

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 updated SMPs are implemented over time.
2. This standard should be realized **both** in the environmental planning process of updating an SMP 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 adoption of the updated SMP.

Does that 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. Some preferred uses as set forth in the SMA are among those developments which impact shoreline ecological function. The "no net loss of ecological function" standard means that updated SMPs must contain provisions for mitigating these unavoidable impacts, for instance by restoring degraded shorelines identified in the locally prepared shoreline inventory and analysis.

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

1. SMA policy and the guidelines recognize the need for both the 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 other SMP 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 also 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 ecological function is achieved by completing several steps in the comprehensive SMP update process, including:
 - a. **documenting existing** shoreline ecological functions and baseline conditions in the shoreline inventory and characterization.
 - b. **projecting** “reasonably foreseeable future development” over a minimum 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 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.
3. Data and information regarding current shoreline ecological conditions must be documented and considered. When only limited data and information are available, a qualitative demonstration of no net loss measures may be acceptable, so long they are applied to each shoreline planning unit.
 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, based on scientific understanding of 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 which result in no net loss of ecological functions.
 6. Analyzing cumulative impacts is necessary in the comprehensive SMP update process to identify and compensate for the total predictable incremental effects on shoreline functions that remain after mitigation has been applied through implementation of updated SMPs. Preparation of a cumulative impacts analysis report is therefore an important final “planning” step in achieving no-net-loss.
 7. Finally, after the SMP is updated, no net loss principals of first avoiding, then minimizing and compensating for ecological impacts are again applied as individual shoreline developments and uses (including exempt activity) are reviewed, approved, conditioned or denied over the SMP planning horizon.
 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 Report, addressing measures designed to offset cumulative impacts
 - f. Restoration Plan, including timelines and benchmarks for implementation.
 9. To approve a comprehensive SMP update, Ecology’s Director must formally conclude that the proposed SMP when implemented over its planning horizon,

will result in “no net loss of ecological functions necessary to sustain shoreline natural resources”.

Shoreline Master Program
SAG Meeting January 23, 2008

Caucus Representatives

Jerry Barnes- Agriculture
Raleigh Chinn- Business/recreation
Jason Paulson- Environment/ Conservation
Jon Wyss- Natural Resources
Absent-Wendy Witt- Homeowners/ Property Owners
Chris Johnson- City of Okanogan
George Brady- Town of Pateros
Chris Branch- Cities of Tonasket and Oroville
Delores Castillo- Colville Confederated Tribes
Vicky Welch- Methow Watershed Council
Dave Acheson- Town of Winthrop
Absent- City of Omak
Absent- Town of Brewster
Absent- Town of Twisp

Introductions

- Newby to the SMP Angie Hubbard Okanogan County Natural Resource Planner

Member Reports

- Vicky would like water availability data. She would also like to figure out how much water is being used.
- Clynda said that she would update on other counties at the next meeting. This should be on the agenda for the next meeting. She also stated that the Western SMP planners are further along in the process than us.
- Delores has information from the environmental trust department that would be important for this process.
- Chris Johnson stated that meeting with State and Local agencies to evaluate how the shoreline permit process is working for salmon restoration projects. The conclusion was that the current regulations need to be changed to add incentives to doing the right thing.
- Chris Branch stated that there has been a lot of development on Lake Osoyoos. The city of Oroville has adopted their draft CAO as an "Interim Official Control" until the CAO has gone through the state agency review procedure.

Meeting Change

- **Okanogan City Council Room same day, same time from now on.**

Presentation on Analysis Framework for Okanogan County Regional Shoreline Master Program. (Presentation attached).

- The analysis will establish a baseline, describing current functions. It will be the basis for the shoreline characterization, which will inform environment designations
- Environment designations will translate into policy and regulations leading to shoreline protection, no net loss
- Work presented at the SAG meeting is part of a Test Run.
- Mike Parton- analysis will result in a score for each lake and reach of stream and put a number on the condition of the water body. Challenge is what data to use. Some areas of the county have intense studies done and some have had no studies at all. There needs to be consistency in the data so that there is confidence in the findings.
- Baseline will be a function of historic mechanisms, geology, hydrology, sedimentation. Mapping those factors will be part of deciding what uses and activities are suitable in what parts of the shoreline.
- Analysis is blind to what's outside the shoreline area.
- Stream reaches—segments used in analysis—are based on Geology and Hydrology.
- Chris J. asked whether zoning entitlement is a factor in baseline establishment. Clynda brought up the idea of permitted building envelopes; if the land is not developed in 5 years, development must be based on the new shoreline regulations.
- Sandra- 5-year vesting concept is an issue that has not been fully clarified. Development on land that has already been platted may be required to comply with the new shoreline requirements.
- Kurt noted that at this stage the analysis is based on science; policy has not yet been factored in. Long-range plans (comprehensive plans) will be taken into account.
- Concern brought up that the mentality of “do it today because tomorrow it may be illegal” which may lead landowners to max the building envelope.

- Clynda- In some cases the SMP findings may be seen as justifying more relaxed regulations. For instance, in Douglas County, stakeholders have been waiting for the update in hopes that they can build taller buildings.
- There was a question about how the fill situation in Pateros will be addressed. Kurt said that would be addressed later in the inventory process.
- A tribal suit may find that culverts have to be replaced for salmon recovery.
- Culverts will be treated as stressors on the system. Pipe does not allow flow which creates stress in the system. It is hard to find an analysis unit with culverts. Some tributary watersheds have a bunch but they are on state land.
- Mike said that the cumulative effects analysis will address the long term effects of culverts.
- Clynda asked about the source of the condition index scores (slide 14). Mike said that the number is the normalized sum of the weighted scores.
- There was some discussion of how shoreline function is assessed. Chris Johnson noted that there could be a fully diked shoreline with outfalls could still be functioning. Jerry said that if you look upstream from the south bridge in Okanogan the stream looks to be in good condition even though you are in downtown Okanogan.
- Land in agricultural use still provides good habitat for animals. Agriculture may be considered a buffer.
- Chris Branch said that vegetation along agricultural lands does create a good buffer.
- We do not have excellent data for riparian vegetation or levee information.
- Clynda noted that vegetation analysis methodology is important. King County used aerial photos to determine vegetation coverage, and then when they added their data for impervious services the end result was very different.
- Jon said that it seems to him that this is all going to cost a lot of money. Maintain and Enhance=\$, Conserve and Preserve=\$, Restore=\$, Recover=\$. Economic value is not contained in the chart. Nothing shows the economic value of vacant lots and land. Kurt said that is not part of the scientific analysis. Designation will deal with future land use.

- Where will development/parks be involved?
- Whether agriculture or housing, the effect of shoreline restoration on property will be a factor.
- Jon said that we have no opportunities if the economy is not involved in the first step of the process. Thousands of parcels are classified as industrial.
- Kurt said that the Act requires us to put the environment first.
- Sandra said that we are going to overlay and work together.
- Economic value will drive the conservation and preservation.
- The language needs to be different, environmental vs. development assets is not usually used only environmental assets. Asset driven programs will sell the science.
- Mike said that we need more definition work with scores.
- Chris Johnson said how do we view no net loss? Kurt said that we have not wrestled with that yet. Chris-What are the opportunities? Kurt said that it all has to do with shoreline impact and how do we want to address that issue? The framework to start from will come from a handout sent by ecology called No Net Loss of Shoreline Ecological Functions. This handout will be posted on the website with the minutes.
- Someone asked if we can get credit for restoration projects? The location of the project will dictate the restoration.
- Private property will be difficult for restoration because there will be no access.
- Chris Johnson if there is a change in land use based on the shoreline, it is regulatory. The restoration plan could drive that. No net loss has the potential to aid a lot, passively, actively, and off site.
- **February 27, 2008 at 6:00pm at Okanogan City Hall**
- Clynda will speak about different counties and where they are in their SMP. We will discuss again characterization and analysis.