Mount Maxwell Provincial Park
Management Plan

July 2012

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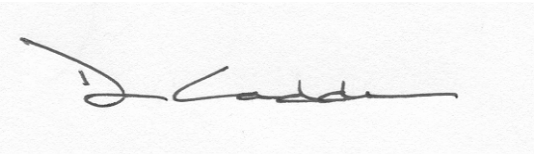
This document replaces the direction provided in the Mount Maxwell Provincial Park Purpose Statement and Zoning Plan (2003).

Mount Maxwell Provincial Park Management Plan

Approved by:



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Acknowledgements

Peggy Burfield coordinated the management planning process with the assistance of the management planning team of Sharon Erickson, Brett Hudson, Jaime Hilbert, Joe Benning, Ron Quilter, and Andy Macdonald from the Ministry of Environment, along with Marlene Caskey from the Ministry of Forests, Lands, and Natural Resource Operations. All members of the management planning team contributed in the development of this management plan and assisted in the community consultation process.

Harry Parsons and Shannon Macey-Carroll of Bufo Incorporated assisted in the stakeholder and community consultation process then drafted and revised the initial draft management plan based on direction from the management planning team. Peggy Burfield wrote the final version of the management plan. Doug Fetherston with BC Ministry of Forests, Lands, and Natural Resource Operations produced the zoning map for this management plan.

Numerous other people provided input and information for this management plan as members of the Salt Spring Island Management Planning Project Technical Advisory Committee. The advisory committee contributed their local knowledge, expertise, and information. In addition, local and regional stakeholders and community members provided valuable input and comments in the development of this management plan.

Table of Contents

List of Figures

List of Tables

1.0 Introduction

1.1 Management Plan Purpose

The purpose of this management plan is to provide strategic management direction for Mount Maxwell Provincial Park.

This management plan replaces the 2003 Mount Maxwell Provincial Park Purpose Statement and Zoning Plan.

The primary objectives of the management plan are to:

- outline the role the park plays in British Columbia's (B.C.) protected areas system;
- identify management objectives and strategies for the protection of natural values, cultural values, and outdoor recreation values;
- present a zoning plan; and,
- identify the role of First Nations, the local community, and others will play in implementing the management plan.

Figure 1: View from Mount Maxwell Provincial Park

1.2 Planning Area

Mount Maxwell Provincial Park is located on the west side of Salt Spring Island in the southern Gulf Islands off the east coast of Vancouver Island, about half way between Nanaimo and Victoria. The summit of Mount Maxwell, called Baynes Peak (560 metres) is one of the highest points of land on Salt Spring Island. The park contains a variety of natural features including the summit of Mount Maxwell (Baynes Peak), Douglas-fir forests, Garry oak meadows (one of a number of ecosystems-at-risk), moss-covered rocky outcrops and bluffs several species-at-risk.The steep cliff portion of Baynes Peak is identified as a sensitive habitat, supporting potential and active habitat for cliff-nesting species including raptors and bats. The park offers impressive views of Fulford Valley, Burgoyne Bay, across Sansum Narrows to Vancouver Island, the southern Gulf Islands, and the San Juan Islands. Access to the park is by Mount Maxwell Park Road.

The park is one of a group of provincial parks, provincial ecological reserves, regional parks, and private protected areas on Salt Spring Island. These protected areas include Ruckle Provincial Park, Mount Tuam Ecological Reserve, Mill Farm Regional Park Reserve, Burgoyne Bay Provincial Park, Mount Maxwell Ecological Reserve, Manzanita Ridge Nature Reserve, Mount Erskine Provincial Park, and Lower Mount Erskine Nature Reserve (Figure 2).

The park is adjacent and connected to Burgoyne Bay Provincial Park and Mount Maxwell Ecological Reserve (Figure 3), and is a part of a contiguous protected area network that along with Capital Regional District park reserve forms one of the largest blocks of protected areas in the Gulf Islands. These protected areas protect and conserve over 1,400 hectares on south-western Salt Spring Island, including one of Canada's largest Garry oak meadows. These protected areas have high conservation values as they contribute to the protection of the under-represented Coastal Douglas-fir biogeoclimatic zone; old-growth Douglas-fir, several species and ecosystems -at-risk, including extensive Garry oak meadows.

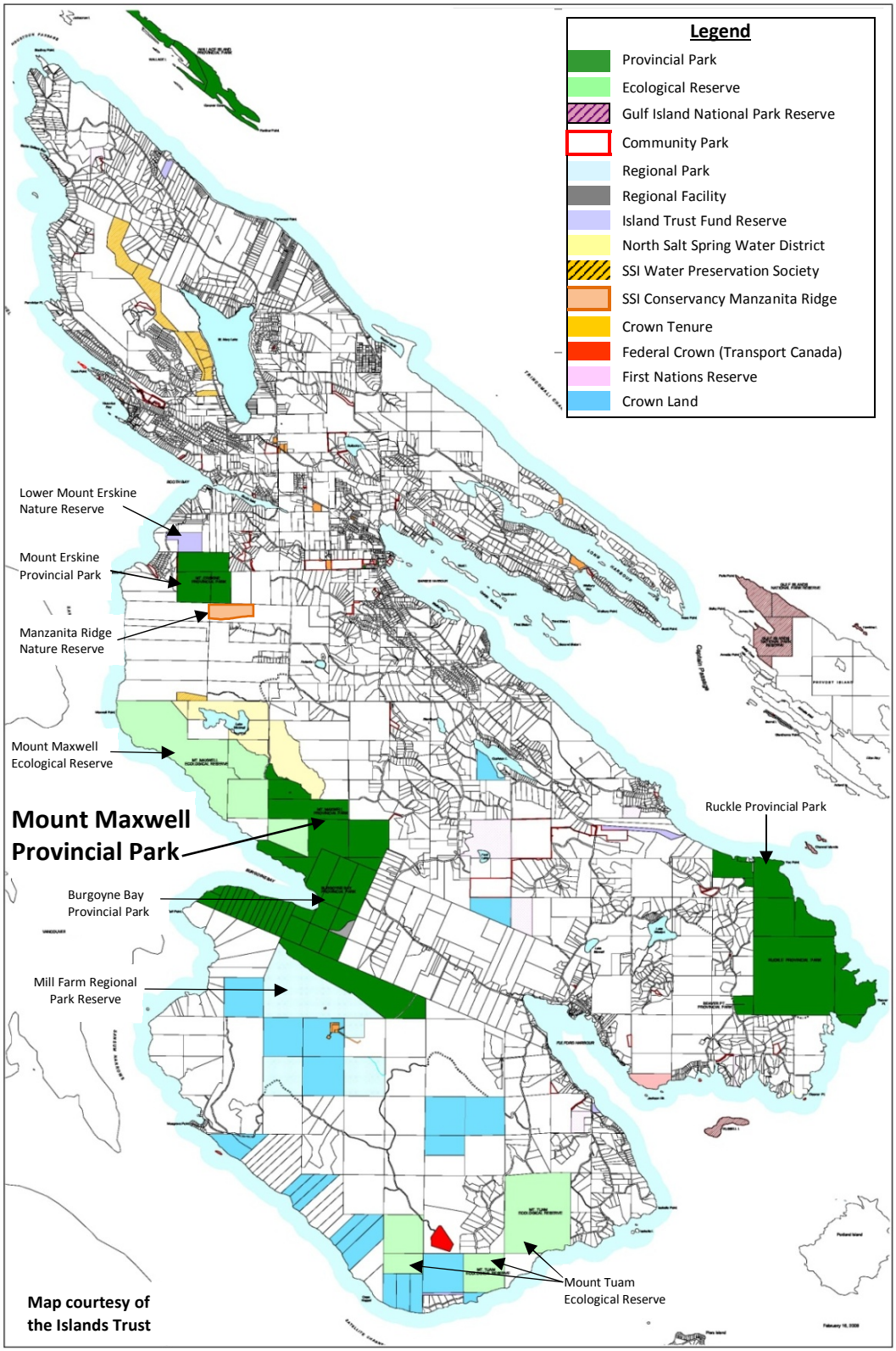


Figure 2: Salt Spring Island Protected Areas Context Map (2010)

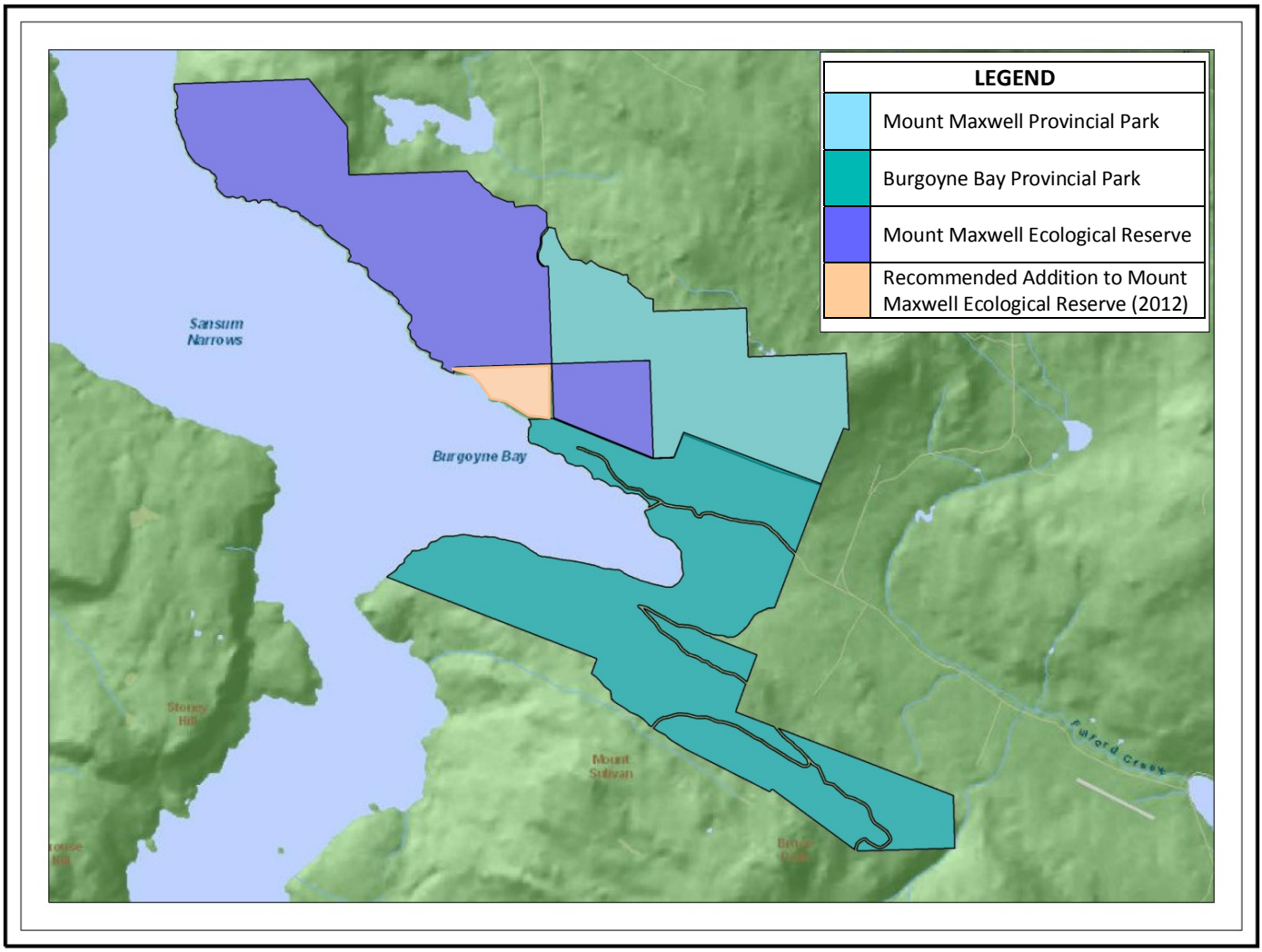


Figure 3: Mount Maxwell Provincial Park

1.3 Legislative Framework

Mount Maxwell Provincial Park was designated as a 199-hectare Class "C" park on October 21, 1938 and then upgraded to a Class "A" park on May 5, 1970. In 2004, 32 hectares of land was added to the northern part of the park increasing the size of the park to 231 hectares.

Class A parks are dedicated to the preservation of their natural environments for the inspiration, use, and enjoyment of the public.

1.4 Relationship with First Nations

The Province and First Nations' governments are working towards a new relationship based on respect, recognition, and accommodation of aboriginal title and rights. In addition, the Government of Canada and the Province are in treaty negotiations with the Hul'qumi'num Treaty Group, whose member nations have interests in the management of Mount Maxwell Provincial Park. As such, any future formal agreement reached with First Nations with respect to the management of the park may require changes to this management plan.

1.5 Relationship with Communities and Stakeholders

In addition to BC Parks, several other agencies have interests in and around the park including:

- BC Ministry responsible for archaeology has interest in cultural heritage and archaeological sites in the park.
- BC Ministry responsible for transportation has interest in Mount Maxwell Road not in the park.
- BC Ministry responsible for wildfire management has interest regarding wildfire management and response on Salt Spring Island.
- Capital Regional District Parks Department and the Capital Regional District Salt Spring Island Recreation Commission manage a number of community and regional parks and reserves on Salt Spring Island, and have developed a regional park strategy.
- Ganges Fire/Rescue Department has interest regarding fire management and response on Salt Spring Island as well as public safety.
- Islands Trust is the managing government body responsible for land use planning, policy development, and the overall protection of the Gulf Islands, including Salt Spring Island. Zoning, regulations, and other land-related issues are also part of their mandate and are discussed in the Salt Spring Island Official Community Plan. The Salt Spring Island Official Community Plan has established policies on community well capture zones, unstable slopes, and soil erosion hazards.

- The Land Conservancy of BC has interest in the protection of sensitive ecosystems and cultural areas and holds a conservation covenant on 106 hectares of land adjacent to the Mount Maxwell Lake watershed.
- The Nature Conservancy of Canada has interest in the protection of sensitive ecosystems, species and the conservation of cultural areas.
- The Nature Trust of British Columbia owns 273.7 hectares of the adjacent Mount Maxwell Ecological Reserve and has a lease agreement with the Province. In December 2011 The Nature Trust of B.C., acquired the final 22.3 hectares of private land in Burgoyne Bay with funding support from the federal government through the Natural Area Conservation Program that was facilitated by Nature Conservancy of Canada. This 22.3-hectare waterfront property has been leased to the Province and is recommended as an addition to Mount Maxwell Ecological Reserve.

Several other key stakeholder groups have an interest in the park including:

- Friends of Saltspring Parks Society (FOSP) has interest in ensuring protection of natural values and the continuance of low-impact recreational activities in the parks and protected areas on Salt Spring Island.
- Garry Oak Meadow Preservation Society has interest in preserving Garry oaks and their ecosystems. The society organizes activities that help Garry oaks and their habitats, such as broom removal projects.
- Garry Oak Ecosystems Recovery Team was established to coordinate efforts to protect and restore endangered Garry oak and associated ecosystems and the species at risk that inhabit them.
- Private Land Owners have interest in any impacts to their properties from park visitors, forest fires, and park development.
- Salt Spring Island Conservancy has interest in preserving natural habitats on Salt Spring Island and the surrounding waters. Its core functions are public education, conservation covenants, land acquisitions and helping landowners carry out good land stewardship.
- Salt Spring Island Mountain Bikers Association, South Island Mountain Biking Society (SIMBS), and International Mountain Biking Association - Canada (IMBA) has interest in mountain biking trails on Salt Spring Island.
- Salt Spring Island Stream and Salmon Enhancement Society has interest in the protection of fish bearing streams, riparian areas and the removal of invasive species.
- Salt Spring Island Trail Riders and the Back Country Horsemen of B.C. - Salt Spring Island Chapter have interest in horseback riding trails on Salt Spring Island.
- Salt Spring Island Water Preservation Society is dedicated to promoting the protection of the sources of drinking water on Salt Spring Island.
- The Salt Spring Island Trail and Nature Club has interest in providing trails for walkers and hikers on Salt Spring Island, including trails in the park.

1.6 Adjacent Patterns of Land Use

Other provincial protected areas, watershed land, and private lands surround Mount Maxwell Provincial Park (Figure 3). To the south, the park borders Burgoyne Bay Provincial Park; to the west Mount Maxwell Ecological Reserve, and the western part of the north boundary is adjacent to the North Salt Spring Island Water District land. The rest of the northern boundary and the eastern boundary are adjacent to private lands including property off Seymour Heights Road and Armand Way.

1.7 The Planning Process

This management plan was developed between the summer of 2006 and spring 2012. It was developed concurrently with the management plans for the five other provincial protected areas on Salt Spring Island: Burgoyne Bay, Mount Erskine, and Ruckle provincial parks, and Mount Maxwell and Mount Tuam ecological reserves. Each provincial protected area on Salt Spring Island has its own special features, values, and roles; however, they all share common characteristics and management needs. A combined management planning process provided BC Parks with the benefit of effectively understanding Salt Spring Island's unique characteristics and efficiently provided opportunities for public involvement in the management planning process.

In the winter of 2007, a technical advisory committee was formed to assist BC Parks with the Salt Spring Island Protected Areas Management Planning project. The technical advisory committee included representatives from the Salt Spring Island Conservancy, The Nature Conservancy of Canada, BC Parks, the Islands Trust, the Capital Regional District, The Land Conservancy of British Columbia, The Nature Trust of British Columbia, the Friends of Saltspring Parks Society, and the planning consultants working on the project. To assist BC Parks in preparing the management planning documents, a series of technical advisory committee meetings were held.

A series of meetings, focus group discussions, and field trips with partners, stakeholders, and individuals expressing an interest in Salt Spring Island's provincial parks and ecological reserves and the BC Parks' management planning process occurred during the summer and fall of 2007. Open houses and public meetings were held on Salt Spring Island in July 2007 and January 2008. In addition, information on the protected areas was posted on the BC Parks website. The information gathered from the public consultation was used in the development of the draft management plans. Appendix I provides a summary of what the public identified as Mount Maxwell Provincial Park's key values, activities, and management issues.

In summer 2009, the draft Mount Maxwell Provincial Park Management Plan, along with the five other Salt Spring Island protected area draft management plans, was posted on the BC Parks website for public review and comment. In addition, public meetings took place on Salt Spring Island in October 2009. These meetings included an open house and a public forum where the public had the opportunity to discuss the draft management plans and provide comments. The information from this stage of the public process was considered in the development of the final management plans.

The park is within the traditional territory of the Chemainus First Nation, Cowichan Tribes, Halalt First Nation, Lake Cowichan First Nation, Lyackson First Nation, and Penelakut First Nation (all members of the Hul'qumi'num Treaty Group) and the Tsawwassen First Nation. BC Parks invited all the First Nations to participate in the Salt Spring Island management planning process.

Figure 4: Salt Spring Island Management Planning Project Open House

2.0 Values and Roles of the Park

2.1 Significance in the Parks and Protected Areas System

Mount Maxwell Provincial Park is significant to B.C.'s parks and protected areas system because:

- it protects a series of coastal ecosystems, which have very low representation in the system;
- it provides a critical contribution to the protection of eight red-listed and two blue-listed ecosystems and provides habitat for several ecosystems-at-risk and species-at-risk, including habitat and nesting sites for the red-listed peregrine falcon and potential habitat for sharp-tailed snake;
- it protects some of the most extensive and significant cultural landscapes for First Nations which are of increasing interest for cultural research, landscape conservation, and ecosystem restoration and,
- it protects public recreation values in a region where the majority of land is privately owned.

The group of provincial parks and protected areas on Salt Spring Island is important because as a group they protect 17.2% of the provincially protected red-listed Coastal Douglas-fir moist maritime biogeoclimatic subzone (CDFmm), protect twelve red-listed ecosystems, and provide habitat for several species-at-risk. In addition, they provide protection and interpretation of the island's cultural values, including First Nations and farming history; and the provincial parks provide low-impact recreational opportunities for Salt Spring Island residents and visitors.

2.2 Natural Heritage

The information in this section comes primarily from the *Salt Spring Island Parks and Ecological Reserves – Terrestrial Ecosystem Mapping and Conservation Assessment* completed by Madrone Environmental Services in 2007. Definitions for technical terms are summarized in the glossary in Section 6.0.

Ecosystem Representation

As a group, the provincial protected areas on Salt Spring Island, including Mount Maxwell Provincial Park, play an important role in protecting significant representative ecosystems in the Southern Gulf Island Ecosection. The provincial protected areas on Salt Spring Island protect 1,678 hectares of the Coastal Douglas-fir moist maritime (CDFmm) biogeoclimatic subzone, representing 17.2% of the total CDFmm protected provincially. In addition, they also protect 487 hectares of the Coastal Western Hemlock, very dry maritime subzone, eastern variant (CWHxm1) representing 4.89% of the total CWHxm1 protected provincially (see Table 1).

The most prominent biogeoclimatic subzones in Mount Maxwell Provincial Park are the Coastal Douglas-fir marine maritime variant (CDFmm) (in the lowland areas) and the Coastal Western Hemlock xeric very dry maritime subzone eastern (CWHxm1) variant (in the upland areas). It is significant that the park protects 127 hectares of the CDFmm and 104 hectares of CWHxm1 because only 4.0% of the CDFmm and 2.29% of CWHxm1 are protected provincially in BC Parks and National Parks of Canada.

Table 1: Ecosystem Representation

Ecoprovince	Georgia Depression	
Ecoregion	Georgia Puget Basin	
Ecosection	Southern Gulf Islands	
Biogeoclimatic Subzone	Coastal Douglas-Fir moist maritime (CDFmm) Coastal Western Hemlock xeric very dry maritime subzone eastern variant (CWHxm1)	
Representation: Area (hectares)	**CDFmm**	**CWHxm1**
Total biogeoclimatic subzone area within B.C.	245,313	435,310
Total biogeoclimatic subzone area in B.C. protected within the parks and protected areas system (including BC Parks & National Parks of Canada)	9,783	9,985
Total biogeoclimatic subzone area protected within the six Salt Spring Island provincial parks and ecological reserves	1,678	487
Total biogeoclimatic subzone area protected within the Mount Maxwell Provincial Park	127	104
Representation: Proportion (%) of area	**CDFmm**	**CWHxm1**
% of total biogeoclimatic subzone area protected within B.C. (including BC Parks and Parks Canada)	4.0%	2.29%
% of B.C.'s total biogeoclimatic subzone area protected within the six Salt Spring Island provincial parks and ecological reserves	0.7%	0.16%
% of B.C.'s total protected biogeoclimatic subzone area within the six Salt Spring Island provincial parks and ecological reserves	17.2%	4.89%
% of B.C.'s total biogeoclimatic subzone area protected within Mount Maxwell Provincial Park	0.05%	0.02%
% of B.C.'s total protected biogeoclimatic subzone area within Mount Maxwell Provincial Park	1.30%	1.04%
% of Salt Spring Island provincial parks and ecological reserves total biogeoclimatic subzone area protected with Mount Maxwell Provincial Park	7.6%	21.4%

Ecosystems

Mount Maxwell Provincial Park supports a series of ecosystems that have very restricted distribution provincially. With a Mediterranean type climate and a long growing season, the southern Gulf Islands and the south-eastern part of Vancouver Island form a unique ecological region in Canada. This ecological region supports many rare ecosystems, which are at risk because of intense human pressure.

The southern facing slopes of Mount Maxwell contain one of Canada's largest Garry oak woodlands, one of the most threatened ecosystems in the country. A majority of stands associated with the Garry oak on Mount Maxwell are located within the adjacent Mount Maxwell Ecological Reserve. A small section of the park, where it borders Mount Maxwell Ecological Reserve, contains the ecosystem complex Garry oak - Brome/mixed grasses ecosystem. This ecosystem type grows in a mosaic with the Fescue - Camas community, and the sites are highly likely to contain several species-at-risk.

The park's ecosystems include five red-listed ecosystems in the CDFmm biogeoclimatic subzone and three red-listed and two blue-listed ecosystems in the CWHxm1 biogeoclimatic subzone. The most predominant ecosystems found in the park are the dry Douglas-fir – Western hemlock – salal forest and the Douglas-fir – Western hemlock – Oregon beaked moss and a small section of Garry oak. The remainder of the area is comprised largely of younger second-growth forests aged from less than 40 years up to 80 years old. These forests are dominated by Douglas-fir with varying amounts of western hemlock and western red cedar towards the top of Mount Maxwell, and scattered western yew, with an understory of salal, red huckleberry, oval-leaved blueberry, sword fern, and other species.

On cool aspects at lower elevations, red alder, bigleaf maple, and grand fir replace western hemlock and western yew. On dry sites, particularly on the side slopes, arbutus is moderately frequent. On lower warm-aspect slopes and polygons with shallow soils, arbutus increases in abundance, but typically, forms open-canopied stands, with under-stories that include Oregon beaked moss, dicranum moss, common and trailing snowberry, ocean spray, Nootka rose, western trumpet, and hairy honeysuckle. A few small areas with shallow soils, stony surface, and hummocky to flat terrain support forested ecosystems with fluctuating water tables.

All ecosystems found in Mount Maxwell Provincial Park are shown on the map in Appendix II along with a list of each polygon found in the park and its conservation information. Appendix III provides a description of each ecosystem found in the Salt Spring Island Parks and Ecological Reserves – Terrestrial Ecosystem Mapping and Conservation Assessment and its status according to the British Columbian Conservation Data Centre (2009).

The park's ecosystems have all been assigned a conservation ranking (see Appendix II). The conservation ranking provides objective and quantitative rankings of the park's ecosystems with respect to:

- their rarity;
- the occurrence of rare elements;
- their sensitivity to disturbance;
- their resilience;
- the level of fragmentation;
- the age of the stand; and,
- the presence of invasive species.

Mount Maxwell Provincial Park conservation rankings ranged widely reflecting the diversity of habitats and ecosystem condition. Overall, the majority of the park ranks high to very high conservation value due to their association with:

- rare species;
- CDFmm biogeoclimatic subzone;
- older undisturbed age class forests;
- sites supporting communities of Garry oak and Garry oak meadows;
- the steep cliffs
- the ecosystems supported by very shallow soils;
- the ecosystems supported by herbaceous meadows; and,
- the ecosystems supported by rock outcrops.

The younger forest ecosystems are rated as moderate. These young forested areas are examples of ecosystems-at-risk and as they mature, their conservation ranking will increase since mature forests are more ecologically diverse than younger forests.

Vegetation

Mount Maxwell Provincial Park contains significant stands of Garry oak including the red-listed Garry oak / California brome and Douglas-fir / Alaska onion grass ecosystems. In addition to the Garry oak stands, almost all mature coniferous and mixed forested ecosystems found in the park have potential to support red-listed and blue-listed plant species.

No detailed plant surveys have occurred within the park. However, Dr. Hans Roemer (1999) and Dr. Adolf Ceska and Oluna Ceska (2003) conducted rare plant surveys in the adjacent Mount Maxwell Ecological Reserve. It is likely that plant species found within the ecological reserve also occur within the park, as the two areas contain the similar habitat types. Appendix IV provides the list of species found in the ecological reserve 2003 plant survey.

Records of rare plant species occurring in the park include the red-listed California hedge-parsley, scalepod Gray's desert-parsley or Lomatium and yellow montane violet. In addition, the blue-listed slimleaf onion is found on rock outcrops and there are two records of the blue-listed farewell-to-spring noted by Dr. Adolf Ceska and Oluna Ceska in 2003 located on the southwestern boundary of Mount Maxwell Provincial Park and the ecological reserve. In 2009, Hans Roemer discovered a ledge along the upper section of the Garry oak meadow in the park where he identified small populations of the red-listed fern-leaved desert-parsley and the small-flowered godetia.

While invasive species were not particularly prevalent in the forested ecosystems of Mount Maxwell Provincial Park, meadow sites often contained low to moderate cover of Scotch broom (1 - 25%), and similar proportions of invasive grass species. Other invasive species that frequently occur throughout Salt Spring Island, and are most likely dispersed in Mount Maxwell Provincial Park by seed detaching from mud or crevices on vehicles and visitors on foot, include foxglove, orange hawkweed, hairy cat's ear, common dandelion, sweet vernalgrass, hedgehog dogtail, early hairgrass, lamb's quarters and spurge-laurel.

Figure 5: Mount Maxwell Garry Oak Meadow

Wildlife Species and Habitats

Mount Maxwell Provincial Park's rocky slopes and open meadows provide potential habitat for Sharp-tailed Snake. All the Mount Maxwell Provincial Park's ecosystems support habitat for red-listed and blue-listed species.

Rare species recoded in the park include the blue-listed Propertius Duskywing Butterfly and Moss' Elfin Butterfly as well as the blue-listed Pacific Sideband Snail. In addition, the red-listed Peregrine Falcon is successfully nesting on the cliffs along the scarp of Baynes Peak and feeds over or near the park and ecological reserve.

Mount Maxwell Provincial Park also contains habitat suitable for other birds of prey as Turkey Vultures, eagles and Red-tailed Hawks are commonly seen soaring below the viewpoint. Other wildlife observed in the park includes Coastal Black-tailed Deer, Red Squirrel, and Raccoons.

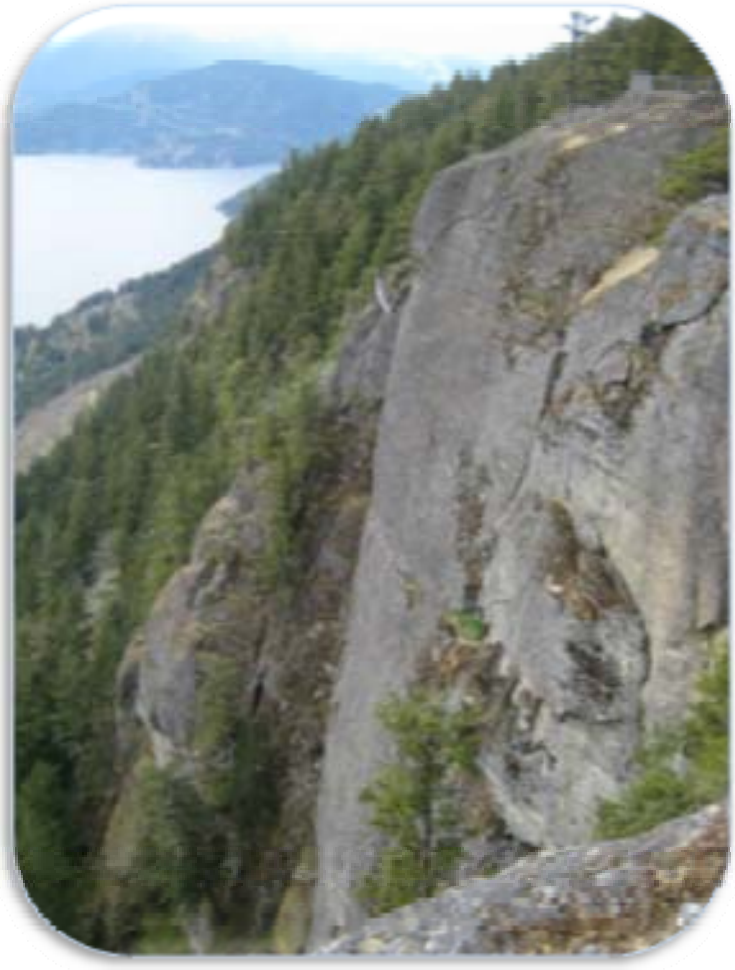


Figure 6: Cliffs along the Scarp of Baynes Peak

Level of Human Disturbance

Historically, fire was a common occurrence in this area and First Nations may have increased fire frequency in the oak meadows to encourage propagation of food plants. Fire suppression in oak meadows has led to increased frequency and size of oak and other trees, and a corresponding decrease in herbaceous species, particularly ephemeral species, and species dependent on fire for regeneration. These disturbance-maintained oak meadows may be succeeding to oak forests, and eventually may become Douglas-fir – Garry oak-forested ecosystems.

In Douglas-fir-dominated sites, influences of past harvesting remain in the form of stumps, woody debris, and modified tree species representation and stocking. The understory may be atypical relative to other site characteristics, reflecting past disturbance to the soil and/or seedbed. Some sites showed evidence of past clear-cutting, while others were selectively harvested and/or thinned.. After thinning, the canopy closes in rapidly as the remaining stems grow quickly with the increased sunlight to their needles.

Historic homestead use of the area included permitting livestock to forage freely in the area, resulting in dispersal of invasive herbaceous species, such as orchardgrass, foxtail barley, bluegrass species, timothy, plantain, alfalfa, and many others. These were most common along the roadside in open canopy areas, and in relatively accessible meadow sites. During the Madrone 2003 and 2007 site visits, evidence of use of the area by feral sheep was recorded.

Currently, the primary disturbance influencing the ecological conditions in Mount Maxwell Provincial Park is the access road. It may act as a barrier to some species such as invertebrates and reptiles that would be vulnerable to traffic-caused mortality. The trails throughout the park are too small to cause substantial disturbance. Around the parking lot and viewpoint, however, trampling has impacted some plants and soils, and the occurrence of invasive species immediately around the parking lot is more frequent.

2.3 Cultural Heritage

First Nations

The park is within the traditional territory of the Chemainus First Nation, Cowichan Tribes, the Halalt First Nation, the Lake Cowichan First Nation, the Lyackson First Nation, and the Penelakut First Nation (all members of the Hul'qumi'num Treaty Group), and the Tsawwassen First Nation. The west side of Salt Spring Island, from Burgoyne Bay to Vesuvius Bay, was part of the traditional summer gathering area for Cowichan Tribes. There are no recorded archaeological sites in the park.

The cultural information comes primarily from the *Hwmet'utsum: A Coastal Salish Cultural Landscape. An Archaeological Reconnaissance of the Mount Maxwell Ecological Reserve, Salt Spring Island, British Columbia* done by E. McLay in 2003. In the Coast Salish Hul'qumi'num language, Mount Maxwell is known as Hwmet'utsum, 'Bent Over Place' – a mountain commemorated in Coast Salish legend and creation narratives. Oral traditions of Hwmet'utsum on Salt Spring Island report this mountain is an important wilderness spirit place used in historical times by Coast Salish people during the winter spirit dance initiations, as well as a site for defensive refuge. First Nation heritage site conservation at Mount Maxwell Provincial Park and Mount Maxwell Ecological Reserve involves not only the protection and stewardship of archaeological heritage sites determined by direct observation of physical evidence, but the recognition of intangible, symbolic heritage sites identified through the study of oral tradition.

The Mount Maxwell area is part of a larger Coast Salish 'cultural landscape' – a broadly defined heritage designation that integrates both these tangible and intangible elements of aboriginal land use. Mount Maxwell represents a significant First Nation archaeological heritage site on Salt Spring Island. Two inland rock shelter habitation sites have previously been recorded among the colossal boulder fall found beneath the slopes of Mount Maxwell. This archaeological reconnaissance study confirmed that the location of these two archaeological sites were in the Mount Maxwell Ecological Reserve. This physical evidence indicates repeated, short-term settlement of these mountain rock shelters by past First Nation peoples over time and further indicate physical evidence of a continuity of aboriginal settlement activity at Hwmet'utsum into the historical, if not contemporary, era.

European Settlers

Europeans first settled the area in the mid-1800s. Mount Maxwell was originally named Mount Baynes around 1859 by Captain Richards and labelled as such on British Admiralty Chart 2840, 1861. Captain Richards named several of the mountains in the area while conducting surveys for the British Admiralty along the west coast of Canada during 1858 – 1860. Local residents began calling the mountain Mount Maxwell after the Maxwell family living in the Burgoyne Valley, resulting in the May 2, 1911, decision to adopt the name Mount Maxwell, although retaining the name Baynes Peak for the highest point on the mountain.

2.4 Recreation

Tourism is a major industry on Salt Spring Island and there is a desire by the residents, local government, and the Chamber of Commerce to offer a variety of recreational opportunities to island visitors.

There is a long history of use at Mount Maxwell Provincial Park as it is a favourite destination for local residents and visitors to Salt Spring Island and is one of the most popular destinations for tourists in the southern Gulf Islands. According to BC Parks records, from 2007 to 2011, the park receives an average of 33,500 visitors per year. Park facilities include a parking lot, viewing area, benches, pit toilet, information shelter, signs, picnic tables, and several trails.

The park offers a number of walking/hiking opportunities with spectacular views. Approximately six kilometres of maintained trails start at the parking lot and range from easy strolls to more demanding hikes. Trails to the north and east travel through wooded areas of old-growth and second-growth Douglas-fir. Two trails lead from east of the parking lot; one exits the park at Seymour Heights Road to the northeast and the other trail leads down a very steep slope to the east, ultimately linking up with Armand Way. The trail to the west follows along the ridge of Mount Maxwell and links up with the park entrance road approximately two kilometres from the parking lot. Outstanding views exist from various points along the trails, particularly at Baynes Peak, one of the highest points on Salt Spring Island. From here, visitors can get a panoramic look at Fulford Valley, Vancouver Island, the surrounding Gulf Islands, and the mainland of British Columbia.

Bouldering[1], Horseback riding, cycling, mountain biking, , rock climbing, dirt bike riding and ATV riding have occurred in the Mount Maxwell area, however, not all of these activities are appropriate in the park (see Management Direction section).

[1] **Bouldering** is a style of rock climbing undertaken without a rope and normally limited to very short climbs so that a fall will not result in serious injury. It is typically practiced on large boulders or artificial man-made boulders. However, it may also be practiced at the base of larger rock faces, or even on buildings or public architecture.

3.0 Management Direction

Management direction for Mount Maxwell Provincial Park is guided by the park's status as a Class A park.

3.1 Vision

Mount Maxwell Provincial Park conserves and protects the dry Coastal Douglas-fir biogeoclimatic zone, its ecosystems including the Garry oak meadow ecosystem, species-at-risk, and the steep rocky cliffs of Baynes Peak. It preserves regionally significant First Nation's cultural values as this area is of spiritual significance connected to the creation story of the Hul'qumi'num peoples. In addition, it offers a variety of day use recreational activities; including hiking, nature appreciation, picnicking, photography, scenic views, and wildlife viewing.

Figure 7: View of Fulford Valley from Baynes Peak

3.2 Management Objectives, Issues, and Strategies

Table 2 outlines the management objectives, issues, and strategies to address them.

Table 2: Management Objectives, Issues, and Strategies

Objectives	Issues	Strategies
CONSERVE AND PROTECT NATURAL ECOLOGICAL VALUES		
To maintain the natural diversity of park ecosystems and protect the park's natural values	Unrecorded species-at-risk are likely found in the park but there is a lack of information about the presence and location of these species. Lack of knowledge of the health of the Garry oak trees and meadows.	• Encourage authorized local groups to participate in research and vegetation management initiatives. • Implement, where feasible, the Garry Oak Ecosystems Recovery Teams' Goals and Strategies (Appendix V); • Initiate research on Garry oak ecosystems and species-at-risk. • Work with the appropriate provincial government agency, Pacific Forestry Centre, Garry Oak Ecosystem Recovery Team, and others to determine the health of the Garry oak trees and to monitor the stand for harmful insects.
	Sensitive ecosystems and species-at-risk are threatened by the introduction and impacts of invasive species including plants, feral animals, and an unnaturally high population of deer.	• Collaborate with Invasive Species Council of BC, other agencies, stakeholders, and the public on the reduction and/or eradication of invasive plants and feral animals. • Feral animals (e.g. sheep) are causing impacts to the native plant species. Conduct control and/or removal of feral animals as resources permit. • Assess and monitor the impacts of deer on sensitive ecosystems and species-at-risk.
	Garry oak ecosystems and associated species-at-risk are at risk from succession and long-term fire suppression. There is a threat of a severe forest fire from unnatural forest fuel loads in the park and adjacent properties.	• Develop a fuel management plan that defines long-term fuel management objectives and actions. • Assess potential for controlled burns or mechanical thinning to maintain Garry oak meadow ecosystem. • Update fire management and emergency response plans to recommend minimum levels of heavy equipment and retardant use.
	Nesting bird habitats are at risk from impacts of rock climbing, hand gliding, and paragliding.	• Do not allow rock-climbing, paragliding, and hand gliding to ensure protection of nesting birds and safety of visitor. • Allow bouldering in a designated area.
	Some types of recreational use such as unauthorized trail building, camping, mountain biking, and motorized vehicle use (ATVs and dirt bikes) are negatively impacting the park's sensitive ecosystems.	• Do not allow dirt bike and ATV riding. • Do not allow horseback riding. • Do not allow mountain biking or cycling except on Mount Maxwell Park Road. • Monitor recreational use including unauthorized trail building, mountain biking and motorized vehicle use (ATVs and dirt bikes) and enforce as required. • Monitor recreational impacts on natural values. • Increase barriers and, where feasible, direct trails away from sensitive habitats.
	Reptile and invertebrate populations are at risk from Mount Maxwell Road traffic.	• Monitor reptile and invertebrate mortality due to Mount Maxwell Road traffic.

Objectives	Issues	Strategies
CLIMATE CHANGE		
To gain a better understanding of the effects of climate change on the park's natural values.	Species-at-risk and ecosystems-at-risk may be negatively impacted by climate change related variations to precipitation and temperature.	• Encourage ongoing research on native plants and ecosystems to get a better understanding of the effects of climate change on these values.
CONSERVE, PROTECT, AND RESPECT CULTURAL HERITAGE VALUES		
To conserve, protect, and respect cultural values and maintain First Nations social, ceremonial, and cultural uses.	Limited knowledge of the park's cultural values, including archaeological sites and First Nations' cultural uses, makes it difficult to protect these values.	• Continue building relationships with First Nations to assist in the protection of archaeological sites and their cultural use of the park. • Ensure management direction is developed for any new archaeological sites or cultural values that are identified.
RECREATION		
To provide for safe and low-impact recreational activities	The location of trails and lack of boundary identification pose a threat to the adjacent Mount Maxwell Ecological Reserve from increased recreational use. The location of trails and the condition of some trails is reducing the quality of the visitor experience and negatively affecting the park's values (e.g., trail braiding and erosion). In consideration of the steep and rocky terrain, the lack of public safety information along trails and at viewpoints may pose a risk to park visitors.	• Erect additional signage at the boundary between the park and the ecological reserve. • Close the braided portions of viewpoint trail and rehabilitate with native vegetation. • Increase accessibility to the viewpoint for mobility impaired visitors. • Monitor use on existing trails (e.g., install trail counters). • Construct a small loop trail connecting the viewpoints to the parking area. • Provide interpretation and informational signage to deliver park messages, and provide other information to enhance the visitor experience. • Evaluate options for fencing the viewpoint area that are less intrusive. • Do not allow open fires, camping, and accommodation buildings/huts in the park.
RELATIONSHIP WITH STAKEHOLDERS AND NEIGHBOURS		
To maintain a relationship with stakeholders and neighbours.	Collaboration with other agencies and groups for the management of the park and surrounding properties will improve the protection of the park's values	• Work collaboratively with other agencies and stakeholders to manage provincial and other protected lands in the area.

3.3 Zoning

BC Parks uses zoning to assist in the management of protected areas. Zoning divides a park into logical units to apply consistent management for conservation, recreation, and cultural values. The zones reflect the intended land use, existing patterns of use, the degree of human use desired, and the level of management and development required. Mount Maxwell Provincial Park is zoned Intensive Recreation, Nature Recreation, and Special Feature (Figure 8).

Intensive Recreation Zone -The Intensive Recreation Zone follows the road corridor from the park boundary to the main parking lot near the destination viewing area at the summit of Mount Maxwell. It covers the majority of the recreational facilities, including picnic tables, a pit toilet, trails, barrier fencing, benches, and interpretation and informational signage. This zone is approximately 10 hectares, or 4% of the park.

Special Feature Zone - The lower portion of the park below Mount Maxwell Road is zoned Special Feature. This zone protects and preserves the cliffs along the scarp of Baynes Peak, the remnant old-growth Douglas-fir forests, the Garry oak meadows that are contiguous to Mount Maxwell Ecological Reserve, the other park areas ranked very high for conservation values, and significant cultural features. A contiguous Special Feature Zone also exists in the adjacent Burgoyne Bay Provincial Park, creating a buffer around Mount Maxwell Ecological Reserve (Figure 9). Recreational activities will be restricted to a few established trails and a designated area for bouldering. This zone is approximately 80 hectares, or 35% of the park.

Nature Recreation Zone - The remainder of the park is zoned Nature Recreation to protect the park values and to provide for limited recreational opportunities in a relatively undisturbed natural environment. A large section of this zone contains areas with a high conservation ranking and management direction for this zone will ensure these values are not adversely affected. This zone is approximately 141 hectares, or 61% of the park.

The Appropriate Use Table (Table 3) lists existing and potential future uses in Mount Maxwell Provincial Park. However, this is not an exhaustive list of uses that may be considered in this protected area.

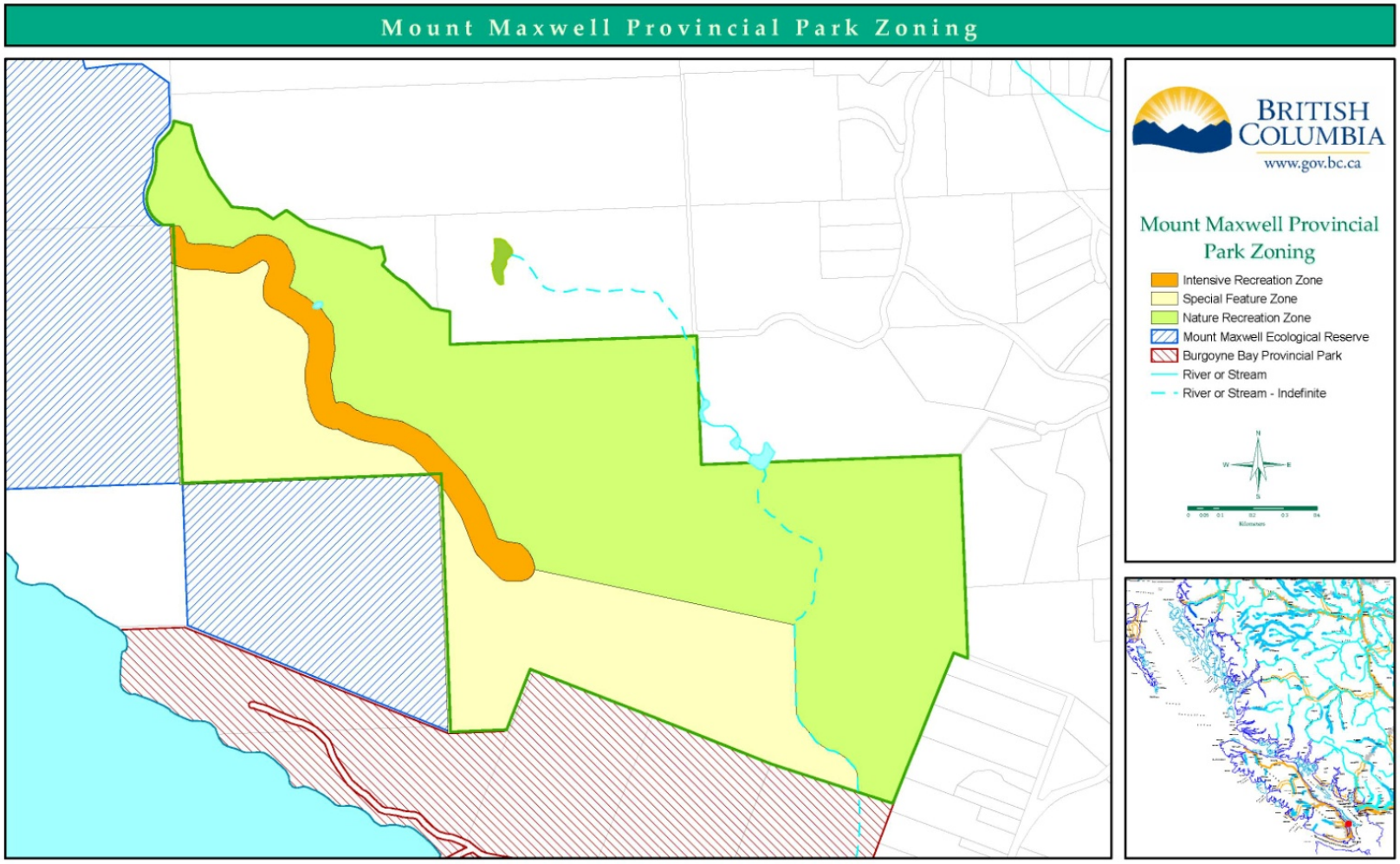


Figure 8: Mount Maxwell Provincial Park Zoning Map

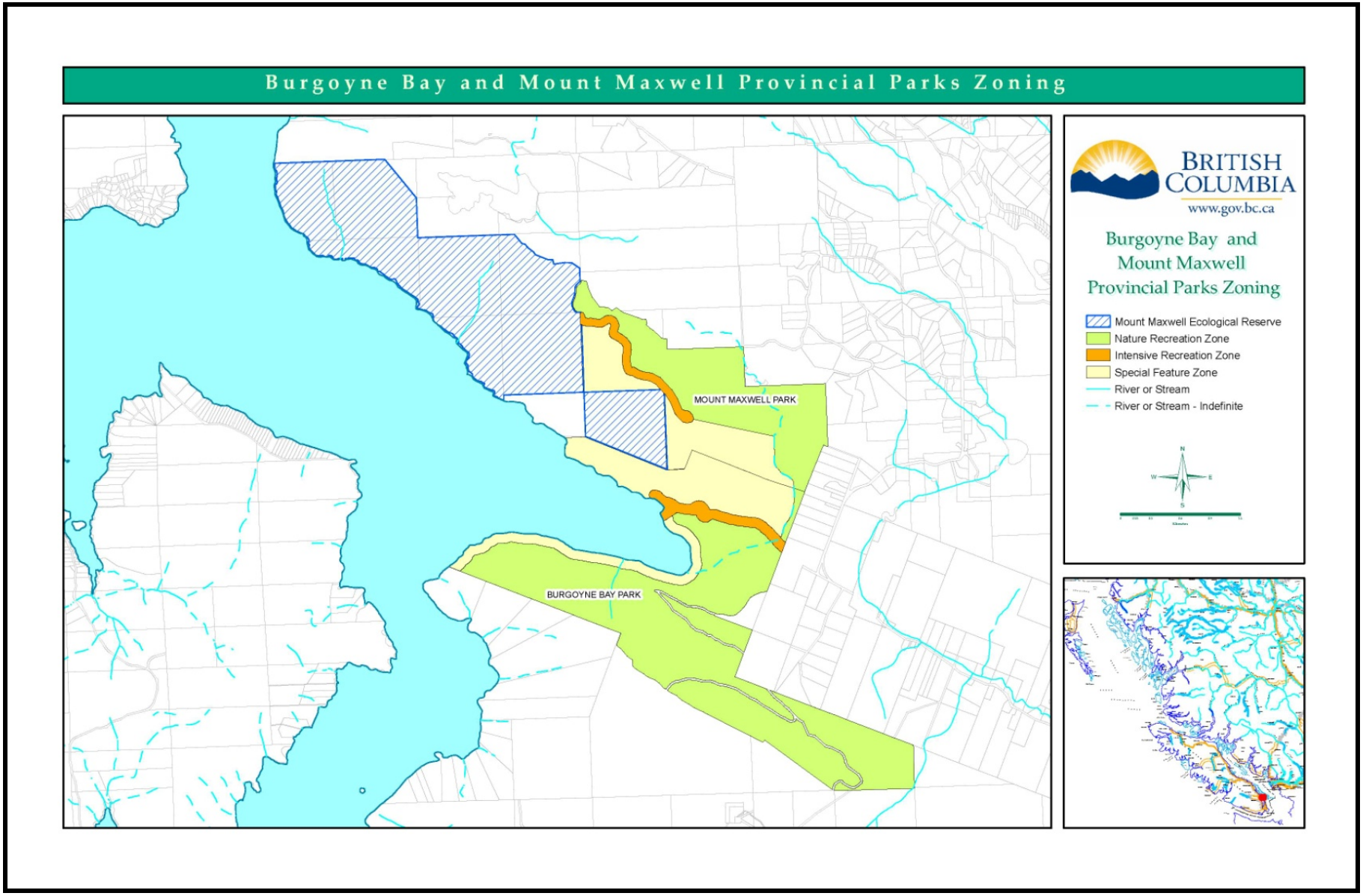


Figure 9: Burgoyne Bay & Mount Maxwell Provincial Parks Zoning Map

Table 3 is provided to summarize the uses, which the management planning process has confirmed are appropriate, and those, which are **not** appropriate in Mount Maxwell Provincial Park. The table must be reviewed in conjunction with the other sections of the management plan.

Table 3: Appropriate Use Table

Activities	Appropriate in Intensive Recreation Zone	Appropriate in Nature Recreation Zone	Appropriate in Special Feature Zone	Comments
Bouldering	N	N	Y	Designated area only
Camping	N	N	N	
Commercial Recreation Opportunities (facilities based)	N	N	N	
Commercial Recreation Opportunities (no facilities)	Y	Y	Y	BC Parks Authorization required
Exotic or Non Exotic Pack Animal Use	N	N	N	
Filming (commercial)	Y	Y	Y	BC Parks Authorization required
Fire Management	Y	Y	Y	
Hang Gliding and Paragliding	N	N	N	
Horseback Riding	N	N	N	
Hunting or Guide Outfitting	N	N	N	
Invasive Species Control	Y	Y	Y	BC Parks Authorization required
Mechanized Off-road Access non-motorized (e.g., mountain biking)	N	N	N	
Motorized Off-road Access (e.g., ATVs or motorcycles)	N	N	N	
On-Road Cycling & Mountain Biking	Y	N	N	Mount Maxwell Road only
Rock Climbing	N	N	N	
Scientific Research (manipulative activities)	Y	Y	Y	BC Parks Authorization required
Scientific Research (specimen collection)	Y	Y	Y	BC Parks Authorization required

Facilities	Appropriate in Intensive Recreation Zone	Appropriate in Nature Recreation Zone	Appropriate in Special Feature Zone	Comments
Administrative Buildings & Compounds	N	N	N	
Campgrounds	N	N	N	
Picnic Areas	Y	Y	N	
Communication Sites	N	N	N	
Fixed Roof Accommodation	N	N	N	
Interpretation & Information Structures	Y	Y	Y	
Roads and Parking Lots	Y	N	N	
Utility Corridors (power/transmission lines and other rights-of-way)	N	N	N	
Water Control Structures	N	N	N	

Legend		
N	**Not an appropriate use in this zone**	• It has been confirmed during the management planning process that this use is not appropriate in this zone. • This may be an existing use, which the management planning process has determined is no longer an appropriate use in this zone. The management plan details strategies for addressing this inappropriate use (e.g., phasing out, closing).
Y	**May be an appropriate use in this zone**	• This indicates that some degree or scale of this use may be appropriate. • For existing uses, the management plan will provide guidance on the appropriate level or scale of this use (e.g., direction to reduce, restrict or increase the current level of this activity) and may address specific restrictions or enhancements (e.g., capacity, appropriate sites, designated trails, purposes, party size, time of year, etc.). • For new or expanded uses, this does not constitute approval. This indicates that the use may be considered for further evaluation and possible approval (e.g., park use permit adjudication, completion of a review as part of the BC Parks' Impact Assessment Process). In some cases, the appropriateness may not be confirmed until further assessments are completed.
Definition of BC Parks' authorizations	• Park Use Permit • Contract • Volunteer Agreement • Stewardship Agreement	

4.0 Plan Implementation

4.1 Policy Context

In addition to any protected area specific policies highlighted in the management plan, there are numerous other provincial/regional policies and guidelines that will be considered during management plan implementation. This includes items such as BC Parks' policies on conservation, permitting, and impact assessment processes.

4.2 Implementation

The management of Mount Maxwell Provincial Park will conform to the directions set forth in this management plan. The implementation of the outlined management strategies is subject to the availability of resources. As capacity allows, BC Parks will facilitate discussions with First Nations and stakeholders to identify and determine how to implement management strategies. Trail repair, monitoring of recreational use, and development and installation of signage, will require close cooperation and involvement with the community, First Nations, partner groups, and stakeholders to ensure that the park is well managed, and the park's values are maintained and protected.

BC Parks will continue to coordinate the management of Mount Maxwell Provincial Park with The Land Conservancy of B.C., The Nature Trust of B.C., the Salt Spring Island Conservancy, The Nature Conservancy of Canada, Islands Trust, the Capital Regional District, First Nations and other stakeholders.

4.3 Adaptive Management

In order to ensure the management of Mount Maxwell Provincial Park remains relevant and effective, an adaptive management approach will be used. Adaptive management involves a five-step process of planning, action, monitoring, evaluation, and revision of the management plan to reflect lessons learned, changing circumstances, and/or objectives achieved. Adaptive management is flexible, collaborative, and responsive to public input.

The management plan will be reviewed as required by the BC Parks. A review of the management plan should generally be triggered by the complexities of the management issues in the protected area and/or a significant change in circumstances (e.g., a natural disaster, major environmental change or discovery of a major new archaeological site), and not by a specific time period.

A management plan review looks for any necessary updates to the management plan that: are required to keep management direction current and relevant; correct the intent of a policy statement; address some error or omission; and/or, address a new proposal. Any updates or changes to the content of the management plan will be addressed through a formal management plan amendment process. The amendment process will include an opportunity for public input.

Figure 10: Mount Maxwell Provincial Park Viewpoint

5.0 References

British Columbia Conservation Data Centre (BC CDC). 2009. Retrieved April 2009, from http://www.env.gov.bc.ca/cdc/.

Madrone Environmental Services Ltd. 2003. *Mount Maxwell Terrestrial Ecosystem Mapping and Ecological Assesement.* Unpublished contract report to BC Ministry of Water, Land and Air Protection, Environemental Stewardship Division, Vancouver Island Region, Nanaimo, BC.

Madrone Environmental Services Ltd. 2007. *Salt Spring Island Parks and Ecological Reservers – Terrestrial Ecosystem Mapping and Conservation Assessment*. Unpublished contract report to BC Ministry of Environment, Environemental Stewardship Division, Vancouver Island Region, Nanaimo, BC. pp. 63 – 66.

McLay, E. 2003. *Hwmet'utsum: A Coastal Salish Cultural Landscape. An Archaeological Reconnaissance of the Mount Maxwell Ecological Reserve, Salt Spring Island, British Columbia*. Hul'quimi'num Treaty Group.

6.0 Glossary

Blue List	List of ecosystems, and indigenous species and subspecies of special concern (formerly vulnerable) in British Columbia.
COSEWIC	Committee on the Status of Endangered Wildlife in Canada is a committee of experts that assesses and designates which wildlife species are in some danger of disappearing from Canada.
Ecological Community	The BC Conservation Data Centre and NatureServe use this term to include natural plant communities and plant associations and the full range of ecosystems that occur in British Columbia. These may represent ecosystems as small as a vernal pool, or as large as an entire river basin, an Ecoregion or a Biogeoclimatic Zone.
Ecoregion	The Ecoregion Classification system is used to stratify British Columbia's terrestrial and marine ecosystem complexity into discrete geographical units at five levels. The two highest levels, Ecodomains and Ecodivisions, are very broad and place British Columbia globally. The three lowest levels, Ecoprovinces, Ecoregions, and Ecosections are progressively more detailed and narrow in scope and relate segments of the province to one another. They describe areas of similar climate, physiography, oceanography, hydrology, vegetation, and wildlife potential. Within each terrestrial ecoregion, climatic zones occur where specific soils, plant and animal communities and aquatic systems develop because of the interaction of climate with the land surface and surficial materials. These zones are defined within the Biogeoclimatic Ecosystem Classification system. For a complete explanation of this complex classification system, visit http://www.env.gov.bc.ca/ecology/ecoregions/index.html/
Ecosystem	An ecosystem is a dynamic complex of plant, animal, and microorganism communities and the nonliving environment interacting as a functional unit. Ecosystems vary enormously in size: a temporary pond in a tree hollow and an ocean basin can both be ecosystems.
Ecosystem at Risk	An extirpated, endangered, or threatened ecosystem or an ecosystem of special concern (formerly called vulnerable).
Endangered	Facing imminent extirpation or extinction.
Extinct	Species that no longer exist.
Extirpated	A species or an ecosystem that no longer exist in the wild in an area but does occur elsewhere.
Forest	An ecosystem group in BC Species and Ecosystems Explorer: ecosystems with greater than 10% tree cover including coniferous, deciduous, and mixed forests with more-or-less continuous canopies and trees not clumped.
Forest Structure	Pole/Sapling Trees — less than 40 years old Young Forest — 40 - 80 years old Mature Forest — 80 - 250 years old Old Growth Forest — 250 years or older
Herbaceous	An ecosystem group in BC Species and Ecosystems Explorer: ecosystems dominated by herbaceous vegetation. Shrubs generally account for less than 20% of vegetation cover, and tree cover is generally less than 10%.

Invasive Species Species those are not native to an area and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Polygons In mapping, any multi-sided area that shares the same characteristics; commonly used to map ecosystems.

Provincial Conservation Status Ranking Conservation status rank for an element occurring or formerly occurring in B.C.

Status	Definition
SX	Presumed Extirpated—Species or community is believed to be extirpated from the province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered
SH	Possibly Extirpated (Historical)—Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered. Its presence may not have been verified in the past 20-40 years. A species or community could become SH without such a 20-40 year delay if the only known occurrences in a nation or state/province were destroyed or if it had been extensively and unsuccessfully looked for. The SH rank is reserved for species or communities for which some effort has been made to relocate occurrences, rather than simply using this status for all elements not known from verified extant occurrences.
S1	Critically Imperilled—Critically imperilled in the province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the province.
S2	Imperilled—Imperilled in the province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the province.
S3	Vulnerable—Vulnerable in the province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4	Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5	Secure—Common, widespread, and abundant in the nation or state/province.
SNR	Unranked—Nation or state/province conservation status not yet assessed

Provincial Lists List of elements considered to be either endangered or threatened (Red List), special concern (Blue List) or not at risk (Yellow List) in B.C.

Red List List of ecosystems, and indigenous species and subspecies that are extirpated, endangered, or threatened in B.C. Red-listed species and sub-species may be legally designated as, or may be considered candidates for legal designations as Extirpated, Endangered, or Threatened under the *Wildlife Act* (see http://www.env.gov.bc.ca/wld/faq.htm#2). Not all Red-listed taxa will necessarily become formally designated. Placing taxa on these lists flags them as being at risk and requiring investigation.

Riparian An ecosystem group in BC Species and Ecosystems Explorer: ecosystems influenced by proximity to water bodies (rivers, streams, lakes) and processes associated with moving water.

Riparian Habitats	Areas situated, or dwelling on the bank of a river or other body of water
Sparsely Vegetated	An ecosystem group in BC Species and Ecosystems Explorer: ecosystems dominated by exposed rock or mineral soil, with a generally sparse vegetation layer (less than 10 - 25% cover) dominated by lichens and xerophytes, or low herbaceous vegetation.
Species at Risk	An extirpated, endangered, or threatened species or a species of special concern (formerly called vulnerable).
Special Concern	Particularly sensitive to human activities or natural events but not endangered or threatened (as used by COSEWIC - A wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.) Special Concern was formerly referred to as Vulnerable.
Threatened	Likely to become endangered if limiting factors are not reversed.
Vulnerable	Particularly sensitive to human activities or natural events. (As used by NatureServe - Vulnerable due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.)
Yellow List	List of ecosystems and indigenous species that are not at risk in British Columbia.

Appendix I: Mount Maxwell Provincial Park Summary of Public Consultation

Through input provided at one public meeting, two public open houses, one stakeholder meeting, and through mail, e-mail, and the website, in 2007 and 2008, the public showed overall support for the key values and management issues identified for this park.

The public input for the Mount Maxwell Provincial Park included the protection of natural and cultural values balanced with recreational use. One of the key comments/requests was the need for better quality information about the park and the adjacent ecological reserve including signs providing information regarding the species-at-risk, identification and protection measures of natural species especially the Garry Oak ecosystem, First Nations cultural values and accurate trail maps. There was significant concern expressed over unsanctioned access and activities in the park, particularly by ATVs, mountain bikes, dirt bikes, and horses. In addition there were requests for a better trail joining Burgoyne Bay Provincial Park and Mount Maxwell Provincial Park and possibly over to Maxwell Lake for hikers.

Key values, activities, and management issues identified through the management planning process included:

Key Ecological Values:

- Recreation – picnicking, hiking, walking;
- Views and scenery;
- Accessible and clean washroom facilities;
- Trail and viewpoint accessibility for disabled visitors;
- Natural ecosystems;
- Natural and cultural history; and,
- Accessibility.

Appropriate Activities:

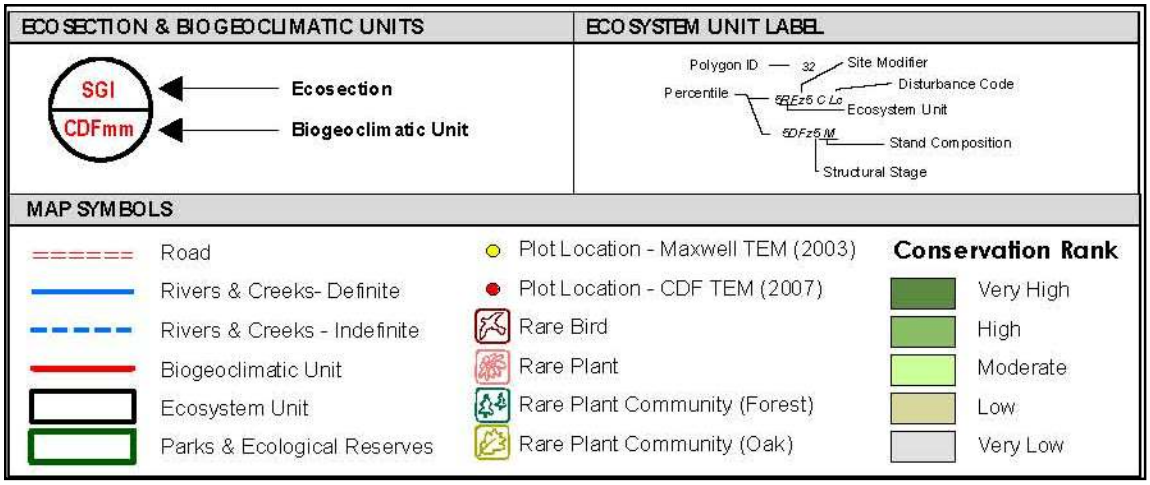
- Sightseeing;
- Nature appreciation;
- Hiking/walking;
- Picnicking; and,
- Research and education.

Key Management Issues:

- Road maintenance;
- Accessibility;
- Lack of information/interpretation signage – cultural and natural history, conservation, neighbouring protected areas;
- Lack of trail information;
- Fire control strategies;
- Control of invasive plants, particularly broom; and,
- Ability to balance recreation with conservation values and sensitive ecosystem health.

Appendix II: Terrestrial Ecosystem Mapping

Legend



Appendix III: Terrestrial Ecosystem Mapping Polygon Codes and Status

Mount Maxwell Provincial Park ecosystems in ***italic bold red and blue***

COASTAL DOUGLAS FIR MOIST MARITIME BIOGEOCLIMATIC SUBZONE			
Polygon Code	**Ecosystem**	**Rating**	**Status**
CS	western redcedar / slough sedge	S2S3	Blue
DA	***Douglas-fir - arbutus (lodgepole pine or shore pine)***	***S2***	***Red***
DG	Douglas-fir - grand fir / dull Oregon-grape	S2	Red
DO	Douglas-fir / Alaska oniongrass	S1	Red
DS	***Douglas-fir / salal (Dry Maritime)***	***S2***	***Red***
FC	***Roemer's fescue – camas***	***S1***	***Red***
GO	Garry oak / oceanspray	S1	Red
HL	hardhack – Labrador tea	S3	Blue
QB	***Garry oak / California brome/mixed grasses***	***S1***	***Red***
RF	western redcedar – grand fir/three-leaved foamflower (Very Dry Maritime)	S2	Red
RK	***western redcedar - Douglas-fir / Oregon beaked-moss***	***S1***	***Red***
RP	western redcedar / Indian-plum	S1	Red
RS	western redcedar / common snowberry	SI	Red
RV	western redcedar / vanilla leaf	SI	Red
SC	Cladina (reindeer lichen) – Wallace's selaginella	S2	Red

COASTAL WESTERN HEMLOCK VERY DRY MARITIME BIOGEOCLIMATIC SUBZONE			
Polygon Code	**Ecosystem**	**Rating**	**Status**
AM	arbutus / hairy manzanita	S2	Red
DC	Douglas-fir - lodgepole pine / Cladina (reindeer lichen)	S2	Red
DF	Douglas-fir / sword fern	S2	Red
DS	***Douglas-fir - western hemlock / salal (Dry Maritime)***	***S2S3***	***Blue***
HD	***western hemlock - western redcedar / deer fern***	***S2***	***Red***
HL	hardhack – Labrador tea	S3	Blue
HK	***western hemlock - Douglas-fir / Oregon beaked-moss***	***S2***	***Red***
RF	***western redcedar / three-leaved foamflower (Very Dry Maritime)***	***S2***	***Red***
RS	***western redcedar / sword fern (Very Dry Maritime)***	***S2S3***	***Blue***
SC	Cladina (reindeer lichen) – Wallace's selaginella	S2	Red

OTHER features found in Mount Maxwell Provincial Park in ***bold italic***			
Polygon Code	Feature	Polygon Code	Feature
BE	Beach	ES	Exposed Soil
CF	Cultivated Field	GP	Gravel Pit
CL	***Cliff***	***RO***	***Rocky Outcrop***
CO	Cultivated Orchard	RW	Rural Residential

Appendix IV: Mount Maxwell Provincial Park Plant Species List

List of Vascular Plants, Bryophytes, and Fungi of Mount Maxwell Ecological Reserve and Provincial Park by Dr. Adolf Ceska and Oluna Ceska April 10, 2003. (Updated with common names by Tania Tripp, October 2007)

Alphabetical Scientific Name - (BC CDC species-at-risk in ***italic bold red and blue***)

Scientific Name	English Name
Abies grandis	grand fir
Acer macrophyllum	bigleaf maple
Agoseris grandiflora	large-flowered agoseris
Agrostis capillaris	colonial bentgrass
Aira praecox	early hairgrass
Allium acuminatum	Hooker's onion
***Allium amplectens* (blue-listed)**	**slimeleaf onion**
Allium cernuum	nodding onion
Anthoxanthum ordoratum	vernal grass
Anthriscus caucalis	burr chervil
Anus rubra	red alder
Aphanes microcarpa	small-fruited parsley-piert
Aquilegia formosa	red columbine
Arbutus menziesii	arbutus
Arctium minus	common burdock
Athysanus pusillus	common sandweed
Brodiaea coronaria	harvest brodiaea
Bromus vulgaris	common brome
Calandrinia ciliata	desert rock purslane
Calypso bulbosa	fairy-slipper
Camassia quamash	common camas
Cardamine hirsuta	hairy bitter-cress
Cardamine nuttallii	Nuttall's bitter-cress
Cardamine occidentalis	western bitter-cress
Cardamine oligosperma	Siberian bitter-cress
Carex inops	long-stoloned sedge
Cerastium arvense	field chickweed
***Clarkia amoena* (blue-listed)**	**farewell-to-spring**
Claytonia exigua	pale spring beauty

Scientific Name	English Name
Claytonia perfoliata	miner's-lettuce
Claytonia rubra	redstem springbeauty
Claytonia siberica	Siberian miner's lettuce
Clinopodium douglasii	yerba buena
Collinsia grandiflora var. pusilla	large-flowered blue-eyed Mary
Cynosurus echinatus	hedgehog dog-tail grass
Cystopteris fragilis	fragile fern
Cytisus scoparius	Scotch broom
Dactylis glomerata	orchard grass
Danthonia californica	California oatgrass
Digitalis purpurea	foxglove
Elymus glaucus	blue wildrye
Erodium cicutarium	stork's bill
Erythronium oregonum	white fawn lily
Festuca roemeri	Roemer's fescue
Festuca rubra	red fescue
Fritillaria affinis	chocolate lily
Galium aparine	cleavers
Geranium molle	dove-foot geranium
Geranium pusillum	small-flowered crane's-bill
Holodiscus discolor	oceanspray
Hypochaeris radicata	hairy cat's-ear
***Idahoa scapigera* (red-listed)**	**scalepod**
Lactuca muralis	wall lettuce
Lathyrus sphaericus	slender wild pea
Linanthus bicolor	bi-coloured linanthus
Lithophragma glabrum	smooth woodland star
Lithophragma parviflorum	small-flowered fringecup
***Lomatium grayi* (red-listed)**	**Gray's desert parsley**
Lomatium utriculatum	spring gold
Lonicera ciliosa	western trumpet
Lonicera hispidula	hairy honeysuckle
Lotus micranthus	small-flowered birds-foot trefoil
Lychnis coronaria	rose campion
Mahonia aquifolium	tall Oregon-grape
Melica subulata	Alaska oniongrass
Mimulus alsinoides	chickweed monkey-flower
Mimulus guttatus	common monkey-flower

Scientific Name	English Name
Mimulus sookensis	Sooke monkey-flower
Moehringia macrophylla	big-leaved sandwort
Montia dichotoma	dwarf montia
Montia fontana	blinks (water chickweed)
Montia howellii	Howell's montia
Montia parvifolia	small-leaved montia
Nemophila parviflora	small-flowered nemophila
Nemophila pedunculata	meadow nemophila
Osmorhiza berteroi	mountain sweet-cicely
Pentagramma triangularis	goldenback fern
Perideridia gairdneri	yampah root
Plectritis congesta	sea blush
Poa canbyi	Canby bluegrass
Poa pratensis	Kentucky bluegrass
Polypodium glycyrrhiza	licorice fern
Polystichum munitum	sword fern
Pseudotsuga menziesii	Douglas-fir (coast)
Quercus garryana	Garry oak
Ranunculus occidentalis	western buttercup
Rosa gymnocarpa	baldhip rose
Rosa nutkana	Nootka rose
Rumex acetosella	sheep sorrel
Sanicula crassicaulis	Pacific sanicle
Saxifraga integrifolia	grassland saxifrage
Sedum spathulifolium	broad-leaved stonecrop
Selaginella wallacei	Wallace's selaginella
Silene gallica	small-flowered catchfly
Stellaria media	chickweed
Stellaria nitens	shining starwort
Symphoricarpos albus	common snowberry
Symphoricarpos hesperius	trailing snowberry
Taraxacum officinale	common dandelion
Taxus brevifolia	western yew
Teesdalia nudicaulis	shepherd's cress
Thuja plicata	western redcedar
Trifolium repens	white clover
Trifolium variegatum	white-tipped clover
Trifolium wormskioldii	springbank clover

Scientific Name	English Name
Tsuga heterophylla	western hemlock
Urtica dioica	stinging nettle
Verbascum thapsus	great mullein
Vicia lathyroides	spring vetch
Viola praemorsa* ssp. *praemorsa	**yellow montain violet (red-listed)**
***Yabea microcarpa* (red-listed)**	**California hedge parsley**

Alphabetical Common Name **- (**BC CDC species-at-risk are in **bold)**

English Name	Scientific Name
Alaska oniongrass	*Melica subulata*
arbutus	*Arbutus menziesii*
baldhip rose	*Rosa gymnocarpa*
bi-coloured linanthus	*Linanthus bicolor*
bigleaf maple	*Acer macrophyllum*
big-leaved sandwort	*Moehringia macrophylla*
blinks (water chickweed)	*Montia fontana*
blue wildrye	*Elymus glaucus*
broad-leaved stonecrop	*Sedum spathulifolium*
burr chervil	*Anthriscus caucalis*
California hedge parsley (red-listed)	***Yabea microcarpa***
California oatgrass	*Danthonia californica*
Canby bluegrass	*Poa canbyi*
chickweed	*Stellaria media*
chickweed monkey-flower	*Mimulus alsinoides*
chocolate lily	*Fritillaria affinis*
cleavers	*Galium aparine*
colonial bentgrass	*Agrostis capillaris*
common brome	*Bromus vulgaris*
common burdock	*Arctium minus*
common camas	*Camassia quamash*
common dandelion	*Taraxacum officinale*
common monkey-flower	*Mimulus guttatus*
common sandweed	*Athysanus pusillus*
Common snowberry	*Symphoricarpos albus*
desert rock purslane	*Calandrinia ciliata*
Douglas-fir (coast)	*Pseudotsuga menziesii*
dove-foot geranium	*Geranium molle*

English Name	Scientific Name
dwarf montia	*Montia dichotoma*
early hairgrass	*Aira praecox*
fairy-slipper	*Calypso bulbosa*
farewell-to-spring (blue-listed)	***Clarkia amoena.***
field chickweed	*Cerastium arvense*
foxglove	*Digitalis purpurea*
fragile fern	*Cystopteris fragilis*
Garry oak	*Quercus garryana*
goldenback fern	*Pentagramma triangularis*
grassland saxifrage	*Saxifraga integrifolia*
grand fir	*Abies grandis*
great mullein	*Verbascum thapsus*
Gray's desert parsley (red-listed)	***Lomatium grayi***
hairy bitter-cress	*Cardamine hirsuta*
hairy cat's-ear	*Hypochaeris radicata*
hairy honeysuckle	*Lonicera hispidula*
harvest brodiaea	*Brodiaea coronaria*
hedgehog dog-tail grass	*Cynosurus echinatus*
Hooker's onion	*Allium acuminatum*
Howell's montia	*Montia howellii*
Kentucky bluegrass	*Poa pratensis*
large-flowered agoseris	*Agoseris grandiflora*
large-flowered blue-eyed Mary	*Collinsia grandiflora var. pusilla*
licorice fern	*Polypodium glycyrrhiza*
long-stoloned sedge	*Carex inops*
meadow nemophila	*Nemophila pedunculata*
miner's-lettuce	*Claytonia perfoliata*
mountain sweet-cicely	*Osmorhiza berteroi*
nodding onion	*Allium cernuum*
Nootka rose	*Rosa nutkana*
Nuttall's bitter-cress	*Cardamine nuttallii*
oceanspray	*Holodiscus discolor*
orchard grass	*Dactylis glomerata*
Pacific sanicle	*Sanicula crassicaulis*
pale spring beauty	*Claytonia exigua*
red alder	*Anus rubra*
red columbine	*Aquilegia formosa*
red fescue	*Festuca rubra*

English Name	Scientific Name
redsteam springbeauty	*Claytonia rubra*
Roemer's fescue	*Festuca roemeri*
rose campion	*Lychnis coronaria*
scalepod (red-listed)	***Idahoa scapigera***
Scotch broom	*Cytisus scoparius*
sea blush	*Plectritis congesta*
sheep sorrel	*Rumex acetosella*
shepherd's cress	*Teesdalia nudicaulis*
shining starwort	*Stellaria nitens*
Siberian bitter-cress	*Cardamine oligosperma*
Siberian miner's lettuce	*Claytonia siberica*
slimeleaf onion (blue-listed)	***Allium amplectens***
slender wild pea	*Lathyrus sphaericus*
small-flowered birds-foot trefoil	*Lotus micranthus*
small-flowered catchfly	*Silene gallica*
small-flowered crane's-bill	*Geranium pusillum*
small-flowered fringecup	*Lithophragma parviflorum*
small-flowered nemophila	*Nemophila parviflora*
small-fruited parsley-piert	*Aphanes microcarpa*
small-leaved montia	*Montia parvifolia*
smooth woodland star	*Lithophragma glabrum*
Sooke monkey-flower	*Mimulus sookensis*
spring gold	*Lomatium utriculatum*
spring vetch	*Vicia lathyroides*
springbank clover	*Trifolium wormskioldii*
stinging nettle	*Urtica dioica*
stork's bill	*Erodium cicutarium*
sword fern	*Polystichum munitum*
tall Oregon-grape	*Mahonia aquifolium*
trailing snowberry	*Symphoricarpos hesperius*
vernal grass	*Anthoxanthum ordoratum*
wall lettuce	*Lactuca muralis*
Wallace's selaginella	*Selaginella wallacei*
western bitter-cress	*Cardamine occidentalis*
western buttercup	*Ranunculus occidentalis*
western hemlock	*Tsuga heterophylla*
western redcedar	*Thuja plicata*
western trumpet	*Lonicera ciliosa*

English Name	Scientific Name
western yew	*Taxus brevifolia*
white clover	*Trifolium repens*
white fawn lily	*Erythronium oregonum*
white-tipped clover	*Trifolium variegatum*
yampah root	*Perideridia gairdneri*
yellow montain violet (red-listed)	***Viola praemorsa* ssp. *praemorsa***
yerba buena	*Clinopodium douglasii*

Bryophytes	Fungi
Antitrichia curtipendula	*Cortinarius* subgen. *Telamonia*
Bryum sp.	*Dacryomyces palmatus*
Dicranum scoparium	*Nolanea hirtipes*
Eurhyncium oreganum	*Psathyrella* sp.
Hedwigia stellata	*Psilocybe inquilina*
Homalothecium sp.	*Psilocybe montana*
Mnium sp.	
Philonotis fontana	
Polytrichum juniperinum	
Polytrichum piliferum	
Racomitrium elongatum	
Rhytidiadelphus triquetrus	
Riccia sorocarpa	
Tortula sp.	

Appendix V: Garry Oak Ecosystem Recovery Team Goals & Strategies

The Garry Oak Ecosystem Recovery Team identifies five strategic approaches for recovery of Garry oak ecosystems (GOERT, 2008).

Goals	Strategies
• Complete the inventory, mapping and plant community classification	Develop standardized plant community classification, and determine and map the historical and current extend of Garry oak and associated ecosystems.
• Protection of ecosystems and essential ecosystem characteristics	Secure high priority sites towards the establishment of a network of protected areas that represent the full diversity of Garry oak and associated ecosystems throughout their geographic range in Canada that are of sufficient size and appropriately situated to sustain essential ecosystems characteristics over the long term
• Restoration and management of protected areas, landscape linkage, buffers, and the general landscape	Facilitate the establishment of landscape linkages and buffers and promote the restoration and management of protected areas, landscape linkages, buffers, and the general landscape to sustain essential ecosystem characteristics over the long term.
• Protection and recovery of species at risk	Complete assessment and initial planning, initiate actions towards sustaining and expanding populations of species at risk in Garry oak, and associated ecosystems that are designated Endangered, Threatened, or are of management concerns.
• Research	Expand basic and applied research relevant to conserving and restoring Garry oak and associated ecosystems.
• Outreach	• Ensure that conservation of Garry oak and associated ecosystems in incorporated into the planning and programs of governmental and non-governmental agencies • Develop public awareness of, support for, and participation in recovery activities • Facilitate communication, coordination, and information sharing among recovery partners to ensure efficient, coordinated delivery of the recovery program.