

Main Office: 360.466.3163  
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# 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  
1800 Continental Place  
Mount Vernon, WA 98273

Re: Swinomish Tribe comments and attachments on Skagit Shoreline Master Program  
Update

Dear Mr. Hart:

Enclosed please find a printed copy of the Swinomish Tribe's and SRSC's comments regarding the Skagit Shoreline Master Program update, as well as copies of the references listed below that are cited in the Tribe's comment letter. The enclosed copies are to references that were not produced by a Washington local or state government agency.

Thank you for your consideration.

A handwritten signature in black ink, appearing to read "Amy Trainer".

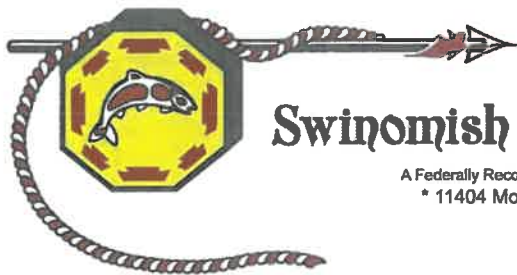
Amy Trainer, Environmental Policy Director  
Swinomish Indian Tribal Community

## Enclosed Printed References

1. Northwest Indian Fisheries Commission, *State of Our Watersheds*, 336 (2020).
2. Hood, et al., *Assessing Tidal Marsh Vulnerability to Sea-Level Rise in the Skagit Delta*, 90 Northwest Science 79, 80 (2016).
3. Lacy, et al., *Evaluating Anthropogenic Threats to Endangered Killer Whales to Inform Effective Recovery Plans*, 7 Scientific Reports 14119 (2017).

4. 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.
5. April 2, 2021 letter from Skagit County Assistant Prosecuting Attorney, Will Honea to Cascadia Law Group and Seattle City Light.
6. McIntyre, *Urban Stormwater & Green Infrastructure*, Presentation to the Fish Barrier Removal Board, Slides 34-35 (Feb. 21, 2017).
7. Tian, et al., *A Ubiquitous Tire Rubber-Derived Chemical Induces Acute Mortality in Coho Salmon*, 371 Science 185 (2021).
8. 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).
9. 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).
10. 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).
11. 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).
12. McIntyre, et al., *Soil Bioretention Protects Juvenile Salmon and their Prey from the Toxic Impacts of Urban Stormwater Runoff*, 132 Chemosphere 213 (2015).
13. Meador, et al., *Contaminants of Emerging Concern in a Large Temperate Estuary*, 213 Environmental Pollution 264 (2016).
14. Mordecai, et al., *Aquaculture Mediates Global Transmission of a Viral Pathogen to Wild Salmon*, 7 Science Advances eabe2592 (2021).
15. NOAA Fisheries, West Coast Region, California Eelgrass Mitigation Policy and Implementing Guidelines (Oct. 2014).
16. California Coastal Commission, *Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits* (2018).
17. National Marine Fisheries Service West Coast Region. 2017. WA Eelgrass and Shellfish Aquaculture Workshop Report. Seattle, WA.

18. Grossman, E., et al. (2020). *Sediment export and impacts associated with river delta channelization compound estuary vulnerability to sea-level rise, Skagit River Delta, Washington, USA*. Marine Geology. 430. 10.1016/j.margeo.2020.106336.
19. Mauger, G.S., et al. 2015. *State of Knowledge: Climate Change in Puget Sound. Report prepared for the Puget Sound Partnership and the National Oceanic and Atmospheric Administration*. Climate Impacts Group, University of Washington, Seattle.  
doi:10.7915/CIG93777D
20. National Research Council, *Sea Level Rise for the Coasts of California, Oregon and Washington: Past, Present and Future*. (2012).
21. Raymond, C.L., et al. 2020. *How to Choose: A Primer for Selecting Sea Level Rise Projections for Washington State*. A collaboration of Washington Sea Grant and University of Washington Climate Impacts Group. Prepared for the Washington Coastal Resilience Project.
22. Tian, Z., et al. *Suspect and Nontarget Screening for Contaminants of Emerging Concern in an Urban Estuary*. Environmental Science & Technology (2020). 54 (2), 889-901.  
DOI: 10.1021/acs.est.9b06126



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## Swinomish Indian Tribal Community

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\* 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."<sup>1</sup> 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,

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<sup>1</sup> 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.<sup>2</sup> Among the rights reserved by the Tribe in this Treaty are various fishing, hunting and gathering rights.<sup>3</sup> 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.<sup>4</sup> 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.<sup>5</sup> Under the Act, local governments such as the County are tasked with developing local shoreline

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<sup>2</sup> Treaty of Point Elliot, Jan. 22, 1855, 12 Stat. 927 (1859).

<sup>3</sup> *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 ..."

<sup>4</sup> 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").

<sup>5</sup> 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.”<sup>6</sup> 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.<sup>7</sup> Among these is the recognition that “neither the treaty Indians nor the state ... may permit the subject matter of these treaties to be destroyed.”<sup>8</sup> 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.<sup>9</sup>

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

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<sup>6</sup> *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).

<sup>7</sup> See, *United States v. Washington*, 384 F. Supp 312 (W.D. Wash. 1974) and various subproceedings since.

<sup>8</sup> *United States v. Washington*, 520 F.2d 676, 685 (9<sup>th</sup> Cir. 1975).

<sup>9</sup> 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,<sup>10</sup> 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)*.<sup>11</sup> 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."<sup>12</sup>

The State of Washington, too, has recognized the sovereign status of the Swinomish Tribe, including through the Centennial Accord.<sup>13</sup> 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."<sup>14</sup> 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."<sup>15</sup>

<sup>10</sup> See, *United States v. Washington*, 19 F. Supp. 3d 1252, 1256–57 (W.D. Wash. 1997).

<sup>11</sup> *Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers*, 440 F. Supp. 3d 1 (D.D.C. 2020) (*Standing Rock VI*).

<sup>12</sup> *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.*

<sup>13</sup> Washington State Governor's Office of Indian Affairs, "Centennial Accord,"

<https://goia.wa.gov/relations/centennial-accord>.

<sup>14</sup> 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.").

<sup>15</sup> 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].”<sup>16</sup> 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.”<sup>17</sup>

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.*”<sup>18</sup> 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.”<sup>19</sup>

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.”<sup>20</sup> The Act then elaborates a hierarchy of

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<sup>16</sup> 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.”

<sup>17</sup> RCW 90.58.020.

<sup>18</sup> 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”).

<sup>19</sup> *Id.*

<sup>20</sup> 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.”<sup>21</sup> 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.<sup>22</sup> To highlight but a few superlatives, the Skagit River watershed is by far the largest in the Puget Sound;<sup>23</sup> the Skagit River provides some 35% of the Sound’s freshwater input and 40% of its sediment load.<sup>24</sup> The Skagit River is home to all five species of Pacific salmon, as well as steelhead and trout;<sup>25</sup> 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.<sup>26</sup> 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

<sup>21</sup> RCW 90.58.020. See also, WAC 173-26-181 (“special policy goals” of the Act and guidelines “for shorelines of statewide significance”).

<sup>22</sup> 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>.

<sup>23</sup> Northwest Indian Fisheries Commission, *State of Our Watersheds*, Swinomish Chapter, 2 (2020).

<sup>24</sup> Hood, et al., *Assessing Tidal Marsh Vulnerability to Sea-Level Rise in the Skagit Delta*, 90 Northwest Science 79, 80 (2016).

<sup>25</sup> Northwest Indian Fisheries Commission, *State of Our Watersheds*, Swinomish Chapter, 2 (2020).

<sup>26</sup> 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.<sup>27</sup> 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.”<sup>28</sup>

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.”<sup>29</sup> 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.<sup>30</sup> 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.”**

<sup>27</sup> 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.

<sup>28</sup> Skagit Marine Resources Committee, “About Us,” <http://www.skagitmrc.org/about-us/>.

<sup>29</sup> RCW 90.58.020.

<sup>30</sup> 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.”<sup>31</sup> As Ecology makes clear, local governments are “require[d]” to use the most current, accurate, and complete data available.<sup>32</sup> Local governments’ analyses must “incorporate” this data<sup>33</sup> – 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.”<sup>34</sup>

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,<sup>35</sup> and isolated the “smoking gun” chemical, a quinone transformation product of 6PPD in tire rubber, from among thousands of candidate pollutants.<sup>36</sup> 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*

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<sup>31</sup> 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.”

<sup>32</sup> *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”)

<sup>33</sup> WAC-173-26-201(2)(a).

<sup>34</sup> Washington Department of Ecology, *Shoreline Master Programs Handbook*, Ch. 18, “Integration of Critical Areas Ordinances,” at 3.

<sup>35</sup> 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).

<sup>36</sup> Tian, et al., *A Ubiquitous Tire Rubber-Derived Chemical Induces Acute Mortality in Coho Salmon*, 371 Science 185 (2021).

*Recommendations* (2020);<sup>37</sup> and NWIFC, *State of Our Watersheds* (2020).<sup>38</sup> 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.”<sup>39</sup> 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.”<sup>40</sup>

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].”<sup>41</sup> 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.<sup>42</sup>

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

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<sup>37</sup> 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>

<sup>38</sup> Northwest Indian Fisheries Commission, *State of Our Watersheds*, Swinomish Chapter (2020).

<sup>39</sup> 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.”

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

<sup>42</sup> 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.”<sup>43</sup> 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.<sup>44</sup>

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*.<sup>45</sup> 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.”<sup>46</sup>

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.”<sup>47</sup>

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.”<sup>48</sup>

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<sup>43</sup> WAC 173-26-201(2)(c).

<sup>44</sup> Washington Department of Ecology, *Shoreline Master Programs Handbook*, App A at 2.

<sup>45</sup> 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>.

<sup>46</sup> 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).

<sup>47</sup> Hood, et al., *Assessing Tidal Marsh Vulnerability to Sea-Level Rise in the Skagit Delta*, 90 Northwest Science 79, 80, 91 (2016).

<sup>48</sup> 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,<sup>49</sup> 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;<sup>50</sup> 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.”<sup>51</sup>

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.<sup>52</sup> 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

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<sup>49</sup> 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).

<sup>50</sup> 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).

<sup>51</sup> 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>.

<sup>52</sup> 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.”<sup>53</sup> 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.<sup>54</sup>

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 ...”<sup>55</sup> 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);<sup>56</sup> University of Washington Climate Impacts Group, *Sea Level Rise: How to Choose* (2020);<sup>57</sup> WDFW, Climate and Culverts Tool, and the research repository of the Skagit Climate Science Consortium.<sup>58</sup>

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.

<sup>53</sup> 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)].”

<sup>54</sup> 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>.

<sup>55</sup> WAC 173-26-201-(2)(a).

<sup>56</sup> 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>.

<sup>57</sup> 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).

<sup>58</sup> 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.<sup>59</sup> 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.”<sup>60</sup> 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.”<sup>61</sup> 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.”<sup>62</sup>

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”<sup>63</sup> 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

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<sup>59</sup> WAC 173-26-186(8) and -186(8)(b).

<sup>60</sup> WAC 173-26-186(8).

<sup>61</sup> WAC 173-26-186(8)(b).

<sup>62</sup> WAC 173-26-186(8)(d).

<sup>63</sup> 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;<sup>64</sup> development continues to be permitted (e.g., for housing alone, there were 561 building permits issued in Skagit County in 2020<sup>65</sup>); 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.<sup>66</sup> 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.<sup>67</sup> 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-

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<sup>64</sup> Washington State Employment Security Department, “Skagit County Profile,” [www.esd.wa.gov/labormarketinfo/county-profiles/skagit](http://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.

<sup>65</sup> United States Census Bureau, “Quick Facts: Skagit County, Washington,” [www.census.gov/quickfacts/fact/table/skagitcountywashington/PST045219](http://www.census.gov/quickfacts/fact/table/skagitcountywashington/PST045219).

<sup>66</sup> 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.govonlineasas.com/WA/WDFW/Public/Client/WA\\_WDFW/Public/Pages/SubReviewList.aspx](https://www.govonlineasas.com/WA/WDFW/Public/Client/WA_WDFW/Public/Pages/SubReviewList.aspx) (viewed June 21, 2021).

<sup>67</sup> 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.<sup>68</sup> 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.<sup>69</sup>

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.”<sup>70</sup> However, as noted above, altered streamflows and

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<sup>68</sup> Skagit County, *Shoreline Restoration Plan* 45 (June 30, 2013).

<sup>69</sup> Northwest Indian Fisheries Commission, *State of Our Watersheds*, Swinomish Chapter, 10 (2020)(citations omitted).

<sup>70</sup> *Id.*

other impacts of climate change will in fact be an issue for the Skagit River basin.<sup>71</sup> 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.<sup>72</sup> 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.<sup>73</sup> 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).<sup>74</sup>

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.<sup>75</sup> 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

<sup>71</sup> 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).

<sup>72</sup> Northwest Indian Fisheries Commission, *State of Our Watersheds*, Swinomish Chapter, 10 (2020).

<sup>73</sup> 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).

<sup>74</sup> *Id.* at 35 and Table 4.

<sup>75</sup> 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).<sup>76</sup> 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.”<sup>77</sup>

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.”<sup>78</sup> 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

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<sup>76</sup> 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.

<sup>77</sup> 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)”).

<sup>78</sup> 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.<sup>79</sup> 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.<sup>80</sup> 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.<sup>81</sup> (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.

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<sup>79</sup> Washington Department of Ecology, *Shoreline Master Programs Handbook*, Ch. 18, “Integration of Critical Areas Ordinances,” 4.

<sup>80</sup> Washington Department of Ecology, *Shoreline Master Programs Handbook*, Ch. 5, “Shoreline Jurisdiction,” 23-24.

<sup>81</sup> 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](https://www.skagitcounty.net/PlanningandPermit/FtpFiles/Documents/SMP/Appendix%20A%20Proposed%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 MHWL 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/MHWL 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.<sup>82</sup>

## **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,

<sup>82</sup> 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.<sup>83</sup> 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.

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<sup>83</sup> 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.<sup>84</sup> 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

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<sup>84</sup> 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 in a manner that 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).<sup>85</sup> To address this issue, the following changes are necessary:

#### 14.26.305 Environmental Protection

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<sup>85</sup> 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.”<sup>86</sup> 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

<sup>86</sup> 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).<sup>87</sup> 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

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<sup>87</sup> 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”<sup>88</sup> (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.

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<sup>88</sup> 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).<sup>89</sup> 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

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<sup>89</sup> 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.”<sup>90</sup>

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.

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<sup>90</sup> 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.<sup>91</sup> 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).

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<sup>91</sup> 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.<sup>92</sup> At the same time, we

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<sup>92</sup> 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.<sup>93</sup> 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.<sup>94</sup> As well, researchers have found that this runoff is harmful not only to coho, but also to Chinook salmon, albeit to a lesser degree.<sup>95</sup> And, as noted above, Tian, et al. (2021) isolated the “smoking gun” chemical, a quinone transformation product of 6PPD in tire rubber,

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<sup>93</sup> Feist, et al., *Roads to Ruin: Conservation Threats to a Sentinel Species Across an Urban Gradient*, 27 *Ecological Applications* 2382 (2017).

<sup>94</sup> *Id.*

<sup>95</sup> 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.<sup>96</sup> 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.<sup>97</sup> Additionally, recent and ongoing research has also pointed to contaminants of emerging concern (CEC).<sup>98</sup> 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.

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<sup>96</sup> 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”).

<sup>97</sup> McIntyre, et al., *Soil Bioretention Protects Juvenile Salmon and their Prey from the Toxic Impacts of Urban Stormwater Runoff*, 132 *Chemosphere* 213 (2015).

<sup>98</sup> 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.<sup>99</sup> 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.<sup>100</sup> Eleven sites were categorized as “of highest concern” more than 70% of the years between 2006 and 2019.<sup>101</sup> 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.<sup>102</sup>

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.<sup>103</sup> 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.<sup>104</sup> Furthermore, it is well recognized that net pens concentrate huge numbers of fish, making them breeding grounds for diseases and parasites,

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<sup>99</sup> 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>.

<sup>100</sup> *Id.*

<sup>101</sup> *Id.*

<sup>102</sup> *Id.*

<sup>103</sup> SRSC Comments, Draft Skagit County SMP Update (May 13, 2013); SRSC Comments, Skagit County Shoreline Master Program Update (April 4, 2016).

<sup>104</sup> 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/agr\\_cypress\\_investigation\\_report.pdf?vdqi7rk](https://www.dnr.wa.gov/sites/default/files/publications/agr_cypress_investigation_report.pdf?vdqi7rk).

which can easily infect wild salmon in their vicinity.<sup>105</sup> 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.<sup>106</sup> Nor are these concerns addressed when commercial net-pen operations raise native finfish, 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.<sup>107</sup> The technology exists, and it is commercially viable, to grow fish in land-based, environmentally sustainable farms.<sup>108</sup> 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

<sup>105</sup> 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).

<sup>106</sup> Mordecai, et al., *Aquaculture Mediates Global Transmission of a Viral Pathogen to Wild Salmon*, 7 *Science Advances* eabe2592 (2021).

<sup>107</sup> 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.

<sup>108</sup> 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](http://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.<sup>109</sup> 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.<sup>110</sup> 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

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<sup>109</sup> WAC 173-26-241(3)(b)(C). Note that this section goes on to mentions 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.

<sup>110</sup> 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.<sup>111</sup> As written, the SC SMP takes just this approach,<sup>112</sup> with the result that “areas that have been out of production for decades, or perhaps never farmed at all”<sup>113</sup> 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.<sup>114</sup> The important point is to thoughtfully plan to allow its landward migration under these circumstances.

<sup>111</sup> 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.

<sup>112</sup> 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).

<sup>113</sup> SRSC, Comments on Skagit County Shoreline Master Program Update (April 4, 2016).

<sup>114</sup> 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.<sup>115</sup> 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.

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<sup>115</sup> 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](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/comp\\_oct\\_2014\\_final.pdf](https://media.fisheries.noaa.gov/dam-migration/comp_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.<sup>116</sup> 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.~~

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<sup>116</sup> 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 ~~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~~.



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."<sup>117</sup> 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."<sup>118</sup> 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."<sup>119</sup> 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

<sup>117</sup> WAC 173-26-241(3)(j)(i).

<sup>118</sup> *Olympic Stewardship Foundation v. State Environmental and Land Use Hearing Office*, 199 Wash. App. 668, 718 (Wash. App. 2017).

<sup>119</sup> 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.<sup>120</sup> 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”:

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<sup>120</sup> 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.<sup>121</sup> 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.

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<sup>121</sup> 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.<sup>122</sup>

### **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.<sup>123</sup> In the lower Skagit basin, SRSC has documented 112 miles of temperature-polluted salmon streams.<sup>124</sup> 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.

<sup>122</sup> Emails from Amy Trainer, Swinomish Indian Tribal Community, to Betsy Stevenson and Hal Hart, Skagit County, (June 11 and 20, 2021).

<sup>123</sup> 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.

<sup>124</sup> 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.<sup>125</sup>

(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

<sup>125</sup> 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](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,

Handwritten signature of Amy Trainer in cursive script.

Amy Trainer  
Environmental Policy Director  
Swinomish Indian Tribal Community

Handwritten signature of Nora Kammer in cursive script.

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.