TECHNICAL MEMORANDUM

Date:	December 31, 2020
To:	Cliff Strong, Ryan Ericson
From:	Dan Nickel, Mark Daniel, Devin Melville
Project Name:	Whatcom County SMP

Subject: Whatcom County SMP Periodic Update - No Net Loss Statement

Introduction

Whatcom County (County) is conducting a periodic review of its Shoreline Master Program (SMP). While the majority of amendments are to comply with current State law and address recent legislative updates, to clarify prior interpretations, and reorganize the SMP to improve usability for both applicants and staff), several amendments are substantive in nature and merit additional documentation to ensure that implementation of the updated SMP and future development will not result in a net loss of shoreline ecological functions.

The Shoreline Management Act guidelines (Guidelines) require local shoreline master programs to regulate new development to "achieve no net loss of ecological function." The County's 2007 comprehensive SMP update was approved under this benchmark based on the analyses performed then[1]. This memorandum builds on those analyses and addresses the amendments proposed for this year's periodic review and specifically identifies amendments that are more substantive in nature.

The following areas of the SMP have amendments that warrant evaluation:

- Pier and dock standards
- Common line setback evaluation
- Trail location standards
- Nonconforming residential development
- Buffer reduction mechanisms
- Residential accessory structures

[1] See https://www.whatcomcounty.us/3119/SMP-Update-2020-Documents

The purpose of this memo is to describe these amendments and evaluate their potential effects on shoreline ecological functions to ensure the County will continue to meet the Washington State Department of Ecology no net loss criteria.

No Net Loss Evaluation

Pier and Dock Standards

Amendment Description: WCC 23.40.150(B) (Moorage Structures) (formerly titled Docks, Piers, and Mooring Buoys) contain revised dimensional standards, including overall square footage, for both freshwater and marine moorage (overwater) structures.

NNL Evaluation: The amended pier and dock standards in WCC 23.40.150(B), subsections 1 and 2, are extrapolated from the U.S. Army Corps of Engineers (Corps) Regional General Permit 6 and consistent with the Washington Department of Fish and Wildlife standards provided in the hydraulic code rules (WAC 220-660-140 and -380). These state and federal requirements contain provisions to allow overwater structures while ensuring implementation of impact reduction mechanisms to protect aquatic habitats. Furthermore, moorage structures are required to be constructed of materials that will not adversely affect water quality or aquatic plants or animals over the long term (WCC 23.40.150(C)).

While the proposed amendments to the Whatcom County SMP do not explicitly limit the number of future overwater structures, the proposed amendments minimize impacts by regulating overall footprint and dimensional standards, which are known to have a direct correlation to habitats and species. In general, the updated pier and dock standards allow for reduced square footage of overwater structures and a reduction in the total number of docks by prioritizing shared docks over single-user docks. The proposed amendments also avoid future impacts by prohibiting such moorage structures in key shoreline habitat areas (WCC 23.40.150(A)(6).

Common-Line Setback

Amendment Description: To protect views of the shoreline from existing structures when new development is proposed, WCC 23.30.040 (Views and Aesthetics) of the updated SMP includes a new subsection (B) that now allows setbacks in Urban, Shoreline Residential and Rural environments to be modified pursuant to WCC 23.40.020(D) (Shoreline Bulk Provisions, Setbacks, Common-Line Setback for Single-Family Residences). That section (incorporated from former Appendix F, where it had only applied to nonconforming lots) allows for setbacks to be

reduced or increased, depending on how existing adjacent homes are situated, to provide the greatest view opportunities for both the existing and new development. Furthermore, WCC 23.30.040 (Views and Aesthetics) new subsection (L) precludes new uses or development from substantially obscuring shoreline views within shoreline view areas or from existing residences on adjacent property.

NNL Evaluation: When the use of a common-line setback is allowed, compliance with buffer width reduction and mitigation sequencing pursuant to WCC 23.30.010 (Ecological Protection) shall be required. WCC 23.30.010 (B) states that development, use, and activities within the shoreline jurisdiction shall avoid and minimize adverse impacts, and any unavoidable impacts shall be mitigated to meet no net loss of ecological function and ecosystem-wide processes pursuant to WAC 173-26-186, Governing Principles of the Guidelines. Furthermore, WCC 23.30.010 (C) has been added to specifically to add flexibility in buffer modification when approaches include "increased protection of shoreline ecological function and processes." To minimize impacts to views from the water, a new subsection (C) was added to WCC 23.30.040 (Views and Aesthetics), that now allows the Director to require the planting of vegetation to mitigate the impacts.

Trail Location Standards

Amendment Description:

WCC 16.16.620 (Wetlands – Use and Modification), Subsection (H) (Recreation) has been amended to allow public trails to include viewing platforms to be closer than the outer 25% of the buffer "when necessary to provide wetland educational opportunities or for public health and safety," and to be wider than the standard widths when necessary to meet ADA requirements. Corresponding amendments have also been made to WCC 16.16.720(G)(1) (Habitat Conservation Areas – Use and Modification).

NNL Evaluation: This allowance is permittable provided that all criteria in WCC 23.40.160(A)(6) (Recreation) are met; this amendment adopts by reference the requirements of WCC Chapter 16.16 (Critical Areas), which contains the standards for trails in critical areas. WCC 16.16.620(H) criteria for passive recreation facilities that are part of a non-motorized trail system or environmental education program, including walkways, wildlife viewing structures, or public education trails, states the trail must minimize erosion and sedimentation, hydrologic alteration, and disruption of natural processes such as wood recruitment and natural wildlife movement patterns. Such trails must be made of pervious material or elevated where feasible,

be designed to avoid removal of significant trees, and be constructed in a manner that minimizes disturbance of the buffer and associated critical areas.

Nonconforming Residential Development

Amendment Description: Standards for addressing the enlargement or expansion of single-family residences non-conforming to the shoreline buffer have been clarified in WCC 23.50.020 (Nonconforming Structures), subsection (F). Expansion of a nonconforming single-family structure may be approved when the expansion does not extend waterward of the existing primary structure's building footprint or the when the expansion is consistent with the constrained lot provisions in WCC 23.40.170.

NNL Evaluation: Approved expansion of single-family residences non-conforming to the shoreline buffer is not anticipated to have further impacts to the shoreline under the clarified standards provided in WCC 23.50.020 (F). Subsection (2) includes the following specific restrictions to ensure protection of existing ecological functions and mitigate for impacts. The expansion of nonconforming single-family residences or normal appurtenances greater than the constrained lot provisions of WCC 23.40.170 may be approved once during the life of the structure (100 years), with a total building footprint expansion of no more than 500 square feet. Additionally, the expansion must be landward or lateral of the existing footprint, shall occur on a previously impacted impervious surface, shall not occur waterward of the common line setback, and shall be accompanied by enhancement of an area equivalent to the expansion if the total building footprint increases by more than 250 square feet.

Buffer Reduction Mechanisms

Amendment Description: WCC 16.16.745 and 16.16.640 address buffer modifications within wetlands and habitat conservation areas, including buffer width averaging, buffer width reductions, and buffer width variances. Buffer averaging allows limited reductions of buffer width in specified locations, while requiring increases in others. In such cases, the width of buffers may be averaged if it will improve the protection of functions and the applicant can demonstrate that all specified criteria are met. Buffer width reduction may be approved by the Director on a case-by-case basis, provided that the general standard for alternatives analysis and mitigation sequencing per WCC 16.16.260 have been applied and the applicant demonstrates to the satisfaction of the Director that all of the specified criteria have been met. Standard buffer widths may be reduced more than 25% though a variance pursuant to WCC 16.16.273, provided that buffer averaging beyond the limits allowed by the variance is prohibited.

NNL Evaluation: The updated SMP adopts the CAO by reference, allowing for limited buffer reduction mechanisms provided specified criteria are met. For buffer averaging proposals, both WCC 16.16.745 (B)(2) and WCC 16.16.640 (B)(2) state the Director may require enhancement to the remaining buffer to ensure no net loss of ecological function, services, or value in the specified locations where a buffer has been reduced to achieve averaging. For buffer reduction proposals, both WCC 16.16.745 (C) and WCC 16.16.640 (C) allow the Director to require retention of existing native vegetation on other portions of the site to offset habitat loss from buffer reduction. Additionally, all buffer reduction impacts are required to be mitigated with the result being equal or greater protection of functions and values. In all circumstances where a substantial portion of the remaining buffer is degraded, buffer reduction plans shall include replanting with native vegetation in the degraded portions of the remaining buffer area to further ensure the no net loss standard is achieved.

Residential Accessory Structures

Amendment Description: WCC 16.16.720(G)(4), Accessory Uses, allows for water-oriented accessory structures associated with a residential use to be located in habitat conservation area buffers. Such structures would be limited in area to either 10 percent of the buffer area or 500 square feet, whichever is less. Additionally, no more than 20 percent of the linear length of shoreline could be occupied by such a structure. Per this section, such recreation-oriented applications would only be allowed when all reasonable measures have been taken to avoid adverse effects on species and habitats, including applying recommendations from the Washington Department of Fish and Wildlife, providing mitigation for all adverse impacts that cannot be avoided, and limiting the amount and degree of the alteration to the minimum needed to accomplish the project purpose. As required mitigation for the development, the shoreline must be planted with native vegetation extending at least 15 feet landward from the ordinary high water mark for at least 75 percent of the shoreline length.

NNL Evaluation: This allowance for small water-oriented residential accessory structures is intended to offer flexibility to waterfront landowners who would like to enhance their water enjoyment opportunities, typically for viewing or direct water access. To balance these direct impacts to HCA buffers, the County has proposed a planting requirement immediately adjacent to the shoreline. Native vegetation in these locations are known to provide a variety of positive ecological benefits including habitat, water quality, and vegetation functions. Assuming an average waterfront lot width of 100 feet, such a requirement would require a minimum planting area of 1,125 square feet (100 feet long x 15 feet wide x 0.75). This planting area represents over a 2:1 mitigation ratio to the maximum potential impact area of 500 square feet. Even a small lot width of 50 feet would result in approximately 562.5 square feet of native shoreline planting.

Implementation of this provision is expected to improve habitat, water quality, and vegetative conditions as vegetation matures over time.

Restoration Plan Implementation

The Shoreline Restoration Plan prepared as part of the Comprehensive SMP update in 2007 serves as a valuable resource for the County and its restoration partners to improve impaired ecological functions on the County's shorelines. The plan provides a framework for restoration on all County shorelines outside of incorporated areas.

The plan focuses on restoration projects that are reasonably likely to occur in the foreseeable future. This list has been updated during the periodic SMP update process[2]. Potential restoration opportunities were identified based on recommendations in existing restoration planning documents, as well as input from County staff and restoration partners. The plan lists restoration and protection strategies, including opportunities for specific projects, for each of the County's watersheds.

The plan provides an implementation framework by identifying existing and ongoing plans and programs as well as potential restoration partners at the federal, state, regional, and local levels. The framework builds on local and regional planning coordination among these programs and partners, identifying mechanisms for implementation including development incentives for restoration; landowner outreach and engagement; maximizing mitigation outcomes; and monitoring the effectiveness of restoration actions.

Restoration projects which have been completed or are in progress since 2007 include:

- Removing groins and bulkheads along Birch Bay Drive (ongoing)
- Removal of a failed solid fill pier, large rock groin, concrete debris and derelict piles in the western portion of Legoe Bay (ongoing)
- Lummi Island Quarry Restoration (ongoing)
- Bulkhead removal along Gooseberry Point (ongoing)
- Little Squalicum Creek mouth/estuary debris removal (ongoing)
- Debris removal and restoration of the armored shore at Mount Baker Plywood (ongoing)
- Point Roberts, Lighthouse Park structure removal (complete)
- Lummi View Drive Relocated (complete)

[2] Restoration Plan Addendum, March 31, 2020

- West Beach, Lummi Peninsula bulkhead removal (ongoing)

Cumulative Impacts

The Cumulative Impacts Analysis during the 2007 comprehensive SMP update evaluated the effects of foreseeable development under the SMP and demonstrated that the goals, policies, and regulations, combined with recommendations in the Shoreline Restoration Plan, would prevent degradation of ecological functions relative to baseline conditions.

The Cumulative Impacts Analysis determined that the proposed SMP provides a high level of protection to shoreline ecological functions. The report indicated that on its own, the proposed SMP, which includes the Shoreline Restoration Plan, is expected to protect and improve shorelines within Whatcom County while accommodating foreseeable future shoreline development, resulting in no net loss of shoreline ecological function.

Emphasis is placed on achieving no net loss of ecological function throughout the SMP, with all uses and modifications subject to general and/or specific standards addressing the preservation of water quality, water quantity, and habitat function in the shoreline, as well as basin-wide ecological processes. The following are some of the key features that protect and enhance shoreline ecological functions to ensure that the no net loss standard is met.

- Shoreline environment designations are assigned to shorelines to minimize use conflicts and designate appropriate areas for specific uses and modifications.
- The SMP contains general policies and regulations designed to provide the basis for achieving no net loss of shoreline ecological functions, such as mitigation sequencing, critical areas and flood hazard regulations, and vegetation conservation standards.
- The critical area protection standards ensure that vegetated buffers are retained on wetlands, fish and wildlife habitat conservation areas, and geologically hazardous areas.
- More shoreline uses and modifications are permitted in areas with higher levels of existing disturbance, and allowed uses and modifications are more limited in areas with lower levels of disturbance. Regulations prohibit uses that are incompatible with the existing land use and ecological conditions and emphasize appropriate location and design of various uses.
- The Shoreline Restoration Plan identifies a number of project-specific opportunities for restoration inside and outside of shoreline jurisdiction, and also identifies ongoing

county programs and activities, restoration partners, and recommended strategies and actions consistent with a variety of watershed-level planning efforts.

Conclusion

The proposed amendments to the SMP described above are not anticipated to have adverse effects on shoreline ecological functions at the planning level. Further, the updated SMP includes a variety of other amendments that are either insignificant when it comes to evaluating impacts to ecological functions or anticipated to strengthen the shoreline ecological protections provided by the SMP. Therefore, the proposed amendments to the SMP are not anticipated to result in a net loss of ecological functions when implemented in tandem with the Shoreline Restoration Plan. Monitoring key indicators is an effective way to ensure the standard of no net loss is being achieved. This can best be implemented by requiring the submission of short-term and long-term monitoring reports as part of permit approvals for development applications and maintaining consistency throughout the permitting process in evaluating mitigation sequencing. Additionally, ongoing efforts by state agencies to monitor land cover change detection, specifically work generated by the Washington Department of Fish and Wildlife, will continue to offer a valuable resource to ensure compliance with no net loss standards.