

WHITE RIDGE PROVINCIAL PARK

PURPOSE STATEMENT AND ZONING PLAN

September 2003

Approved by:



Dick Heath
Regional Manager
Environmental Stewardship Division

Date: Sept. 6/03



Nancy Wilkin
Assistant Deputy Minister
Environmental Stewardship Division

Date: Jan. 15/04

WHITE RIDGE PROVINCIAL PARK Purpose Statement and Zoning Plan

Primary Role

The **primary** role of White Ridge Park is to protect special natural features associated with an undisturbed and unique karst/cave landscape. The park protects a complete active karst system and its connected caves, some of which are Canada's longest and deepest caves. Special cave features include unusual speleothems, sediments, ice deposits, ancient paleontological remains, and habitat for cave fauna including bats and unique insect species. Black bear bones discovered in one of the caves are considered to be the oldest known large mammal remains found on Vancouver Island since glaciation (approximately 9,000 years old). These bones were also found to contain pollen grains that reveal the type of forest cover at the time of post-glacial reoccupation by the large mammals. The park is one of a number of karst/cave systems on Vancouver Island, which has the bulk of British Columbia's cave/karst topography. Six cave systems have been protected ranging from Horne Lake Caves Park which has been highly explored to Clayoquot Plateau Park where exploration has been limited to a few caves. Since 1975, seventeen caves have been recorded and mapped in the park.

White Ridge Park also protects provincially significant surface features associated with a coastal karst ecosystem. The subalpine karst landscape consists of a high purity limestone and contains features such as natural rock bridges, sinkholes, and shafts. Sensitive and unusual plant communities and rare plant species are found in microsites in the ridge top limestone substrate. One hundred and thirty four species of flora have been identified on the limestone. Twenty of these are rare and include: three tiny ferns previously unknown in British Columbia; a recently discovered orchid species (previously unknown to occur in the Mountain Hemlock (MH) Biogeoclimatic Zone and believed to be extirpated from Vancouver Island); and plants that remain from the pre-glaciation period. The park contains tributary headwaters of the Gold River system, perennial springs recharged by the karst, and a hanging valley that is lush with old growth trees. Black-tailed deer, black bear, cougar, and Roosevelt elk have been recorded in the park.

The area was originally recommended as a candidate for an ecological reserve as it was thought to be one of the best examples known in the province where outstanding biotic features, physical surface features and underground features still occur in one undisturbed functional ecosystem unit.

Secondary Role

The **secondary** role is to protect the natural values associated with the temperate rainforest on the west coast of Vancouver Island. Much of this type of forest has been impacted through forestry and is no longer in its natural state. By protecting the coastal fringe, the park contributes to the representation of two under-represented biogeoclimatic variants – Coastal Western Hemlock (CWH), Western Very Dry Maritime (xm2) and Montane Very Wet Maritime (vm2), as well as the under-represented Northern Island Mountains Ecoregion. In addition, Strathcona Park is contiguous with the park area at the southern boundary which adds to the conservation and representative value of White Ridge Park.

Tertiary Role

The **tertiary role** is to provide technical cave exploration and natural history appreciation opportunities on Vancouver Island. There are no facilities in this undeveloped and remote park and access is primarily by helicopter only.

Management Issues

Known Management Issue	Response
Lack of knowledge of cultural values and incomplete catalogue of natural values	<ul style="list-style-type: none"> ➤ Undertake a cultural inventory and traditional use study of the whole park in conjunction with First Nations. ➤ Encourage research of unique species and habitats, broaden the data base and identify critical habitats. ➤ Identify the locations of blue-listed species to prevent damage through trail construction or other activities.
Impact of adjacent land use on park values and on the cave system outside the park	<ul style="list-style-type: none"> ➤ Work with the Ministry of Forests (MOF) and forest companies to manage adjacent areas to protect cave/karst features. ➤ Ensure appropriate hydrology, windthrow and recharge area testing has been completed before harvesting proceeds.
Levels of use, limited access and impacts on the cave environment Safety of the caves	<ul style="list-style-type: none"> ➤ Exercise the precautionary principle and prepare a management plan in concert with other cave parks in the next two years. ➤ Undertake an assessment to determine the carrying capacity of the caves. ➤ Work with the BC Speleological Federation to adopt a “Code of Conduct” with regards to karst resources. ➤ Enhance visitor access and undertake an impact assessment when funds allow. ➤ Continue to permit helicopter landing in the park. ➤ Work with BC Cave Rescue to develop safety protocols and procedures specific to the park. ➤ Develop public information regarding safety precautions for cave use.
Entrance to Quatsino cave is outside of the park boundary	<ul style="list-style-type: none"> ➤ Investigate addition of the cave entrance to the park or work with MOF to co-operate in management.
Stakeholder relations	<ul style="list-style-type: none"> ➤ Enhance the working relationship with the First Nations to develop a mutual understanding and appreciation of protected area status and park values. ➤ Work with the Vancouver Island Cave/Karst Management Committee and other caving organizations to develop partnerships for inventory, research, stewardship, and monitoring park use.

Zoning

Special Feature Zone -- covering the identified area of sub-alpine karst and rare plant communities and microsites as well as the caves underneath. This represents an area of approximately 303 hectares, or 23% of the park. The objective of this zone is to protect and present significant natural or cultural features, resources, or processes because of their special character, fragility and heritage values.

Natural Environment Zone -- covers the rest of the undisturbed natural park area, an area of approximately 1,040 hectares, or 77% of the park. The objective of this zone is to protect a largely undisturbed natural environment while protecting scenic values and providing appropriate recreation opportunities.

Conservation

Representation
- ecosection

- ☒ White Ridge Park contributes 2.6% to the overall protected areas system representation of the Northern Island Mountains Ecosection (NIM), which is under represented in the protected areas system at 9.1%. It is one of 18 protected areas that contribute to the representation of NIM.

As the park is adjacent to Strathcona Park, it is part of a larger protected area that contributes significantly to ecosystem representation.

- biogeoclimatic subzone/variant

- ☒ The majority of the park is composed of MHmm1 and CWHvm2 (65% and 29% of the park respectively). White Ridge Park makes a minimal contribution to the representation of the under-represented CWHxm2 and CWHvm2. 4.1% of the CWHxm2 is protected provincially. White Ridge Park contributes only 0.43% of the overall protected areas system representation of this unit. 8.7% of the CWHvm2 is protected provincially. White Ridge Park contributes only 0.36% of the overall protected areas system representation of CWHvm2. It also contributes minimally (0.31%) to MHmm1, which is well represented at 16%.

Special Features

- ☒ The park contains some of Canada's longest and deepest caves and unique interior features such as speleothems, rare underground glacier, and paleontological material. Bats – one of a few caves in BC that is occupied by bats. Special surface features: karst topography, old growth forest, steep slopes, hanging valley, unusual plant communities (Douglas-fir and yellow cedar growing together), rare plants (see below), and limestone bluffs giving the park its name.

Rare/Endangered Values

- Red-listed* upswept moonwort which is very rare with only 3 occurrences in BC (all associated with limestone). *Blue-listed* Roosevelt elk and the plants western hedysarum and lance-fruited draba which are rare in coastal BC. *Yellow-listed species of conservation concern (S3-S4)*: black-tailed deer and 8 plants: mountain lady-slipper, western mountainbells, Martindale's lomatium, silverback luina, northwestern moonwort, Lemmon's rockcress, slender rock-brake and yellow mountain avens. 16 species of plants not normally found on Vancouver Island and apparently part of relict populations which only survived on limestones. The mountain lady-slipper was discovered in 1996, an unusual occurrence as this species is not typically found in coastal BC and was found so far from its previously reported range on Vancouver Island.

Scientific/Research Opportunities

- Demonstrated scientific interest in the geological, biological and paleontological features of the park. Opportunities for further research on bats as well as paleobotany.

Recreation

Representation

backcountry destination

- Not Applicable
- Remote and difficult access but is a destination for naturalists and experienced cavers

travel corridor
local recreation

- Not Applicable
- Not Applicable

Special Opportunities

- Cave exploration of a technical nature

Education/Interpretation Opportunities

- Offsite interpretation of the caving sport and the significant natural features.

Cultural Heritage

Representation

- First Nations resource gathering site for thousands of years (fish, game and forest products). Canadian caving history – evolution of equipment and techniques for remote sub-alpine cave exploration. Descents with long drops using single rope techniques were developed in the caves.

Special Feature

- First Nations sites of spiritual significance

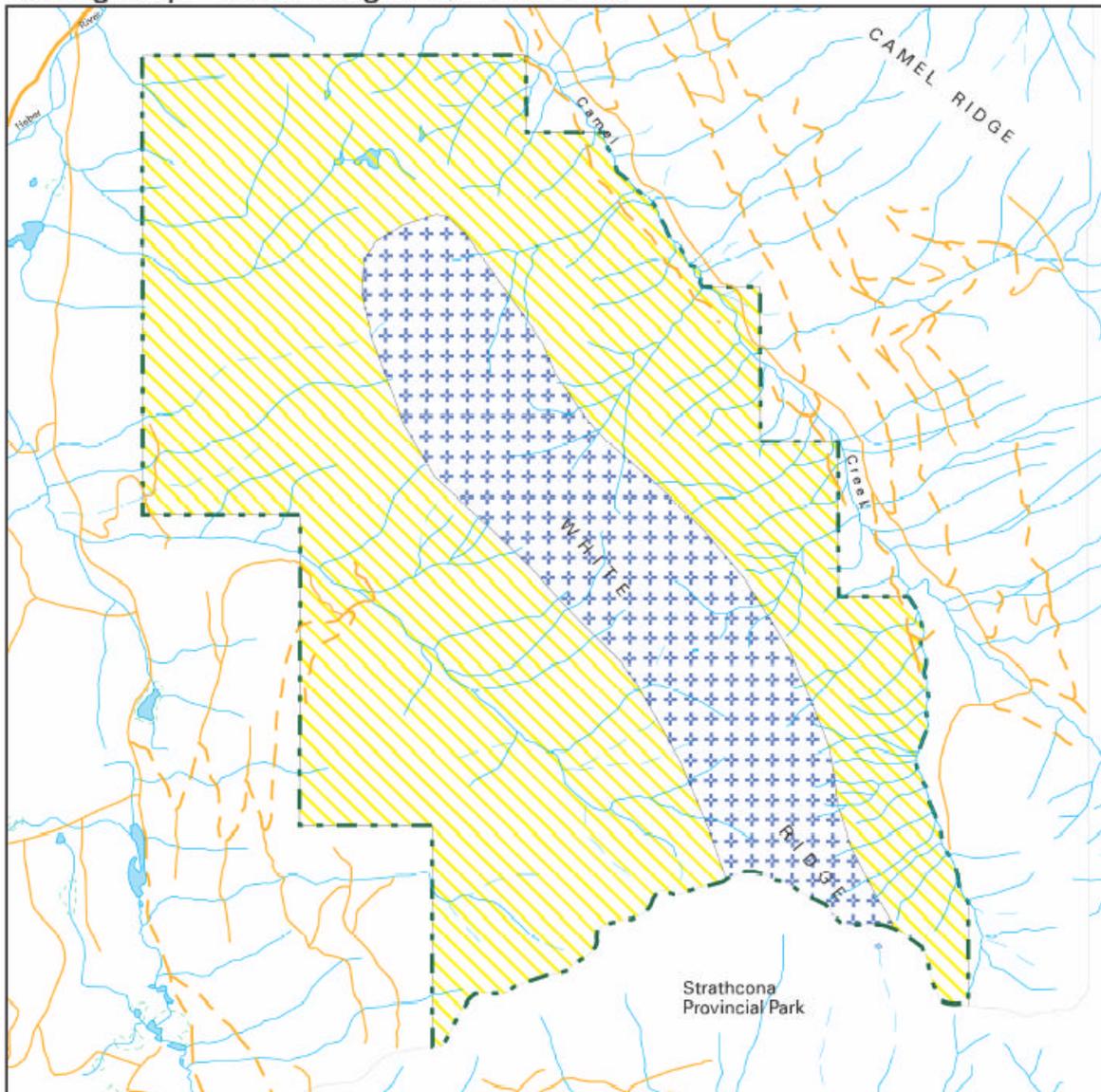
Other Management Considerations

- | | | |
|--------------------------------------|-------------------------------------|--|
| Other Designations | <input type="checkbox"/> | Not Applicable |
| Relationship to other PAs | <input checked="" type="checkbox"/> | Part of a system of cave/karst protected areas on Vancouver Island. Contiguous with Strathcona Park. |
| Co-operative Management Arrangements | <input type="checkbox"/> | Not Applicable |
| Partnerships | <input type="checkbox"/> | Not Applicable |
| Vulnerability | <input checked="" type="checkbox"/> | Karst topography is very sensitive to visitation and adjacent land uses such as logging. Rare plants are in a vulnerable location. |
| Relationship to other Strategies | <input checked="" type="checkbox"/> | Recommended for protection in the Vancouver Island Land Use Plan, originally proposed as a potential ecological reserve. |

Area: 1,343.1 hectares

Date of establishment: July 12, 1995

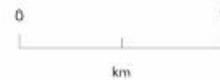
Zoning Map - White Ridge Provincial Park



Projection: Albers Equal Areas
Datum: NAD83



-  Natural Environment
-  Special Feature
-  Protected Area Boundary



Produced in May 2003 for
Ministry of Water, Land and Air
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