

EBMWG Project Close-out Report

Project #: DS02

Project Title: Workshop to develop recommendations on a consistent approach to watershed and landscape planning unit boundaries

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Background/Context for LRFWG consideration: *Several Land Use Objectives for Aquatic Habitat eg 'Important Fisheries Watersheds' and 'Upland Streams' refer to 'watershed's' for the application of the Order. The EBMWG tasked the DS02 Project Steering Ctte to convene a workshop to provide recommendations on an appropriate watershed map layer, watershed size etc. for the application of the Land Use Objectives, as well as recommendations on Landscape Units and sub-landscape planning units. The workshop was successful in providing consensus recommendations with regard to a consistent approach to watershed planning unit designation, Landscape Unit boundaries and also sub-landscape planning units. ILMB has taken these outcomes one additional step further, and GIS staff have delineated these watershed planning units for the entire Plan Area. This information has been made available to the EBMWG, Licensees and the DSP processes.*

1.0 Funding:

The \$5000 budget was expended in two ways: 2/3 for the one day workshop, and 1/3 in consultant expert support to ILMB in turning workshop recommendations into GIS-mapped outputs for hydrologic watershed units to support ongoing EBM implementation.

2.0 Extent to which project objectives were achieved:

The initial project objectives (*recommendations on a consistent approach to watershed and landscape planning unit boundaries*) were achieved in full – consensus recommendations were developed for hydrologic watershed units, landscape and sub-landscape planning units, as follows:

Hydrologic Watershed Units:

- As an initial step for strategic level planning over the short term, refine Watershed Atlas (WSA) boundaries and coding, using the Corporate Watershed Base (CWB).

- Using the CWB, divide primary hydrologic watersheds, through GIS application of CWB, into basins with a maximum size of 50,000 ha. Further divide these CWB watersheds into sub-drainages, with a size range of 1,000 ha to 5,000 ha, and an average of 3,000 ha.
- Provide the results of (B) to each DSP process, to be refined based upon traditional/local knowledge and used for strategic analysis and planning. The results would also be provided, based on the actual physical characteristics of the watersheds, to operational implementation to allow also for refinement into smaller or larger units (i.e. <1000ha or >5000ha.) depending on basin characteristics, including, but not limited to:
 - Stream channel type (e.g. alluvial, semi-alluvial, non-alluvial)
 - Basin morphology
 - Terrain stability (e.g. slope steepness and soil depth, occurrence of natural landslides etc.)
 - Presence of lakes, wetlands and other large water storage areas.
 - The amount and distribution of alpine or non-forest area.
 - Elevation distribution (rain on snow events etc.)
 - Distribution of aquatic/focal species habitat.

Landscape Units:

- Rationalize existing Provincial LU boundaries with the CWB (1:20,000).
- Provide the results of (A) to each DSP process, for their consideration. They may be refined based upon traditional/local knowledge.

Cautions:

- Splitting of existing LU's along administrative boundaries will increase the constraint of objectives and targets in the resulting smaller units if the targets and objectives are applied equally in both.
- If numerous LU changes are made, it may become difficult to interpret analysis results to determine impacts on TFL's or TSA's.
- The original ecological intent of LU designations should not be lost. If boundaries are adjusted through the DSP process, they should be cross-checked to ensure they still adequately facilitate the original ecological intent, as defined in the original Mid-Coast and North-Coast criteria for LU designation (copies of these documents should be provided to DSP teams).

Sub-landscape Units:

- If sub-landscape units are employed in EBM-implementation planning, use CWB watersheds to delineate 'sub-landscape units' within each LU, in a size range of 1,000-20,000 ha, with an average of 5,000-10,000 ha. These sub-landscape units should be as consistent as possible with ecological boundaries.
- Non-typical sub-landscape areas on the coast (islands, face-drainages etc) can either be appended to neighbouring hydrological watersheds, or (less frequently) lumped together, depending on the situation. These sub-landscape units should be as consistent as possible with ecological boundaries. For example, avoid grouping two watersheds with different valley-bottom variants in a single sub-landscape unit.
- Small Islands without watersheds will be assigned to the nearest sub-landscape unit.

- In general, larger sub-landscape units would be appropriate in areas with Glaciers or other Non-Forest areas, and smaller sub-landscape units would be appropriate for areas with small islands or other geographic considerations.

3.0 Key Products:

- A complete 1:20,000 hydrologic mapping assessment, located at ftp site ftpnan.env.gov.bc.ca. Please note that this is to be used as a reference for initiating further detailed watershed analysis."
- Summary of workshop recommendations