



## TECHNICAL MEMORANDUM

---

Date: March 24, 2021  
To: Kirvie Mesebeluu-Yobech, SMP Project Manager, Kitsap County, DCD  
From: Dan Nickel, The Watershed Company  
Devin Melville, The Watershed Company  
Leila Willoughby-Oakes, The Watershed Company

Project Name: Kitsap County SMP Periodic Review 2020-2021

**Subject: Kitsap County SMP Periodic Review - No Net Loss Addendum**

### Introduction

Kitsap County (County) is conducting a periodic review of the County's Shoreline Master Program (SMP). Most of the SMP amendments are to comply with current State law and to address recent legislative updates, clarify prior department interpretations, and improve development regulation usability. However, 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 following memorandum analyzes *how* specific SMP amendments and future development guided by the new regulations will not result in a net loss of shoreline ecological function.

The Shoreline Management Act (SMA) and SMA guidelines (Guidelines) require local shoreline master programs to regulate new development to "achieve no net loss [NNL] of ecological function." The shoreline jurisdiction in Kitsap County includes all marine waters, certain rivers and lakes, the shorelands of these water 200 feet upland from the ordinary high-water mark, floodways, floodplains located within 200 feet of floodways, associated wetlands, and all critical areas within the shoreline jurisdiction along with their associated buffers. The shoreline jurisdiction covers 3,760 acres of marine shorelines, 1,554 acres of lake shorelines, and 1,628 acres of stream and river shorelines.

The County's 2014 Comprehensive SMP update was approved by the Washington Department of Ecology per RCW 90.58.090 under the benchmark of 'no net loss' and based on the analysis performed at the time of the Comprehensive SMP Update. This memorandum builds on that

analysis, addressing specific amendments listed below that are more substantive in nature and require further evaluation:

- Trams – new regulations specific to allowing trams in geologically hazardous areas
- Hybrid Shoreline Stabilization
- Expansion of Development Below the Reduced Standard Buffer
- Other Uses and Modifications in Vegetation Conservation Buffers
  - Standards for Stair Platforms and Deck Landings
  - Standards for Viewing Decks and Platforms

## No Net Loss Evaluation

### Trams

**Proposed Amendment Description:** Kitsap County Code (KCC) 22.400.120(D)(1)(d) proposes to allow trams within the vegetation conservation buffer, subject to the shoreline exemption provisions in KCC 22.500.100(C)(3). Trams are considered accessory to the upland use. Trams utilizing towers will require a Substantial Development Permit where exemption provisions are not met and will be prohibited in the Aquatic and Natural Shoreline Environment Designations.

**NNL Evaluation:** Vegetation conservation buffers pursuant to KCC 22.400.120 provide a means to conserve, protect, and restore shoreline vegetation essential for ecological functions, as well as human health and safety. Under the County's SMP, a vegetation conservation buffer may be modified or reduced to allow uses such as trams, providing shoreline access where there otherwise would not be one, *if* consistent with the Act and this program. The County has not received many applications for trams in the past and does not expect many future trams to be built. Historically, the County's policy direction has been to permit trams within the shoreline jurisdiction, however the County through this update now wishes to establish specific bulk and dimensional standards for trams in lieu of an ad hoc approach. A jurisdictional scan of approved Shoreline Master Programs containing tram regulations evaluated, compared, and contrasted different approaches. Consistent with this review, the proposed development regulations will limit trams to geologically hazardous areas (KCC 19.400) and will require 'Special Studies' such as geotechnical reports outlined in KCC 22.700.120. KCC 22.400.120(D)(1)(d)(ii) specifies tram clearing widths to be a maximum of five feet on either side of the tram car to reasonably accommodate equipment and a pathway clear of encumbering vegetation with a maximum tram corridor of fifteen feet. Understory vegetation would still be allowed to grow in such cases. Per KCC 22.400.120(D)(1)(d)(iv), mitigation sequencing must be used to avoid, minimize, and compensate for any impacts, including vegetation removal.

Enhancements of shoreline buffer vegetation will also be required to offset the impacts of cleared vegetation.

## Hybrid Shoreline Stabilization (New/Repair and Maintenance)

**Proposed Amendment Description:** The County has received proposals for soft shoreline stabilization that include hard stabilization components to connect with hard stabilization on adjoining properties and shoreline stabilization designs that include buried hard structures covered with sediment. These structures have been called hybrids. The County has proposed revised language for hybrid stabilization to further promote soft shoreline stabilization techniques and differentiate soft, hard, and hybrid shoreline stabilization structures. Hybrid shoreline stabilization structures will be defined under the definition of Shoreline Stabilization (KCC 22.150.570) as a “composite of both soft and hard elements and techniques along the length of the armoring.” KCC 22.600.175 allows hybrid shoreline stabilization options to address erosion impacts to property and dwellings, businesses, or structures caused by natural processes, such as currents, flooding, tides, wind, or wave run-up action. A hybrid shoreline stabilization project will require an Administrative Conditional Use Permit unless the applicant can demonstrate the project meets soft shore criteria in Ecology’s ‘Soft Shoreline Stabilization SMP Planning and Implementation Guidance’ (Ecology Publication No. 14-06-009), in which case an exemption from the Shoreline Substantial Development Permit may be permitted if exemption criteria in KCC 22.500.100(C)(3)(c) are met.

**NNL Evaluation:** The Shoreline Stabilization provisions of the existing SMP (KCC 22.600.175) only define permit requirements for two shoreline stabilization options: an exemption from SDP for soft shoreline stabilization projects may be permitted if exemption criteria in KCC 22.500.100(C)(3)(c) are met, and an Administrative Conditional Use Permit for hard shoreline stabilization projects in all environment designations. Adding a hybrid shoreline stabilization option offers a composite of both soft and hard elements and techniques and is expected to potentially reduce the number of hard stabilization project proposals. Hybrid proposals must predominantly include areas of restored natural shoreline, including but not limited to the removal of shoreline modifications and enhancement of natural features with minimal use of structural materials (limited to 15% of the length using hard structures). Ecology Guidelines state that master program shoreline stabilization provisions shall be consistent with WAC 173-26-221(5), regarding shoreline vegetation conservation, and where applicable, WAC 173-26-221(2), regarding critical areas. Both the exemption from SDP and Administrative Conditional

Use Permit approval requirements ensure that no net loss of ecological functions is achieved and align with assumptions made within Section 7 of the Cumulative Impact Analysis (2014).

Notably, the Kitsap County Department of Community Development requires all shoreline stabilization projects undergo a formal staff consultation before submitting a formal permit application. Mitigation sequencing must be used to avoid, minimize, and compensate for any impacts of new and repair/maintenance of shoreline stabilization structures. KCC 22.600.175(D)(1)(c) states, alternatives for shoreline stabilization shall be based on the following order of preference: i. no action, increase building setbacks, or relocate structures; ii. Soft shoreline stabilization constructed of natural materials including bioengineering, beach nourishment, protective berms, or vegetative stabilization; iii. Hybrid shoreline stabilization, usually constructed of a mix of rock, logs and vegetation; iv. Hard shoreline stabilization constructed of materials such as rock, riprap or concrete.

## Expansion of Development Below the Reduced Standard Buffer

**Proposed Amendment Description:** KCC 22.400.120(C)(2)(c)(iv) will clarify that an existing allowance for single-family residence expansion below the reduced standard buffer will require an administrative variance. Under the proposed amendment, such expansions shall be limited to 25% of the existing gross floor area or 625 square feet, whichever is less. The proposed expansion shall also be limited to an existing legally cleared area and cannot be located further waterward than the existing structure.

**NNL Evaluation:** The expansion of a single-family residence below the reduced standard buffer will not further impact existing hydrologic or vegetative conditions at the shoreline because the amendment does not allow the new expansion to be located further waterward than the existing structure and must be located in an existing cleared area and the expansion is subject to current stormwater code. The development standard limitation of 25% of existing gross floor area or 625 square feet, whichever is less, will help ensure mitigation measures are attainable. Furthermore, KCC 22.400.120(C)(2)(c)(ii) already states that any expansion below the reduced standard buffer shall require a shoreline mitigation plan. Per KCC 22.700.140, the shoreline mitigation plan shall include a description of existing conditions, functions, and processes, a plan for mitigating any development impacts so that the proposed development does not result in a net loss of those identified conditions, functions, and processes, and annual progress updates until the department determines the mitigation is successful.

## Other Uses and Modifications in Vegetation Conservation Buffers

**Proposed Amendment Description:** KCC 22.400.120(D)(1)(b) and KCC 22.400.120(D)(1)(c)(i) and (ii) allow decks and viewing platforms, stair landings, and viewing platforms associated with beach stairs in the vegetation conservation buffer under specified requirements. Proposed amendments to these sections will provide consistent size limitations (100 square feet for viewing platforms) and composition requirements (grated decking for stair landings).

**NNL Evaluation:** The amendments made in KCC 22.400.120(D)(1)(b) and (c) are clarifications to ensure the provisions align with no net loss requirements. Specifically, viewing platforms associated with beach stairs shall comply with provisions outlined in Section 22.400.120(D)(1)(b), including size limitations and demonstration of no net loss as part of a shoreline mitigation plan prepared by a qualified professional. Stair landings in the vegetation conservation buffer or below the OHWM must be composed of grating or other materials that allows light transmission consistent with the provisions of WAC 220-660-380 in saltwater areas or WAC 220-660-140 in freshwater areas (with a minimum of 40% light transmission) to reduce shading impacts on upland vegetation. These allowances provide opportunities for small viewing decks or platforms that will not result in a net loss of shoreline ecological function. Development associated with the proposed code amendments must demonstrate no net loss. Proposals are subject to a shoreline mitigation plan when triggered by development regulations. In some situations, the proposed language proposes to reduce the size and scale of appurtenant structures (i.e., viewing platforms) within the County's shorelines.

## Restoration Plan Implementation

During the County's 2014 Comprehensive SMP update, the *Shoreline Restoration Plan* (Plan), SMP Appendix C, was adopted as an element of the Kitsap County Shoreline Master Program (SMP), as required by the SMA and Guidelines (Washington Administrative Code 173-26). The Plan provides a restoration framework for all unincorporated County shorelines and serves as a valuable resource for the County and agency partners to improve impaired ecological functions. The Plan, in conjunction with required permit-level mitigation, continues to outline Kitsap County's strategy for achieving 'no net loss' of shoreline ecosystem-wide processes and functions.

The Restoration Plan encourages shoreline restoration in a non-regulatory and voluntary way and identifies a list of projects that are likely to occur (through sponsorship, funding, or feasibility studies). These restoration opportunities were identified based on recommendations

in existing restoration planning documents, as well as input from County staff and restoration partners. The Plan also lists restoration and protection strategies, including opportunities for specific projects, for each of the County's watersheds.

Finally, 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.

## Cumulative Impacts

The SMA and Guidelines require SMPs to contain goals, policies, and regulations that prevent degradation of ecological functions relative to the existing conditions as documented in an inventory and characterization report. While SMPs rely on the fundamental concept of mitigation sequencing to avoid, minimize, and mitigate for any unavoidable losses of function, restoration and the County's *Restoration Plan*, is another key component that can help ensure overall sustainability of environmental conditions.

Kitsap County documented existing shoreline conditions in the *Shoreline Inventory and Characterization Report* (Kitsap County 2010) and during the 2014 Comprehensive SMP Update, a *Cumulative Impacts Analysis* (The Watershed Company and BERK 2013) evaluated the proposed policies and regulations to assess if future development approved under the proposed SMP could achieve no net loss of ecological function. The Cumulative Impacts Analysis indicated that future growth was likely to be targeted in specific environment designations, waterbodies, and marine shoreline reaches. The Analysis also determined that Kitsap County's marine shorelines are likely to see the most population growth and additional single-family home development in the County. Similarly, development on lake shorelines will likely be driven by new residential development. In every lake where new residential development is anticipated, this development would occur as infill of existing residential development. Nevertheless, the 2014 SMP was expected to maintain existing shoreline functions within the County while accommodating the foreseeable future shoreline development.

Through establishment of Environment Designations and implementation of SMP policies and regulations that protect the shoreline, Kitsap County is required to maintain shoreline ecological functions while allowing appropriate development. However, regulation and mitigation alone may not be able to prevent all cumulative impacts to the shoreline

environment. This is primarily due to on-going degradation from existing development or past actions. Potential impacts from development would be minimized by shoreline buffer standards and stormwater management standards. Impacts from overwater structures and shoreline stabilization measures would follow mitigation sequencing to avoid, minimize, and mitigate impacts. Other local, state, and federal regulations, acting in concert with this SMP, will provide further assurances of maintaining shoreline ecological functions over time.

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 region-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 a number of goals and policies pertaining to the protection and restoration of ecological functions. These regulations include provisions that provide the basis for achieving no net loss of shoreline ecological functions, such as mitigation sequencing, vegetation conservation standards, and critical areas regulations.
- The SMP contains shoreline modification regulations that emphasize minimum size of structures and use of designs that do not degrade and may even enhance shoreline functions. Use regulations prohibit uses that are incompatible with existing land use and ecological conditions and emphasize appropriate location and design of the various uses. The most uses and modifications are allowed in areas with the highest level of existing disturbance.
- The critical area protection standards ensure that vegetated buffers are retained on wetlands, fish and wildlife habitat conservation areas, and geologically hazardous areas.
- The County's Shoreline Restoration Plan identifies several 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 which are insignificant in relation to evaluating impacts to ecological function or anticipated to strengthen the shoreline ecological protections already provided by the SMP. Given the above provisions of the SMP, including key amendments listed above, this Kitsap County Periodic Review is anticipated to achieve no net loss of ecological functions. Future voluntary actions identified in the *Shoreline Restoration Plan* will provide opportunities on public and private properties for the enhancement and restoration of shoreline functions over time.

Finally, monitoring key indicators through best practices is an effective way to measure and quantify that no net loss of ecological shoreline function is 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. 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.