

# MOUNT MAXWELL ECOLOGICAL RESERVE

## PURPOSE STATEMENT

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Approved by:



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## **MOUNT MAXWELL ECOLOGICAL RESERVE PURPOSE STATEMENT**

Ecological reserves are areas selected to preserve representative and special natural ecosystems, plant and animal species, features, and phenomena. The key goal of ecological reserves is to contribute to the maintenance of biological diversity and the protection of genetic materials. All consumptive resource uses and the use of motorized vehicles are prohibited. Research and educational activities may be carried out but only under permit.

### **Primary Role**

The **primary** role of the Mount Maxwell Ecological Reserve is to protect outstanding Garry oak stands and associated vegetation. Stunning slopes of Garry oak dropping from 600 metres down to the sea distinguish this 345-hectare ecological reserve. Established in 1972, the ecological reserve lies adjacent to the provincial park of the same name and includes 280 hectares of The Nature Trust of British Columbia lands acquired in 2001. Together with the newly acquired property at Burgoyne Bay, these lands will form one of the largest contiguous blocks of protected areas in the Gulf Islands.

The ecological reserve protects Canada's largest stand of endangered Garry oaks and associated rare and endangered plant and animal species. Three major habitat types are most common, Garry oak stands, Douglas-fir forest, and rocky outcrops. Many species of showy spring wildflowers occur on seasonally moist sites among the oak woods and rocky outcrops. There are over 140 species of vascular plants and over 30 species of bryophytes identified in the ecological reserve, including some that are rare in the province. Several endangered plant associations are represented in the ecological reserve, including the Douglas-fir/arbutus, Garry oak/oceanspray and Garry oak/California brome associations. Unusually large populations of northern alligator lizard are found across this site. Other vertebrates include the Pacific tree frog, northwestern garter snake, red-sided garter snake, Townsend's vole, deer mouse, red squirrel, mink, raccoon, and black-tailed deer. A wide variety of bird life nests within the larger protected area and include bald eagle, great blue heron, turkey vulture, peregrine falcon, ruffed grouse, and various species of swallow. At least 172 species of insects have been identified, including the vulnerable Propertius dusky winged butterfly and the unusual western oak looper that periodically defoliates oak and Douglas-fir trees in the ecological reserve.

The Garry oak ecosystem is an extremely under-represented and endangered ecosystem in the Coastal Douglas-fir (CDF) biogeoclimatic zone. In Canada, this ecosystem occurs only on the southeastern coast of Vancouver Island south of Comox, on the Gulf Islands, and in two widely separated and isolated stands in the Fraser River valley. Garry oak ecosystems are under intense pressure from urban and agricultural development, and less than 5% of the original habitat remains in a near-natural condition. The preservation and management of the Mount Maxwell site is important for the Garry Oak Ecosystem Recovery Strategy.

### **Secondary Role**

The **secondary** role of the Mount Maxwell Ecological Reserve is to protect cultural features. The Mount Maxwell (Hwmat'etsum) camas meadows were harvested by the Cowichan First Nations and were burned annually to encourage better yield. An archaeological site of spiritual significance lies in the ecological reserve.

## Management Issues

Known Management Issue	Response
Lack of knowledge of natural values and cultural values	<ul style="list-style-type: none"> <li>➤ Complete an inventory of natural values including the Nature Trust of British Columbia lands. Focus on identifying sensitive sites and locating species at risk.</li> <li>➤ Undertake an inventory of cultural values and traditional uses in conjunction with First Nations.</li> </ul>
Impacts of feral sheep on ecological reserve values	<ul style="list-style-type: none"> <li>➤ Maintain and improve fencing to exclude sheep and goats from grazing in the ecological reserve.</li> <li>➤ Eradicate known populations.</li> </ul>
Impacts of recreational use on ecological reserve values	<ul style="list-style-type: none"> <li>➤ Install signage to inform the public on the ecological reserve, its values and appropriate behaviour.</li> <li>➤ Reroute trails and install fencing to help protect natural values, particularly sensitive ecosystems.</li> <li>➤ Work with the volunteer warden and local conservation groups to increase monitoring of the ecological reserve and to inform the public on the appropriate use of ecological reserves.</li> <li>➤ Block access from the Texada Land Corporation logging property and existing parking areas, if deemed feasible.</li> </ul>
Health of the Garry oak trees	<ul style="list-style-type: none"> <li>➤ Work with the Ministry of Forests, Pacific Forestry Center, Garry Oak Meadow Preservation Society, and others to determine the health of the Garry oak trees and to monitor the stand for harmful insects.</li> </ul>
Impacts of forest succession and invasive plants on the Garry oak meadows and other ecological reserve values	<ul style="list-style-type: none"> <li>➤ Prepare a vegetation management plan to address forest succession, prescribe burns, and to investigate revegetation options for areas impacted by recreationists.</li> <li>➤ Work with the volunteer warden and interest groups to remove invasive species (e.g. Scotch broom).</li> </ul>
Relationship between the ecological reserve and Mount Maxwell and Burgoyne Bay parks	<ul style="list-style-type: none"> <li>➤ Complete a management plan for the protected areas complex. Ensure recreation impacts from the new land acquisitions are addressed.</li> </ul>

## Conservation

Representation  
- ecosection

- ☒ Mount Maxwell Ecological Reserve contributes 2.34% to the representation of the Southern Gulf Islands Ecosection (SGI) which has only 5.62% protected provincially. As part of one contiguous protected area in conjunction with Burgoyne Bay and Mount Maxwell parks, the Nature Trust of British Columbia and CRD Park Reserve lands, it will make a considerable contribution (if not the largest) to the representation of SGI.

- biogeoclimatic subzone/variant

- ☒ Mount Maxwell Ecological Reserve contributes minimally (0.62%) to the representation of the CDFmm variant which has only 2.43% protected provincially. The creation of the contiguous 1,400 hectare protected areas complex will increase representation significantly, which is important given the fragmented nature of this ecosystem and the limited opportunities available for its protection.

This ecological reserve protects a site of the endangered Garry oak ecosystem which occupies a small portion of the CDF zone, which itself represents only 0.3 percent of the land in the province. Garry oak ecosystems do not occur elsewhere in Canada. Newly acquired property adjacent to the ecological reserve adds to protection of this important Garry oak stand.

Mount Maxwell Ecological Reserve contributes minimally (0.26%) to the representation of the CWHxm1 variant which is only 2.07% protected provincially. Again, its representation will increase when it is included in the larger protected areas complex.

Special Features

- ☒ Contains the largest protected stand of Garry oak in British Columbia, 172 species of insects identified, 140 species of vascular plants, over 30 species of bryophytes, and a wide variety of bird life.

Rare/Endangered Values

- ☒ *Red-listed:* plant associations Douglas-fir / arbutus (interim red-listed); Garry oak / ocean spray; Garry oak / California brome; and the plants yellow montane violet, Gray's desert-parsley,  
*Blue-listed:* Propertius dusky-winged butterfly.

Scientific/Research Opportunities

- Research opportunities exist around species associations and interactions, prescribed burns in Garry oak ecosystems, and cultural values. Eighteen hectares were fenced in 1984 to study vegetation responses to the exclusion of sheep. Three new smaller exclosures have been built to exclude deer and sheep. Valuable as a benchmark site for forest succession studies of the Garry oak ecosystem.

### Recreation

Representation

backcountry  
destination  
travel corridor  
local recreation

- Not Applicable  
 Not Applicable  
 Not Applicable  
 Ecological reserves are not meant for outdoor recreation; however, day use hiking, picnicking and wildlife viewing occurs. Management will work with groups to address potential impacts.

Special Opportunities

- None known at this time

Education/Interpretation Opportunities

- Potential offsite interpretation at Burgoyne Bay and Mount Maxwell parks

### Cultural Heritage

Representation

- First Nations cultural values – harvesting, burning and an archaeological site of spiritual significance

Special Feature

- None known at this time

### Other Management Considerations

Other Designations

- Not Applicable

Relationship to other PAs

- Part of a system of protected areas on Saltspring Island – adjacent to Texada Land Corporation lands acquired by the Nature Trust of British Columbia and leased to BC Parks; Mount Maxwell Provincial Park and the newly acquired Burgoyne Bay Provincial Park. One of 152 ecological reserves in BC.

Co-operative Management Arrangements

- Not Applicable

Partnerships	<input checked="" type="checkbox"/>	The Nature Trust of British Columbia, volunteer warden, local conservation groups, SW Salt Spring Island Conservancy, The Land Conservancy, Capital Regional District, and Pacific Marine Heritage Legacy to protect adjacent lands
Vulnerability	<input checked="" type="checkbox"/>	Threats from invasive species, recreational use, sheep and goat grazing, illegal hunting, unauthorized uses (partying, fires, and litter), unknown locations of rare species.
Relationship to other Strategies	<input checked="" type="checkbox"/>	Garry Oak Ecosystem Recovery Strategy. CRD Park Management Strategy, Islands Trust Community Plan, and future planning for SW Salt Spring Island (Southwest Saltspring Island Conservation Strategy).

**Area:** 345 hectares (280 hectares under lease from the Nature Trust of British Columbia, since 2001)

**Date of establishment:** June 02, 1972