

**Burren's Acres Nature Reserve
Property Management Plan
Gabriola Island**



Prepared by the



**Approved by
the Trust Fund Board November 22, 2016
Resolution # TFB-2016-034**

i. Executive Summary

Burren's Acres Nature Reserve is a 2.023 hectare (5 acre) protected area on the west side of Gabriola Island. The reserve is within the asserted traditional territory of eight First Nations and one Treaty Group. Coast Salish First Nations have had a presence on these lands for thousands of years¹.

Farmed in the late 1800s/early 1900s, it was then used for a brief period in the late 1930s and early 1940s for drying and transporting diatomaceous earth. In more recent decades, the property was logged, and related machinery and scrap metal was dumped on the land. The property was donated to the Trust Fund Board by Margaret Taylor in 2013. The donor owned and cared for this property from 2003 by removing a dense cover of invasive species and cleaning up the debris left by logging and industrial use.

Burren's Acres Nature Reserve includes roughly 0.4 hectares of rock outcrop and 1.6 hectares of forest representing the mid-seral and mature stages of forest succession. Two provincially red-listed vegetation communities have been identified on the reserve and there are sensitive herbaceous-rock outcrop ecosystems that are sensitive to disturbance.

The Islands Trust Fund (ITF) manages nature reserves and protected areas to ensure that ecological communities and native species are protected in perpetuity. The management vision for Burren's Acres Nature Reserve is to protect the unique ecological values in perpetuity in order to support a diverse range of native plants and animals. The current threats to this vision include trespass with motorized vehicles and encroachment by non-native invasive plants.

In order to achieve the management vision, the following actions are recommended as resources permit:

1. Conduct annual monitoring to identify management concerns.
2. Continue to have a volunteer warden to monitor the property and identify management concerns such as trespassing, invasive species encroachment and other issues.
3. Develop an invasive species management work plan to guide management and remove invasive non-native woody species as required.
4. Support research to inform management provided it does not negatively impact sensitive species.
5. Develop a landowner contact program with all landowners within a 1 km radius of the reserve to provide information on conservation and protection of nearby properties and threats to the reserve.

The action items will be addressed in priority sequence by Islands Trust Fund staff as resources permit.

¹ The Trust Fund Board recognizes that the language commonly used to refer to land is disrespectful to First Nations. For example, notions of 'private' and 'Crown' land do not appropriately recognize aboriginal title and infer a belief in the concept of terra nullius, the idea that land was not owned prior to the assertion of European sovereignty. The Trust Fund Board acknowledges that terra nullius is a concept that doesn't apply to the Islands Trust Area and in the absence of more appropriate language, uses the terms 'private' and 'Crown' land to mean land that is currently managed by either private individuals/agencies or the government.

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Acknowledgements

The Islands Trust Fund would like to thank Margaret Taylor for the generous donation of this property and her ongoing dedication to the restoration of this site through countless hours of clean up to repair the land from its industrial history and to remove the invasive species that had colonized there. Thanks also to Leigh Anne Milman for her dedication to the protection of this property.

Thank you to Joe Materi of Ursus Environmental for providing the ecological inventory and mapping for the management plan.

1.0 Introduction

Burren's Acres Nature Reserve is a 2.023 hectare (5 acre) area on the west side of Gabriola Island. It includes roughly 0.4 hectares of rock outcrop and 1.6 hectares of forest representing the mid-seral and mature stages of forest succession. The reserve is owned by the Trust Fund Board who will manage the property in order to protect its unique ecological values.

1.1. Islands Trust Fund (ITF) and the Trust Fund Board (TFB)

In 1974 the Province of British Columbia recognized the islands between Vancouver Island and the mainland as a special place within the province where the unique beauty, rural character and diverse ecosystems should be protected for future generations. Through the *Islands Trust Act*, the province established the Islands Trust, a local government, with the following mandate (known as the Object of the Islands Trust):

“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” (Islands Trust 2015).

In 1990, through the enactment of a section of *Islands Trust Act*, the ITF was established as a conservation land trust to assist in carrying out the “preserve and protect” mandate. Part 6 of the *Islands Trust Act* establishes the corporate status, responsibilities, and governance structure of the TFB. The TFB is one of fifteen corporate entities² charged to uphold the Object of the Islands Trust. It is responsible for the actions of the ITF and since 1990 has protected over 1,184 hectares (2926 acres) of land as nature reserves and conservation covenants.

The vision of the ITF is that the islands and waters of the Strait of Georgia and Howe Sound will be a vibrant tapestry of culture and ecology where humans live and work in harmony with the natural world. This special place will have a network of protected areas that preserve in perpetuity the native species and natural systems of the islands. Engaged residents and conservation partners will work together to protect large natural areas and key wildlife habitat. Viable ecosystems will flourish alongside healthy island communities.

² The Corporate entities charged to uphold the Object of the Islands Trust include the Trust Council, twelve local trust committees, one island municipality and the TFB.

The mission of the ITF is to protect special places by encouraging, undertaking and assisting in voluntary conservation initiatives within the Islands Trust Area. ITF Nature Reserves are managed to maintain, preserve and protect the natural features and values of ecosystems. This level of protection is similar to the International Union for Conservation of Nature (IUCN) protected area Category 1B: Wilderness area:

“Large area of unmodified or slightly modified land and/or sea; retaining its natural character and influence, without permanent or significant habitation, which is protected and managed in order to preserve its natural condition” (Lockwood, 2006).

1.2 Purpose of Islands Trust Fund Management Plans

ITF management plans provide background information and set out the direction of property management as follows:

- Provide general and descriptive information on the property, including location, history, and land use;
- Set out the conservation goals and objectives for the property;
- Identify the property's ecological and/or cultural values and features;
- Describe the management issues associated with the property; and,
- Provide short, medium and long-term management recommendations (action items or tasks) on issues such as: Species at Risk protection; ecological restoration; public access; educational and research opportunities; invasive species management; and signage needs.

Once the management plan process is complete, the ITF will work to carry out the management actions or strategies identified in the plan, as resources allow. Following general practice the ITF will revise the Management Plan every ten years.

1.3 Nature Reserve Purpose

The purpose of Burren's Acres Nature Reserve is to:

- Preserve and protect the natural values of forest and rock outcrop;
- Protect populations of provincially blue-listed and COSEWIC ranked Special Concern Band-tailed Pigeon (*Patagioenas fasciata*) and two rare plant communities at risk and the sensitive herbaceous-rock outcrop ecosystems identified to date, as well as any potential Species at Risk that may be discovered in future surveys;
- Allow natural succession of the reserve's ecosystems to occur unimpeded without human intervention, except in the case of wildfire or other exceptional situations where remediation is considered imperative; and,
- Protect the site in accordance with the objectives outlined in Section 1.4.

1.4 Nature Reserve Objectives

The Islands Trust Fund objectives for the management of Burren's Acres Nature Reserve are to:

- Preserve the natural features and functions of the land;
- Protect and, where necessary and feasible, restore the plant and animal communities and ecological processes at the site;

- Permit only uses that do not significantly impair the natural condition of the reserve or its special features such as management of invasive species or monitoring to guide management actions; and
- Support ongoing inventory, mapping and monitoring to guide management provided it does not interfere with Species at Risk protection.

2.0 Property Information

Burren's Acres Nature Reserve is 2.023 ha, including roughly 0.4 ha of rock outcrop and 1.6 ha of forest representing the mid-seral and mature stages of forest succession. The reserve is within the asserted traditional territory of eight Coast Salish First Nations.

2.1 Location

Burren's Acres Nature Reserve is located on the west side of Gabriola Island. To reach the property from the B.C. Ferries terminal on Gabriola Island travel due south on North Road then continue straight onto South Road for 1.2 km. Turn right onto Dirkson Road and travel 0.2 km west on Dirkson. Follow the curve around Dirkson Road and continue to the south past Stephens Road for 0.2 km until Dirkson Road intersects with Berg Road. Turn left onto Berg Road and travel southeast for 0.4 km to its intersection with Conville Road. Turn left on Conville Road and travel north for 150 m. The property is accessed from a gated driveway on the left side of Conville Road. (Maps in Figures 1-3).

2.2 Legal Description

Parcel Identifier Number: 002-803-925

Lot 3, Section 12, Gabriola Island, Nanaimo District, Plan 26561

2.3 Local and Regional Context

Burren's Acres Nature Reserve is in an area of rural residential lots with lot sizes ranging from 1.1 to 4.4 hectares. The eastern boundary of the property abuts Conville Road and the remaining boundaries are adjacent to private lands (map in Figure 3).



Figure 1. Location of Burren's Acres Nature Reserve in relation to surrounding Gulf Islands

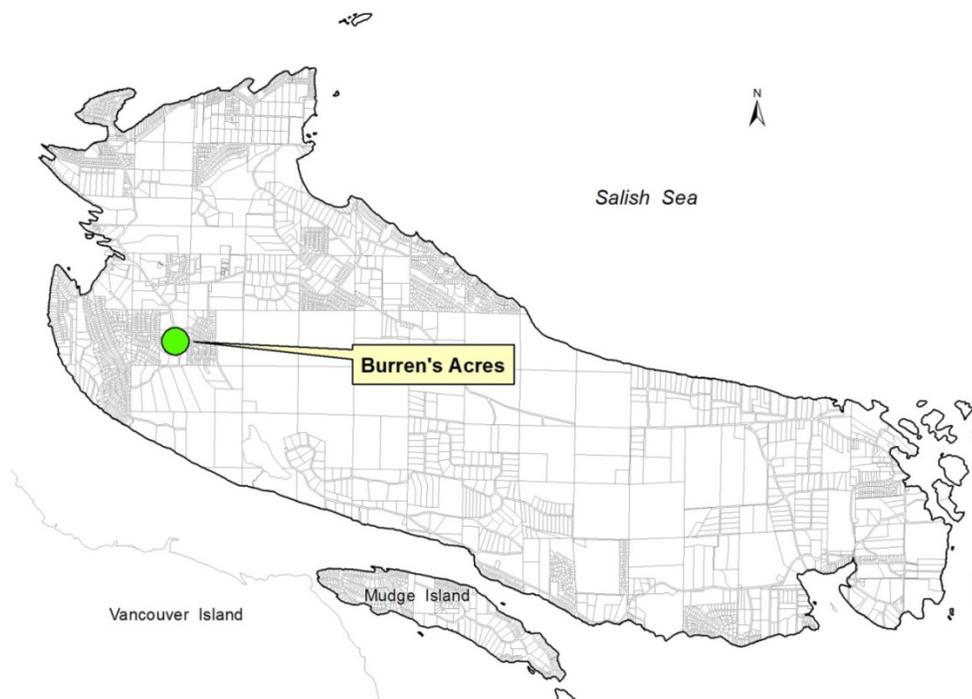


Figure 2. Location of Burren's Acres Nature Reserve on Gabriola

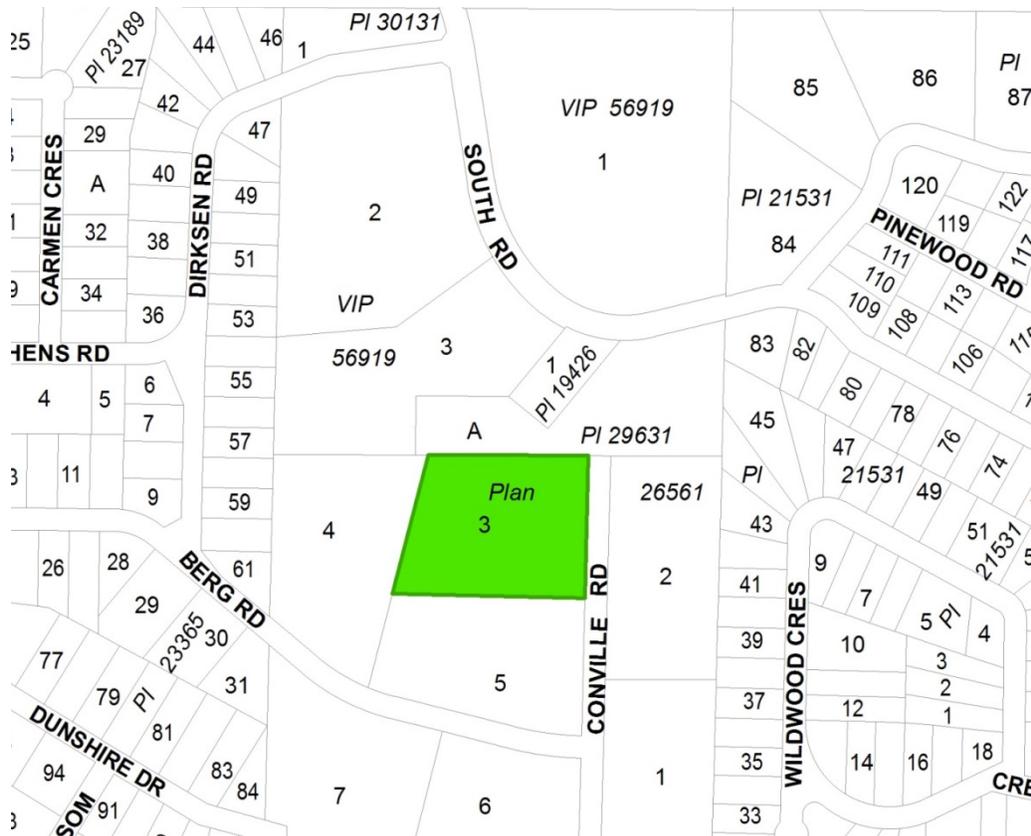


Figure 3. Surrounding Properties of Burren's Acres Nature Reserve

2.4 Adjacent Land Use and Connectivity

Burren's Acres Nature Reserve is not immediately adjacent to any large protected areas on Gabriola Island (Figure 4), but it does provide a measure of habitat connectivity to patches of undeveloped forest lands to the south and east. In addition, the site is connected through contiguous forest to natural wetland areas south of Berg Road and northeast of Conville Road. The area's proximity to the B.C. Ferries Terminal and commercial centres has likely hastened the conversion of some properties in the neighbourhood to rural residential uses.

Burren's Acres Nature Reserve Regional Location Map

April 2016

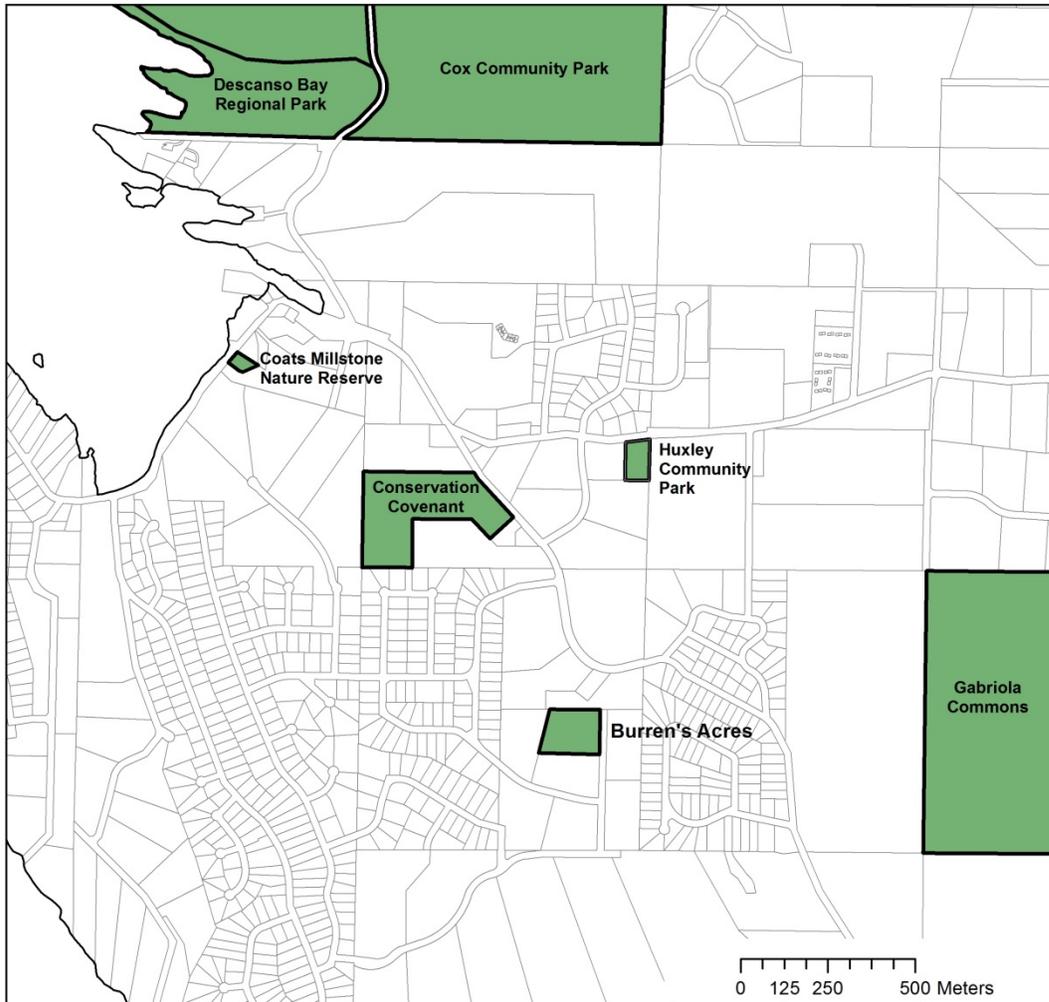


Figure 4. Location of Burren's Acres Nature Reserve in Relations to surrounding protected areas.

2.5 Site History

2.5.1 Pre-Contact

For over 10,000 years, local First Nations have had an integral connection to the islands in the Trust area and the surrounding waters. “When the tide is out, the table is set” is an expression found in several of the local Indigenous languages that refers to one of many ways in which these resource-rich islands were used to feed and sustain their communities. There were places known for deer hunting, places for duck hunting, clam gardens that belonged to certain families, reef net fishing sites, special places for spiritual ceremonies, and so much more. The Island Trust Fund is committed to better understanding the First Nations’ connection to the land and water of the islands. Even though we are just beginning to understand the historical and current connection First Nations have with these islands, we are doing so with a sense of humility and sincerity in honouring those connections.

According to the BC Provincial Consultative Areas Database, Burren’s Acres Nature Reserve is located within the asserted traditional territories of the following eight First Nations and one treaty group:

- Cowichan Tribes
- Halalt First Nation
- Lake Cowichan First Nation
- Lyackson First Nation
- Penelakut Tribe
- Semiahmoo First Nation
- Snuneymuxw First Nation
- Stz’uminus First Nation (Chemainus)
- Hul’qumi’num Treaty Group

Further communication is needed to better understand the traditional First Nation’s use of the reserve and surrounding area.

2.5.2 Previous Landowners

The site was owned by the Rowan family for several decades. The family arrived on Gabriola in 1904, buying 160 acres from the Penberthy family who pre-empted it (settled and took ownership) in 1865 and farmed portions of it. Five acres of this land form Burren’s Acres Nature Reserve (J. Gehlbach, 2010). The Rowan Family patriarch, James H. Rowan Sr., retired from coal mining and farmed his land until he died in 1929. The previous year, he had accidentally discovered the diatomaceous earth on his property.

One of James Rowan’s sons, James H. Rowan Jr., returned to live on his parents’ Gabriola acreage in the mid-1930s and became interested in developing a diatomite mine at a swamp on the acreage, known locally as “Dutchmen’s Swamp” (just east of the present day Berg Road). The mine was operational between 1939 and the early 1940s. At that time, the reserve was used to transport and dry diatomaceous earth before it was placed in a nearby kiln (off the reserve) for further processing.

2.5.3 Forestry

In recent decades, the site was logged, and subsequently used as a dumping area for wood debris and machinery.

2.5.4 Conservation Efforts from 2003

When Margaret Taylor purchased the property in 2003, the site supported a dense cover of invasive Scotch broom (*Cytisus scoparius*), some of which required chainsaws to remove. Mossy rock outcrops were frequently disturbed by local all-terrain vehicle (ATV) users.

From 2003 to 2013, the former landowner removed most of the Scotch broom, much of the logging debris, and virtually all of the scrap metal. She also fenced the perimeter of the property and gated it, preventing ATV's from accessing the property. A small shed was installed in the central part of the site, and a small disturbed area in front of the shed was seeded to turf grass and a network of trails were created.

2.6 Undersurface Rights

Undersurface rights for Burren's Acres Nature Reserve are currently held in favour of William Henry White Stephenson, Registration Number: 162675G, which also includes a separate Coal TSN Registration Number: DF43112.

2.7 Easements and Covenants

There is no Section 219 Conservation Covenant or Section 218 Statutory Right of Way registered at this time. There are also no other restrictive covenants or easements filed on title.

2.8 Official Community Plan

2.8.1 Zoning

In the Gabriola Island Official Community Plan Bylaw No. 166 Burren's Acres Nature Reserve is zoned Large Rural Residential (RR) which allows one single-dwelling residential unit per parcel with minimum parcel size of 2 hectares and the average parcel size shall be 4 hectares. At the earliest opportunity, the zoning will be changed to better reflect the permitted uses of Trust Fund Board Nature Reserve.

2.8.2 Trail and Public Access

In 2003, the driveway off Conville Road was re-grading and a metal gate was installed (Photo 1) to discourage trespassing as well as 1.2 m high page-wire fencing around the perimeter of the site.



Photo 1. Metal gate on driveway off Conville Road (Photo: J. Materi)

A main trail roughly two metres in width extends about 120 metres across the property, from the driveway gate to the northwestern corner of the site (Figure 5). A network of informal trails, less than one metre in width, extends across the western and northern parts of the property. None of the trails on the site incorporate surface treatments, boardwalks, or culverts.

At this time, the gate is kept locked with no public access.

2.8.3 Building and Other Infrastructure

The lone structure on the reserve is a wood frame garden shed measuring approximately 3.6 metres in length and 3.0 metres in width. It is located in the east-central part of the property (Figure 6). The shed was constructed in 2004 and is currently in good repair (see Appendix A for photo). There is a metal gate and 1.2 metre high page-wire fence around the perimeter of the reserve.

An abandoned groundwater well is located in the central part of the western property line. It has a metal plate capping the well-head (Photo 2).



Photo 2. Abandoned groundwater well (Photo: J. Materi)

2.8.4 Utilities

There are no utilities in Burren's Acres Nature Sanctuary.

3.0 Ecological Inventory

3.1 Ecological Significance

Burren’s Acres Nature Reserve encompasses areas of dry upland forest, rock outcroppings, and a small area of moist forest within the Coastal Douglas-fir Zone (or CDF). The CDF Zone is poorly represented within protected areas of Gulf Islands, and is under considerable threat from residential and industrial development. The reserve features patches of intact mature forest across the southern and western parts of site, which possess desirable habitat characteristics such as large-diameter trees, wildlife trees, and multi-storied canopies. A sizeable area of rock outcrop in the northwestern part of the site provides an interesting contrast to adjacent forests, with mats of mosses, scattered lichens, and a diversity of spring wildflowers. The latter area has been slowly recovering from disturbance in recent decades, and includes areas capable of supporting endangered Garry Oak plant communities.

3.2 Climate

The rain shadow effect of the Olympic and Vancouver Island Mountains and the moderating forces of the ocean are the dominant influences on the climate. This subzone typically experiences warm, dry summers and mild, wet winters. The weather data from the Gabriola Island Weather station shows normals from 1981 to 2010 and record an average annual precipitation of 957 millimetres (mm). 56% of the total annual precipitation falls during the winter months (November through February), with only 3% falling as snow or an average of 34.7 mm a year (Government of Canada 2016).

The months of December and January are the coldest, with daily average temperature of 3.6° and 3.9° Celsius respectively, while July and August are the warmest months with mean temperatures of 17 and 16.9° Celsius (Government of Canada 2016). The combined effects of low precipitation, warm temperatures, and high number of sunshine hours often result in an annual moisture deficit on Gabriola Island from mid-June to early October (Figure 5).

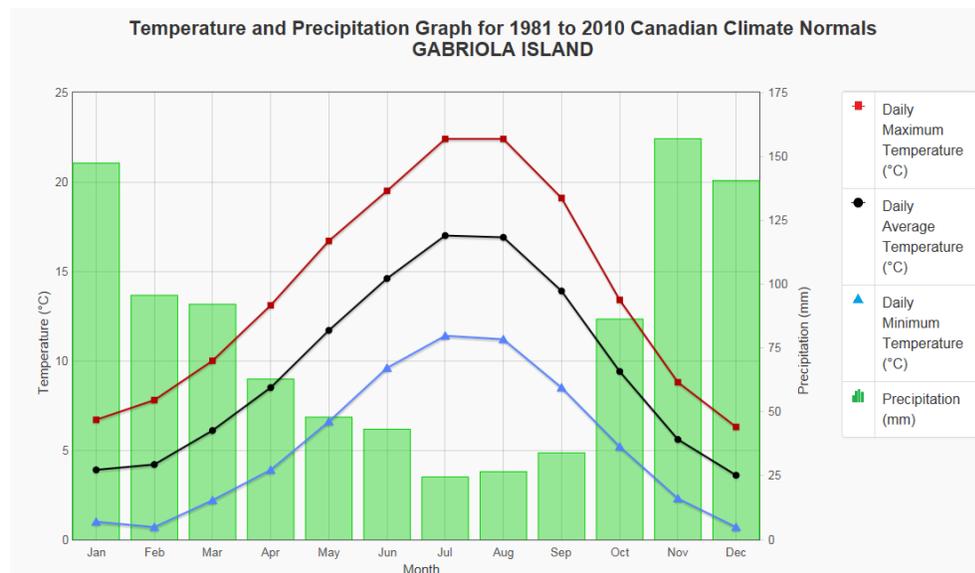


Figure 5. Temperature and Precipitation Normals (1981-2010) for Gabriola Island Weather Station

3.3 Geology and Physiology

Burren's Acres Nature Reserve is underlain by the Gabriola Sandstone Formation, part of the Nanaimo Group, which formed 65 to 70 million years ago. (Van Vliet et al. 1990). Topography within the nature reserve is fairly subdued. The terrain slopes gently from a high point in the southwest (93 metre elevation) trending towards the northeast corner (76 metre elevation) for an overall grade of about 10 %. There is a small area of more steeply sloping terrain along the 80 metre contour in the eastern part of the property.

3.4 Hydrology

The majority of the property has well-draining soils and with the topography, especially the steep slope in the eastern part of the property, surface runoff collects relatively quickly in the northeast corner of the site following heavy rain events promoting the development of an uncommon vegetation type there, Western redcedar- Indian-plum plant community (see Figure 6). The bedrock outcroppings exhibit rapid drainage. In the winter there is standing water over the exposed sandstone bedrock of Vegetation Type 2.

3.5 Soils

The dominant soil type is Bellhouse, a relatively shallow sandy loam which is well-draining. There is a small portion of Rock, undifferentiated bedrock exposed or covered with moss or mineral soil less than 10cm thick, in the northwestern part of the reserve (Van Vliet et al. 1990).

3.6 Ecological Classification

Ecoprovince: Burren's Acres Nature Reserve is located in the Eastern Vancouver Island Ecoregion of the Georgia Depression. This ecoregion lies within a pronounced rain shadow provided by the neighbouring Vancouver Island Mountain Ranges.

Biogeoclimatic Units: The reserve is situated entirely within the Moist Maritime Subzone of the Coastal Douglas Fir (CDFmm) Biogeoclimatic Zone. Historically, there were about 260,000 hectares which would have been classified as CDFmm (Ministry of Natural Resource Operations 2011). Unfortunately, much of this habitat has been destroyed by urban development, agriculture or logging: less than 1% of old growth in the CDFmm remains (CDFCP 2013). This subzone typically experiences warm, dry summers and mild, wet winters with periods of drought frequently encountered in late summer.

3.7 Ecological Plant Communities

No Rare Element Occurrences as documented on the Conservation Data Centre (CDC) online database were found on the reserve, and none of the vascular plants identified on the site to date match those on red or blue lists for the region. However, sensitive and endangered plant communities are indicated on other mapping covering the area. Sensitive Ecosystem Inventory (SEI) mapping completed by Madrone Consulting shows a sensitive Mature Forest unit (part of SEI Polygon #50169) in the northeastern part of the reserve. Terrestrial Ecosystem Mapping (TEM) for this area indicates a band of very young (i.e. pole –sapling stage) Douglas-fir - Salal forest extending across the central part of the site (part of TEM Polygon #50160), as well as a

slightly older stand (i.e. young forest stage) of the same type occurring in the southwest corner of the reserve (part of TEM Polygon #50172). The Douglas-fir-Salal ecosystem type is provincially red-listed.

An inventory of biological features was conducted in the reserve by Ursus Environmental in early May of 2014. The field investigation confirmed the presence of forested ecosystems on the reserve that are provincially red-listed. The larger of these is the characteristic dry forest type for the Coastal Douglas Fir Zone (CDFmm/01), which is also listed among the highest priorities for protection under the Provincial Conservation Framework. This forest type presently occurs as mid-seral and mature successional stages within the site. The other red-listed ecosystem is a forest type that develops on areas with a strongly fluctuating groundwater table (CDFmm/13). It covers a very small area in the northeast corner of the reserve.

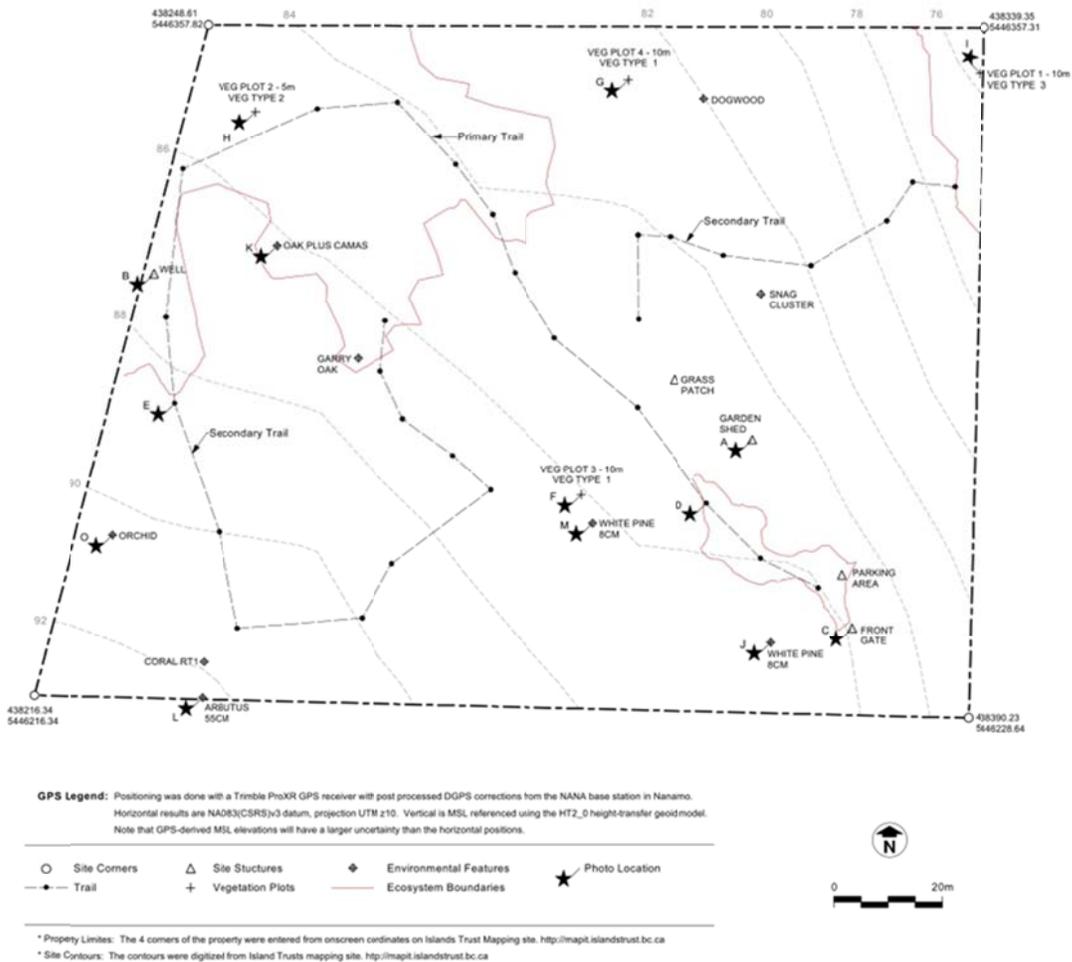
A third sensitive ecosystem type was identified in May of 2014, an Herbaceous – Rock outcrop/Moss unit. It does not appear in published SEI or TEM mapping covering the reserve, possibly because of its small area, but would undoubtedly be sensitive to disturbance due to its lack of soil.

As described in Table 1 below, two red-listed ecological communities were identified (see Map 1).

Table 1. Summary of Vegetation Types identified in Burren's Acres Nature Reserve

Ecological Community	Provincial Rank
Douglas Fir / Dull Oregon Grape (CDFmm/01)	Red List
Western redcedar – Indian-plum (CDFmm/13)	Red List

Map of: Lot 3, Section 12, Gabriola Island, Nanaimo District,
Plan 26561 Parcel Identifier 002-803-925



Burren's Acres Nature Reserve (Islands Trust)
1027 Conville Road, Gabriola Island

Drawn By: JET
Date: June, 2014

Figure 6. Map of Vegetation Types, Photo points and Other Features

3.7.1 Ecological Community 1

Vegetation Type 1 is the **Douglas Fir / Dull Oregon Grape** (*Pseudotsuga menziesii* / *Mahonia nervosa*) ecosystem type. This is **RED LISTED** plant community (Site Association CDFmm/01) occurs as mature forest in the southwest and eastern parts of the reserve, and as older second-

growth forest in the central part of the site. It features relatively shallow and nutrient-poor soils with a dry to very dry hydrological regime.

FLORA

Main Canopy Species & Percent Cover Age (estimated) Height (estimated) DBH Range (estimated)	Douglas-fir (<i>Pseudotsuga menziesii</i>) – 30% >60 yrs 23 m 25 - 35 cm
Secondary Canopy Species & Percent Cover Age (estimated) Height (estimated) DBH (estimated)	Western Redcedar (<i>Thuja plicata</i>) –3% Arbutus (<i>Arbutus menziesii</i>) - 2% <60 yrs 18 - 20 m 18 – 40 cm
Total Canopy Cover	35 %
Understory Species &percent cover Shrubs, including trees<10m Herbs, ferns and mosses	Salal (<i>Gaultheria shallon</i>) – 25% Ocean Spray (<i>Holodiscus discolor</i>)- 7% Juv. W. Redcedar (<i>Thuja plicata</i>) - 12% Evergreen Huckleberry (<i>Vaccinium ovatum</i>) – 5% Dull Oregon Grape (<i>Mahonia nervosa</i>) - 1% R. Huckleberry (<i>Vaccinium parviflorum</i>) - 1% Baldhip Rose (<i>Rosa gymnocarpa</i>) <1% Sword Fern (<i>Polystichum munitum</i>) - <1% Broad-leaved Starflower (<i>Trientalis latifolia</i>) - <1 % Pacific Sanicle (<i>Sanicula crassicaulis</i>) - <1 % Unidentified Grasses - <1%
Rare/threatened & locally uncommon species	Scattered uncommon orchids occur off plot, including Fairyslipper (<i>Calypso bulbosa</i>), Twayblade (<i>Listera</i> sp.) and Coralroot (<i>Corallorhiza</i> spp.)
Special Features	Dry forest type
Expected Changes	Gradual decrease in Salal cover as sub-canopy trees mature.
Disturbance History	Past history of fire and logging; snow caused some trees to fall on forest edge.

FAUNA

Wildlife Habitat/Features	Abundant browse and coarse woody debris; areas with good berry production potential; pockets of snags.
Observed Species	Birds: Chestnut-backed Chickadee, Spotted

	Towhee, Winter Wren, Pacific-slope Flycatcher. Mammals: Columbian black-tailed Deer (droppings & browse).
Rare/threatened & locally uncommon species	None observed

3.7.2 Ecological Community 2

Vegetation Type 2 is an **Herbaceous Rock Outcrop / Moss** ecosystem type. This is an unlisted but environmentally sensitive plant community situated in the northwest quadrant of the nature reserve. It is comprised predominantly of slow-growing mats of mosses growing over bedrock, along with a few grasses and lichens. There are a variety of spring wildflowers occurring in this ecosystem type, but it typically dries out rapidly over the summer.

FLORA

Main Canopy Species & Percent Cover	Not applicable
Secondary Canopy Species & Percent Cover	Not applicable
Total Canopy Cover	0 %
Understory Species & percent cover Shrubs, including trees <10m Herbs, ferns and mosses	Saskatoon (<i>Amelanchier alnifolia</i>) <1% Nootka Rose (<i>Rosa nutkana</i>) <1% Sweet Vernalgrass (<i>Anthoxanthum odoratum</i>) – 8 % Small-flowered Blue-eyed Mary (<i>Collinsia parviflora</i>) – 2 % Common Camas (<i>Camassia quamash</i>) <1% Alaskan Saxifrage (<i>Saxifraga ferruginea</i>) <1 % Chickweed Monkey-flower (<i>Mimulus alsinoides</i>) <1% Unidentified grasses <1 % Hoary Rock Moss (<i>Racomitrium lanuginosum</i>) – 30% Roadside Rock Moss (<i>Racomitrium canescens</i>) -10% Juniper Haircap Moss (<i>Polytrichum juniperinum</i>) -20% Unidentified mosses – 10% Lichens (<i>Cladonia</i> sp.) 1 %
Observed rare/threatened species and locally uncommon species	Garry oak (planted) and Meadow Death-camas Seen off-plot.

Special Features	Spring wildflowers; high floral diversity.
Expected Changes	Gradual increase in moss cover and depth over bedrock; increased cover by grasses and wildflowers.
Disturbance History	Logging, ATV disturbance.

FAUNA

Wildlife Habitat/Features	Basking habitat for reptiles, open areas for aerial insectivores & raptors.
Observed Species	Birds: Bald Eagle, Turkey Vulture, Violet-green Swallow, Chipping Sparrow. Mammals: Columbian Black-tailed Deer
Rare/threatened species & locally uncommon species	None observed.

3.7.3 Ecological Community 3

Vegetation Type 3 is the **Western redcedar – Indian-plum** (*Thuja plicata* / *Oemlaria cerasiformis*) ecosystem type. This is a **RED LISTED** plant community (Site Association CDFmm/13) found as older second-growth forest in a small area in the northeastern part of the site. It develops on medium to very rich soils with a strongly fluctuating water table. In winter soils are frequently saturated in this ecosystem type, while in summer soils are merely fresh (i.e. neither moist nor dry).

FLORA

Main Canopy Species & Percent Cover Age (estimated) Height (estimated) DBH Range (estimated)	Western Redcedar (<i>Thuja plicata</i>) –25% 40 yrs 27 m 30-60 cm
Secondary Canopy Species & Percent Cover Age (estimated) Height (estimated) DBH (estimated)	Red Alder (<i>Alnus rubra</i>) - 10% Grand Fir (<i>Abies grandis</i>) - 3% 30 yrs 18 – 22 m 7 – 32 cm
Total Canopy Cover	38 %
Understory Species &percent cover Shrubs, including trees<10m Herbs, ferns and mosses	Salmonberry (<i>Rubus spectabilis</i>) - 17% Red Elderberry (<i>Sambucus racemosa</i> ssp. <i>pubens</i>) - 2% Ocean Spray (<i>Holodiscus discolor</i>) - 2 % Dull Oregon Grape (<i>Mahonia nervosa</i>) - <1% Salal (<i>Gaultheria shallon</i>) – <1% Sword Fern (<i>Polystichum munitum</i>) - 15% Vanilla-leaf (<i>Achlys triphylla</i>) – 2% Creeping Buttercup (<i>Ranunculus repens</i>) -1%

	Cleavers (<i>Galium aparine</i>) -<1% Foamflower (<i>Tiarella trifoliata</i>) - <1% Lady Fern (<i>Athyrium filix-femina</i>) - <1% Spiny Wood Fern (<i>Dryopteris expansa</i>) -<1%
Rare/threatened and locally uncommon species	None observed
Special Features	Semi-open canopy; high floral diversity.
Expected Changes	Increased cover by ferns and increased girth of cedar, alder, and fir trees. Understory vegetation is largely shade-tolerant.
Disturbance History	Logging and wind-throw

FAUNA

Wildlife Habitat/Features	High browse and berry production; high structural diversity and abundant coarse woody debris.
Observed Species	Birds: Yellow Warbler, House Finch, Pacific-slope Flycatcher, Winter Wren, Rufous Hummingbird. White-crowner Sparrow. Mammals: Columbian Black-tailed Deer. Amphibians: Northern Pacific Treefrog
Rare/threatened & locally uncommon species	Band-tailed Pigeon (Blue listed)

3.8 Wildlife Species

Many different wildlife species use Burren's Acres Nature Reserve with basking habitat for reptiles as well as open areas for aerial insectivores and raptors. Northern Pacific Treefrog (*Pseudacris regilla*) was observed during the preparation of the baseline report. Many bird species were identified including Chestnut-backed Chickadee, Spotted Towhee, Winter Wren, Pacific-slope Flycatcher, Bald Eagle, Turkey Vulture, Violet-green Swallow, Chipping Sparrow, Yellow Warbler, House Finch, Rufous Hummingbird, White-crowner Sparrow and the blue-listed Band-tailed Pigeon (*Patagioenas fasciata*).

Columbian Black-tailed Deer (*Odocoileus hemionus columbianus*) were observed and browse damage can be seen throughout the reserve.

3.9 Red and Blue Listed Species

Species Common Name	Species Latin Name	Provincial Rank ³	COSEWIC Rank ⁴	SARA Status
Band-tailed Pigeon	<i>Patagioenas fasciata</i>	Blue List S3S4B (2015) Vulnerable, Apparently Secure Breeding	Special Concern (2008)	Schedule 1 - Special Concern (2011)

³ BC Conservation Data Centre (BC CDC 2016)

⁴ Committee on the Status of Endangered Wildlife in Canada (Government of Canada 2016b)

4.0 Threats

Many of the most pressing threats to the ecological integrity of Burren's Acres Nature Reserve have been addressed by the previous landowner. Motorized access is restricted by fencing and a locked gate, and an intensive removal program of trash, logging debris and invasive plants was undertaken over the past decade. Nevertheless, there are several issues that should be considered in this Management Plan.

4.1 Invasive Species

Currently, invasive exotic plants occur very infrequently on the site. However, rapid colonization may occur among some species, making control difficult within a short time frame. Invasive non-native woody plant species are a threat to the diversity and reproductive success of native vegetation in the reserve.

Scotch broom (*Cytisus scoparius*) has spread into the reserve and though removal has been constant over the last 10 years, it is an ongoing concern. It is spread mainly by seeds and the seeds have a tough coat that allows them to survive for up to 60 years; therefore once established, broom is very difficult to remove. The plant grows quickly, crowding out wildflower species and reducing open habitat favoured by native birds and butterflies. It can also produce dense, impenetrable thickets that impact Garry Oak woodlands and other sensitive ecosystems and limit the movement of large wildlife. The roots of the plant have a symbiotic relationship with the *Rhizobium* root bacteria that changes the soil, providing nitrogen, so that the plants can thrive in poor soil. This, in turn, creates favourable growing conditions for other non-native species, allowing them to accompany broom as it spreads across an area. Scotch broom also has a very high oil content making it extremely flammable.

4.2 Off-road Vehicle Use

Off-road vehicles frequently disturbed the mossy rock outcrops before the property was gated and fenced. This use has now been drastically reduced, but there has been damage to the gate which may have been caused by people getting heavy equipment over the gate. Off-road vehicle use not only damages plants and their habitat but the soil disturbance also facilitates invasion by exotic species which compete with native species for water, nutrients, light and space, and increases erosion.

4.3 Trails

Visitors do walk on the trails (Figure 6) in the reserve with key access through the metal gate with the volunteer warden. Users keep dogs under control or on leash, and use by dogs is avoided during bird nesting times. There are few impacts from the current level of use but if use increases, damage to the herbaceous rock outcrop and an increase in invasive species may occur.

4.4 Overgrazing

There is still considerable grazing pressure from native Black-tailed Deer (*Odocoileus hemionus columbianus*) with much evidence of browsing even within the fenced reserve. Currently, population levels of deer are extremely high on the island because of declines in hunting, the eradication of predators and the fragmentation of habitat.

4.5 Wildfire

Naturally occurring fires have been actively suppressed for approximately a century on Gabriola Island. Fire suppression in forested areas can create elevated fuel levels. If a fire did occur in the reserve, it may be hotter than historic fires and may be more damaging than historic fires.

However the significant and continued removal of Scotch broom has reduced the fire risk for this property considerably.

4.8 Expected Change over Time

In the Douglas Fir / Dull Oregon Grape plant community (Figure 6) there will be a gradual decrease in Salal cover as sub-canopy trees mature. In the Herbaceous Rock Outcrop / Moss areas there will be a gradual increase in moss cover and depth over bedrock with increased cover by grasses and wildflowers. In the small area of Western redcedar – Indian-plum an increase in cover by ferns and an increase girth of cedar, alder, and fir trees with the understory vegetation remaining as they are largely shade-tolerant.

5.0 Stakeholder Consultation

5.1 Adjacent Landowners

The Islands Trust Fund undertook a limited public consultation process as part of the development of this management plan. Seven adjacent landowners, within 100 metres of the nature reserve, were mailed a letter (Appendix B) to inform them that a management plan was in development for the reserve and to ask them to complete the questionnaire so that they could share their thoughts on the broad-scale management concerns of the reserve. Two neighbours replied.

5.2 First Nations

A letter was sent to all of the nine First Nations and one treaty group who have asserted traditional territories that include Burren's Acres Nature Reserve (letter included in Appendix D). The letter informed First Nations that a management plan was being prepared and asked for input related to broad-scale management concerns. At the date of the plan approval there has been no response from any of the First Nations, but the Islands Trust Fund remains open to communication throughout the life of this management plan.

5.3 Conservation Partners

The donor of Burren's Acres Nature Reserve acts as the volunteer warden of this property and holds a key to the gate. The donor, as well as those that have limited use or help maintain the reserve, were invited to comment via questionnaire (Appendix C). Eight questionnaires were returned.

5.4 Consultation Results

The concerns and information highlighted in all the responses have been addressed in this plan. The questionnaires asked respondents what the top three "most important values nature reserves offer", the results were:

1. Protection of habitat for at-risk species

2. Conservation for the sake of the intrinsic value of nature
3. Education and research opportunities

The consultation process revealed that the community in general was concerned about the following management issues:

- Invasive species invasion
- Motorized vehicles
- Mountain bikes
- Horse use
- Camping
- Overuse by human or dogs (affecting the flora or fauna, nesting times of birds)
- Fire
- Vandalism/Garbage dumping

6.0 Management Plan

6.1 Vision

That the unique ecological values of Burren's Acres Nature Reserve will be protected in perpetuity in order to support a diverse range of native plants and animals.

6.2 Discussion

The purpose of Burren's Acres Nature Reserve is to protect the ecological integrity of the land in accordance with the objectives of the ITF. Ongoing monitoring and management is required in order to ensure that ecosystems and species continue to remain protected from threats. All management activities within the protected area must consider the specific sensitivities of the Species at Risk and their habitat found to date on the property and any additional Species at Risk found in the future.

In this section several key areas of the management planning process are identified and recommendations are formulated to achieve the vision, purpose and objectives for Burren's Acres Nature Reserve.

6.3 Management of the Sanctuary

The Trust Fund Board is the sole owner of the reserve and is responsible for the management activities. There is a volunteer warden who monitors the property on a frequent basis and identifies management concerns such as trespassing, invasive species infiltration and any other issues.

6.4 Permitted and Prohibited Uses

Due to the sensitive features found on Burren's Acres Nature Reserve, and the results of the public consultation, only activities associated with the management and monitoring of the property will be permitted.

The following activities by the public are prohibited:

- Public access

- Use of motorized vehicles
- Bicycling
- Hiking
- Horseback riding
- Camping
- Fires
- Forestry
- Livestock grazing
- Trail development
- Tree cutting
- Collection of plants or animals

6.5 Public Access

As a small nature reserve possessing sensitive ecosystems, only supervised activities with a light footprint should be encouraged within Burren's Acres Nature Reserve. There are currently informal trails and the nature reserve can be thoroughly traversed on foot in an hour.

Recommendation

Unlimited public access will not be permitted on the reserve. The property will not be promoted or advertised in any way. Motorized vehicles have considerable potential to disturb rock outcrop vegetation, and will not be permitted.

6.6 Trails

The site currently possesses one primary (double-width) trail about 150 m in length. It is essentially level and extends diagonally from the gate in the southeast corner of the property to the fence line in the northwest corner of the property. A secondary single-width trail follows along the western fence line then turns back to the north, terminating at the rock outcrop. It is approximately 150 metres in total length. Another secondary trail (also single-width) extends from the grassed area near the centre of the reserve meandering eastward and downslope towards the northeast corner. It is less than 100 metres in total length.

The primary trail presents no safety issues, but without marking, even moderate use could lead to trampling of moss/wildflower meadows. The eastern secondary trail is currently very overgrown, presenting tripping hazards, and could be widened to one metre without impacting any areas of sensitive soils or vegetation. The western secondary trail is overgrown and crosses an area of seasonally-saturated soils at its lowest point.

Recommendation

The margins of the primary trail may be marked by rock piles at five metre intervals through the rock outcrop area if the area is seen to show signs of disturbance. The trails through mature and mid-seral forest can be maintained up to a maximum of one metre in width to facilitate safe movement around the reserve.

6.7 Signage

There is currently no signage on the site. The address is marked by Conville Road.

Recommendation

A sign near to the driveway close to Conville Road to inform the public that the area is protected and to outline prohibited activities (including no public access) could be installed if any issues arise from trespass.

6.8 Protection Initiatives for Sensitive Ecosystems and Species at Risk

6.8.1 Wildfire Planning

The Gabriola Volunteer Fire Department would be the first responders to any fire. The responsible agency for fire suppression on Gabriola is the Coastal Fire Centre located in Parksville, B.C. under the Ministry of Forests, Lands and Natural Resource Operations (FLNRO). Recommendations for ecosystem protection include avoiding the use of salt water and fire retardants, minimizing the use of heavy equipment in meadow areas to minimize soil disturbance and avoiding cutting large Garry Oak trees.

Recommendation

ITF should work with FLNRO to help guide their fire management plans for the area by placing importance on the protection of the ecological values in the reserve.

6.8.2 Studies/inventories

There have been no surveys in the reserve other than the baseline inventory so further study at different times of years would be beneficial.

Recommendation

Further surveys for Species at Risk are recommended in order to guide management.

6.8.3 Band-tailed Pigeon

To date, the only Species at Risk found in the reserve is the blue-listed Band-tailed Pigeon (*Patagioenas fasciata*). There is a status report created by COSEWIC (2008) to guide habitat conservation and stewardship.

Recommendation

ITF should incorporate research on special protection initiatives and strategies to guide management of areas with Band-tailed pigeon. To date minimizing the risk of habitat degradation and loss is the key action to be taken.

6.8.4 Ecological Restoration Potential

Opportunities exist to improve forest regeneration in the southern part of the reserve and establish a threatened Garry Oak Woodland in the western part of the site. Ecological restoration has been used at numerous other sites on southern Vancouver Island with good success and low ecological and safety risks.

Recommendation

If funding allows, opportunity for restoration include:

- *selective thinning and fertilization of pole-sapling conifers to reduce competition and improve growth;*
- *caging any Garry Oak trees/seedlings to prevent deer browse*
- *establishing a small Garry Oak meadow along the fringes of the rock outcrop area, including preparation of a planting plan, plant selection and procurement, plant installation and periodic maintenance (especially watering).*

7.0 Action Items

Management Plan action items are measurable and achievable tasks that the ITF can complete to ensure that the protected area is managed in the best possible way. The following management action items are based on the public consultation and recommendations made in this management plan and listed in priority sequence, subject to available funding resources.

7.1 Immediate Actions (1-2 years)

1. Conduct annual monitoring to monitor covenant compliance and identify management concerns.
2. Develop an invasive species management work plan to guide management and monitoring of invasive species in the reserve.
3. Remove invasive non-native species as directed by the invasive species work plan.
4. Work to change the zoning from Large Rural Residential (RR) to a zoning that better reflects the permitted uses of a Trust Fund Board Nature Reserve.

7.2 Short term Actions (3-5 years)

1. Develop a landowner contact program with all landowners within a 1 km radius of the Sanctuary to provide information on the following:
 - a. encourage long-term conservation and protection of nearby properties;
 - b. inform landowners about the importance of the protected area and to make neighbours aware of the property boundaries of the protected area; and,
2. Ongoing invasive species management as guided by work plan developed under immediate actions.
3. Install a sign near to the driveway close to Conville Road to inform the public that the area is protected and to outline prohibited activities (including no public access) if any trespass issues occur.
4. Support research of rare species surveys to inform management provided it does not negatively impact sensitive species.

7.3 Long term Actions (5+ years)

1. Develop long-term public education program to inform Gabriola residents about the importance and sensitivities of the property: key historical and ecological features namely: First Nation use, diatomite mining use and sensitive ecosystems/spring wildflowers.
2. Strengthen partnerships with local First Nations.

8.0 Conclusion

Burren's Acres Nature Reserve is a small but important protected area which is surrounded by private land. It provides important habitat for a range of native species, two red-listed ecological communities, one blue-listed species, a sensitive Herbaceous – Rock outcrop/Moss ecosystem as well as historical cultural significance.

The ITF will act on the management action items identified in this plan to achieve the vision, objectives and purpose of the Burren's Acres Nature Reserve. Future management issues may lead to further action items that will be identified in work plans and in future revisions of this plan.

9.0 References

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Accessed August 2016

10.0 Appendices

Appendix A: Coordinates and Locations of Photo Stations in the Burren's Acres Nature Reserve

Photo Station #	Photo Station Location (UTM)	Photo #	Photo Direction	Comments
A	N-5446281 E-438350	A.1	SE	Garden shed in good repair in east-central part of the Subject Property.
B	N-5446312 E-438239	B.1	W	Abandoned well near western property line.
C	N-5446245 E-438369	C.1	NW	Locking metal gate at driveway off Conville Road.
D	N-5446269 E-438342	D.1	NW	Primary trail near entrance gate.
E	N-5446287 E-438242	E.1	S	Typical condition of secondary trails in western part of property.
F	N-5446270 E-438318	F.1	N	Vegetation Type 1 (mid-seral zonal CDFmm - Plot BA3).
G	N-544348 E-438327	G.1	N	Vegetation Type 1 (mature zonal CDFmm - Plot BA4).
H	N-5446342 E-438258	H.1	E	Vegetation Type 2 (Herbaceous rock outcrop/moss - Plot BA2).
I	N-5446349 E-438392	I.1	N	Vegetation Type 3 (mid-seral strongly fluctuating water table forest - Plot BA1).
J	N-5446243 E-438353	J.1	SE	Cluster of large "wolfy" snags in the southeast part of the property provide perches for raptors and other bird life.
K	N-5446317 E-438262	K.1	W	Small planted Garry oak in northwest part of site could provide a focus for future ecosystem restoration.
L	N-5446231 E-438248	L.1	E	Mature Arbutus tree near the southern property line (55 cm DBH).
M	N-5446265 E-438320	M.1	E	Uncommon Western White Pine growing in the south-central part of the site (8 cm DBH).
N	N-5446344 E-438341	N.1	NE	Tri-stemmed White Flowering Dogwood in the central part of the Nature Reserve.
O	N-5446263 E-438231	O.1	E	Fairyslipper Orchid growing in a small enclosure in the southwestern part of the Subject Property.



Photo A.1



Photo B.1



Photo C.1



Photo D.1



Photo E.1



Photo F.1



Photo G.1



Photo H.1



Photo I.1



Photo J.1



Photo K.1



Photo L.1



Photo M.1



Photo N.1



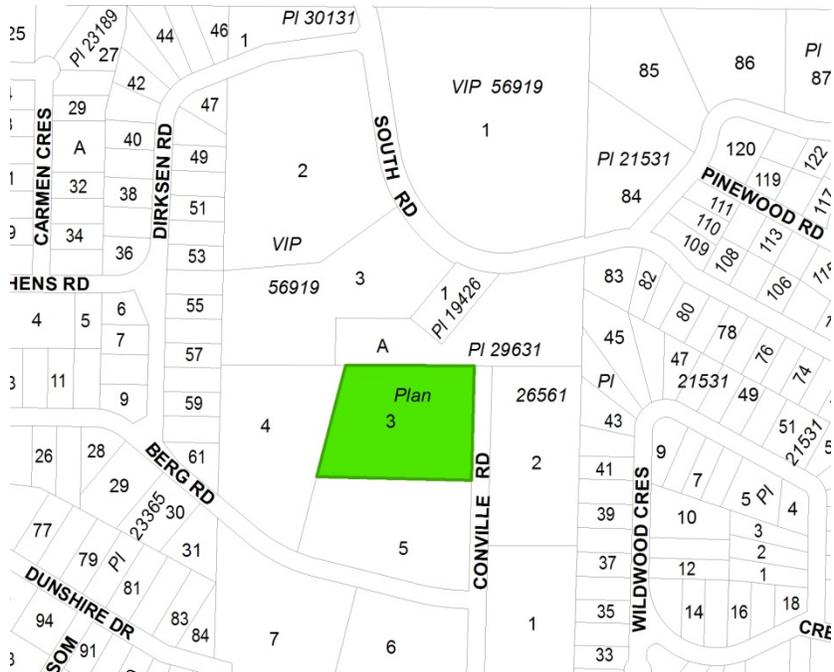
Photo O.1

Appendix B. Public Consultation Letter

May 16, 2016

Dear «FullName»,

The Islands Trust Fund is currently preparing a management plan for the Burren's Acres Nature Reserve, Gabriola Island (PID 002-803-925, Lot 3, Section 12, Gabriola Island, Nanaimo District, Plan 26561) and would like your input.



Burren's Acres Nature Reserve is a 2.023 hectare (5 acre) parcel of forested land located on Conville Road on the West side of Gabriola Island. The land was donated to the Trust Fund Board in 2013. This property includes roughly 0.4 hectares of rock outcrop and 1.6 hectares of forest representing the mid-seral and mature stages of forest succession.

Two Provincially Red listed vegetation communities have been identified on the Reserve: Douglas Fir / Dull Oregon Grape and Western redcedar – Indian-plum. There are also sensitive herbaceous –rock outcrop ecosystems that are sensitive to disturbance. In the late 1930's and early 1940's the property was used to transport and dry diatomaceous earth from a nearby diatomite mine, before it was placed in a nearby kiln for further processing.

There are management concerns with the property including non-native invasive plants such as Scotch Broom and Daphne laureola which threaten the native plant communities. There have also been issues with trespass by motorized vehicles before it was fenced.

The Islands Trust Fund is developing a management plan that will describe the natural features of the reserve, identify potential threats and outline permitted uses and activities within the nature reserve. The focus of the management plan will be to protect the natural values of the property. This will include supporting ongoing species inventories, removing non-native invasive species and protecting all of the native plants and animals on the reserve.

In order to develop a good plan for the property, your input is requested. We would like to hear from the neighbours of the Burren's Acres Nature Reserve with your ideas and concerns regarding the long-term management of this special place. I can be reached via email or telephone (contact information below).

Many thanks for taking the time to consider the management of this nature reserve. If you would like to have more information, please don't hesitate to contact me.

Yours sincerely,

A handwritten signature in black ink that reads "N. Murphy". The signature is written in a cursive, flowing style.

Nuala Murphy
Property Management Specialist, Islands Trust Fund
Phone: 250-405-5193
Email: nmurphy@islandstrust.bc.ca

Appendix C. Public Consultation Questionnaire

Burren's Acres Nature Reserve is a 2.023 hectare (5 acre) area on the west side of Gabriola Island. It includes roughly 0.4 hectares of rock outcrop and 1.6 hectares of forest representing the mid-seral and mature stages of forest succession. The property has an interesting history of use including farming and the transporting and drying of diatomaceous earth, as well as logging and dumping.

The Islands Trust Fund received the land as a donation in 2013. The Islands Trust Fund's primary goal is to protect and nurture the sensitive ecosystems on this land. To do that, we are creating a plan that will guide how we manage the property and its features. We are asking you to help us develop this plan. Please share your thoughts on the protection and long-term management of the property.

1. Where do you live?

- West Gabriola
- East Gabriola
- Mid Gabriola
- Off-island

2. How often do you visit Burren's Acres Nature Reserve?

- Once a week or more
- Once a month
- Several times per year
- Once a year or less
- Never

3. What activities do you and/or your family enjoy when visiting Burren's Acres Nature Reserve?

- Hiking/walking
- Dog walking
- Other (please list):

4. Please list any wildlife and unique plant species you have seen at or near Burren's Acres Nature Reserve.

5. What do you believe to be the most important values of nature reserves (choose three)

- Protection of habitat for at-risk species and/or sensitive ecosystems
- Ecosystem services (e.g. clean water and air, groundwater recharge, etc.)
- Recreational opportunities
- Education and research opportunities
- Tourism
- Aesthetic appeal
- Conservation for the sake of the intrinsic value of nature

Other (please specify):

6. What activities do you believe are incompatible with the protection of natural features, and should not be allowed within the Burren's Acres Nature Reserve?

7. What do you feel could be the greatest threat to the health of this nature reserve, and should be the highest management priority for the Islands Trust Fund?

8. Please provide any other relevant information that will help us make the best management decisions for Burren's Acres Nature Reserve.

9. Please share with us any history you know about this property (or the west side of Gabriola) or any knowledge you have about unique cultural or other special features on the property.

10. If you would like to receive updates from the Islands Trust Fund on this and other conservation projects on the islands, please provide your name and email address:

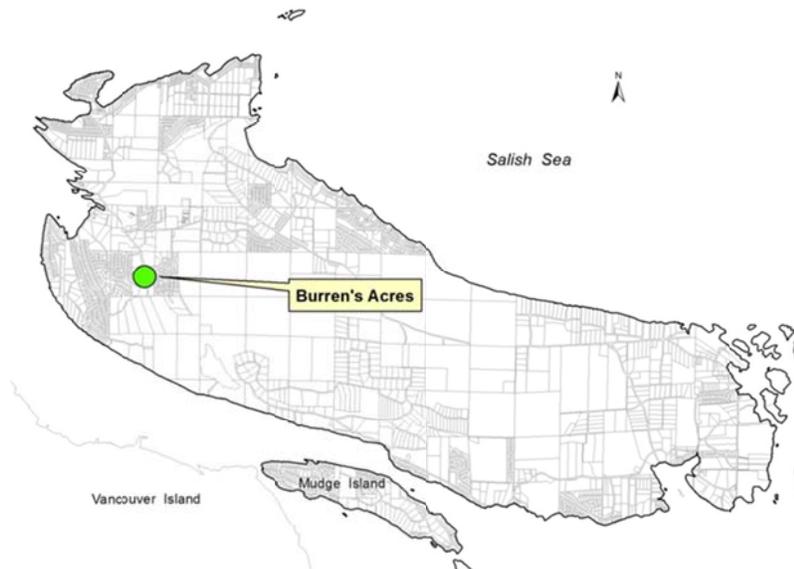
Thank you for your time spent helping us plan the future of Burren's Acres Nature Reserve.

Appendix D. Public Consultation First Nations Letter

May 16, 2016

Dear «REFERRALS_»,

The Islands Trust Fund is currently preparing a management plan for the Burren's Acres Nature Reserve, Gabriola Island (PID 002-803-925, Lot 3, Section 12, Gabriola Island, Nanaimo District, Plan 26561) and would like your input.



Burren's Acres Nature Reserve is a 2.023 hectare (5 acre) parcel of forested land located on Conville Road on the west side of Gabriola Island. The land was donated to the Trust Fund Board in 2013. This property includes roughly 0.4 hectares of rock outcrop and 1.6 hectares of forest representing the mid-seral and mature stages of forest succession.

Two Provincially Red listed vegetation communities have been identified on the Reserve: Douglas Fir / Dull Oregon Grape and Western redcedar – Indian-plum. There are also sensitive herbaceous –rock outcrop ecosystems that are sensitive to disturbance. In the late 1930's and early 1940's the property was used to transport and dry diatomaceous earth from a nearby diatomite mine, before it was placed in a nearby kiln for further processing.

There are management concerns with the property, including non-native invasive plants such as Scotch Broom and Daphne laureola, which threaten the native plant communities. There have also been issues with trespass by motorized vehicles before it was fenced.

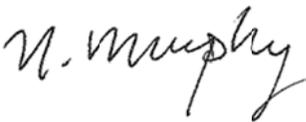
The Islands Trust Fund is developing a management plan that will describe the natural features of the reserve, identify potential threats and outline permitted uses and activities within the sanctuary. The focus of the management plan will be to protect the natural values of the property. This will include supporting ongoing species inventories, removing non-native invasive species and protecting all of the native plants and animals on the reserve.

As a First Nation with interests on Gabriola Island, the Islands Trust Fund would like to involve you in the planning process for the management of this special property and would be very interested in learning about the cultural significance or traditional use of the property or surrounding area.

We would welcome your input on the continued management of this protected area. If you would like to have more information or to meet to discuss, please contact Nuala Murphy, Islands Trust Fund Property Management Specialist at the number below.

Thank you for your guidance.

Yours sincerely,

A handwritten signature in black ink that reads "N. Murphy". The signature is written in a cursive, flowing style.

Nuala Murphy
Property Management Specialist, Islands Trust Fund
Phone: 250-405-5193
Email: nmurphy@islandstrust.bc.ca