

Loon Lake

Wood Debris Study



April 2008

April 15

Public Meeting Agenda

6:30 – 6:45

View project materials and visit with staff

6:45 – 7:45

*Project presentation
Question and answer period*

7:45 – 8:30

*Visit information stations
Ask project team questions
Provide input and fill out comment cards*

Overview

Senator Bob Morton initiated the Loon Lake Wood Debris Study with the Washington State Department of Natural Resources (DNR) after residents expressed a desire to learn more about changing lake conditions. The study will help assess the origin of the organic debris that has accumulated in the lake's northeast corner, whether those accumulations have negatively affected or benefited the lake, and recommendations for potential remediation.

Currently, DNR is in the second phase of the study's three phases:

- *Phase I* – Review of historic and scientific data
- *Phase II* – Create a sampling and analysis plan and seek community and agency input
- *Phase III* – Analyze sampling results, share the results with the community and determine next steps

Collecting sediment samples in Loon Lake

To understand the source of the wood debris in the lake, DNR's environmental consultant wrote a draft sampling and analysis plan which outlines the methodology for collecting and analyzing samples from the lake. This scientifically-based sampling plan was reviewed by agencies such as the Washington Department of Fish and Wildlife, Stevens County and the Washington State Department of Ecology.

In September 2008, samples will be collected from a boat at various locations around the lake—areas with and without the wood debris—to evaluate the potential negative effects of the debris on the health of the lake. A coring device will be pushed four to six feet beneath the sediment surface to collect samples. Sample locations are proposed in the draft plan, and final locations will be determined after gathering input from the Loon Lake community. Approximately 20 samples will be taken in the northeast corner where wood debris could be located based on historic sawmill use. The additional samples will be taken in other locations around the lake to compare the physical and chemical characteristics.



Analyzing sediment samples

Analysis of the sediment samples will take approximately six to eight weeks. Several tests will be conducted including:

- Physical analysis: determine sediment particle size and analyze total solids
- Chemical analysis: total organic carbon, total phosphorous, biological oxygen demand, total nitrogen, total volatile solids and total sulfides
- Biological testing / bioassay analysis: sediment toxicity tests will be conducted using midges and amphipods (flies and crustaceans)

The test results will help determine what the “muck” consists of and whether former sawmill operations and waste disposal may have affected the sediment.

Sharing results from sediment analysis

Results from the sediment analysis will become the basis for a remedial investigation feasibility study (RI/FS) which will essentially describe the nature and source of the wood debris and potential opportunities for remediation.

After a draft RI/FS is completed, a community meeting will be held in spring 2009 to present the information, gather community input and discuss next steps.



Sediment sample from the Power vanVeen sampler

Next steps

After the study is completed, if it is determined that some action is needed, DNR will work with other state agencies to determine opportunities for remediation and identify potential funding sources for this work.

Until the study is completed and DNR has solid analysis and results on which to base any decisions, conditions at the lake will remain the same including recreational activities and homeowners may still apply for dredging permits. Seasonal nesting platforms for red-necked grebes will not be disturbed during sampling.

About DNR

Washington State Department of Natural Resources manages 2.6 million acres of state-owned aquatic lands – tidelands, shorelands and beds of navigable fresh and salt waters. Washington received the aquatic lands at statehood, and DNR manages them as a public trust. The Legislature has recognized our state’s aquatic lands as a “finite natural resource of great value and irreplaceable public heritage.”

State-owned aquatic lands are managed for current and future citizens of the state:

- To sustain long-term ecosystem and economic viability; and
- To ensure long-term access to the aquatic lands and the benefits derived from them.

DNR Contacts for the Loon Lake Study

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