



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

*Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000*

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Libby Hudson, Division Manager, Long Range Planning  
Ryan Ericson, Shoreline Planner  
City of Bainbridge Island  
280 Madison Avenue North  
Bainbridge, Island, WA 98110-1812

Re: 2011 Planning Commission Preliminary Draft SMP

Dear Libby and Ryan,

Ecology recognizes that the City's Planning Commission is presently working diligently on a draft SMP update. I am happy to comment on sections as they are available for review. This letter is intended to provide guidance on specific questions raised by staff on the SMP's treatment of the topics of Mitigation and Shoreline Stabilization. Overall, Ecology looks forward to the draft work coming out of the Planning Commission. Please continue to advise me of SMP sections, as they become ready for Ecology review and any questions as they arise.

**Mitigation**

The SMA Guidelines (WAC 173-26-201(2)(e)) require master programs to include provisions that require proposed individual uses and developments to analyze environmental impacts of shoreline proposals. When mitigation measures are required, master programs are required to apply **mitigation sequencing** in the following **order of priority**: (A) Avoiding the impact altogether by not taking a certain action or parts of an action; (B) Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts; (C) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (D) Reducing or eliminating the impact over time by preservation and maintenance operations; (E) Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and (F) Monitoring the impact and the compensation projects and taking appropriate corrective measures. These Guidelines go on to state that in determining appropriate mitigation measures applicable to shoreline development, lower priority measures shall be applied only where higher priority measures are determined to be infeasible or inapplicable.

Ecology takes this opportunity to advise that the City's Section 4.1.2.5 (1) of the October 2011 preliminary Planning Commission draft, requires the application of mitigation measures and the use of

mitigation sequencing for mitigation planning, as required in the Guidelines. The Guidelines are specific to prioritizing mitigation measures, with compensatory mitigation being of a lower priority than avoiding and minimizing. Some clarification could be made in Section 4.1.2.5 (2) on compensatory mitigation by including the word “if” to read: “If compensatory mitigation measures are required for a proposal, compensation in the immediate vicinity of the impact shall be the preferred mitigation....” In this way, compensatory mitigation is considered according to the hierarchy of mitigation sequencing and this statement in (2) further qualifies the use of compensatory mitigation under the mitigation sequence planning priorities. Neither the SMA nor the Guidelines require the use of “compensatory” or “compensate” to replace “mitigate”.

The Guidelines, WAC 173-26-221(1)(i)(E)&(F), also require mitigation and the use of compensatory mitigation in provisions relative to wetlands. Under this section, the Guidelines require that SMPs contain wetland mitigation requirements that are consistent with WAC 173-26-201(2)(e) mitigation sequencing, with compensatory mitigation being allowed only after mitigation sequencing is applied and the higher priority means of mitigation(i.e. avoiding, minimizing, or rectifying) are found to be infeasible.

### **Shoreline Stabilization**

On the topic of shoreline stabilization and in answer to earlier questions posed by City staff, Ecology provides the following advice:

**Question 1: Is a geotechnical analysis required for all new shoreline stabilization including soft treatment?** (Note: soft treatment is defined as shore erosion control and restoration practices using only plantings or organic materials to restore, protect, or enhance the natural shoreline environment (NOAA Coastal Resource Management). This technique mimics natural conditions for ecological functions and ecosystem-wide processes. Examples include bioengineered shoreline stabilization, beach nourishment/replenishment; vegetated soil stabilization retention methods; driftwood; coir fiber logs or other natural materials, and nonstructural shoreline stabilization.)

**Response to Question 1:** An important issue here is degree of risk. It is shoreline stabilization that requires a geotechnical report. If the property owners are seeking stabilization and they have an erosion or landslide risk, they would need professional analysis from a geotechnical expert to predict if soft-shore treatment would work. It is important to remember that estimating risk takes priority over incentivizing soft shore treatment.

The Guidelines indicate that some sort of assessment of need is required for any shoreline stabilization effort, but that a more rigorous “geotechnical report” may only be required for hard structures. As degree of risk is always an important consideration, perhaps one approach is to have two different levels of geological or site assessment. Although soft treatment may be proposed for other purposes, besides shoreline stabilization, such as beach restoration, public access improvements or private access, when replacing a hard structure with a softer one, assessing acceptable options should be part of the SMP.

**Question 2: If an applicant intends to use soft-treatment for either new or replacement of existing shoreline stabilization, do they need to demonstrate that the primary structure is or is not in danger within 3 years?**

**Response to Question 2:** If erosion and risk are there, then a geotechnical report would be needed to analyze the nature and degree of risk. The last sentence of WAC 173-26-231(3)(D) on geotechnical reports states that “where the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as the three years, that report may still be used to justify more immediate authorization to protect against erosion using soft measures.” If there is no “stabilization” nexus, then there is likely not a geotechnical requirement. However, if erosion and risk are there, then a geotechnical report would be needed to analyze the nature and degree of risk.

**Question 3: If analysis is required, can the City require a lesser geotechnical analysis (not a full geotechnical report), when an applicant is proposing “soft treatment”?**

**Response to Question 3:** Having more than one level of geological analysis may be appropriate. This may have been tried by other jurisdictions (e.g. Whatcom County cites: “Where a geotechnical analysis confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as three years, the analysis may still be used to justify more immediate authorization for shoreline stabilization using bioengineering approaches.”). It seems that some sort of report is necessary for almost any project to show why anything is needed in the first place, to identify possible impacts and mitigation measures, and to identify alternative ways of achieving the project’s objectives. If this report recommends a “hard” solution, then a more rigorous geotechnical report is probably necessary to justify the choice and to explain why less impacting methods aren’t feasible.

**Question 4: In a geotechnical analysis, can we use a single significant storm event, such as a 100-year storm, as a threat for the threshold for new or replacement of shoreline stabilization?**

**Response to Question 4:** This is difficult to answer. While it may be possible to define a “100-year storm” (though this poses significant technical challenges), we are not aware of any very reliable way of predicting how this translates to erosion. Is this an attempt to clarify criteria for defining “need” in addition to or an alternative to the “three year” definition in the WAC?

As stated above, this letter limits its purpose to clarify existing staff questions. To date, the City’s SMP development has been well-received by Ecology. Ecology looks forward to continuing its review of the Planning Commission’s Draft SMP Recommendations, in a manner that best serves your needs. Ecology appreciates all of the effort put into this work. If you have any questions, please feel free to contact me at 425-649-4309 or at [Barbara.Nightingale@ecy.wa.gov](mailto:Barbara.Nightingale@ecy.wa.gov).

Sincerely,

*Barbara Nightingale*

Barbara Nightingale, Regional Shoreline Planner  
Northwest Regional Office  
3190 - 160<sup>th</sup> Avenue SE  
Bellevue, WA 98008

Cc: Geoff Tallent, Ecology SEA Program Manager, NWRO  
Peter Skowlund, Ecology HQ  
Tom Clingman, Ecology HQ  
Hugh Shipman, Ecology HQ