

# **MANAGEMENT PLAN FOR THE CYRIL CUNNINGHAM NATURE RESERVE AND ADJACENT COVENANTED LANDS**

Prepared for:  
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Date: March 1995

**Revised November 2004  
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**2005 Revision Approved by Trust Fund Board Resolution No. TFB 05/741  
January 24, 2005**

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## A. INTRODUCTION

### A.1 ISLANDS TRUST FUND VISION

The object of the Islands Trust is

“...to preserve and protect the trust area and its unique amenities and environment for the benefit of the residents of the Trust Area and of British Columbia generally, in cooperation with municipalities, regional districts, improvement districts, other persons and organizations and the government of British Columbia.”

The *Islands Trust Act (Act)* establishes the Islands Trust Fund, “for the purposes of carrying out the object of the Trust.” The *Act* also establishes the Trust Fund Board “to administer the trust fund and to manage the real and personal property assets of the Trust Fund.” The Board is authorized to acquire and hold money, land, and interests in land within the Trust Area for purposes of carrying out the object of the Islands Trust. The Trust Fund Plan (TFP), prepared by the Trust Fund Board in accordance with the requirements of Section 37 of the *Act*, outlines the vision, priorities, goals, and policies of the Board and actions which will be taken to support the object of the Islands Trust.

The **vision** of the Trust Fund Board is to create a legacy of special places, protecting both natural and cultural features in perpetuity, in order to help sustain the unique character and environment of the Islands Trust Area.

The **mission** of the Islands Trust Fund, as an active regional land trust, is to protect special places by encouraging, undertaking, and assisting in voluntary conservation initiatives within the Islands Trust Area. These voluntary conservation initiatives include:

- conservation education;
- land donations and acquisitions to create protected areas; and
- private land stewardship through conservation covenants and similar tools.

Lands of interest to the Trust Fund Board must contain one or more of the following features of significance:

- rare, threatened, vulnerable, exceptional or representative plants and plant communities;
- Garry oak, Arbutus, Douglas-fir and Western hemlock woodlands or forests;
- wildlife habitat or corridors;
- streams, lakes, wetlands, marshes or land associated with a body of fresh water;
- watershed or groundwater recharge values;
- shorelines, including beaches, rock outcrops and islets;
- coastal and inland cliffs;
- buffer areas adjacent or in close proximity to protected lands;
- unusual features or anomalies within the Islands Trust Area;
- archaeological sites;

- historic or cultural landscapes of significance;
- mixed rural landscapes such as farms or other rural areas that contain a mix of woodlands, creeks, wetlands, heritage orchards and cleared lands;
- opportunity for nature study or nature education programs;
- opportunity for low intensity, low-impact nature-related recreation; or
- scenic amenities or outstanding views.

It is the policy of the Trust Fund Board that management plans will be prepared for properties owned by the Trust Fund Board. These plans will vary according to the specific characteristics, needs, and proposed use(s) of the property. Generally, management plans will address the following matters:

- purpose and objectives for the site;
- background information including the site history and local and regional context;
- environmental inventory;
- management issues such as the extent and nature of protection required, appropriate uses and level of use, research guidelines, risk management, special needs at the site; and
- strategies and actions to achieve the purpose and objectives for the site and to address management issues and needs.

This document presents a management plan for the Cyril Cunningham Nature Reserve.

## **B. BACKGROUND SUMMARY**

### **B.1 PROJECT HISTORY**

In the spring of 1994 the Cyril Cunningham Reserve was donated to the Islands Trust Fund Board (I.T.F.B.) by the Cunningham family and associates after approvals were completed to establish a subdivision on their Cape Keppel property (Map 1).

The reserve, Lot B, makes up approximately 15% of the original parcel with the remainder, Strata Lot A, divided into five strata lots, a common property and a road link to each lot. Lot B, Strata Lots 1-5, and the Common Property have water access only. A section 215 covenant registered in favour of the Trust Fund Board, restricts use on that portion of Strata Lots 1-5 and the Common Property lying north of the road. The Salt Spring Trust Committee holds a covenant on the Strata Lots and common property regulating development and access.

This paper will be dealing with Lot B, the Cyril Cunningham Reserve (the "Reserve"), and where applicable, the covenanted lands.

## **B.2 GENERAL DESCRIPTION**

The Reserve is located on the extreme southern tip of Salt Spring Island, the largest of the southern Gulf Islands in the Strait of Georgia (Map 2). Overlooking Satellite Channel and the Saanich Peninsula this 3.95 hectare strip of land runs a steep course across the lower slopes of Mount Tuam directly above the northern boundary of the Strata Lots below. It was selectively logged sometime in the 1940's and now supports a stand of second growth Douglas-fir generously mixed with Pacific madrone (*Arbutus menziesii*) with some Garry oak, grand fir, broadleaf maple, and old growth Douglas-fir veterans. A rough road connects the strata lots adjacent to the Reserve with Mountain Road. There is no direct road access to the Reserve.

## **B.3 VALUE TO COMMUNITY**

Like the adjacent ecological reserves, this strip of land, if left undisturbed, could become an exemplary Douglas-fir forest. Nature reserves are of value to the community as green space for hiking, bird-watching, and education, as habitat for wildlife and plants, and as areas of natural vegetation to be left untouched for future generations to learn from and admire.

The whole western coast line from Cape Keppel to Bold Bluff, has a very remote wild nature. This reserve, along with the covenanted lands, could help this area of Salt Spring Island retain its remote and undeveloped nature.

## **C. PROJECT DESCRIPTION**

### **C.1 PURPOSE**

The purpose of the Reserve is to protect, in perpetuity, the natural ecological values of the site while allowing natural ecological processes to continue.

### **C.2 MANAGEMENT GOALS**

The management goals for the Cunningham Nature Reserve include:

- preservation and protection of the ecological and scenic values of the site; and
- maintenance of the site as a continuation of the adjacent Ecological Reserve.

### **C.3 PROJECT PARTNERS**

There are no partners on the reserve at the time of this report. Local community groups may be requested to enter into management agreements with the Trust Fund Board regarding management operations and responsibilities on Board properties.

### **C.4 LIMITATIONS**

The early spring scheduling of this report (i.e., site visit conducted in March) will limit a complete floral list from being taken.

This management plan was revised in 2004, using information contained in the plan dated March 1995 and from a number of site visits conducted between 1998 and 2004.

## **D. PHYSICAL AND NATURAL FEATURES DESCRIPTION**

### **D.1 LOCATION**

Cyril Cunningham Nature Reserve is located at the south end of Salt Spring Island, on the lower slopes of Mt. Tuam, above Cape Keppel.

#### ***D.1.1 Legal Description***

The Cyril Cunningham Reserve is 3.95 hectares in size and is described as:

Lot B, Section 32, South Salt Spring Island, Cowichan District, Plan VIP58173 (PID #018-650-422)

The adjacent covenanted lands are described as:

Strata Lot A, Section 32, South Salt Spring Island, Cowichan District, Strata Plan VIS3073, together with an interest in the common property in proportion to the unit entitlement of the Strata Lot as shown on Form 1 (PID#018-650-473) over which lands

are registered Covenant EH13534 and Statutory Right Way EH30339 in favour of the Trust Fund Board. The covenanted portion of the lands are located north of the road.

At the time of this report, these lands are vacant with no improvements.

### ***D.1.2 Map Location***

Map Sheet 92B/11 Sidney (1:50,000)

Latitude: 48° 43', Longitude: 123° 29'

Aerial Photo Line BCG90013, Photo numbers 194 and 196

### ***D.1.3 Directions to Site***

From the B.C. Ferry dock in Fulford Harbour drive north on the Fulford Ganges Road to the head of Fulford Harbour then bear left up Isabella Point Road for about 4 km to Mountain Road on the right (Map 3). From here it is approximately 6.5 km on a rough road to the terminus where a locked gate marks the eastern edge of the strata lots. A walk straight uphill from here will reveal the flagged eastern boundary of the reserve, Lot B.

## **D.2 SITE DESCRIPTION**

### ***D.2.1 Climate***

The Gulf Islands lie in the rain-shadow of the Vancouver Island and Olympic mountains. The climate of this area is characterised by warm, dry summers and mild, wet winters. Precipitation can range from 625 mm annually in the southern Gulf Islands to 1250 mm in the north with 75% occurring during the winter months. This results in a marked summer water deficit and high fire potential but at the same time produces very attractive natural areas characterised by open, park-like forests on the well drained southerly slopes (Benn, 1975).

### ***D.2.2 Physiography***

The Cunningham Reserve is a wooded strip of land about 50 meters wide by 810 meters long running east to west with an average slope of 30%. Elevation ranges from 120 meters to 140 meters with its northern boundary running along the base of high rock outcropping for almost its entire length. The terrain is steep and rugged with colluvial debris and scattered exposed bedrock outcrops. Near the western boundary the steep outcrops to the north recede and the hillside changes to a system of alternating ridges and valleys running north/south which continues westward into the park reserve.

### ***D.2.3 Geology and Soils***

Salt Spring Island is predominantly underlain by sedimentary rocks belonging to the Nanaimo Group formed during the Upper Cretaceous Age. The geology of Cape Keppel is primarily sandstone with intrusive igneous rocks separating it from other major sedimentary outcrops on the island (Hiruonen, 1974).

The existing soils on the site are shallow to deep glacial till, colluvium, and marine deposits, and make up four main soil types: Qualicum, Musgrave/Mexicana, Rock and Rock/Musgrave (van Vliet, 1987).

Due to the high degree of slope and the high coarse fragment content, all these soils are extremely well drained. The Qualicum and Musgrave/Mexicana are both moderately deep gravelly sandy loams formed on the deeper till and colluvium found in the eastern portion of the reserve. The Rock and Rock/Musgrave are basically exposed bedrock with mosses or a thin layer of mineral soil. They are more predominant on the central and western portions of the site.

### ***D.2.4 Hydrology***

The entire reserve and the covenant lands below are on a relatively steep south facing slope with no standing water to speak of and only the seepage water draining downhill. Water flows off the rock outcroppings above into the colluvium/till based soil below passing through the study site and down into the ditches of the development and then into the sea. The only exception to this appears to be in the series of ridges and valleys near the western boundary where runoff was seen trickling down a gully with the possibility of becoming a seasonal creek further on.

Below the reserve in the subdivision, a catchment pond has been dug to hold water coming from a year round spring.

Local geologists say that there is plenty of water under the ground on this hillside due to subterranean cracks in the bedrock (Cunningham pers. comm., 1995).

### **D.2.5 Vegetation and Landscape Classification**

The Gulf Islands are situated in the moist maritime Coastal Douglas-fir Biogeoclimatic Zone (CDFmm). This zone is typically dominated by coastal Douglas-fir (*Pseudotsuga menziesii*) as well as grand fir (*Abies grandis*) and Western redcedar (*Thuja plicata*) with an understory dominated by salal (*Gaultheria shallon*), dull Oregon grape (*Mahonia nervosa*), and ocean spray (*Holodiscus discolor*) (Green 1994). The species composition and coverage varies with moisture and nutrient availability. Most of the study site would be considered a drier variation or site series with cedar and grand fir less dominant and *Arbutus*, Garry oak, and Douglas-fir more prevalent. Much of the area has fairly widely spaced trees with a sparse shrub layer and well developed moss layer.

The vegetation is fairly uniform throughout the site with the exceptions of an area near the western boundary where logging and years of sheep grazing have formed a pastoral, grassy hillside dotted with charred stumps, Douglas-fir, arbutus, Garry oak and invasive grasses and herbs.

### **D.2.6 Flora**

Due to the early spring scheduling and time constraint of this report, a complete floral list is not possible. The following is a list of plants seen on the sight by the author:

#### TREES

*Pseudotsuga menziesii*  
*Abies grandis*  
*Thuja plicata*  
*Arbutus menziesii*  
*Quercus garryana*  
*Alnus rubra*  
*Acer macrophyllum*

#### SHRUBS

*Holodiscus discolor*  
*Mahonia nervosa*  
*Gaultheria shallon*  
*Rosa gymnocarpa*  
*Lonicera hispidula*  
*Lonicera ciliosa*  
*Crataegus douglasii*

#### HERBS

*Satureja douglasii*  
*Verbascum thapsus*  
*Geranium sp.*  
*Sedum sp.*  
*Polystichum munitum*

#### GRASSES

*Bromus sp.*  
*Elymus glaurus*  
*Cynosurus echinatus*  
*Dactylus glomerata*

### **D.2.7 Fauna**

Most animals typically seen on Salt Spring Island may be resident or found from time to time on this hillside. This includes blacktail deer, raccoon, mink, deer mice, and shrews and many species of birds such as robins, juncos, song sparrows, pigeons, species of woodpeckers, crows, ravens, seagulls and starlings to name a few. Bald eagles, species of hawks and turkey vultures could ride the thermals here with ruffed grouse, towhees, California quail and white crowned sparrows common on the open range lands above.

### **D.2.8 Ecological History and Expected Changes**

In the past wildfires would have been the main agent of natural disturbance on this site. Typically wildfires did not destroy all the trees in a stand as evidenced by the fire scarred Douglas-fir veterans on the reserve. These old veteran trees form a major structural and functional component of the existing forest on much of the site. On dry sites in the Coastal Douglas-fir Biogeoclimatic Zone, Douglas-fir can regenerate in partial shade. Therefore it is likely that large Douglas-fir trees will always be a component of this forest.

Logging of the Reserve was selective and the existing stand is composed of mixed species with a range of ages, including fire scarred veterans and several dense patches of young second growth.

Over time one would expect much of the forest on the reserve to remain fairly open and park-like with Douglas-fir, Arbutus and Garry Oak occupying the drier sites with the addition of alder, grand fir and bigleaf maple on the moister areas. Several areas are occupied by dense Douglas-fir and arbutus stands which will become less dense as some of the trees die due to competition.

### **D.2.9 High Visibility and Sensitive Resources**

Rocky outcroppings with thin soils and dry delicate vegetation are easily damaged. Steep slopes are easily disturbed by hikers with rocks, soil and vegetation being displaced downhill.

### **D.2.10 Key Environmental Factors**

Key environmental factors are:

- summer water deficit, soils well to rapidly drained;
- dry site with shallow soils sensitive to disturbance;
- fire history;
- dense regeneration in some areas; and
- steep slopes.

### **D.2.11 Studies/Inventories**

There are no known studies available for this site however reports have been done on the neighbouring ecological reserve and for Crown lands of Salt Spring Island.

## **D.3 SPECIAL FEATURES**

### **D.3.1 Rare/Endangered/Threatened Species**

There are no recorded rare or endangered species on the Cunningham Reserve. However, on the N.W. 1/4 of Section 32 above the reserve, there is registered *Idahoia scapigera* or Scalepod (small *Brassica*), considered rare and on the red list. The section above that, Section 38, registered *Viola praemorsa sp. praemorsa*, also rare and on the red list.

### **D.3.2 Biodiversity**

There are four main vegetation types on this reserve:

- Douglas-fir/*Arbutus* dominated forest with variation in age and structure;
- isolated rock outcroppings with Garry oak and arbutus, with an understory of mosses and grasses;
- steep grassland with scattered fir, arbutus and Garry oak;
- dense stands of young Douglas-fir and arbutus.

### **D.3.3 Scenic/Aesthetic**

The main scenic and aesthetic features of the site are:

- large, fire scarred Douglas fir veterans;
- attractive, steep grassland giving access to Garry oak woodlands above;
- panoramic views from top northwest corner;
- north/south bands of valleys and ridges at western (unusual topography); and
- open park-like areas with widely spaced trees.

## **E. LAND STATUS AND USE**

### **E.1 LAND TENURE AND HISTORY**

The Cunningham family bought this property in 1979-80 and have used it recreationally ever since. Prior to that it was owned by Bo Akerman, a local pioneer, who owned it for about twenty years using it as a base from which to access his thousand head of sheep on the range lands above and for summer recreation (Akerman 1995). The original forest was selectively logged sometime in the 1940's.

### **E.2 PRESENT LAND USE**

At present the Reserve is wild and probably only used by the occasional hiker walking the Mount Tuam access road and by stray sheep from the nearby ranges. The covenanted lands south of the Reserve are part of the five strata lots for sale and there is a road which traverses the development and forms the south boundary of the covenanted portion of the Strata Lots.

### **E.3 ZONING AND SURROUNDING LAND USES**

The Cunningham Reserve is zoned Park Reserve – 6 (Salt Spring Island Land Use Bylaw No. 335, 2001). Permitted uses are passive outdoor recreation. The OCP designation for the Reserve is Ecological Reserve (Salt Spring Island Official Community Plan Bylaw No. 345, 1998).

The covenanted lands south of the Reserve are part of the five strata lots and associated common property.

A Section 215 covenant, in favour of the Trust Fund Board, is registered on Strata Lots 1-5 and the common property (Appendix 1). The covenant area is divided into Conservation Areas 1 & 2. Conservation Area 1 is a 20 meter wide strip running parallel to the road that traverses the strata lots from east to west. Conservation Area 2 is that area of the strata lots and common property lying between Conservation Area 1 and the boundary of the Cunningham Reserve. The following are some of the restrictions that apply to each area:

#### Conservation Area 1

- No arbutus, Garry oak, or yew may be trimmed, pruned, cut down, damaged, destroyed, moved, harvested, or removed.
- No tree of any other species, with a diameter of more than 6 inches measured at 5 feet from the ground, may be trimmed, pruned, cut down, damaged, destroyed, moved, harvested, or removed.

#### Conservation Area 2

- No living or dead tree or shrub may be trimmed, pruned, cut down, damaged, destroyed, moved, harvested, or removed.
- No component of the land may be disturbed
- No acts are permitted which have a detrimental impact on the environment of Conservation Area 2.

Further, the Salt Spring Island Trust Committee holds a registered Section 215 covenant on the Strata Lots restricting foreshore development and widening or upgrading of public road access.

At present there is designated Park Reserve (PR) to the west and east of the Reserve with an Ecological Reserve sharing the top northeast corner (Map 4). There is currently no commercial or residential activity on any of these properties. The Ecological Reserve is bound in conservation and the Park Reserves, although zoned for the possibility of agriculture and silviculture, are still regenerating from the last logging in the 1950's. To the north, the N.W. 1/4 of Section 32 is rangeland and has been used extensively for sheep grazing for many years. Judging by the faint sheep trails entering the Reserve in the northwest corner and the lack of fencing on the hillside, sheep are sometimes grazing into the reserve and the Park Reserve to the west. There has been a long history of sheep grazing on private and public lands on this side of the island.

## **F. NATURAL RESOURCE MANAGEMENT ISSUES**

The Cunningham Reserve is located in a fairly remote part of Salt Spring and use by the public does not seem to be an issue. The Trust Fund has conducted monitoring visits to the site annually since 1996. There are no trails, garbage, or other indications of use. During the 2002 property visit the ITF property monitor encountered a group of university students who had walked through the eastern portion of the reserve to gain access to the adjacent Ecological Reserve. This was the only time in 6 years that any people had been seen on the Reserve during monitoring visits.

The resource management issues on the reserve are mostly associated with fire risks and invasive non-native species.

Annual monitoring of the site should alert the Trust Fund to any recurring use of the site, such as camping, that increases the risk of fire. Fires spreading from adjacent properties or started by lightning are a possibility.

There is some Scotch broom on the reserve and on adjacent parcels. The spread of non native invasive species such as Scotch broom is usually associated with disturbances such as logging or grazing. No logging will be done on the reserve and it appears that sheep grazing on the site has decreased. The TFB could pull broom on the Reserve if resources become available. If this is done it will be important to cause as little soil disturbance as possible so that the area will be less likely to be re-colonized from seed sources on adjacent land.

Trying to eradicate non-native grasses would probably prove futile given the proximity of seed sources on adjacent land.

## **G. MANAGEMENT OBJECTIVES AND STRATEGIES**

### **G.1 OBJECTIVES**

The management objectives for the Reserve are to:

- minimise risk of fire;
- protect sensitive areas and native vegetation;
- protect the natural and scenic values of the site;
- allow natural ecological processes to continue; and
- maintain the reserve as a buffer to the adjacent ecological reserve.

## **G.2 MANAGEMENT STRATEGIES**

To achieve the objectives for the Reserve the following strategies may be undertaken:

- discourage activities that present a fire risk;
- remove invasive non-native vegetation;
- monitor property annually to identify use of, or damage to, the site; and
- monitor adjacent covenanted lands for compliance with covenant restrictions.

## **H. INSURANCE**

The Reserve is currently insured under a Island Trust Fund Board group liability policy.

## **I. MANAGEMENT AGREEMENT**

There is no management agreement at the time of this report. If a suitable management group is found details of management will be established in a separate document.

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