore or enhance shoreline ecological functions and processes benefiting water quality or fish and wildlife habitat or both, and target meeting the needs of sensitive plant, fish and wildlife species. To this end, we believe that it is important that dredging “for ... restoration and enhancement” under 14.26.435(2)(c)(v) is vetted by those with appropriate expertise, such as tribal fisheries biologists. We envision a process similar to that employed for obtaining approval of Fish Habitat Enhancement Projects, per RCW 77.55.181(c)(i-xi), but enlisting tribal staff expertise. To address this concern, the following revisions are necessary:

14.26.435 Dredging and Dredge Material Disposal

(2)(c)(v) Restoration or enhancement of shoreline ecological functions and processes benefiting water quality or fish and wildlife habitat or both should target meeting the needs of sensitive plant, fish and wildlife species as identified by Washington Department of Fish and Wildlife, Washington Department of Natural Resources, National Marine Fisheries Service, and U.S. Fish and Wildlife Service. Restoration or enhancement activities that entail dredging within shoreline areas shall not be permitted until a letter of support for the activity is obtained from the authors of the Skagit Chinook Recovery Plan, WDFW and/or SRSC).

Fourth, we are concerned that there are additional state and regional agencies with jurisdiction over drainage and agricultural activities, but the relevant SC SMP Policy statement only provides the single example of the Northwest Clean Air Agency. To this point, the following revisions are necessary:

In Policy section 6C-1.4.b Vegetation management along drainage ditches should be allowed and should be conducted in accordance with this SMP as well as the guidelines and water quality regulations of appropriate state and regional agencies (e.g. Washington State Department of Ecology, Northwest Clean Air Agency, FEMA).

Fifth, we are concerned that some types of agricultural dredging are being exempted from Shorelines Review under RCW 90.58.065, even though it does *not* exempt *all* agricultural dredging. RCW 90.58.065 outlines the application of guidelines and master programs to agricultural activities, and it prevents any shoreline program from limiting agricultural activities on agricultural lands.

Under RCW 90.58.065(2)(a) “agricultural activities” includes but is not limited to “maintaining, repairing, and replacing agricultural facilities” which is what dredging for agricultural purposes has generally been considered in Skagit County under its SMP. However, RCW 90.58.065 clearly states that “Nothing in this section limits or changes the terms of the current exception to the definition of substantial development in RCW 90.58.030(3)(e)(iv).” The definition in item (iv) states “the following shall not be considered substantial developments for the purpose of this chapter” and describes some agricultural activities and practices that are not considered substantial developments. RCW 90.58.030(3)(e)(iv) reads “Construction and practices *normal or necessary* for farming, irrigation, and ranching activities, including agricultural service roads and utilities on shorelands, and the construction and maintenance of irrigation structures including but not limited to head gates, pumping facilities, and irrigation channels. A feedlot of any size, all processing plants, other activities of a commercial nature, *alteration of the contour of the shorelands by leveling or filling other than that which results from normal cultivation, shall not be considered normal or necessary farming or ranching activities* [emphases added]. A feedlot shall be an enclosure or facility used or capable of being used for feeding livestock hay, grain, silage, or other livestock feed, but shall not include land for growing crops of vegetation for livestock feeding and/or grazing, nor shall it include normal livestock wintering operations.”

Dredging of a Type S waterbody alters the contours, in that the bed and bank of the stream channel are excavated using machinery. Because the RCW provides that “alteration of the

contour” of shorelands is not a normal agricultural activity, it is not exempted and thus requires a substantial development permit under the Act. This statutory requirement needs to be accurately reflected in the SC SMP. In order to address this concern, the following revisions to 14.26.410 and 14.26.435 are necessary:

In 14.26.410(1)(c)(iv) operation, maintenance, or construction of canals, waterways, drains, reservoirs, or other facilities that now exist or are hereafter created or developed as a part of an irrigation system for the primary purpose of making use of system waters, including return flow and artificially stored groundwater from the irrigation of lands. Alteration of contours other than that which results from normal cultivation shall not be considered normal or necessary agricultural activities, and must obtain a substantial development permit;

In 14.26.410(1)(c)(v) operation and maintenance of any system of dikes, ditches, drains, or other facilities existing on September 8, 1975, which were created, developed, or utilized primarily as a part of an agricultural drainage or diking system. Operations and maintenance within shorelands coinciding with Type N, S, or F streams that existed prior to establishment of agricultural drainage systems must obtain a substantial development permit;

In 14.26.435(1)(b)(i) Removal of bed material waterward of the OHWM or wetlands that is incidental to an otherwise authorized use or modification (e.g. ~~agriculture~~, aquaculture, shoreline crossings, bulkhead replacements), which is regulated by the section governing the associated use or modification.

In 14.26.435(1)(a) This section applies to “dredging” meaning the removal of bed material waterward of the OHWM or wetlands resulting in the alteration of contours using other than unpowered, hand-held tools, and the disposal of dredge material or spoils.

Sixth, the definition of “channelization” is confusing or, worse, rendered effectively meaningless by an exception at the end of the definition in SCC 14.26.820. This can be remedied, however, by deleting the statement ‘Dredging of sediment or debris alone is excluded.’ There is no clear definition of ‘debris,’ which, in a stream, can include soccer balls and shopping carts, tree branches and logs, or vegetation and root masses; it is completely unclear what debris in this definition refers to. In order to accomplish the “straightening or deepening of channels”, two primary materials are removed from the channel, 1) sediment and 2) debris (using the abovementioned examples of debris).

The definition is further confounded by this exception when it describes an example of channelization being the “prevention of natural meander progression of streamways, through artificial means such as relocation of channels, dredging, and/or placement of continuous levees...”. But, dredging alone to prevent development of a meander bend is excepted from this definition. A ‘stream’ basically consists of water, sediment, debris, and the processes that established them there in the first place. If you dewater the site (a BMP for excavating in streams with fish presence), all that is left is sediment and debris. If heavy equipment is utilized to excavate sediment and debris from a stream to maintain a straightened segment, how is this not

channelization? The definition for channelization needs to reflect the actual circumstances and materials moved in a project that channelizes a stream.

Furthermore, the exception in this SC SMP definition is not compatible with state definitions for dredging. For example, the Hydraulic Code definitions specifies that dredging (WAC 220-660-030(36)) “means removal of bed material using other than handheld tools;” and SCC 14.26.435(2)(i) indicates that “Dredging for channelization is prohibited if...” certain conditions occur. By contrast, the SC SMP definition for channelization excepts the most basic form of channelization, the removal of bed materials waterward of the OHWM.

In order to address the concerns identified above, the current definition should be replaced entirely, and the following language (which follows that of the Jefferson County SMP) should be substituted:

14.26.820 Definitions

Channelization: means the straightening, relocation, deepening or lining of stream channels, including construction of continuous revetments or levees for the purpose of preventing gradual, natural meander progression.

Seventh, the terminology “maintenance dredging” is confusing and undefined. In practice in Skagit County, there are a very few instances of dredging that are one-time events. They might include cleanup of contaminated sediments, dredging to generate material for use elsewhere, or perhaps excavation following some catastrophic event like a landslide or earthquake. Otherwise, the more common situation we see in the County is nearly always maintenance dredging. Examples include in a navigational channel like the Swinomish Channel; in marinas; in streams and ditches for agricultural interests; or streams and ditches by a public works-type agency that wants to address flooding issues at a road or culvert location. These types of dredging are done repeatedly at some undefined recurrence interval that depends on the rate of deposition affecting that maintenance location to restore the waterbody to a desired depth and width by means of excavation. We do not see any substantive difference between maintenance dredging and dredging. The use of the term confuses, or even contradicts, several code provisions. In order to address the concerns identified above, the following revisions are necessary:

14.26.435 Dredging and Dredge Material Disposal

14.26.435(2)(e) Dredging is prohibited in the following locations, except for ~~maintenane~~ ~~dredging and for beneficial public~~ purposes consistent with this SMP:

14.26.435(2)(e)(iii) In shoreline areas and bottom soils that are prone to sloughing, and refilling, ~~and continual maintenance dredging.~~

14.26.435(2)(e)(vi) Where current and tidal activity are significant, ~~requiring excessive~~ ~~maintenane~~ ~~dredging.~~

In Policy 6C-8.4 New development should be sited and designed to avoid, or if that is not possible, minimize the need ~~for new and maintenance~~ dredging.

Eighth, we are concerned about the negative effects on water quality that dredging within ditches and streams has on downstream waterbodies. While other agencies have some jurisdiction over these activities, we feel that this SMP must protect water quality standards for salmon in WAC 173-210-A. In order to address these concerns, the following revisions are necessary:

14.26.380 Vegetation Conservation

14.26.380(1)(b) 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, except where agricultural uses overlap with aquatic life uses in WAC 173-201A-200.

14.26.390 Water Quality, Stormwater, and Nonpoint Pollution

14.26.390(3) Waste material from both construction and maintenance activities, including drainage ditch clearing, shall not be deposited into or cast on the side of a shoreline, water body, wetland, estuary, tideland, accretion beach, and other unique natural area. Such materials shall be deposited in stable locations where reentry and erosion into such areas is prevented.

M. Residential Development

We have several concerns with the SC SMP provisions for residential development. First, we are concerned that the SC SMP’s regulations respecting uses that are proposed as accessory or appurtenant to residential development are lax and/or confusing. Yet, as recognized by Ecology’s regulations, “[w]ithout proper management, single-family residential use can cause significant damage to the shoreline area through cumulative impacts from, [among other things] shoreline armoring, stormwater runoff, ... and vegetation modification and removal.”¹¹⁷ While single-family residences are a priority use under the Act, they are not exempt from regulation, and a local government’s SMP “may still restrict or limit residential accessory development.”¹¹⁸ As Ecology’s regulations make clear, “[m]aster programs *shall* include policies and regulations that assure no net loss of shoreline ecological functions will result from residential development.”¹¹⁹ Notably, beach access structures such as beach stairs and tramways can cause significant damage to the shoreline environment. Such structures typically replace the vegetation on shorelines, have the potential to destabilize feeder bluffs, require footings at the top and bottom of bluffs, and create other adverse impacts by their very nature. These should be considered an accessory development rather than an appurtenance, and should be a conditional use. We note that under the Swinomish Shorelines and Sensitive Areas Code, for example, beach stairs are not allowed to

¹¹⁷ WAC 173-26-241(3)(j)(i).

¹¹⁸ *Olympic Stewardship Foundation v. State Environmental and Land Use Hearing Office*, 199 Wash. App. 668, 718 (Wash. App. 2017).

¹¹⁹ WAC 173-26-241(3)(j)(ii)(emphasis added).

attach to the beach, the lowest segment must be retractable, and sharing is encouraged; we urge a similar approach for the County. As written, the SC SMP sometimes conflates “accessory uses” with “appurtenances,” which may cause confusion in the context of residential development. Beach access structures such as beach stairs are not appurtenant in the same way as a septic tank, garage, deck, or fence or other structures that are associated with residences.¹²⁰ While docks, beach stairs, and tramways may be accessory developments to a waterfront residence, SMPs should, and do, restrict and regulate such structures (see, e.g., Jefferson County SMP 18.25.500(1)-(5)(providing that “[a] shoreline substantial development permit or conditional use permit shall be required for all accessory development that is not considered a normal appurtenance.”). In order to address these concerns, the following changes and clarifications are necessary:

14.26.400 General Provisions

(3)(e) Accessory or appurtenant uses are subject to the same shoreline review process as their primary use, unless otherwise indicated.

Table 14.26.405-1

To the “Residential Development,” heading, add a new row, following the current “Residential appurtenant structures” row, to separately indicate the requirements for “Residential accessory structures.”

14.26.470 Residential Development

(4)(g) A shoreline substantial development permit or conditional use permit shall be required for all accessory development that is not considered a normal appurtenance.

14.26.820 Definitions

Appurtenance: per WAC 173-27-040, a structure that is necessarily connected to the use and enjoyment of a single-family residence and is located landward of the OHWM and the perimeter of a wetland. On a statewide basis, normal appurtenances include a garage; deck; driveway; utilities; fences; installation of a septic tank and drainfield and grading which does not exceed two hundred fifty cubic yards and which does not involve placement of fill in any wetland or waterward of the OHWM. Normal appurtenance does not include beach access structures such as beach stairs or tramways.

Second, in order to minimize impacts to the shoreline of residential development, infrastructure and appurtenances should be located landward of the primary structure to the maximum extent feasible. In order to address the concerns identified above, the following addition is necessary to 14.26.470 Residential Development, section “(4) Development Standards”:

¹²⁰ Accord, WAC 173-26-241(3)(j)(vi)(listing such examples of “appurtenances” in a related context).

14.26.470 Residential Development

(4)(h) All appurtenances, except for decks, must be located landward of the primary structure, except where extenuating circumstances can be documented by a professional engineer.

Third, in order to minimize new crossing structures (e.g., culverts, bridges) in the shoreline environment, and to comply with the NMFS BiOp Appendix 4 criteria that indicates that “10. New road crossings over streams are prohibited” in the 100-year floodplain outside of the Riparian Buffer Zone, residential development should be sited and designed appropriately. Specifically, this includes being located and designed so as to avoid any new crossing structure for the residence, for driveways, and for other appurtenances. In order to address the concerns identified above, the following addition is necessary to 14.26.470 Residential Development, section “(4) Development Standards”:

14.26.470 Residential Development

(4)(i) Residential development must be located and designed to avoid the need for new crossing structures for residences, driveways, or other appurtenances to be located within the floodplain or channel migration zone.

N. Structural Shoreline Stabilization

We have numerous concerns with the SC SMP provisions related to shoreline stabilization, including, crucially, the need for measures that avoid requests for such stabilization in the future, due to upland uses and development that has failed to address the reasonably foreseeable conditions, including those arising from climate change. For the reasons discussed at further length above, climate change and SLR must be accounted for throughout the SC SMP, and the provisions discussed here are but one important example.

As a general matter, we have two concerns with section “(1) Applicability.” First, we are concerned that the examples of typical “Hard shoreline stabilization” do not sufficiently represent the types of hard shoreline armoring that we see in practice, making it difficult for County staff and the public to clearly understand whether a particular armoring approach is considered “hard” or “soft.” To address this concern, the following revisions are necessary:

14.26.480 Structural Shoreline Stabilization

(1)(a)(i) “Hard shoreline stabilization” means shoreline stabilization involving solid, hard surfaces, such as concrete bulkheads-, log timber piles, sheet piles, or blanket application of angular rock including quarry spalls and riprap.

Second, we are concerned that by including “boulders” in the list of example materials that constitute a “soft shoreline stabilization,” the example could be misconstrued or misunderstood by County staff, consultants, or the public and a hard armor technique may be represented as a soft armor technique because boulders are in use. We feel that there are a number of materials that are available to support a “soft shoreline stabilization” project without the use of boulders.

Thus, removing the term “boulders” from the description of “soft shoreline stabilization” in 14.26.480(1)(a)(ii) provides notice and clarity, so the following revisions are necessary:

14.26.480 Structural Shoreline Stabilization

(1)(a)(ii) “Soft shoreline stabilization” may include the use of gravels, cobbles, ~~boulders~~, and logs, as well as vegetation.

We also have a general concern with section “(2) When allowed.” We are concerned that some marine areas where shoreline stabilization may be proposed are also under the jurisdiction of FEMA, some of these marine areas are flood prone, have habitat value, and the flood prevention ordinance requires a habitat assessment concluding that there are no adverse effects on endangered species; however, this required assessment and jurisdiction is not represented in the SC SMP. In order to address this concern, the following revisions are necessary:

14.26.480 Structural Shoreline Stabilization

(2) When allowed. These modifications are allowed in the shoreline environment designations listed in SCC 14.26.405 Uses and Modifications Matrix., provided they comply with other applicable law, including the regulations of SCC 14.34, Flood Damage Prevention.

Additionally, we have a general concern with section “(3) Application Requirements.” We are concerned that while new and expanded bulkheads must be mitigated if they are not avoided altogether, there are no standards referenced for mitigation. We note that our suggestions comport with concerns flagged by Ecology, that such projects “require demonstration of mitigation sequencing and [a] project-specific demonstration of no net loss,” and incorporate language used in the Island County SMP. To address this concern, the following additions are necessary:

14.26.480 Structural Shoreline Stabilization

(3)(a)(1)(G) In addition to mitigation sequencing requirements in SCC 14.26.305, a detailed mitigation plan per SCC 14.26.305(6) must be submitted, including a description of any compensatory mitigation measures that demonstrates adequate mitigation and a demonstration that necessary to achieve no net loss of shoreline ecological functions will be achieved and that existing critical fish and wildlife habitat will be maintained; such detailed description shall also address relevant to the geotechnical report findings and recommendations.

Finally, we are concerned that actions in the uplands may result in the need for structural shoreline stabilization near or waterward of the OHWM due to failure to address the conditions that upland developments are likely to encounter, including as a result of climate change and SLR. It is impossible to have thoughtful and well-planned development in the shoreline jurisdiction without considering these powerful drivers of shoreline conditions. We feel that the effects of climate change and SLR are, indeed, “reasonably foreseeable.” In this year, 2021, we feel that the County is derelict to explicitly acknowledge to the public that climate change and SLR are happening and will indeed affect public and private property within the expected

lifetime of any development permitted and built today. For example, the WDFW Culverts and Climate Tool indicates a widening by 5%-20% in Skagit County streams by the 2040s; most culverts stay in the ground for much longer than 19 years unless they are poorly designed. So culverts designed today really should be considering the future hydrologic regime forecasted for our region. As referenced by the Skagit Climate Consortium, we know that the sea level near Seattle *has already risen* about 9” since 1900, and that additional *feet* of sea level rise is forecasted by 2021. If combined with the unlucky timing of a king tide, low pressure weather system, or strong onshore winds, public and private property may be damaged, and shoreline ecological systems may be damaged. Provisions to acknowledge these forces, to plan for the consequent risks, and, ideally, to forestall additional hardening of the shoreline environment need to be incorporated into the SC SMP now so that the conditions expected within the functional lifetime of structures permitted today acknowledge the expected shoreline and floodplain conditions for the structure. As one step toward addressing these concerns, the following revisions are necessary:

14.26.320 General Provisions Applicable Upland of the OHWM

(1)(b) Land divisions must be designed to ensure that future development of the created lots will not require shoreline stabilization for reasonable development to occur or cause foreseeable risk from geologic or hydrologic conditions within 75 years.

O. Transportation Facilities

We have concerns with “14.26.485, Transportation Facilities (including parking).” We are concerned that new roads may be proposed to parallel stream or water bodies. This location and configuration of transportation facility can present harm to water bodies and aquatic species in a number of ways, including disrupting the connectivity with the floodplain, disrupting transportation corridors, and increasing the opportunities for sediments and pollutants to enter the waterbodies. (The last of these concerns is also discussed above in conjunction with water quality, stormwater, and nonpoint pollution). To address this concern, the following addition to section (4) addressing development standards is necessary:

14.26.485 Transportation Facilities (including parking)

(4)(a)(viii) avoid locating "stream-adjacent parallel roads," meaning roads (including associated right-of-way clearing) or driveways, in shoreline buffer area on a property where they will have an alignment that is parallel to the general alignment of the stream. Also included are stream crossings where the alignment of the road continues to parallel the stream for more than 250 feet on either side of the stream.

P. Critical Areas

As a general matter, it bears emphasis that the Act’s protective policies and requirements govern critical areas and their associated buffers in shoreline jurisdiction (which, as discussed above, should be understood broadly rather than narrowly), as do Ecology’s regulations implementing

the Act. Notable among these requirements is that of incorporating the “most current, accurate, and complete scientific information,” as discussed above.¹²¹ In turn, this requirement means considering and accounting for climate change, as discussed above. Additionally, as a general matter, the SC SMP Part V provisions need to make clear their relationship to the remainder of the SMP, e.g., the provisions for mitigation contained in Part III (e.g., within a section cross-referencing the general mitigation requirements, the COBI SMP makes clear that mitigation in critical areas must also comply, lest uses or development be prohibited: “Except as provided for by this section, any project that cannot adequately mitigate its impacts to critical areas in the sequencing order of preferences in SMP 4.1.2.6 shall be denied”). A similar statement should be included in SC SMP.

Second, we appreciate that in 14.26.515 the SC SMP recognizes the need for the involvement of a “qualified professional” in the site assessment process where critical areas are potentially involved. Given the sensitive and/or hazardous nature of critical areas, we think, however, that additional specificity is warranted to this end. Among other things, inserting the relevant language below (see COBI SMP, 4.1.5.7.1) is necessary:

14.26.515 Standard Critical Areas Review and Site Assessment Procedures

(4)(a) The site assessment shall be prepared by a qualified professional for the type of critical area or areas involved and shall contain the information specified for each type of critical area. The qualified professional may consult with the Administrative Official prior to or during preparation of the site assessment to obtain County approval of modifications to the contents of the site assessment. The Administrative Official is authorized to retain experts at the applicant’s expense and request review from other jurisdictional agencies or affected Indian tribes to assist in the review of application materials. Qualified professionals for purposes of the section are as follows:

(i) Aquifer recharge study: Hydrogeologist;

(ii) Geological hazard assessment: Engineering geologist; geotechnical engineer, provided that:

(A) An engineering geologist may provide a study, including interpretation, evaluation, analysis, and application of geological information and data and may predict potential or likely changes in types and rates of surficial geologic processes due to proposed changes to a location, provided it does not contain recommended methods for mitigating identified impacts, other than avoidance, structural impacts to, or suitability of civil works; and

(B) Engineering geologists may not provide engineering recommendations or design recommendations, but may contribute to a complete geotechnical report that is co-sealed by a geotechnical engineer.

¹²¹ See also, e.g., Washington Department of Ecology, Shoreline Master Programs Handbook, Ch 11, “Vegetation Conservation, Buffers, and Setbacks,” 4-5 (“New scientific studies conducted after the CAO was adopted may establish the need for different-sized buffers than included in the CAO. The SMP Guidelines require ‘the most current, accurate and complete scientific and technical information available’ to be used for development of SMPs [WAC 173-26-201(2)(a)]”).

- (iii) Stream buffer enhancement plan: Biologist with stream ecology expertise; fish or wildlife biologist; a civil engineer may provide studies for drainage, surface and subsurface hydrology, and water quality;
- (iv) Wetland buffer enhancement plan, wetland critical area report, wetland mitigation plan: Wetlands specialist.
- (v) Habitat Management Plans: Wildlife biologist and/or fisheries biologist.

Third, given the value of alerting the general public to the existence and location of critical areas and educating people, including current and future property owners about the ecological “lay of the land,” it is necessary that the SC SMP add a policy statement to 6G-2, as follows:

6G-2.12

Educate the public about the existence and location of critical areas, and about the ecological functions critical areas serve, and educate property owners about this aspect of their “ecological address,” i.e., the particular critical areas and fish and wildlife habitat corresponding to or affected by their property.

The SC SMP should also include an example of a “notice on title,” as do several other local governments, such as the example below from the COBI SMP, 4.1.5.7.2 (with appropriate changes made to substitute Skagit County for the City of Bainbridge). We recommended that the example appear at the end of SC SMP 14.26.520(3), and also request that appropriate cross-references be made between the requirements in 14.26.305(12), 14.26.380(3), and 14.26.520(3). The COBI SMP example form follows:

2. Form of Notice

Critical Areas
and/or
Critical Areas Buffer Notice

Legal Description: _____

Present owner: _____

NOTICE: This property contains critical areas or their buffers as defined by the City of Bainbridge Island Ordinance No. _____.

The property _____ was the subject of a development proposal for _____ (type of permit) application # _____ filed on _____ (date).

Restrictions on use or alteration of the critical areas or their buffers may exist due to natural conditions of the property and resulting regulations. Review of such application has provided information on the location of critical areas or critical area buffers and restrictions on their use through setback areas. A copy of the plan showing such setback areas and other restrictions or required enhancements is attached hereto.

Signature of owner: _____

STATE OF WASHINGTON)

COUNTY OF _____)

On this day personally appeared before me to me known to be the individual(s) described in and who executed the within and foregoing instrument and acknowledged that they signed the same as their free and voluntary act and deed for the uses and purposes therein stated.

Given under my hand and official seal this ____ day of _____, _____.

NOTARY PUBLIC in and for the state of Washington, residing at _____.

Fourth, it is necessary that SC SMP 14.26.570(1)(d) be revised to include all forage fish. Among other things, this change would ensure alignment with the relevant portion of the WAC addressing HCAs. This section should be revised as follows:

14.26.570 Fish and wildlife habitat conservation area designations.

(1)(d) Kelp and eelgrass beds, herring, ~~and smelt,~~ and other forage fish spawning areas;

Finally, it is unclear why the County is proposing to only include a portion of the CAOs, and leave a number of the SCC 14.26 sections out of the Skagit SMP – that is, not carry those CAO

provisions into the jurisdiction of the SMA. Swinomish staff has contacted the County to inquire into the rationale for this decision and references in the record, but did not receive a reply.¹²²

Q. Fish and Wildlife Habitat Conservation Areas and Riparian Buffers

As previously noted, the Skagit River watershed is home to imperiled populations of wild Pacific salmon. A key cause of the populations' imperiled and declining status is past and ongoing habitat degradation caused by new development, water diversions impacting stream flows, and legally impaired water quality, often as a result of a lack of riparian habitat.¹²³ In the lower Skagit basin, SRSC has documented 112 miles of temperature-polluted salmon streams.¹²⁴ The SC SMP fails to account for the substantial extent of impaired waters that limits salmon recovery, ignoring the current data and information in the County's own annual water quality monitoring reports.

The SC SMP also fails to provide a comprehensive, integrated approach through policies and regulations to address vegetation conservation and restoration. Thus, the SC SMP proposals to allow riparian buffer averaging or variances must be prohibited where any proposed clearing or development is along a documented salmon stream or a tributary to a salmon stream, or if it is part of the 2004 Lower Skagit River Temperature TMDL. This is necessary to ensure that the County can achieve the no net loss requirement, and so that the County can do its part to advance salmon habitat protection and restoration. And this comports with Ecology's guidance on CAOs, which states that, when analyzing cumulative impacts and evaluating the no net loss requirement, "local government and Ecology must generally assume that local officials will approve administrative buffer reduction requests in the majority of cases. The impacts to ecological functions resulting from buffer reductions must be evaluated accordingly."

Thus, it is necessary to establish the most protective dimensions and criteria for riparian and other buffers, as supported by the most current, accurate and complete scientific and technical information. The following changes are necessary to achieve this end:

14.26.572 Fish and wildlife habitat conservation area site assessment requirements.

(1) Functions and values analysis, which includes but is not limited to a discussion of water quality and water quantity and fish and wildlife habitat; and

(2)(f) density and diversity of tree species;

(g) soil class based on USGS information for determining the buffer width of the Site Potential Tree Height; and

(h) current width of riparian buffer.

¹²² Emails from Amy Trainer, Swinomish Indian Tribal Community, to Betsy Stevenson and Hal Hart, Skagit County, (June 11 and 20, 2021).

¹²³ See NMFS 2019 ESA Recovery Plan for the Puget Sound Steelhead Distinct Population Segment; and 2007 ESA Recovery Plan for Puget Sound Chinook Distinct Population Segment.

¹²⁴ See WAC 173-201A-200.

14.26.573 Fish and wildlife habitat conservation area protection standards.

(1)(a) Intent of Riparian Buffers. The intent of riparian buffers is to protect the following ~~5~~ 8 basic riparian forest functions that influence in-stream and near-stream habitat quality:

(v) Wildlife Habitat. Functional wildlife habitat for riparian-dependent species is based on sufficient amounts of riparian vegetation to provide protection for nesting and feeding, as well as migration corridors, watering, rearing and refugia areas.

(vi) Providing organic inputs critical for aquatic life.

(vii) Reducing fine sediment input into the aquatic environment through stormwater retention and vegetative filtering.

(viii) Regulation of microclimate in the stream-riparian, hyporheic and intertidal corridors.¹²⁵

(1)(c) Standard Riparian Buffer Widths. Riparian areas shall maintain, and work to restore, habitat areas and buffers of 1 Site Potential Tree Height (SPTH) in width based on the soil class for that area in order to fully protect and restore the functions and values of the Channel Migration Zone. STRIKE the remaining portion of this section.

14.26.574 Fish and wildlife habitat conservation area performance-based buffer alternatives and mitigation standards.

(2) Buffer Width Averaging. ... Averaging of require buffer widths shall be allowed only where the applicant demonstrates through a habitat conservation area site assessment to the Administrative Official that all of the following criteria are met:

(e) The total area contained within the buffer after averaging is ~~no less than that~~ at least 10% greater than that contained within the standard buffer prior to averaging;

(g) Buffer width averaging is prohibited along any stream, or any tributary to that stream, that has any water quality impairment such as temperature pollution, whether from a point source or nonpoint source, as determined by the Department of Ecology.

Finally, we have concerns with the “PERFORMANCE-BASED RIPARIAN STANDARDS TABLE” that appears at the end of 14.26.574. It is unclear where this table originates from and upon what current scientific information and data it was based. The County must be able to demonstrate that this table would ensure no net loss of riparian habitat and functions, and it is unlikely that is possible. Ecology also requires a local government to “show its work” when accounting for buffer variances – something Skagit County has failed to do here, but must.

R. Setbacks

¹²⁵ Ecology SMP Handbook, Chapter 11: Vegetation Conservation, Buffers and Setbacks, p.11.

We recommend a setback from a marine feeder bluff of 50 feet from the top of the slope (or twice the height of the slope, whichever is greater) for new construction, commensurate with the requirements of the Swinomish Shorelines and Sensitive Areas Code, in place of the more lax requirements of the SC SMP (at 30 feet, with provision for a reduction to 10 feet under certain circumstances). We are generally opposed to any provisions that allow setbacks to be reduced at the discretion of the County, unless extraordinary circumstances have been documented, offsetting increases have been secured, and NNL and other requirements will be achieved.

S. Shoreline Variances

Our concerns about the SC SMP's failure to account for the existing status of degraded riparian habitat buffers and impaired water quality in 112 miles of salmon streams carry forward to any potential allowance for shoreline variances. Simply put, we believe that no variances can be granted where a stream or a tributary to a stream includes legally impaired water quality. We also believe it is essential that the administrative official be required to provide a written justification for any administrative variance granted, including a cumulative impacts analysis. To address these concerns, the following changes are necessary:

14.26.735 Shoreline Variance

(2)(a) Administrative variance. An application to reduce a standard buffer width by ~~50% or less~~ no more than 25% is an administrative variance. However, if the application is to reduce riparian buffer width, the provisions and requirements of 14.26.572, 14.26.573 and 14.26.574 must be met. In all administrative variances the administrative official shall provide a written analysis providing the basis upon which the variance is granted, including a cumulative impacts analysis that addresses how the County can achieve the no net loss mandate if the variance is granted. Affected tribal governments shall be provided with a comment period of at least 21 days to review and provide comments on the proposed administrative variance.

T. Archaeological, Historical, and Cultural Resources

We are deeply concerned with the SC SMP's current provisions for archaeological, historical, and cultural resources. As written, these provisions would allow destruction of or damage to our places, resources, and ancestors – potentially permitting irreversible loss and profound harm to the Swinomish Tribe and its members. Moreover, these provisions do not adequately acknowledge the role of Swinomish and other affected Indian tribes in identifying the existence of and appropriate procedures involving archaeological, historical, and cultural resources. The SC SMP is significantly less robust and protective to this end than other local governments' SMPs, for example, those of Clallam County (CC SMP) and the City of Bainbridge Island (COBI SMP). In short, the SC SMP's approach is unacceptable, and should be replaced in its entirety. To this end, the following revisions to the policies, regulations, and definitions sections of the SC SMP are necessary:

Replace 6H – Historic, Cultural, Scientific, and Educational with:

6H – Archaeological, Historical, Cultural, Scientific, and Educational

Policies

6H-1.1 Due to the limited and irreplaceable nature of the resource(s), prevent the destruction of or damage to, any site having historical, cultural, scientific or educational value as identified by the appropriate authorities, including affected Indian tribes, and the Washington State Department of Archaeology and Historic Preservation.

6H-1.2 Ensure that all public or private development, uses and activities are designed and undertaken to protect and be compatible with the continued protection of any site having historic, prehistoric, cultural, or scientific value as identified by the appropriate authorities, including affected Indian tribes.

6H1.3 Encourage appropriate interpretive signs, plaques or other educational measures with regard to historic structures and areas, except that the location of archaeological, historical, or cultural resources shall not be disclosed to the general public unless and until appropriate authorities, including affected Indian tribes, have determined whether such disclosure is appropriate, and that all applicable laws regarding archaeological, historical, and cultural resources protection have been complied with.

Replace the current 14.26.340 in its entirety, with the following:

14.26.340 Archaeological, Historical, and Cultural Resources

(1) Applicability and compliance with other applicable laws. The following provisions apply to archaeological, historical, and cultural places or resources that are or have the potential to be: recorded by the State Historic Preservation Office, listed on the National Register of Historic Places; identified by affected Indian tribes as significant. Archaeological sites and inadvertently discovered places (including gravesites) and/or associated objects or cultural resources located both in and outside shoreline jurisdiction are subject to Chapter 27.44 RCW (Indian graves and records) and Chapter 27.53 RCW (Archaeological sites and records), and other applicable federal, tribal, and state laws; and development or uses that may impact such sites shall comply with Chapter 25-48 WAC (archaeological excavation and removal permit) as well as the provisions of this Master Program.

(2) New or expanded shoreline use and development, including preferred uses, restoration projects and uses exempt from permit requirements shall:

- a. Preserve and protect archaeological, historical, or cultural places or resources that are or have the potential to be: recorded by the State Historic Preservation Office, listed on the National Register of Historic Places; identified by affected Indian tribes as significant or that are inadvertently discovered during use or development activities; and

- b. Consult the County, the Washington State Department of Archaeology and Historic Preservation and affected Indian tribes prior to beginning development so there is ample time to assess the site and make arrangements to preserve cultural resources; and
- c. Comply with all federal, tribal, and state regulations pertaining to archaeological sites.

(3) All development, uses, or activities shall employ all feasible means to ensure that places (including their historically or culturally significant features), sites, structures, objects, resources, or data having potential historical, archaeological, historical, cultural, scientific, or educational significance are preserved, protected, or otherwise addressed in a manner compatible with its historic, prehistoric, cultural, or scientific value as identified by the appropriate authorities, including affected Indian tribes. Unless a different federal or state law supersedes this SMP, the County may postpone development activities as long as necessary to allow for the:

- a. Development of a Cultural Resource Management Plan and/or preservation and other appropriate steps.
- b. Investigation of public or tribal acquisition potential, including:
 - i. Consulting with affected Indian tribes; and
 - ii. Informing County of opportunity.

(4) Archaeological excavations may be permitted subject to the provisions of this program.

(5) Procedure.

(a) When reviewing a permit, the County will use the following methods to determine the probability of cultural resources occurrence:

- (i) Predictive models;
- (ii) Local, State, and Tribal Inventories; and
- (iii) Registries:
 - (A) National Register of Historic Places
 - (B) Washington Heritage Register
 - (C) Heritage Barn Register

(b) The following shall be required of the County when permits or statements of exemptions are issued in areas known to contain, or believed to have a probability of containing cultural resources:

- (i) The Washington State Department of Archaeology and Historic Preservation and affected Indian tribes shall be notified of the proposed activity, including timing, location, scope, and resources affected; and
- (ii) The applicant shall provide a Cultural Resource Site Assessment and a Cultural Resource Management Plan, prepared by a professional archaeologist, in coordination with any affected Indian tribe(s), for review and approval pursuant to subsection (c), below; and
- (iii) Costs for the Cultural Resource Site Assessment and Cultural Resource Management Plan are the responsibility of the applicant; and

(iv) The applicant shall identify areas and fence off known or suspected archaeological middens and/or areas of cultural significance according to the Cultural Resource Management Plan, prior to site development or proposed activities.

(c) If a Cultural Resource Assessment identifies significant cultural resources, including resources determined to be significant by an affected Indian tribe, the applicant shall be required to submit a Cultural Resource Management Plan (CRMP) which shall include:

- (i) An analysis of actions to be taken by the property owner, applicant, archaeologist, or historic preservation professional in the event that an inadvertent discovery of historic, archaeological, or cultural sites or artifacts occurs during site development; and
- (ii) An explanation of why the proposed activity requires a location on, or access across and/or through, a significant cultural resource; and
- (iii) A description of the cultural resources affected by the proposal; and
- (iv) An assessment of the cultural resource and an analysis of the potential adverse impacts as a result of the activity; and
- (v) Measures necessary to prevent adverse impacts or to otherwise address review comments from the County, Washington State Department of Archaeology and Historic Preservation, and affected Indian tribes; and
- (vi) Measures necessary for mitigation; and
- (vii) Measures recommended for identification and education, if appropriate. Interpretive signs, plaques, or other interpretive and educational measures of historical and archaeological features should be provided, unless the identification of the location of the cultural resource is prohibited or protected by state or federal laws, or objected to by an affected Indian tribe.

(d) If archaeological or cultural resources are inadvertently uncovered during construction or other activities, the property owner(s) shall immediately stop work and comply with applicable provisions of state law and the provisions of Subsection (b), and, additionally, the following:

- (i) The applicants(s) must first receive permission from the State Office of Archaeology and Historic Preservation and the County (per RCW 27.53.060 or its successor), and any affected Indian tribe, prior to any further work.

(e) Identified archaeological, historical or cultural resources shall be considered during project planning for all park, open space, public access and projects with access to such areas. Projects shall be designed and managed to give maximum protection to retained cultural resources and values and to the surrounding environment.

(f) The project may be exempt from shoreline permit requirements in the event that unforeseen factors constituting an emergency (as defined in RCW 90.58.030 or its successor) necessitate rapid action to retrieve or preserve sites, artifacts or data. When such a waiver is provided, the County shall notify the Washington State Department of Ecology, the State Attorney General's Office, the Washington State Department of Archaeology and Historic Preservation, and, if appropriate, affected Indian tribes.

Replace the current Chapter 11 Definition of “Archaeological resources” with the following definition, and add the remaining new definitions, as follows:

Archaeological site or resource: means a geographic locality including, but not limited to, submerged and submersible lands and the bed of the sea, that contains physical evidence of an indigenous and subsequent culture including material remains of past human life, monuments, symbols, tools, facilities, graves, skeletal remains and technological byproducts:

1. That are associated with events that have made a significant contribution to the broad patterns of our history; or
2. That are associated with the lives of significant persons in our past; or
3. That embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
4. That have yielded or may be likely to yield, information important in history or prehistory.

Archaeologist or Professional Archaeologist means a person with qualifications meeting the federal secretary of the interior’s standards for a professional archaeologist. Archaeologists not meeting this standard may be conditionally employed by working under the supervision of a professional archaeologist for a period of four years provided the employee is pursuing qualifications necessary to meet the federal secretary of the interior’s standards for a professional archeologist. During this four-year period, the professional archeologist is responsible for all findings. The four-year period is not subject to renewal. (RCW 27.53.030). The Federal Secretary of the Interior’s “Professional Qualification Standards” , as amended, can be found at the National Park Service web site: https://www.nps.gov/history/locallaw/arch_stnds_9.htm

Cultural Resources: Evidence of human occupation or activity that is important in the history, architecture, archaeology or culture of a community or region. Cultural resources include, but are not limited to, the following:

1. Archaeological resources. Physical evidence of ruins of human occupation or activity that are located on or below the surface of the ground and are at least 50 years old.
 - a. Archaeological resources include, but are not limited to, the remains of houses, villages, camp and fishing sites, and cave shelters; rock art such as petroglyphs and pictographs; artifacts such as arrowheads, utensils, tools, fragments of tools and utensils, obsidian flakes or other material by-products from tool and utensil-making activities; and graves, human remains, and associated artifacts.
2. Historic buildings and structures. Standing or above-ground buildings and structures that are at least 50 years old.
 - a. Historic buildings and structures include, but are not limited to, log cabins, barns, canals, flumes, pipelines, highways, and tunnels.
3. Traditional cultural properties. Locations, buildings, structures, and objects that are associated with cultural beliefs, customs, or practices of a living community that are rooted in that community’s history and are important in maintaining the continuing cultural identity of the community.

a. Traditional cultural properties include, but are not limited to, a location associated with the traditional beliefs of a Native American group about its origins or its cultural history; a location where a community has traditionally carried out artistic or other cultural practices important in maintaining its historical identity; and a location where Native American religious practitioners have historically gone, and go today, to perform ceremonial activities. Objects may include petroglyphs, pictographs, rock cairns or other rock structures, trees, and rock outcrops.

Historical: means having considerable importance or influence in history; historic.

Historic site, structure or landmark means a site, structure or building of outstanding archaeological, historical or cultural significance. This is shown by its designation as such by the National or Washington State Register of Historic Places, designation as an historic landmark, or any such structure or feature for which the State Historic Preservation Officer has made a determination of significance pursuant to Section 106 of the National Historic Preservation Act.

National Register of Historic Places means the official federal list, established by the National Historic Preservation Act, of sites, districts, buildings, structures and objects significant in the nation's history and prehistory, or whose artistic or architectural value is unique.

IV. Conclusion

The Swinomish Tribe and SRSC appreciate the opportunity to provide detailed comments on Skagit County's proposed Shoreline Master Program Comprehensive and Periodic Update. We very much would have liked the County to have put forward a SMP Update that recognizes and effectively protects the significant shorelines within Skagit County and especially the Skagit River watershed, as well as the importance of them to the Treaty Tribes like Swinomish that have called these lands and waters home since time immemorial. We think the Skagit River basin, the imperiled wild salmon that are home to it, and the critically endangered Southern Resident Killer Whales that depend upon Skagit River salmon as a primary source of prey deserve much more than what the County has proposed in this SMP Update.

The unfortunate reality is that the County's SMP Update weakens protections that are already inadequate to recover salmon, or protect or recover the degraded habitat they depend upon. This is particularly true with respect to the County's failure to acknowledge, let alone address in any meaningful way, the impacts associated with climate change and the County's failure to provide any mechanism to address water quality and excessive stream temperatures. The County's proposal to allow variances of up to 50% for riparian habitat – a key limiting factor identified in the 2005 Skagit River Chinook Recovery Plan – not only fails to require meaningful protection, but also actively worsens the problem.

The County cannot credibly claim that it supports salmon recovery and on the one hand, purport to recognize that “the entirety of the Skagit ecosystem is subject to a perpetual environmental servitude,” and that this is “an obligation that impacts and influences virtually everything that

occurs in Skagit County,” and at the same time put forward shoreline policies that undeniably fail to either recognize or effectuate this otherwise laudable sentiment. If in fact the County is “extremely concerned” about the decline of salmon resources in the Skagit ecosystem, then it must heed the above comments from the Swinomish Tribe and SRSC, and rewrite the Skagit SMP Update accordingly.

Sincerely,



Amy Trainer
Environmental Policy Director
Swinomish Indian Tribal Community



Nora Kammer
Environmental Protection Specialist
Skagit River System Cooperative

Appendix A

SED Maps

We have concerns with specific Environmental Designations for shoreline areas reflected in SED Maps a., b., and c.

Skagit SMP Policies 6B describe the purpose, designation criteria, and management policies of Environmental Designations. In Section A. Shoreline Jurisdiction and Section B. Environmental Designations, we expressed concerns about the range of shoreline jurisdiction and the need for an additional Environmental Designation of Priority Aquatic. These comments on Shoreline Environment Designation Maps a., b., and c. do not take account of those concerns that have been expressed in Sections A and B, though we recognize that extensive map revisions are required to incorporate those previously suggested revisions. These comments specifically address concerns about mapping reflected in the current draft SMP and ED Maps.

As outlined in WAC 173-26-211, environmental designations must be based on the existing use pattern, the biological and physical character of the shoreline, and the goals and aspirations of the community as expressed through comprehensive plans as well as the criteria in this section. The WAC indicates that accurate designation for individual parcels should be designated on a map. We have concerns with some areas where designations do not align with WAC 173-26-211 or SC SMP Policies, and share those concerns herein.

1. Allan Island

Allan Island is located west of Deception Pass and south of Burrows Island. The island has a mowed airstrip on the center of the island, an unpaved road in the central vicinity of the island, and one concentrated area of development on the eastern shore facing Deception Pass. Other than these limited developments, the island is largely undeveloped. The shoreline is relatively free of human influence, is entirely intact other than the previously mentioned area of development on the eastern shore facing Deception Pass. The shoreline is ecologically intact with kelp forests, sand and gravel pocket beaches, rocky shores, and grassy balds. The shoreline offers important refuge habitats for salmonids migrating out Deception Pass, spawning habitat for forage fish, and intact sediment transport processes.

Allan Island's shoreline and level of development is very similar to both the private and publicly owned portions of nearby Burroughs Island, which is designated Natural except for the one concentrated area of development. We feel that in order to protect the existing resources and the services that they provide to the public and ecosystem, the designation of Allan Island should be modified to Natural along all shorelines except the area of concentrated development on the eastern shore, so that future low intensity uses may be developed without impact to the intact natural processes.

2. Young Island

Young Island is a very small island off the southeast shore of Burroughs Island, across Peartree Island. The island is comprise of a single parcel, P32505 and is owned by the Washington State Parks and Recreation Commission. The only development on the island is a 260 square foot

cabin, and the shoreline is ecologically intact with rocky shore, a couple of small sand and gravel pocket beaches, kelp forests, and is at a location that offers rearing and protection for salmon migrating out Deception Pass. The previous private owner petitioned a change in Shoreline Environmental Designation from Natural to Rural Conservancy. Particularly with the new (2015) ownership by the State Parks Commission, we feel that the most appropriate designation is Natural and request that maps are revised to reflect this.

3. West end of Samish Island

The western end of Samish Island has many segments of intact shoreline that should be modified from Rural Conservancy to Natural. From parcel P47305 along the western shore northward through P104066, and then from P47293 around Point Williams to P47283, these areas should be designated Natural with limited shoreline segments of Rural Conservancy. The shoreline processes are largely intact, offering rock shore mixed with sand and gravel pocket beaches. There are a very few limited developments obstructing natural processes (a dock at P47294), and at this isolated location we advocate for maintaining Rural Conservancy.

4. Secret Harbor on Cypress Island

Cypress Harbor is a protected embayment on Cypress Island. The shoreline is largely owned by Washington Department of Natural Resources, with limited privately owned parcels southwest of the dock. The shoreline has historical hosted intense land uses, however recent restoration activities implemented by DNR have restored some important ecological features including the Secret Harbor Estuary and Salt Marsh Restoration project that removed tidal dikes and restored pocket estuary channels; decommissioned unnecessary roads; and decommissioning of drainage ditches. We feel that DNR has accomplished restoration of the processes that sustain intact shoreline ecology and the shoreline is on a trajectory toward offering intact ecosystems. The public ownership ensures this trajectory can be followed into the future. The pocket estuary, in particular, is a key habitat for rearing salmonids. A gravel and sand beach at the east end of Secret Harbor offers spawning substrates for important forage fish. For these reasons, we recommend revising the Environmental Designation to Natural for shorelines within Secret Harbor.

5. Hart Slough/Hart Island/Sterling area

Hart Slough is a historic side channel of the Skagit River that adjacent to main stem in the Sedro Woolley area. Skagit River side channels and sloughs provide summer and winter refuge areas for salmonids that are rich in food sources for young salmon and out of the fast and silt laden main channel flows. The slough is undiked on its downstream end and is hydraulically connected to Skagit River flows and subject to flooding through backwatering. The Sterling area and nearby farmland is prone to flooding and is an area of concern during a flood fight. For these reasons, it is unclear why Hart Slough is undesignated as any Shoreline Designation. It should be contiguous with Skagit River designations. While an appropriate designation would be Rural Conservancy-Floodway as the slough itself is an abandoned meander bend demonstrating the sites history within the Channel Migration Zone of the Skagit River and lacks the protection of a jurisdictional levee, the present definition is limited to areas east of Hwy 9. At a minimum, we

request that Hart Slough and all associated wetlands be designated as Rural Conservancy and consideration for additional designation as Floodway be considered.

Comment 75

Dear Skagit Planning & Development Services,

As a resident of Skagit County, I support the recommendations brought forward by Evergreen Islands, RE Sources, Washington Environmental Council, Guemes Island Planning Advisory Committee in their June 16, 2021 comment letter on the periodic review and update of the Skagit County Shoreline Management Program.

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I support the recommended measures outlined below that will improve protection for these key species that will achieve the no net loss of ecological function requirement, a requirement under the SMA;

1. Adopt State of Washington Department of Fish and Wildlife's up-to-date buffers to protect Chinook and other salmon and the prey on which they rely.
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6. Extend Permit Appeal filing deadline from 5 days to 14 days.

Thank you for the opportunity to provide comments.

Sincerely,
Kludia Englund
7630 Cypress Way
Anacortes, WA 98221

Dear Skagit Planning & Development Services,

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Thank you for the opportunity to provide comments.

Sincerely,
John Thompson
4953 S Spinnaker Dr
Freeland, WA 98249

Dear Skagit Planning & Development Services,

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Thank you for the opportunity to provide comments.

Sincerely,
Tina Brown
5526 Sugarloaf St
Anacortes, WA 98221

Dear Skagit Planning & Development Services,

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Thank you for the opportunity to provide comments.

Sincerely,
Robert Doupe
657 Muckleshoot Cir
La Conner, WA 98257

Dear Skagit Planning & Development Services,

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Thank you for the opportunity to provide comments.

Sincerely,
Deborah Martin
6407 Dow Ln
Anacortes, WA 98221

Dear Skagit Planning & Development Services,

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Sincerely,
Sarah Bauman
695 Chuckanut Dr N
Bellingham, WA 98229

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Thank you for the opportunity to provide comments.

Sincerely,
Adina Parsley
20420 Marine Dr
Stanwood, WA 98292

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Though I am not a resident of Skagit Co., I have supported Skagit Land Trust's efforts to preserve targeted properties. Also, having grown up in Whatcom Co., and now living in Island Co., I consider myself a resident of the Salish Sea. The waters do not recognize County boundaries!

Thank you for the opportunity to provide comments.

Sincerely,
Barbara Brock
3302 Walnut Ct
Camano, WA 98282

Dear Skagit Planning & Development Services,

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Sincerely,
Diane Sullivan
1231 SW Kalama Loop
Oak Harbor, WA 98277

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Sincerely,
Elizabeth Lengel
12901 S Wildwood Ln
Anacortes, WA 98221

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Sincerely,
Irene Derosier
11260 Bayview Edison Rd
Mount Vernon, WA 98273

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Norm Conrad
1120 S 25th St
Mount Vernon, WA 98274

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Sincerely,
Art Bogie
3602 Portage Ln
Anacortes, WA 98221

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Sincerely,
Lynn Rabenstein
201 N Section St
Burlington, WA 98233

Comment 80

June 21, 2021

Brian Lipscomb
27765 West Gilligan Creek
Sedro-Woolley, WA 98284

Betsy Stevenson, SMP Project Manager
Skagit County Shoreline Master Plan
1800 Continental Place, Suite 100
Mount Vernon, WA 98273

sent via email to: pdscomments@co.skagit.wa.us, and uploaded via the SMP comment page

Subject: Skagit County Shoreline Master Program Update

Many of the spatial restrictions of the SMP and critical areas are derived from the FEMA flood insurance rate maps. The floodplain maps were created for an actuary to determine risks so that flood insurance premiums are priced fairly. These premiums rightly vary according to risk. These mapped areas are also known by the misnomer "Frequently Flooded Areas".

And what is this definition of "frequently"? If you gambled and lost 99 out of 100 times would you consider yourself a frequent winner? Your Federal, State, County, and City bureaucrats would. Their definition of a "Frequently Flooded Area" is anything that is in the 100 year floodplain, that is any property with a 1% or greater chance of having some water on it in any year. Not a lot of water just some water (there are areas on the maps that will have flooding on a truly frequent basis however).

The current flood insurance rate maps for the Skagit floodplain utilize cross section measurements determined in 1963 and supplemented in 1977. Each time an updated flood study is published the data is re-branded with a new freshness date but the data remains the same. The currently used maps fail to acknowledge over 50 miles of existing levies and shoreline armoring in the valley. These maps have so many errors Skagit Co. spent over \$380k in 2011 appealing the maps. To date there has been no resolution for these errors on the maps.

These maps are secondarily misused for environmental regulations where everything mapped is a critical risk by default until an individual site assessment debunks this risk. Some areas such as floodways can not be overridden even with surveys, elevation certificates, habitat conservation areas studies, and other ground truthing that document the actual conditions and mapping errors if a bureaucrat decides they don't want to allow it.

Best Available Science is an often used phrase to aid in stifling any challenges to government supplied data. However, Easiest Available Science or even Political Science can often be masqueraded as Best Available Science and the flood maps currently in use by Skagit Co. exemplify this.

There seems to be a large focus on identifying habitat losses without equal consideration for the habitat gains from the millions of dollars and ongoing efforts expended on restoration and improvements that are not associated with any development project. Potential unintended consequences from this are curtailing voluntary habitat improvements as these efforts will be required for mitigation for any future development.

These well known and documented mapping errors should be sufficient to oppose the proposed change of "Rural Conservancy" to Natural or "Conservancy-Skagit Floodway". It will complicate matters when these maps are eventually corrected and adopted.

The same studies that are used to override the floodplain designations should also be deemed adequate to override the restrictions where obviously incorrect mapping of floodway designations exist.

Although we are very supportive of the SMP goals, everyone should be wary to not to let perfect be the enemy of good.

Brian Lipscomb
Shoreline land owner

Comment 82



State of Washington

Department of Fish and Wildlife

P.O. Box 1100, 111 Sherman St. (physical address), La Conner, Washington 98257-9612

June 22, 2021

Betsy Stevenson
Senior Planner
Skagit County Planning and Development Services

Dear Betsy,

Please find Washington State Department of Fish and Wildlife's comments on the Skagit County Shoreline Master Program public review draft. We appreciate the specific use of WDFW guidance and other references to the Washington Administrative Code. Our comments are listed by section number and can found below.

Thank you for the opportunity to comment, I look forward to working with you on this in the future. If you have any questions about our submittal, please feel free to contact me.

Sincerely,

Bob Warinner
Washington Department of Fish and Wildlife
Assistant Regional Habitat Program Manager

June 22, 2021

Washington Department of Fish and Wildlife comments on the Skagit County Shoreline Master Program 2021 Public Review Draft.

Section #

6B-3.6 “Low intensity agriculture” needs to be defined.

6B-4.4 Mitigation actions and quantities should be specified.

6C-1 It might be helpful to have a section about the VSP.

6C-2.1 Activities that have environmental impacts shouldn’t be “encouraged”, or at least there needs to be a better description of why they should be encouraged.

6C-5.1 Commercial development should also be encouraged to locate outside of floodplains.

6C-8.6 Please add “aquatic habitats”.

6C-14.2 There should be signage at public areas describing the unique and fragile shoreline areas.

6C-14.3e Confusing language. Limited “to” designated areas?

6E-1.4 Please add “environmental values and functions” where it says, “developments are designed to”.

6F-1.2 There should be a reference to have water crossing structure comply with WDFW guidelines.

6G-1.1 Please add “riparian functions and processes”.

6G-2 Please add a section specifically identifying Alluvial Fans as critical areas to protect, restore, and where to avoid development.

6G-3 Non shoreline designated tributaries are important for water quality and should be specifically identified as important places for riparian conservation and improvement.

14.26.305(1) What is the baseline used to evaluate No Net Loss? If it is not established one should be determined.

14.26.305(4) Add that mitigation is required when SMP code is violated.

14.26.305(5)d Preservation does not mitigate and should not be given mitigation credit.

14.26.305(6)f This should also require a monitoring plan.

14.26.330(11)a There should be a time requirement for when this is completed (“within one year” or some such thing).

14.26.330(21) WDFW has a pamphlet for this.

14.26.380(2) Trees removed should also be documented.

14.26.380(3)(d)(v)(D) There should be a specific % survival requirement.

- 14.26.410(1)(c)(iv) & (v) This should pertain only to wholly artificial watercourses.
- 14.26.420(3)(a) A submerged aquatic vegetation survey should be required in marine areas.
- 14.26.420(4)(c)(i) Adequate needs to be defined and the entity determining it needs to be identified.
- 14.26.420(4)(c)(ii)(D) This is also dependent on location; engineering may be required.
- 14.26.420(4)(h)(ii)(B) Who determines this and how?
- 14.26.435(1)(b)(i) This should be defined and quantified.
- 14.26.435(2)(c) New and expanded moorages should have required compensatory mitigation.
- 14.26.460(4)(a) WDFW and Ecology have specific regulations for placer mining, these should be referenced.
- 14.26.460(4)(e)(ii) Skagit County will be the local agency for most of these operations, the limits should be specifically referenced in this document.
- 14.26.460(4)(e)(iv) Even miniscule amounts of some of these materials can be harmful. There should be stronger language and requirements here.
- 14.26.480(2) Hard shoreline armor needs to be mitigated; this should be noted here.
- 14.26.480(4)(c)(A) Sounds good but should not be under the planting heading.
- 14.26.480(4)(e)(i) There should be separate sections for hard and soft bank protection.
- 14.26.485(4) Water crossing structures must be designed to comply with WDFW standards.
- 14.26.490(4)(g)(iv) All diversions of waters of the state need to be screened to comply with WDFW standards.
- 14.26.522(2)(c) Should be replaced with more than one tree (3?) and monitored to ensure survival.
- 14.26.572(3) In response to the comment (A144). There are many Priority Habitats and Species, not just eagles.
- 14.26.573(1) WDFW guidance suggests Site Potential Tree Height (SPTH).
- 14.26.573(3)(e) SPTH should be better referenced and maybe explained.
- 14.26.575(4)(a)(ii) This language is misleading; applicants shouldn't be encouraged to change or minimize buffers.
- 14.26.630(3) WDFW considers the replacement of a dock that has not been functional for 2 years a new dock.

14.26.6340(3) Overall footprint of shoreline stabilization structures should not be allowed to expand.

14.26.735 From reading this section it appears that acquiring a variance is simply a different permit pathway. There needs to be a discussion of when and why this is allowed and how it differs from the standard SMP process including the reduction in shoreline protection.

14.26.735(1) Who determines what is extraordinary or unnecessary? This needs to be defined or at least the process of determining this should be described.

14.26.735(4)(c)(i) Reasonable needs to be defined or the process of determining reasonableness needs to be described.

14.26.790(1) Does Skagit County have the capacity to do this? And if so, is there information (reports, data, etc.) available for review?

Also note: on Map a, the designation of the Skagit Wildlife Area's Wiley Slough site is not assigned and should be shown as "natural".

Comment 83



LAKE CAVANAUGH IMPROVEMENT ASSOCIATION

Dan Pugerude, President
33734 North Shore Drive
Mount Vernon, WA 98274 8214

360/422-5845
drdan7@juno.com

To: Ron Wesen, District 1
Ken Dahlstedt, District 2
Lisa Janicki, District 3

From: Dan Pugerude,
President, Lake Cavanaugh Improvement Association

Date: September 28, 2016

Subject: SMP Update

We write to follow-up on our meetings with each of you regarding impacts upon the Lake Cavanaugh community of the proposed amendments to the Shoreline Master Program. We very much appreciate your meeting with us and hearing our concerns. To be clear of what we are requesting, we again provide the attached set of recommendations along with their rationale for adoption.

As we understand its position, Skagit County Planning and Development Services staff objects to the reduction of shoreline buffers on grounds that the proposed 100 foot width is mandated by Best Available Science (“BAS”). We do not question the need for support of by BAS, since that is required by Ecology’s regulations. At WAC 173-26-201(2)(a), those regulations require the county to identify the scientific information upon which its proposed amendments are based. In response to requests for the scientific information to support buffers of 100 feet along Lake Cavanaugh, PDS staff has cited the Final Best Available Science Report prepared by The Watershed Company on January 25, 2007 in support of the county’s update to its Critical Areas Ordinance provisions relating to wetlands and fish and wildlife habitat conservation areas.

We have had an opportunity to review that report and cannot find where it offers any data or substantiated analysis to support 100 foot buffers on freshwater lakes that do not support anadromous fish.

The science in the 2007 BAS report relates only to three environments: riparian (rivers); marine (adjacent to salt water); and wetlands. Lakes are first mentioned on page 2, where the county’s existing regulations include in its Fish and Wildlife Habitat Conservation areas

“ . . . lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity. . . .” But this section cites no scientific information particularly applicable to lakes.

On page 9, the report admits that lakes and rivers are different, stating, “general observations of cumulative changes to watersheds and riparian zones have been noted with measurable differences in littoral habitat (Jennings et al. 2003).” Nevertheless, the report then decides to treat lakes like rivers, stating: “Thus, for the purposes of this best available science review, lake riparian functions are assumed to be analogous to the findings provided below.” But the Report presents no science to support that assumption, particularly with regard to lakes -- like Lake Cavanaugh -- that do not support anadromous fish. Except for those that flow to lakes without outlets or lakes with fish barriers, the county’s rivers do support anadromous fish and do require protections for species protected by endangered species listings and treaty rights. However, Lake Cavanaugh has a fish blockage installed by the State Department of Fish and Wildlife that prevents the entry of migrating fish. Accordingly, the assumption to treat lakes, and Lake Cavanaugh in particular, the same as rivers is indefensible.

In its conclusion at pp 42-43, the BAS Report has a brief discussion of lakes but notes the need for further study:

“ . . . the County has decided to specifically include lakes . . . as critical areas. . . ”

“Regardless, future updates to the County’s Shoreline Master Program will also require an assessment of the Best Available Science. . . .”

“Because the regulations lack specificity with respect to particular habitats, it is critically important that the County enforce the special study and coordination requirements, and track implementation of the resultant management and mitigation measures.”

Although there is no science to indicate that 100 foot setbacks are necessary to support the lake environment, other sections would support a buffer of 50 feet. For example, on page 40, non-salmonoid perennial rivers are recommended to have a 50 foot setback.

In short, there is no scientific evidence that 100 foot buffers would be better for the environment than 50 foot buffers. From our review it appears that PDS staff has arbitrarily decided to set lake shoreline buffers to be the same as for anadromous fish streams without considering their differences.

The imposition of unwarranted buffers imposes an unnecessary hardship on lake residents, as it forces many more to go through the expense, delay and uncertainty of applying for administrative variances when such additional steps are not warranted.

ARAMBURU & EUSTIS, LLP

Attorneys at Law

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December 1, 2016

Board of County Commissioners
for Skagit County
1800 Continental Place
Mount Vernon, WA 98273

Re: Shoreline Master Program Update

Dear County Commissioners:

On behalf of the Lake Cavanaugh Improvement Association, I write to propose modifications to the draft Shoreline Master Program relating to shoreline buffer widths and dock dimensions.

I understand that representatives of the Lake Cavanaugh Improvement Association (LCIA) have met with each of you individually and have expressed the need for the Shoreline Master Program to give special consideration to the conditions at Lake Cavanaugh. The lake is unique in that it is both remote and is largely built-out, with most of its shoreline platted in 60' wide lots. Despite the development around the lake, its waters are clear and clean, and still used for drinking water by many.

The draft Shoreline Master Program (SMP) designates most of the Lake Cavanaugh shoreline as Shoreline Residential, a designation requiring a 100 foot buffer for any development along the lake, subject to reductions by up to 50% through administrative review and beyond 50% through Hearing Examiner review. The setting of a uniform buffer of 100 feet poses a substantial hardship to residents and landowners at Lake Cavanaugh, requiring lot owners to go through additional costly and time-consuming procedures – including the commissioning of a professional site assessment – just to build on their lots.

A 100 foot setback is not workable for most homeowners, some because the lots lack sufficient depth, others because their neighbors' setbacks average less than 50 feet and adherence to a 100 foot setback would result in reduction of view and access to the water with a commensurate reduction in enjoyment and value. The LCIA Board and full membership have voted unanimously since 2014 to oppose the 100 foot setback, which they have previously communicated to you. LCIA has requested that

shoreline buffers around the lake be reduced to 50 feet. County staff has rejected this recommendation on various grounds, none of which holds true.

First, County Staff has maintained that the shoreline buffers must conform to Critical Area buffers. This is incorrect. Pursuant to the legislation reconciling differences between Shoreline regulations and GMA critical areas regulations, development along shorelines is to be regulated by updated Shoreline Master Programs following their approval by Ecology. See RCW 36.70A.480(3)(d). The SMA standards may differ from the GMA critical areas regulations.

Second, County Staff has indicated that a 100 foot setback along Lake Cavanaugh is dictated by Best Available Science (BAS), which is incorrect as well. Through its memo to you of September 28, 2016, LCIA demonstrated that BAS does not dictate buffer standards, either for non-anadromous lakes in general or for Lake Cavanaugh in particular. A copy of that memo is provided with this letter.

Third, County Staff has insisted that buffer standards must be uniform for all fresh water lakes carrying a Shoreline Residential designation, which is also incorrect. Ecology's regulations governing the adoption of shoreline master programs do not require that all lakes, or even all portions of a given lake, be treated similarly. Among other things, those regulations at WAC 173-26-186 require that shoreline master programs address the goals of the Shoreline Management Act, assure no net loss of ecological functions, and consider cumulative impacts. Rather than uniformity, Ecology's shoreline regulations at WAC 173-26-191(a) require that shoreline master programs "address the full variety of conditions on the shoreline ... [including] conditions and opportunities of specific shoreline segments... ."

There are many examples in which shoreline master programs approved by Ecology for other jurisdictions have treated different shorelines differently. For example, Whatcom County has given a variety of designations to its lakes. Lake Whatcom, a shoreline of statewide significance, carries six different designations: urban, shoreline residential, rural, conservancy, resource, and natural.¹ Under Whatcom County's approved Shoreline Master Program, buffer widths are not uniform across each shoreline designation, but instead vary depending upon the habitat of the protected shoreline, so marine shorelines require greater buffers than fresh-water lakes, and larger lakes have greater buffers than smaller ones.²

¹ See shoreline designation map at:
http://www.ecy.wa.gov/programs/sea/shorelines/smp/pdf/shoreline_envirodesign_44x34_080812.pdf

² See Whatcom County Code section 16.16.740.C.

By way of another example, the City of Sammamish has set different buffer widths for individual lakes within its jurisdiction: Lake Sammamish requires a building setback of 50 feet, while Beaver and Pine lakes require a lesser setback of 45 feet, even though the shorelines of all three lakes are largely built out and are largely designated as Shoreline Residential.³ Notably, Lake Sammamish, an anadromous fish bearing water, and Beaver and Pine Lakes, not anadromous water bodies, have setbacks in the range requested for Lake Cavanaugh.

The Shoreline Management Act and Ecology's Shoreline Regulations allow Skagit County to do what LCIA is requesting, to set shoreline buffers appropriate for the unique conditions at Lake Cavanaugh. LCIA proposes that its requested reduction in shoreline buffers be accomplished through two amendments, one to Table 14.26.310-1 of the SMP update; and a second to the buffer requirements for fish and wildlife habitat protection within the Critical Areas code at section 14.24.530. LCIA previously furnished to you copies of these proposals.

With respect to docks, staff has proposed that the SMP update simply incorporate by reference the WDFW dock regulations at WAC 220-660-140, apparently on belief that the county lacks authority to promulgate different standards. This is incorrect, particularly for docks on non-anadromous fish bearing waters like Lake Cavanaugh. The WDFW regulations seek to protect habitat and reduce predation of anadromous fish.⁴ But other counties and cities have adopted their own standards for boating facilities. For example, Snohomish County allows piers of greater width on non-anadromous lakes than on those that provide salmonid habitat.⁵ And the City of Sammamish has adopted specific and differing dimensional requirements for its lakes.⁶

On account of its unique conditions, LCIA has recommended separate standards for docks on Lake Cavanaugh, which have been previously provided. For ease of reference, another copy is attached.

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³ See Sammamish Municipal Code 25.06.020(9) and shoreline designation maps available at: <http://www3.sammamish.us/departments/communitydevelopment/smp/Default.aspx>

⁴ See e.g., WAC 220-660-140(2)(b)(protection of migrating fish).

⁵ See SCC 30.67.515(1)(k)(ix)(F)(II) and (III).

⁶ See SCC 25.07.050(2)(Lake Sammamish) and .050(3)(Beaver and Pine Lakes).

Skagit County
Board of Commissioners
December 1, 2016
Page 4

Thank you for your consideration of these proposals. LCIA is available to elaborate more fully on these proposals.

Sincerely yours

ARAMBURU & EUSTIS / LLP


Jeffrey M. Eustis

Cc: Arne Denny, Deputy Prosecuting Attorney
Betsy Stevenson, SMP Update project manager
Lake Cavanaugh Improvement Association

ARAMBURU & EUSTIS, LLP

Attorneys at Law

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March 15, 2016

Skagit County Planning Commission
1800 Continental Place
Mount Vernon, WA 98273

Re: Shoreline Master Program Update

Dear Planning Commissioners:

On behalf of the Lake Cavanaugh Improvement Association, I write to propose modifications to the draft Shoreline Master Program to address two circumstances unique to the lake: building setbacks and dock dimensions.

Background

Lake Cavanaugh is an 830 acre lake, located roughly 25 miles east of Mt Vernon at an elevation of about 1,000 feet. The lake is stream-fed and holds near drinkable quality water. Although the lake drains to Pilchuck Creek to the west, a barrier constructed under the supervision of the state Department of Fish and Wildlife prevents the upstream migration of fish into the lake, so it is not an anadromous fish lake. Among other species, the lake supports large mouth bass, sculpins, kokanee, coastal cutthroat and rainbow trout, which are fished by residents and visitors alike. See <http://wdfw.wa.gov/fishing/washington/20/>.

As a result of platting in the 1940's most of the lake's shores have been subdivided into 60 foot wide lots. Access is provided by the shore roads, which encircle the lake. For the most part, these roads have produced longer or deeper upland lots on steep slopes that surround the lake and shorter or shallower waterfront lots. The attached map and aerial photograph of a portion along South Shore Drive show the shorter depth of waterfront lots.

With breaks for areas where the land was too steep to plat, the lake has about 500 lots. Of these, about 10% remain undeveloped; of the built-on lots, about 40% are underdeveloped in the sense that they hold older, smaller cabins which are steadily being replaced with more contemporary houses. The lands above the platted lake lots are largely timber resource lands held by the State Department of Natural Resources

and actively logged. Logging trucks regularly use the shore roads for access to timber lands.

In the early decades following platting, the lots were developed with small summer cottages, often drawing lake water for household use and using outhouses or small drainfields for septic disposal. In more recent times, the summer cottages have been replaced with homes and many of the vacant lots have been developed with more contemporary houses. Summer weekend use has given way to both full-summer residency and full-time residency.

The lake has generally benefited from more contemporary building, as it has produced higher quality construction and upgrades to septic systems. Even though the shore land is largely built out, the water quality remains excellent. For example, the water column has visibility to over 20 feet in depth and subsurface temperatures remain cool, which is good for fish. A copy of the Water Quality Report for Lake Cavanaugh taken in September 2015 is attached to this letter.

As its name suggests, the Lake Cavanaugh Improvement Association (LCIA) is an active association of Lake Cavanaugh homeowners. It monitors lake levels and water quality, it carries out lake improvement projects, and it represents lot owners on issues of concern, such as provisions within the Draft Shoreline Master Program.

Building Buffers and Setbacks

The Draft SMP designates most of the Lake Cavanaugh shoreline as Shoreline Residential. The remaining portions are designated Shoreline Conservancy, a designation that appears to be reserved for the steep, unplatted shorelands around the lake. At table 14.26.310-1 the draft SMP proposes a minimum 100 foot buffer from the lake's line of ordinary high water. Since the term is not defined in the draft SMP and the SMP is intended to consolidate critical areas and shoreline regulations for the shorelines, LCIA construes "buffer" to be a building setback requirement. If this is not correct, and a buffer means something other than a building setback, please clarify this point. In either event, the imposition of a 100 foot building setback would create an impractical and unnecessary restriction on the development and redevelopment of lake lots.

A large number of lake lots do not have sufficient distance between the shore road and the water to accommodate 100 foot buffers. The lots were platted, and many of the lots initially were built upon, prior to modern laws, such as, the current subdivision act, the Shoreline Management Act, the State Environmental Policy Act and the Growth Management Act. Subsequent to the passage of those laws, old cottages have been reconstructed into larger homes and new homes have been built on vacant lots in the pattern of prior construction, often using the shallower waterfront portions of the lots for

homes and the upland portions for other improvements, such as garages, outbuildings and septic drain fields.

By establishing building setbacks (or shoreline buffers) at 100 feet, the Draft SMP would impose unfair and unnecessary regulatory burdens on lot owners seeking to rebuild existing cottages or to build on vacant lots in built-out areas. Already, existing building setback requirements have forced many to go through lengthy and expensive variance procedures to reconstruct existing cottages or to simply continue the pattern established by their neighbors.

It would be unfair to require increased building setbacks, because it would subject those who would build after adoption of increased setbacks to different standards than neighbors who had built beforehand. In many cases, it would force new builders to construct homes on the upland side of the shore road, when their neighbors were allowed to build on the shore side. And in many cases, the upland portion of the lots is unbuildable on account of the steepness of slopes.

The increased setback is unwarranted, because the objective sought by the increased setbacks cannot be realized at the lake. Presumably, a building setback of 100 feet would serve to provide greater protection for the near shore environment. If the lake were currently sparsely developed, a goal of 100 foot setbacks around the lake possibly could be realized. But the reality is quite the opposite: nearly all of the 500 lots have been built on with houses far closer than 100 feet from the shoreline. At this late stage in the history of Lake Cavanaugh, the imposition of an increased setback would provide only a small marginal change to the development pattern around the lake.

The additional setback requirement would be unnecessarily burdensome. Faced with the inability to build on the shore side portion of their lots like their neighbors and the inability to build on upland portions on account of steep slopes, lot owners would be forced to seek variances from the buffer or setback requirements, obliging them to incur the delay and expense of simply re-proving what their neighbors have already proven: the shore side portion cannot satisfy the 100 foot setback; the upland portion is too steep; they could build without impacting lake water quality (as shown by existing reports); their construction would not impact protected species; and they would otherwise be denied the same benefits accorded to other property owners in the area.

To remedy the problems created by increased building setbacks and buffers, LCIA proposes that the SMP allow outright the following exceptions to the 100 foot setbacks in the Shoreline Residential district on Lake Cavanaugh (without the need for a shoreline or critical areas variance):

- Where an existing residential structure is to be rebuilt, remodeled or reconstructed; the building setback would be the existing setback for that structure;

- Where adjacent or near adjacent lots (within 300 feet) have been developed, the building setback for an undeveloped lot would be the average of adjacent lots;

LCIA would be available to help develop regulatory language to implement these proposed changes.

Dock area limitations

The proposed standards for docks are unclear. For example, Table 14.26.420-1 sets a maximum height of 3 feet from the surface of the water, presumably for fixed piers. But it is unclear whether height is to be measured from pier decking or the bottom of the pier structure and if measurement would be taken from winter high water or some other elevation. During the year the surface elevation of Lake Cavanaugh fluctuates around four to five feet. However the measurements are taken, they must allow piers to be constructed so they are higher than the floats they would access.

The maximum dimensions for floats also are unclear. The same table (14.26.420-1) imposes a width of eight feet for floating sections. Since the length of the entire pier/ramp/float structure is addressed elsewhere, it is assumed that the floating section is not subject to a separate length requirement. Again, the large fluctuation of the lake encourages the use of floating docks. If the eight foot dimension also applied to the length of floats, it would not allow for the safe moorage of all but the smallest row boats, skiffs and sailboats.

The proposed widths for piers and ramps are inadequate. On account of the need to provide sufficient clearance above high water and on account of the fluctuation of the water level, the pier and ramp top could easily be six feet above the beach area during late summer months. The maximum six foot width for piers and four foot width for ramps are simply insufficient to allow safe use, especially by children.

As for total length of the pier/ramp/float structure, an additional consideration should be given to allow moorage without creating the potential for prop wash. The gradient of the shoreline varies around the lake. In most cases, allowing dock length to meet the average of lengths within 300 feet should be sufficient. But where taking the average of dock length would not allow for sufficient depth to prevent prop wash or grounding, water depth should be considered.

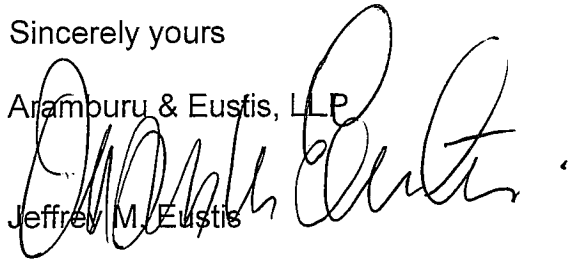
For restrictions relating to docks as well, LCIA would welcome the opportunity to work toward regulations that would be more specifically tailored to the special circumstances of Lake Cavanaugh. A special shoreline district for Lake Cavanaugh may be the most efficient vehicle for addressing the lake's unique conditions.

Thank you for your consideration of these proposals.

Sincerely yours

Aramburu & Eustis, LLP

Jeffrey M. Eustis

A handwritten signature in black ink, appearing to read 'Jeffrey M. Eustis', is written over the typed name. The signature is fluid and cursive, with a large initial 'J' and 'E'.

Cc: Lake Cavanaugh Improvement Association

May 30, 2016

LCIA Proposal on Skagit County SMP Update – Re Docks

Background of Lake Cavanaugh:

1. Platted in 1940's. Approximately 500 lots are present on the lake. There are 420 existing docks.
2. Approximately 90% of lots developed with homes and cabins as of 2016; it is close to 100% on flat lots. Use on summer weekends is intense, both by residents and by those who access from the public boat ramp. Summer weekend population is higher than any other lake in Skagit County, and approaches that of Lake Stevens in Snohomish County. However, due to cold winters use is seasonal with decreased winter use, mostly for fishing.
3. Average setback from the lake for buildings is under 50 ft
4. Most existing properties have docks 25 – 110 ft long
5. Lake level varies approximately 4 feet throughout the year, but 5 feet has been experienced:
 - a. High level in January & November – 1013 ft. elevation (approx.)
 - b. Low level May – Oct – 1009.4 ft (approx.)
 - c. Average water level from Jun – Oct is 1010.5 ft.
 - d. Ordinary High water is around 1011 ft.
6. Fish stocked on lake by WSDFW include:
 - a. Kokanee (September)
 - b. Cut Throat Trout (June)
 - c. Other species found include Rainbow Trout, Bass and Sculpin.
 - d. No fish migrate to Lake Cavanaugh from the Pilchuck river. A fish blockage was installed in the early 1970's by WDFW to prevent eels and other invasive species from reaching the lake, and because of natural waterfalls.
7. No Stores, marinas, or public beaches are present on the lake. WSDFW maintains a public boat launch at the east end of the lake.
8. Lake temperatures range from surface freezing in winter months (Dec – Feb) to approximately 80 degrees in summer months. Lake is over 100 feet deep at deepest.
9. Lake is approximate 3 miles long by 1 mile at its widest.
10. Water quality is exceptional with about 1/3 of property owners drawing water from the lake for drinking water.
 - a. Oxygen content:
 - i. 10 ft: 9.3 ppm (110% saturation);
 - ii. 55 ft: 5.0 ppm (47% saturation)
 - b. Acidity:
 - i. 10 ft – 7.0
 - ii. 55 ft -6.5
 - c. Visibility: 28 ft approx..
 - d. Fecal Coliform: 0 colonies (occasionally measure minor amounts)

11. Surrounding land uses are DNR and private working forests.
12. Weather patterns are unusual with shear winds coming from the east when winter weather is traveling from the west. Winds often exceed 100 mph. Winters are particularly violent as the lake level is high and winds are exceptional. Damage occurs every year to docks, buildings, and trees. Due to weather, most boats and boat lift covers, and swimming floats are removed by October until mid-May. Little activity occurs on the lake from November to April, except for fishing. Exposure of docks to winds varies greatly, with some lots in protected coves, and others exposed to full force of the winter shear winds.
13. Geology around the lake varies from steep cliffs to wide flat areas. Rock is present at surface in some areas and other areas require pile foundations of 42 feet to reach firm bedding.

DOCK OBJECTIVES:

1. Locate to avoid prop wash of lake bottom
2. Address structural requirements unique to the environment at the lake
3. Allow for use of docks for recreation including access to lake for swimming, boating (average boat at the lake is 20-25 ft), water sports, and fishing.
4. Avoid placement of toxic products, tires, and exposed floats (Styrofoam) in water.
5. Allow for boat lifts to remove boats from lake during moorage (including covers that are tops only, no side covers, and that are removed during the winter). Lifts to be minimum 9 ft waterside of summer shoreline
6. Avoid Skirting on docks
7. Avoid new enclosed boat Houses and enclosed covered moorage
8. Encourage floating docks
9. Introduce sunlight thru decking to allow safe use of docks for recreation. Surface to allow for children, boaters, and dogs to safely use surface. Products with 30%-40% daylight would allow cost-effective solution.

PROPOSED DOCK RECOMMENDATIONS:

1. Docks, piers and floats should minimize adverse impact to shorelines ecological functions or processes and minimize impacts to navigation of adjacent properties. However, the size of over-water structures will vary, and should be no greater than that required for safety and practicality for the primary use. Swimming, boating, mooring boats, and other recreational uses are permitted, and considered necessary uses.
2. Dock lengths established as maximum of 50 ft; or longer if necessary due to shallow water depth for boat mooring; and also longer if equal to the average of docks within 300 ft of subject property.

3. Dock widths shall be:
 - 15 feet from ordinary high water mark – 6 feet maximum width
 - Beyond 15 feet - fixed (non-floating portions) – 12 feet maximum width
 - Beyond 15 feet -floating portion used for access to boats – 16 feet maximum width.

Widths may be increased by up to 50% with an administrative variance if:
1) conditions require additional width for stabilization due to individual environmental conditions such as exposure to wind and waves; or 2) if distance between pilings is increased; or 3) if light-permitting grating on dock surface is increased.

4. Create incentive for shared docks by allowing 25% increase in length and 50% increase in width if located on a property line and shared with at least 2 property owners.
5. Establish docks to provide at least 4 feet of water depth for June water elevations (when lake is at 1010). This may require dock lengths in excess of the existing average within 300 ft. Administrative variance may be used to extend dock by up to 50% with notification and comments by adjacent property owners.
6. Over water portion of docks to provide at least 30% daylight on at least 50% of the dock surface. Outer 25 ft of dock is encouraged to be floating with grated surface as described above.
7. No artificial lighting is allowed on docks other than navigational markers and minimum amount needed to locate dock at night. Focus lighting on deck surface to minimize illumination of surrounding area. Minimize glare and incorporate cut-off shields, as appropriate. Reflectors are encouraged.
8. No toxic treated wood to be utilized for portions of dock in the water. No tires or exposed Styrofoam to be utilized in dock construction (encapsulated foams may be utilized).
9. No skirting is allowed on docks below 1 ft from the decking surface.
10. Pilings shall be installed at maximum spacing practical for the specific location.
11. Floating or suspended watercraft lifts should be located a minimum of 9 feet from the summer shoreline.
12. No dock shall be used for a residence.
13. Floats. The maximum width and length and diameter of floats (including trampolines) not attached to docks (anchored) shall be 16 feet each, without any permit or showing of need. Such detached recreational floats shall only be allowed from May 1 – October 30. Detached floats will be removed or attached to the shore for remainder of year.

FOR MAINTENANCE/REMODEL/REPLACEMENT:

1. During maintenance, repairs shall be made without the use of toxic materials. If more than 50% of decking is replaced, decking shall be updated to current requirements. Repairs may be made with in-kind materials as existing with exception that toxic materials and un-encapsulated foam floats described above shall not be utilized. New, expanded and replacement docks must comply with new standards.

INAPPLICABLE PROPOSALS:

Due to unique conditions of Lake Cavanaugh, including development, use, wind, and geology, the following parts of the draft county proposal on docks are not applicable to Lake Cavanaugh:

Delete: “(B) Individual recreational floats are only allowed if the applicant can demonstrate that all other reasonable community or joint-use options have been investigated and found infeasible.” It is unclear what this means, but trampoline floats are common on the lake for recreation, not for mooring boats. They are not popular because other uses are “infeasible”, but because they are uniquely enjoyable for water recreation.

Delete: “A need must be demonstrated for expansion of existing docks. . . “ 14.26.630(4)” This is unclear, what constitutes need? Is water recreation a need? It is sufficient that expansions, replacements, and new docks must meet the new standards, as stated in the LCIA proposal.

Delete: “7. “In locations where grasses are present near shoreline, . . .” This is too vague – how much grass, how near to the lake, etc. The maximum size rules proposed by the LCIA above are enough to address this concern.

RESOLUTION OF LCIA BOARD RE SKAGIT COUNTY REVISIONS TO SHORELINE MASTER PLAN

June 4, 2014

To: Skagit County Planning Commission
Annie Lohman, Chair
Robert Temples
Kevin Meenaghan
Tammy Candler
Keith Greenwood
Matt Mahaffie
Dave Hughes (absent)
Josh Axthelm

Staff: Dale Pernula, Planning Director
Betsy Stevenson, Senior Planner

From: The Lake Cavanaugh Improvement Association (LCIA) Board

We are the elected representatives of the Lake Cavanaugh Improvement Association (LCIA), a non-profit corporation representing the nearly 500 property owners of Lake Cavanaugh, Skagit County. Our paid membership in 2013 was approximately 282 of those residents. See www.lakecavanaugh.info for more information.

At general LCIA meetings open to the public on August 31, 2013 and May 24, 2014, and at several LCIA Board meetings, there was a discussion of the proposed changes to the Shoreline Master Program. The unanimous consensus of attending residents of Lake Cavanaugh at the May 24, 2014 meeting by a show of hands, and at other meetings, is against any additional restrictions on development at the Lake. Of particular concern are any additional setback requirements and any additional size limitations on docks.

The LCIA Board formally submits this resolution opposing any additional restrictions on development of individual residential properties at Lake Cavanaugh. The reasons are as follows.

The Lake is a clear pristine habitat for fish, birds, and wildlife, and the residents fully support reasonable efforts to maintain that habitat. However, the residents also use the Lake for their homes and for recreation activity, while still maintaining the habitat. Activities that have been a part of the Lake for over century include motor boating, skiing, sailing, fishing, and swimming. There is a public boat launch maintained by the Washington Department of Fish and Wildlife for boating and fishing access..

Quarterly Lake quality studies performed by the LCIA show that the Lake has been and remains a healthy habitat, co-existing successfully with these residential and recreational activities.

In the past two decades residents have been subject to increasing restrictions on their residential and recreational use of the Lake. For example, the current setback requirements are 100 feet for most structures, but most current buildings are about 50 feet from the water. The residents are opposed to increasing the setback beyond 100 feet because: (i) those who are building or re-building at more than 100 feet from the Lake will have their view of the Lake mostly blocked; (ii) existing regulations regarding setbacks, septic fields and toxic substances are adequate to protect the Lake, as proven by quarterly Lake quality studies performed by the LCIA; (iii) most other residential lakes in Washington do not have setbacks at greater than 100 feet.

The current dock restrictions are confusing and inconsistent. Fish and other aquatic life have thrived despite a proliferation of docks, most of which are larger than current regulations would permit. The proposed new regulations are impractical, as the mandated dock size would not be large enough to support the boating, swimming, fishing, and sailing activities that are an integral part of the Lake. Existing regulations regarding docks are adequate to protect the Lake (although they should be made consistent), as proven by the thriving fishing, crayfish, and other aquatic populations.

We request that these comments be considered in connection with proposed changes to dock regulations and setbacks under consideration by Skagit County and the State of Washington.

Respectfully submitted,

Lake Cavanaugh Improvement Association Board
May 28, 2014

Comment 85

Re: Skagit County Shoreline Master Program Comprehensive Update and Periodic Review

While it is admirable that “Skagit County is proposing a Comprehensive Update to the County’s Shoreline Master Program (“SMP”), which has not been comprehensively updated since its adoption in 1976,” Skagit County, in fact, has not completed an adequate periodic review of “changed local circumstances” and existing conditions. The last comprehensive baseline for any periodic review was completed in 2012—nine years ago. No public scoping process was ever announced or solicited during the county’s public comment process. On Guemes Island, for example, beavers arrived about three years ago, and have created a large lake in the valley. At least six acres of my property are now underwater. Many more acres of land are also underwater on the surrounding 110+ acres. The county had to raise Edens Road 18 inches to construct a one-way causeway so that the road, which had been flooded year round for two years, would be passable. This is a major new wetland that is not identified in the appendix (which was not available in your draft). It is disappointing that apparently no effort has been made to adequately describe current existing conditions after a lapse of almost a decade. In that time, bluffs have eroded, wetlands have shifted, and the sea has risen. Skagit County needs to have an accurate baseline from which to measure and determine the many other valuable requirements of the Shoreline Master Program that will protect our precious natural resources. This is even more urgent as people are joining a large migration from the Seattle metropolitan area to surrounding counties. Strong growth management, including enforcement, is critical in these changing times.

Of course, even the best management plan is useless if code requirements are not enforced and variances are never denied. I cite the following examples that have occurred on Guemes Island recently.

The Guemes Island Planning Advisory Committee, the county-designated monitor of the Guemes Island Subarea Plan, has addressed non-permitted examples of hard armoring along the South Shore feeder bluffs of Guemes Island. The entire island is designated as a sole-source aquifer, a critical area, an aquifer recharge area, a seawater intrusion area, a sensitive area, and the island supports several wellhead protection areas. Because of these conditions, there are many ways to violate county codes.

I am aware of several serious violations that have not been thoroughly investigated and addressed, even after potential violations were reported to the Planning and Development Services Department. Late in 2019, a neighbor reported that a deck had been built within 10 feet of a high bank feeder bluff. The owner, who had already been reported for the violation of clearing trees and vegetation from the bluff and had been ordered to replant the bluff, was required to remove the deck. An inspection report early this year shows photos of the 500 square foot deck having been removed, but not the adjoining hot-tub deck, which still remains standing well within the 50 foot buffer from the high bank. Additionally, the photos show no evidence, two years later, of any successful replanting along the bluff.

Another example is for a permit that was issued following a critical areas review, which allowed a certain number of hazardous trees along a high bank and close to the residence to be removed. Witnesses who are experienced in logging and construction counted the number of logging trucks hauling out timber from the property, which far exceed the allowed number of trees the permit designated. No investigation is scheduled to follow up on the tree count.

In tracking variances for the past five years on Guemes Island, no variance has ever been denied.

Without an accurate baseline, there should also be an expiration date on critical area reviews, just as there is with building permits and septic permits. A house was built last year very close to a high bank shoreline, based on a Critical Areas Review that was completed in 2006. The preparer noted that the OHWM could not be flagged or determined because it would require rappelling down the bank. He recommended that a code amendment should be adopted that would designate to OHWM as the boundary of the high bank. A 14-year-old CAO review should not be used as the base for a development. The environment could well have changed in that many years.

If the county truly wants to protect our natural resources and manage growth, it will need to adopt a management method that does not depend on neighbors turning in neighbors for code violations, increase staffing, and require follow-up inspections for permits by inspectors who will conscientiously enforce existing codes.

The fragility of our natural resources, our farmland, and our rural way of life are all endangered by present practices. Please step up to protect what we can while we can.