No Net Loss of Shoreline Ecological Functions

Where does the no net loss standard come from?

1. The Shoreline Management Act (SMA) provides a broad policy framework for protecting the shoreline environment. The Shoreline Master Program Guidelines (Guidelines) adopted in 2003 establish the no net loss principle as the means of implementing that framework.

2. More specifically, the Guidelines set forth the obligation to assure that no net loss of ecological functions will be achieved within the SMP's planning horizon by implementing updated SMP policies and regulations.

What does no net loss mean?

1. Simply stated, the no-net-loss standard is designed to halt the introduction of new impacts to shoreline ecological functions resulting from planned for and permitted new development. This means that the existing condition of shoreline ecological functions should remain the same, and should be improved as a result of restoration, as updated SMPs are implemented over time.

2. This standard is applied **both** during the comprehensive planning process used in the update of SMPs and over time by appropriately regulating individual developments as the SMP is implemented.

3. This means that the resulting impacts of planned for and appropriate shoreline development should be identified and mitigated so as to maintain shoreline ecological function as it exists at the time of approval of updated SMPs.

Does this mean that an SMP must prohibit all development that will result in a loss of shoreline ecological functions?

1. No. Current available science tells us that all types of shoreline development produce at least some degree of impact to ecological functions. Preferred uses set forth in the SMA are among those developments which impact shoreline ecological function. This means updated SMPs must contain provisions that mitigate for these unavoidable impacts, for instance, by promoting restoration of degraded shorelines identified in the locally prepared shoreline inventory and characterization.

When should impacts be avoided, and when may they be minimized?

1. SMA policy and the guidelines recognize the need for both the appropriate use **and** protection of shoreline resources. Thus, SMPs must provide for preferred shoreline uses set forth in the SMA. These include water-dependent port development, public access facilities and owner occupied single-family residences. Impacts resulting from these preferred shoreline uses, where they cannot be avoided, must be reduced by appropriate environment designations and regulations which follow the required mitigation sequence.

2. Achieving no net loss of ecological function relies on consistent application of mitigation sequencing. Mitigation sequencing sets a priority to first avoid, then minimize, rectify, reduce or compensate for impacts.

3. To meet the no net loss requirement, it may be necessary to prohibit uses in shoreline jurisdiction which are not water-dependent or preferred uses, such as office buildings and multi-family development, to avoid impacts to shoreline functions.

4. While certain shoreline uses and development are appropriate and necessary and even fostered (e.g. SMA preferred uses), all such development must be carried out in a manner that limits further degradation of the shoreline environment. No uses or development, including preferred uses, supersede the requirement for environmental protection.

How do local jurisdictions demonstrate no net loss in their SMPs?

1. No net loss is accomplished at a minimum of two different levels: through the SMP update ("planning") process and over time during subsequent project ("permitting") review.

2. Demonstrating that implementing an updated SMP will result in no net loss of shoreline ecological function is accomplished by completing several steps in the comprehensive SMP update process, including:

    a. **documenting <u>existing</u>** shoreline ecological functions and baseline conditions in the shoreline inventory and characterization.

    b. **projecting** "reasonably foreseeable future development" over a <u>minimum</u> 20 year planning period, in a shoreline use analysis. This must address "commonly occurring and planned development" and accommodate future demand for SMA preferred uses, balanced with local community desires.

    c. **assessing** ecological impacts resulting from "reasonably foreseeable future development" identified in the use analysis, considering at a minimum habitat, hydrology and water quality functions.

    d. **identifying management measures** for each shoreline planning unit which demonstrate how future (both anticipated and unanticipated) development impacts will be mitigated through proposed SMP environment designations, policies, regulations, administrative provisions, and restoration activities identified in a shoreline restoration plan, and

    e. **evaluating** how incremental impacts, remaining after mitigation is applied, will be mitigated over time in a cumulative impacts analysis.

    f. **summarizing** in a no net loss report, the full array of actions the local government has taken during the SMP update process to satisfy the no net loss standard.

3. Information regarding existing shoreline ecological conditions must be well documented and considered. If only limited data and information is available, a qualitative demonstration of no net loss measures may be acceptable, so long as each unique shoreline planning unit is addressed. As a general rule, the less known about existing conditions and planned future development, the more protective SMP provisions must be.

4. Representative "indicators" of ecological function may be used to demonstrate no net loss. Examples may include projected new impervious surface area such as pavement and structures; percent type and age of vegetative cover lost; new shoreline armoring; number of new docks (including SDP exempt docks). These indicators should be quantified.

5. Cumulative impacts analysis is typically conducted while drafting SMP provisions as part of the comprehensive update process. It is thus an iterative land use planning exercise, applying science-based understanding of existing shoreline ecological functions, and evaluation of future development and use scenarios. When applied to each shoreline planning unit, cumulative impacts analysis should yield specific measures in an updated SMP which avoid and minimize impacts to ecological functions.

6. Analysis of cumulative impacts is necessary in the update process to identify and compensate for the total predictable incremental effects on shoreline functions that remain after mitigation has been applied through updated SMP implementation. Preparation of a cumulative impacts analysis report is therefore an important final "planning" step in achieving no-net-loss.

7. Finally, after the SMP update is approved, the mitigation principals of first avoiding, then minimizing and compensating for ecological impacts are again considered as individual shoreline developments and uses (including exempt activity) are reviewed, approved, conditioned or denied over the SMP planning horizon. At this stage, more detailed project-specific information, site conditions and projected impacts can be addressed.

8. "Deliverables" required to demonstrate no net loss when submitting an updated SMP to Ecology for approval include:
    a. Completed SMP Submittal Checklist
    b. Shoreline inventory and characterization
    c. Shoreline use analysis
    d. Supporting map portfolio
    e. Cumulative impacts analysis
    f. Restoration plan, including timelines and benchmarks for implementation
    g. No net loss narrative summary

9. In order for a comprehensive SMP update to be approved, Ecology's Director must formally conclude that the proposed SMP when implemented over time, will result in "no net loss of ecological functions necessary to sustain shoreline natural resources".