Environmental Guidelines for Urban and Rural Land Development in British Columbia







Section Five: Regional Information Packages

Skeena Region

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This section of *Develop with Care* offers information on some of the issues, species and ecosystems of concern that are priorities in each region. This section is not a stand-alone guide to environmentally sensitive development in each region—reference to other sections of this document is essential for a full understanding of the recommended environmental guidelines.

Figure 5.5-1: Ministry of Forests, Lands and Natural Resource Operations Regions



Cover photos:

Right: Picea polpulus. *Photo: Dave Polster* Centre: Bear Glacier. *Photo: DavePolster* Left: Grizzly Bear. Photo: *Jody Crawford picturebc.ca*



5.5.1 Skeena Region

The Skeena Region covers approximately the northwest third of British Columbia.

Figure 5.5-2: Skeena Region



5.5.2 Regional Features

The Skeena Region is characterized by mountainous terrain and large rivers including the Skeena, Nass, Stikine, and Taku Rivers. It also includes British Columbia's north coast. The steep terrain and large rivers leave little room for urban and rural development, so towns are crowded in relatively narrow valleys and may have to contend with flooding rivers and streams. Protection of local environmental resources requires careful planning where large rivers and streams threaten settlements. The narrow valleys also limit agricultural opportunities and alienation of agricultural lands due to urban and rural developments should be avoided.

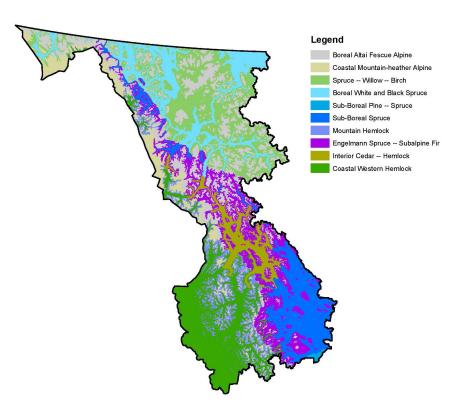
The climate of the Skeena Region is varied. Heavy rainfall and snowfall occurs on the west side of the Coast Mountains, whereas dry rain shadows occur in places such as the Telegraph Creek area on the Stikine River. The combination of steep terrain and abundant precipitation makes avalanches and landslides characteristic features of the region. Care needs to be taken in identifying and avoiding areas likely to be subject to these hazards.

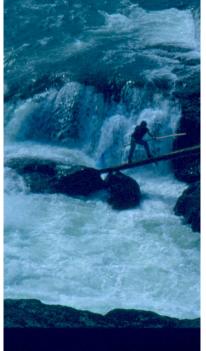


Biogeoclimatic Zones

For information on biogeoclimatic classification (BEC) see <u>Biogeoclimatic</u> <u>Zones</u> and the BEC website: <u>http://www.for.gov.bc.ca/hre/becweb/.</u>

Figure 5.5-3: Biogeoclimatic Zones of the Skeena Region





Fishing on Bulkley River. *Photo: Dave Polster*

The Skeena Region's extensive wilderness areas provide habitat for a variety of wildlife. Both Black and Grizzly Bears occur in the region and can present problems for urban developments. Salmon are abundant in the major rivers and tributaries and are a source of food for both bears and humans; consequently, conflicts can arise. Animal movements can be constrained by urban and rural developments; therefore, care should be taken to minimize impacts by avoiding known travel corridors and providing passage for smaller animals under roads and along watercourses.



5.5.3 Regionally Significant Species

There are several species and plant communities within the Skeena Region that are of particular interest during development because of their endangered status, conservation ranking, or regional significance.

Table 5.5-1 and **Table 5.5-2** identify some of the species of regional concern. This list may change as new information becomes available. Extra care should be observed in any development that could include impacts to these species populations or habitats. The <u>Conservation Data Centre</u> maintains a list of species and occurrence data that must be considered for any development. A complete species list can be found at http://www.env.gov.bc.ca/atrisk/toolintro.html.

Table 5.5-1: Regionally Significant Animals

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Fish	Cutthroat Trout (both interior and coastal sub species) Dolly Varden Bull Trout Summer Run Steelhead
Birds	Goshawk atricapillus (interior) Brown Creeper Harlequin Duck Wood Duck Pileated Woodpecker
Mammals	Mountain Goat Northern Long-eared Myotis Silver-haired Bat Marten Black Bear

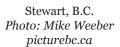
Important Bird Areas (IBAs) have been designated in coastal waters and islands from Prince Rupert south to Mussel and Kynoch Inlet and Sheep Passage because they support internationally significant numbers of several bird species including Peregrine Falcon, Black Turnstone, Surf Scoter, Black Oystercatcher, Rhinoceros Auklet, Leach's Storm-Petrel, Fork-tailed Storm-Petrel, Glaucous-winged Gull, Marbled Murrelet, Cassin's Auklet, Pigeon Guillemot, Mew Gull, and many other seabirds and waterfowl. To find the locations of IBAs and access site information for individual IBAs (e.g., bird species abundance, habitat description and conservation issues), go to www.ibacanada.ca and search the online Map Viewer or the Site Directory.

Information from several bird monitoring programs coordinated by Bird Studies Canada is also available through a searchable online data warehouse, Nature Counts (www.naturecounts.ca). Information available includes species presence, seasonal abundance, breeding species and other information. See Appendix D: Sources for Environmental Mapping and Inventory for more details.



Table 5.5-2: Selected Rare Plants and Plant Communities

Scientific Name	Common Name	Comment
Amelanchier alnifolia / Elymus trachycaulus	Saskatoon / Slender Wheatgrass	Threatened by grazing & urban development, recreation, road and quarry development, invasive species and fire suppression. Occurs primarily in SBS zone; occurs within a narrow range along major valley bottoms and lower - mid slopes of the central Nechako Plateau; high fragility; estimated to be >200 sites (<100 relatively undisturbed, high quality occurrences).
Poa interior/Elymus trachycaulus	Grass	Threats: agricultural cultivation; rural development; overgrazing; invasive species. True grassland or steppe, unlike scrub/steppe above.
Populus balsamifera ssp. trichocarpa/Cornus stolonifera/Rosa acicularis	Floodplain Cottonwood/ dogwood/rose	Threats: dams and changes to hydrologic regimes; overgrazing; clearing for hayfields, urbanization; cottonwood logging; invasive species.
Picea sitchensis / Maianthemum dilatatum; hypermaritime	Sitka Spruce / False Lily-of- the-Valley; Hypermaritime	Threatened by forest harvesting and changes to flooding regime. Low fragility; estimated to be between 6–20sites, perhaps some additional smaller sites. Occurs on high-bench floodplain. Very productive sites. Floodplains of major rivers.
Picea sitchensis /Rubus spectabilis; very wet maritime	Sitka Spruce / Salmonberry; Very Wet Maritime	Primarily threatened by forest harvesting. Low fragility; estimated to be between 21–100 sites
Picea sitchensis / Rubus spectabilis; wet submaritime	Sitka Spruce / Salmonberry; Wet Submaritime	Threatened by forest harvesting. Low fragility; estimated to be between 6–20 sites. Found on high-bench floodplains.
Picea sitchensis /Trisetum cernuum	Sitka Spruce / Trisetum	Primarily threatened by forest harvesting. Low fragility; estimated to be between 21–50 sites. This is a middle floodplain community.
Pinus contorta / Arctostaphylos uva-ursi; CWHws	Lodgepole pine / Kinnikinnick; wet submaritime	Threats: unregulated mushroom picking; sometimes roads located along the ridges where this ecological community grows.







5.5.4 Useful Sources

General information

Ministry of Forests, Lands and Natural Resource Operations, Skeena Regional Office 3726 Alfred Avenue Smithers, BC VOJ 2NO Phone: (250) 847-7260

http://www.for.gov.bc.ca/mof/regdis.htm or

http://www.env.gov.bc.ca/skeena/

Regional Resources

Access to many sources of inventory information can be found through CLIR (Cross-Linked Information Resources) website http://www.env.gov.bc.ca/clir/

Fisheries information http://www.env.gov.bc.ca/skeena/fish/

Skeena Region Reduced Risk Instream Work Windows and Measures http://www.env.gov.bc.ca/wsd/regions/ske/wateract/work_windows_measures_030205.pdf

Development Guidelines

The Skeena Region relies on several provincial Best Management Practices (BMPs) that provide advice relevant to specific land development activities. Some of the more commonly referenced documents are included below. Note that development of BMPs is ongoing, with new documents being developed all the time. Front Counter BC should be aware of any BMPs that apply to your development plans.

Standards and Best Practices for Instream Works. March 2004. British Columbia Ministry of Water, Land and Air Protection. Ecosystem Standards and Planning. Biodiversity Branch. http://www.env.gov.bc.ca/wld/documents/bmp/iswstdsbpsmarch2004.pdf

Wildlife Guidelines for Backcountry Tourism/Commercial Recreation in British Columbia. May 2006. BC Ministry of Environment. http://www.env.gov.bc.ca/wld/twg/documents/wildlife_guidelines_recreation_may06_v2.pdf

Fish-stream Crossing Guidebook. March 2002. Forest Practices Code of British Columbia. BC Ministry of Forests. http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/fishstreamcrossing/fscgdbk.pdf



Fish-stream Identification Guidebook. Second edition. Version 2.1. August 1998. Forest Practices Code of British Columbia. B.C. Ministry of Forests. http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/FISH/FishStream.pdf

Assessment Methods for Aquatic Habitat and Instream Flow Characteristics in Support of Applications to Dam, Divert, or Extract Water from Streams in British Columbia. March 2004. http://www.env.gov.bc.ca/wld/documents/bmp/assessment_methods_instreamflow_in_bc.pdf

Ministry of Agriculture and Lands Requirements and Best Management
Practices – Designing Your Dock or Boat Launch. http://www.for.gov.bc.ca/land_tenures/tenure_programs/programs/privatemoorage/reqs_best_mgmt_practices.pdf

Lakeshore Guidelines 2004. Regional District of Fraser-Fort George. Development Services Department. Available from http://www.rdffg.
bc.ca/services/development/land-use-planning/waterfront-development

Climate Change

For information on regional projections for climate change see the Pacific Climate Impacts Consortium's Plan2Adapt tool http://pacificclimate.org/tools-and-data/plan2adapt

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