



Section Five: Regional Information Packages

Omineca 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 5.4-1: Ministry of Forests, Lands and Natural Resource Operations Regions



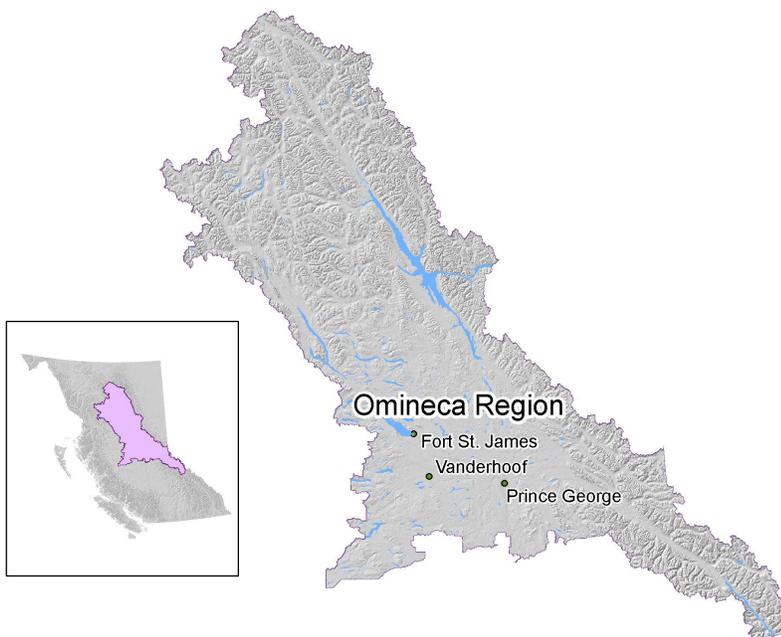
Cover Photos:
Left: Mackenzie, B.C. Photo: Alex Pytlowany picturebc.ca
Centre: Spruce Grouse. Photo: Dave Polster
Right: View to Mount Robson. Photo: Carla Trask picturebc.ca



5.4.1 Omineca Region

The Omineca Region encompasses a vast area of northern British Columbia (Figure 5.4-2).

Figure 5.4-2: Omineca Region



5.4.2 Regional Features

The Omineca Region encompasses a diversity of landscapes ranging from the broad flat pine forests of the Central Plateau to the rugged peaks of the central Rocky Mountains. This region includes the highest mountain in the Canadian Rockies: Mount Robson (3,954 m).

The region includes headwaters of several provincially important rivers, including the Fraser, Nechako, Finley, Parsnip, and Stuart. Within the drainages of these rivers lie several regionally important lakes and the province's largest reservoir, Williston Lake, which is behind the W.A.C. Bennett Dam. The rivers and their tributaries provide spawning grounds for Chinook, Coho, and Sockeye Salmon. Lakes and streams provide habitat for Arctic Grayling, White Sturgeon, Rainbow, Bull and Lake Trout, as well as several species of whitefish, suckers, minnows and Burbot. The Omineca's rivers hold historical significance as corridors for movement and travel, for early explorers and First Nation peoples.

Geologically, the Omineca includes fascinating fossil beds, oil and gas reserves, semiprecious and rare earth elements, and precious metals which have drawn people to the region since the 1860s. These resources are again bringing people to the Omineca and are an important driver of current development.



Section 5.4: Omineca Region

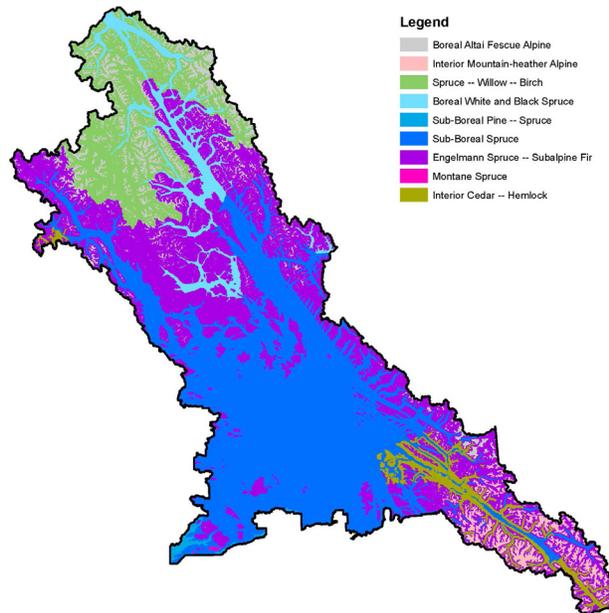
Forestry is another regionally important industry that relies on economically-important tree species such as Douglas-fir, Hybrid, White and Engelmann Spruce, and Lodgepole Pine. Much of the pine in the northern and higher elevation pine stands has been killed by the mountain pine beetle since the late 1990s. This has altered wildlife habitat, increased wildfire hazard and impacted forestry and forestry-dependent communities.

The diverse topography, geology, and climate contribute to the nine biogeoclimatic zones that occur in the Omineca (**Figure 5.4-3**).

Biogeoclimatic Zones

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

Figure 5.4-3: Biogeoclimatic zones of the Omineca Region





5.4.3 Development Concerns

Development can be a complex process. Many resources can be found through the various Provincial websites, but for the majority of development activities the services of one or more appropriately qualified professionals will be needed.

Currently, urban and rural development in the Omineca is a relatively minor pressure at the regional level. Rural development tends to be concentrated in the southern portion of the region; localized around several lakes and rivers that feed into the Nechako and Fraser River systems, and along the highway corridors south and west of Prince George.

Water

Streams support a variety of fish and fish values, and changes to fish habitat can have serious consequences. Information to help understand the nature of potential impacts of development and the federal and provincial agencies responsible for oversight of regulation can be found at http://www.env.gov.bc.ca/wsd/water_rights/licence_application/section9/index.html.

Developments should avoid areas subject to flooding. (Note that with climate change, future flood levels are projected to be higher than historic levels.) Designated flood plains on some of the larger developed rivers in the Omineca can be found at http://www.env.gov.bc.ca/wsd/data_searches/fpm/reports/region7.html#frasnech and information regarding land use in areas that are subject to flood hazard are found at http://www.env.gov.bc.ca/wsd/public_safety/flood/pdfs_word/guidelines-2011.pdf.



White Sturgeon recovery, Vanderhoof.
*Photo: Sharon Himmelright
picturebc.ca*



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Instream works should only take place during approved timing windows, to minimize impacts on fish and other aquatic populations. Guidelines and timing windows have been developed for the Omineca are found at http://www.env.gov.bc.ca/wld/documents/bmp/omineca_tw_bmp.pdf

Developments should be designed to maintain water quality, shore stability, and riparian vegetation while preventing invasive species, increased runoff and sediment transport, and damage to lake and stream bottoms. Resources and guidelines for shoreline development in the Omineca and general best management practices developing in and around streams are found at:

- ◆ <http://www.rdbn.bc.ca/images/pdf/planning/ShorelandDevelopment/Waterfront%20Development%20Brochure.pdf>
- ◆ <http://www.env.gov.bc.ca/wld/instreamworks/moorings.htm>
- ◆ <http://www.pac.dfo-mpo.gc.ca/habitat/index-eng.htm>

Urban and rural developments can impact small wetlands through draining, infilling and pollution. These small wetlands are important to the larger watershed, as they mitigate the impacts of runoff and snow melt on stream water levels, filter sediments, and reduce environmental contaminants in water. Habitat values can be high, as wetlands are the breeding grounds for migratory birds and habitat for many animals including amphibians, dragonflies, small mammals, fish, and moose. See *Wetland Ways* http://www.env.gov.bc.ca/wld/documents/bmp/wetlandways2009/wetlandways_docintro.html.

Western Toad.
Photo: Zsolt Sary





Moose.
Photo: Dave Polster

Wildfire

Development in close proximity to wilderness has a greater vulnerability to wildfire. The provincial Firesmart program provides valuable information for reducing the wildfire hazard around homes: (<http://bcwildfire.ca/Prevention/firesmart.htm>). Avoid placing new satellite developments in high wildfire risk areas (see [Section 2.8.3](#)).

Wildlife

Large wilderness areas, active management and habitat protection help to maintain populations of many charismatic species such as Caribou, Moose, Mule Deer, Grizzly Bear, and Wolverine. Maintaining valuable ecosystem components such as ungulate winter range, snags and wildlife trees, large diameter coarse woody debris, wetlands, and riparian reserves are important for ecosystem function and provide habitat for several wildlife species.

The potential for encounters with wildlife are very high in the Omineca. Planning developments that accommodate wildlife values maintain opportunities for wildlife viewing (<http://www.env.gov.bc.ca/fw/wildlife/viewing/docs/wvomineca.pdf>) and hunting (<http://www.env.gov.bc.ca/fw/wildlife/hunting/regulations/1012/docs/region7a.pdf>) help to ensure species and ecosystem viability for the future.

Urban and rural homeowners and developers should take steps to limit encounters that are detrimental to wildlife and potentially dangerous for homeowners. Maintaining fruit trees and securing garbage help to reduce attractants for wildlife, particularly bears, and diminishes the attraction to enter communities and become habituated to people. For more information see:



- ◆ <http://www.env.gov.bc.ca/wld/bearsmart/>
- ◆ <http://www.env.gov.bc.ca/cos/info/bearaware/index.html>
- ◆ <http://www.env.gov.bc.ca/wld/wldhuman.html>

Birds

Important Bird Areas (IBAs) have been designated at Fraser Lake, Stuart, Tachie and Middle Rivers, and Tachick and Nulki Lakes because these sites support internationally significant numbers of Trumpeter Swans, Canada Geese, and other waterfowl. To find the locations of IBAs and access site information (e.g., bird species abundance, habitat description, and conservation issues), search the online Map Viewer or Site Directory at www.ibacanada.ca.

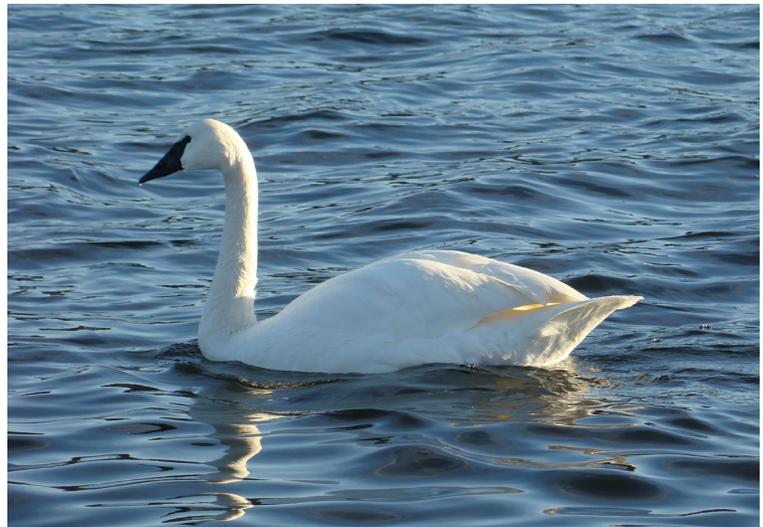
Information from several bird monitoring programs coordinated by Bird Studies Canada is also available through a searchable online data warehouse, Nature Counts (www.naturecounts.ca). Information available includes species presence, seasonal abundance, breeding species and other information. See [Appendix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

Managing Properties

Existing developments can be managed to improve lakeshore condition, riparian areas, wetlands, and reduce the risk posed by wildfire and invasive plants (<http://www.bcinvases.ca/>).

Resources for inquiries regarding the removal of beaver dams can be found at <http://www.env.gov.bc.ca/pasb/applications/process/wildlife.html> and the Water Act Section 9 (http://www.env.gov.bc.ca/wsd/water_rights/licence_application/section9/).

Trumpeter Swan.
Photo: Judith Cullington





5.4.4 Useful Sources

General Information

Ministry of Forests, Lands, and Natural Resource Operations: Omineca
Regional Office
4051 18th Avenue
Prince George BC V2N 1B3
Phone: (250) 565-6135
<http://www.env.gov.bc.ca/omineca/esd/index.html>

Biodiversity / Environmental Information Publications <http://www.env.gov.bc.ca/wld/publications.html>

Regional Resources

Access to many sources of inventory information can be found through the EcoCat (Ecosystems Report Catalogue) website <http://www.env.gov.bc.ca/ecocat/>

The region has produced several guidelines and best management practices documents, available from <http://www.env.gov.bc.ca/omineca/esd/eco/bmp.html>

- ◆ Guidelines for the Management of Motorized Access in High Elevation Mountain Caribou Habitat - Omineca Region
- ◆ Omineca Regional Habitat Guidelines: Procedures to Follow Upon Encountering an Interior Northern Goshawk Nest
- ◆ Wildlife Tree Patch (WTP) Retention - Omineca Region
- ◆ Sheep Vegetation Management Guidelines
- ◆ Beaver Dam Removal in the Omineca Region Ecosystem Standard Operating Procedures
- ◆ Best Management Practices for Highway Maintenance Activities

A variety of reports on species and ecosystems is available from <http://www.env.gov.bc.ca/atrisk/toolintro.html>

- ◆ Lichen habitats for Caribou
- ◆ Impacts of motorized access on Caribou
- ◆ Coarse woody debris
- ◆ Grizzly Bear management
- ◆ Ungulate winter range objectives



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Reduced Risk Timing Windows for Fish and Wildlife <http://www.env.gov.bc.ca/omineca/esd/eco/rrtw.html>

Regional Fish and Wildlife

Mountain Caribou Rangifer *Tarandus caribou* <http://www.env.gov.bc.ca/wld/documents/caribou.pdf>

Grizzly Bear *Ursus arctos horribilis* <http://www.env.gov.bc.ca/wld/documents/grizzlybear.pdf>

Moose *Alces alces* <http://www.env.gov.bc.ca/wld/documents/moose.pdf>

Mountain Goat *Oreamnos americanus* <http://www.env.gov.bc.ca/wld/documents/mtngoat.pdf>

White Sturgeon *Acipenser transmontanus* <http://www.env.gov.bc.ca/wld/fishhabitats/sturgeon/>

B.C. Fish Fact Sheets <http://www.env.gov.bc.ca/wld/fishhabitats/fishfactsheets.html>

Climate Change Impacts

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