The Bluffs Management Plan
October, 2020.

First Nations Acknowledgment

The Southern Gulf Islands lie within the traditional unceded territories of the Hul'qumi'num Treaty Group (HTG), Tsawwassen First Nation and the W̱SÁNEĆ (or Saanich) First Nations. The Bluffs lies within the territories of these Nations.

Community Committee

The Galiano Club wishes to acknowledge and thank the following community members who participated in the development of this Management Plan. This Committee spent nearly a year meeting and coming up with recommendations to the Board of the Galiano Club. Those recommendations form the basis of this Management Plan.

Committee Members

Ed Andrusiak
Kenna Fair
Diana Fraser
Mike Hoebel
Debbie Holmes
Michael Sharp
Garth Walmsley

Ecosystem Report

Andrew Simon, BSc MSc (candidate)
Quirin Hohendorf, BSc MSc (candidate)

1. Purpose of Management Plan

In 1948, the Bluffs first became a park for the recreational use by the public. The intention at the time was to preserve the ecosystem and maintain its natural state and beauty. Much has changed on Galiano Island since that time. The number of residents on the island has grown, as has the number of visitors. The definition of recreational use has broadened and the natural ecosystem within the Bluffs has become much more precious.

The need for a management plan review was driven by a number of factors:

- The last time the Bluffs Plan was reviewed was in 1988 and the Plan needed updating;
- The Capital Regional District produced a Park Management Plan for neighbouring Matthews Point Regional Park which had implications for the Bluffs; and
- The Galiano Club wanted to have an updated Management Plan to help guide its decision making in managing the Bluffs.

The overall objective of the Bluffs has not changed, that is to preserve the ecosystem and maintain its natural state and beauty while providing opportunities for appropriate recreational use by the public.
The purpose for this Bluffs Management Plan is to provide guidance to the Galiano Club on:

- Protecting the Coastal Douglas Fir Bio-geoclimatic Forest Zone and the rare and endangered species within it;
- Managing and mitigating the risks of wildfire;
- Managing and guiding appropriate recreational and public use of the Bluffs;
- Encouraging appropriate educational and research activities to help manage the Bluffs; and
- Cooperating with other agencies and organisations managing protected lands with boundaries contiguous with the Bluffs.

1.2. Property Location

The Bluffs nature conservancy area consists of approximately 342 acres/138.65 hectares of forest, steep cliffs, and rocky outcrops. The Bluffs gives outstanding near views of Active Pass and Mayne Island and distant views of numerous islands, including Vancouver Island. The views also include Mount Galiano, Stockade Ridge, glimpses of Georgia Straight, and the Olympic peninsula. Encompassing various landscapes from thick forests to open Garry Oak meadows, the Bluffs nature conservancy area is a prime example of the natural beauty and rich diversity of flora and fauna for which Galiano Island is known.

1.2.1. Legal Description

The Galiano Club, founded in 1924, is the owner in fee-simple of two parcels of land described below namely:
Gulf Islands Assessment District

- First: Parcel A (DD 190950-I), Section 2, Galiano Island, Cowichan District (23.03 acres, 9.32 hectares).
- Second: The West 1/2 of Section 4, Galiano Island, Cowichan District, EXCEPT part in Plan 2418 (319.58 acres, 129.33 hectares)

1.2.2. Liens, Charges and Interests, Deed of Trust

The Deed of Trust is a legal document registered against the property and defines how the property can be used and managed. The relevant sections are quoted below. (See Appendix 5.1 for the full document.)

1. *To hold the lands solely and irrevocably as a nature conservancy area as defined under the Park Act Ch. 309, 1979, for such recreational uses and enjoyment of the general public which do not disturb or interfere directly or indirectly with the soil, vegetation or animals and their habitat, except as may be approved by the Directors of the Trustee in accordance with a continuing inventory and management plan endorsed and ratified from time to time at the annual general meeting and any extraordinary general meeting called for this specific purpose.*[1]

2. *To set aside the sum of eight thousand ($8,000.00) dollars and hold the same in Trust pursuant to the provisions of the Trustee Act R.S.B.C. 1979 for the express and limited purpose of allocating and paying the interest earned therefrom for such administrative costs, rates, charges, taxes, or assessments which may be levied now or hereafter from time to time against the lands. And to make available a financial report of the operation of this fund to the membership at the annual general meeting of the Trustee.*[2]

3. *To expend such further and other funds deemed necessary or advisable for the preservation and protection of the natural habitat of the lands from fire and other perils.*

BC Hydro
Registered 1991 -Statutory Right of Way

1.2.3. Land Use Ownership and History

The area above the Bluffs, overlooking Active Pass, had long been a favourite place for islanders to hike, to picnic. In the late 1930's landowner Mr. Max Enke offered the 14 acres of Section 2 and the south 80 acres of the west half of Section 4 to the people of Galiano for the sum of one-thousand dollars. A group called “The Galiano Development Association” was formed to spearhead the purchase of the lands. The organiser and leader of the initiative was Mr. Paul Scoones one of the founders, in 1924, of the Galiano Club. The people of Galiano Island who came together for this purpose were to be forever registered and remembered as the Original Donors:

E.J. Bambrick	G.A. Bell	L.T. Bellhouse
F.J. Burrill	T. Drew	Mrs M. Enke
F.C. Finnis	Mrs M. Finnis	A.A. Garner
O.J. Garner	G.W. Georgeson	G.F. Goodwin
A. Gordon	H.W. Harris	T. Head
Mrs A. Jack	C.E.S. Jackson	F. Johnstone
D. Macjedue	D.A. New	O.H. New
S. Page	R.A. Payne	Mrs N. Price
J. Robinson	F. Robson	B.P. Russell

[1] BC Park Act

[2] Annual Report

A.E. Scoones	P. Scoones	I. Sinclair
R.C. Stevens	A.E.Steward	G. Steward
Mrs C.O. Twiss	C.O. Twiss	L.M. Lloyd-Walters

The required funds were eventually raised, at considerable effort. However, since most of Section 4 was not included in the offer, an expensive survey had to be done. Finalising the purchase became difficult as Max Enke, while on family business in Belgium in 1939, was interned by the German military as an enemy alien spending the next 6 years in various prisoner of war camps. Upon his return to Canada in 1946, Max Enke and family very generously gave the adjoining tract of land to the people of the island to be held in trust and perpetuity as a park (237 acres).

When faced with the question of how to assure that these wishes that the Bluffs be maintained for the use of the general public, the original donors decided that the Galiano Club would be the best organisation to assure the success of their wishes. The Galiano Club was selected to hold title, as it was the most suitable entity capable of legally owning property and having the long-term interests of the community in mind. The Galiano Club through the generosity of the original donors and the Max Enke family acquired title to the Bluffs lands from Max Enke on November 10, 1948 in consideration of the sum of $1,000.00.

In order to establish the history of the Bluff's inception and register the intent and purpose for the purchase and gift of Title, the "Bluffs Deed of Trust" was eventually drawn up two and one-half years after the purchase of the Bluffs lands. The first clause of the 1951 Bluffs Deed of Trust reads:

> "*To hold the same as a public park, for such recreational uses of members of the general public as may from time to time be approved by the Directors Meeting of the said Galiano Club*".

Before the Original Deed of Trust could be completed another problem had to be solved – that of logging rights bought by Fred Robson from a Mr. Plimly of Victoria. It was resolved when Fred Robson became the 36th member of the original donors' group and agreed to relinquish cutting rights on Section 2 and to log only mature trees on Section 4. On October 19, 1951 the Directors of the Galiano Club signed a "Deed of Trust" which directed management of the Bluffs for the next several decades.

In 1985, a three year legal review process was undertaken by the Galiano Club to examine the Original (1951) Deed of Trust. The procedure of updating the Deed of Trust was considered the most effective method to overcome financial and civil liability problems and yet, at the same time, preserve the land for recreational use by the general public. On May 30th, 1988 the Directors of the Galiano Club, under the President of the Galiano Club, Mr. William Scoones, perfected the intent of the Original Deed of Trust and filed a declaration (EB 50785) June 28th, 1988 in the Land Title Office. This is now the Deed of Trust that currently defines how the property can be used and managed.

In January 1974 Galiano Island's Official Community Plan Bylaw 128 was passed into law. The preamble of the OCP has not changed over the numerous reviews the Plan has seen since that time. Sections 1 and 5 have not varied, they read:

1) *The people of Galiano Island, being mindful of the pressures from a growing West Coast population, and a demonstrated desire of many to find relief from the urban congestion and associated tension through a rural atmosphere, and being aware of the physical limitations of Galiano Island to accept uncontrolled population increase without degradation of the rural way of life and damage to the ecological system, deem it desirable to create a Community Plan to deal with these issues.*

5) *As the present generation inherited these islands in a relatively preserved state so this Plan attempts to perpetuate this state and preserve the unique environment for all future generations.*

1.2.4. Land Use Designation and Zoning

- The Galiano Island Official Community Plan Designation for the Bluffs under Bylaw 108 is "Nature Protection".
- The Bluffs is zoned "Nature Protection" under Galiano Island Land Use Bylaw 127.

1.2.5. Rationale for Acquisition

The Bluffs nature conservancy area has been a favourite and beloved place to hike, enjoy the panoramic views, study the local biological diversity, meditate, and generally appreciate the natural wonders of Galiano Island. This lovely and cherished area was placed in "Trust" under The Galiano Club for its preservation and enjoyment by all future generations.

1.3. Public Engagement in 2018/2019/2020 Plan Preparation

- Active Page article – February, 2018
- Galiano Club Annual General Meeting – May 5th, 2018 – presentation of preliminary Bluffs Management Plan
- Saturday Market booth – May 26th, 2018
- Public Consultation Meeting –October 28th, 2018
- AGM, May, 2019 —presentation of finalized Plan
- Facebook ads, 2019, 2020
- Info Table at Saturday Market, Sept.26th, 2020
- AGM, Nov.15th, 2020 — presentation of revised Plan

1.4. Matthews Point Regional Park Management Plan

Matthews Point Regional Park is adjacent to the Bluffs on the south east side. The Matthews Point Regional Park Management Plan (approved by the Capital Regional District Board on September 19th, 2018 and attached as Appendix 5.2) recognises that Matthews Point Regional Park is one of a larger island landscape of protected areas along the north shore of Active Pass. The vision, goals, objectives and management direction of the Matthews Point Plan are highly complementary with those envisaged for the Bluffs. The Plan also states the intent to formalise a link between the main trail system proposed for Mathews Point Regional Park and the trail system in the Bluffs.

2. VALUES AND ROLES OF THE BLUFFS

The following sections of this Plan summarise the significance of the ecological communities found in the Bluffs, providing a systematic overview of the Bluffs' terrestrial ecosystems. These are largely intact ecosystems, whose healthy functioning is driven by energy captured from the sun flowing through microbes, fungi, plants, and animals, and by the constant recycling of nutrients by these organisms as they interact in complex ways throughout their life cycles.

2.1. Ecological Significance and Conservation Values

Approximately 139 hectares of wild lands are protected within the Bluffs, ranking it among the largest protected areas on Galiano Island. Encompassing 12% of the island's total protected area, the Bluffs is rivalled only by Bodega Ridge Provincial Park (221 ha), Dionisio Point Provincial Park (150 ha), and the Mid-Galiano Protected Area Network (146 ha).

The landscape within the Bluffs ranges across a spectrum of ecological diversity characteristic of the Coastal Douglas-fir (CDF) Bio geoclimatic Zone. This Mediterranean bioregion is unique within Canada and home to the highest number of ecosystems and species at risk in the province, many of which are ranked as critically imperilled at a national and global scale. Approximately 9% of the CDF is currently protected, with 49% of the land base impacted by forestry, agriculture and urbanisation.[3] Today less than 1% of the CDF remains intact as old growth forest, with forests over 100 years old covering only 4% of their former extent.

From the forest canopy to the sea, the Bluffs is host to no less than eight ecological communities and over 500 documented species, including 12 species of conservation concern. More than a quarter of Galiano's remaining old-growth coastal Douglas-fir forest is protected within the Bluffs, as well as a considerable extent of the island's diverse Garry Oak woodland and rock outcrop communities.

Despite the strong conservation ethic demonstrated by Galiano's extensive protected area network, the pressures of development pose a continual threat to the island's ecosystems. As of 2004, over 15% of Galiano's forests had been cleared to make way for agriculture, private residences, roads and utility rights-of-ways.[4] As the integrity and extent of these ecosystems continues to be diminished by human activity, the need for protection and stewardship of our remaining natural areas becomes all the more critical. The high conservation priority placed on the CDF places the natural heritage of the Bluffs into perspective as both a local legacy and gift of global ecological significance.

This report provides a summary of the proportional representation of the island's ecosystems that remain protected within the Bluffs. Several maps of the Bluffs are featured, based on

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[3] Ennis, T., D. McConkey, K. Emmings, D. Haley, P. Arcese, T. Golumbia, A. Taylor, K. Richardson, and E. Piikkila. 2015. Coastal Douglas-fir and Associated Ecosystems Conservation Partnership: conservation strategy 2015. Coastal Douglas-fir and Associated Ecosystems Partnership, Victoria. 155 pp.

[4] Emmings, K. and K. Erickson. 2004. *Galiano Land Classification and UP-CLOSE Workshops Series Final Report*. Galiano Conservancy Association, Galiano Island. 89 pp.

current orthophotographs,[5] terrestrial ecosystem (TEM) and sensitive ecosystem mapping (SEM) data,[6] validated through inventory work conducted in 2018. These maps outline the ecological communities represented in the Bluffs, as well as anthropogenic impacts and other areas of conservation concern. An inventory of the Bluffs' species diversity is also provided, with special attention given to sensitive ecosystems and species at risk. General conservation guidelines are considered for the CDF, in addition to several site-specific recommendations for the Bluffs' rare species and sensitive areas.

2.2. Ecological Designation

2.2.1. Climate

Galiano Island lies in the Georgia Depression, in the rain shadow of the mountains of Vancouver Island and the Olympic Peninsula. The regional climate may be described as Mediterranean, characterised by warm dry summers and mild wet winters. The average annual rainfall recorded at the North Galiano Atmospheric Environment Service Station is 954 mm (from 1975 to 2018), with an average of 24 mm falling in July and 153 mm in November. July and August are the warmest months, with mean maximum temperatures of approximately 22 degrees Celsius for the same time period. The coldest mean minimum temperatures of -6 degrees Celsius occur in the months of December and January.[7]
The combined effects of low precipitation and warm temperatures often result in an annual moisture deficit on the island, reaching extreme drought conditions in summer months, especially in southern to southwestern aspects.[8] These conditions cause severe vegetation stress and forest fire hazard, which are expected to worsen under future climate change scenarios.

Climate modelling currently projects an average annual warming of 3° in the Capital Regional District by the 2050s. As the climate warms, increasingly dry summers and wet winters are expected. Among the risks posed by these climatic extremes are prolonged seasonal drought, forest fire and flash floods, all of which may have serious ecological and economic consequences.

2.2.2. Geology, Hydrology and Soils

The bedrock beneath Galiano Island is composed of fractured sedimentary rocks of the Late Cretaceous Nanaimo Group complex: an alternating sequence of northeast dipping, interbedded layers of sandstone/siltstone-dominant and mudstone/shale-dominant sediments. Four formations of this complex have been mapped locally, including the Gabriola Formation

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[5] Aerial imagery provided by Islands Trust Fund (2018).

[6] Terrestrial Ecosystem Mapping dataset based on inventory work conducted by Madrone Environmental Services Ltd. in 2008, according to the Biogeoclimatic Classification System methodology; Sensitive Ecosystem Mapping data based on mapping work subsequently carried out in 2009 by Keith Erickson, Galiano Conservancy Association, and Robert Kojima and Mark van Bakel of Islands Trust Fund, using the TEM dataset.

[7] Data retrieved from Environment Canada, September 2018.

[8] Harrison, D. 1994. Galiano Groundwater Study, 1994 – A Review of Well Development and Groundwater Conditions on Galiano Island.

(sandstone), the Spray Formation (mudstone/shale), the Northumberland Formation (mudstone/shale) and the Geoffrey Formation (conglomerate). The conglomerate sediments of the Geoffrey Formation form the foundation and namesake of the Bluffs, featuring prominently in the rock outcrops which lie below the Bluffs lookout area.

Conglomerate rock is a type of coarse-grained sedimentary rock containing gravel-sized pebbles and cobbles cemented within a finer-grained sandstone matrix. The sediments that formed these rocks were laid down beneath the sea approximately 70 million years ago and subsequently uplifted, tilted, and folded by tectonic forces. The conglomerate layers are more resistant to weathering and erosion than the sandstone layers and thus form the "head" of the bluffs, which rises above Active Pass toward the southern extent of the Bluffs.

As with other terrestrial ecosystems, the soils derived from underlying bedrock form the basis for the ecological communities established in the Bluffs, in addition to materials brought in by wind, water, and the glaciers that left this area about 12,000 years ago. In Volume 3 of the Soils of the Gulf Islands of British Columbia (Report No. 43, British Columbia Soil Survey, 1989), the area around the Bluffs is mapped as "eroded" and "rough mountainous land", comprising steeply sloping bedrock and shallow soils with variable drainage. Dominant soils include: Saturna (channery sandy loam to channery loamy sand colluvial glacial drift materials less than 100 cm deep) and Fairbridge (silt loam over silty clay loam marine deposits over more than 100 cm deep) in the Bluffs' uplands; and Salalakim (gravelly sandy loam coluvial and glacial drift materials less than 100 cm deep over conglomerate bedrock) and rock (undifferentiated bedrock) on the slopes to the southern extent of the Bluffs.

The Bluffs topography shapes the flow of water and accumulation of organic and mineral sediments over the landscape, resulting in considerable variation in the structure and composition of its forested ecosystems. The bedrock of the Bluffs is exposed as outcrops at the southern extent but elsewhere much of it is overlain by a thin layer of soil. Deeper soil pockets are found in the areas between ridges, resulting from glacial deposits and subsequent erosion.

Northward of the steep 120-metre rise from Active Pass to the Bluffs lookout, the land surface continues to rise and fall, varying from 160 to 60 meters in elevation. Throughout the Bluffs the moisture regime varies accordingly, from relatively dry habitats composed mainly of Douglas-fir (*Pseudotsuga menziesii*), western red cedar (*Thuja plicata*) and Oregon beaked moss (*Kindbergia oregana*), to richer, moist riparian forests composed of western red cedar, western hemlock (*Tsuga heterophylla*), grand fir (*Abies grandis*), foamflower (*Tiarella trifoliata*), and, in the wettest sites, skunk cabbage (*Lysichiton americanus*). The former, drier areas occur on steep to gently sloping sites, having soils which are imperfectly to moderately-well drained, and grade into the latter, richer habitats which are found at toe positions at the base of slopes and along creeks where soils tend to be deeper and richer with greater amounts of loamy silt, and silty clay loam. (See Appendix 5.3 for complete ecosystem report.)

2.2.5. Sensitive Ecosystems

A total of 22.2 hectares of the Bluffs is mapped as sensitive ecosystems, representing approximately 16% of the total area (see Map 3). These sensitive ecosystems include old growth coastal Douglas-fir forests, woodlands and associated rock outcrop communities, a

small amount of wetland which lies along the northeastern, western and southwestern boundaries of the Bluffs, and the rocky shoreline.

Old growth Conifer Forests

The Bluffs protects 3.7 ha or approximately 36% of Galiano Island's remaining old growth coastal Douglas-fir forests. Old growth conifer forests include areas of the Bluffs that have not been previously logged. Trees in the dominant canopy have large diameters, are tall and have thick bark, sometimes scared by past wildfires. Densities are relatively low but timber stock is high because of the large volume of timber a single tree can contain.

Areas mapped as old growth include a stand retained at the Bluffs' height of land (Plot 10, shown above left) and moist mixed and coniferous forests established on slopes to the southwestern extent (Plot 13). Much of the woodland described below also classifies as old growth, including Plots 15 and 16, as well as an impressive stand of Douglas-fir to the southwest of Plot 16 (shown right). This community has been classified as woodland, however, owing to its shallow soils and the resulting open character of the stand.

A small portion of the Bluffs' remaining old growth coniferous forests occurs at the height of land (Plot 10), an upland area qualifying as mesic, or zonal CDF conifer forest. The greater extent of old growth, however, has been retained in a water-receiving depression toward the southwestern border (Plot 13), representing a moister forest type dominated by western red cedar. These patches are estimated to be 150–500 years old and were likely retained because they presented little value as timber, or because slopes made harvesting challenging.

Woodlands and Associated Rock Outcrop Communities

Approximately 17.3 ha of woodland and conglomerate rock outcrops make up the popular lookout area of the Bluffs, with steep rocky slopes descending south to the shoreline below. While this area represents less than 13% of the entire Bluffs area, it features an exquisite exhibit of biodiversity. Of all the terrestrial ecosystems represented in the Bluffs this complex of ecosystems is the most diverse, providing habitat for 87% of the reported lichen, bryophyte and vascular plant diversity. The structure and composition of the Bluffs' woodlands and associated rock outcrop communities varies significantly according to this area's complex topography.

North of the lookout, woodlands transition to zonal CDF forest along gentle moisture-receiving slopes in a shaded northern aspect (Plot 15) that contrasts with dry woodlands on the southern slopes (Plot 16). Soils are shallow yet relatively moist, giving rise to trees of robust stature and a diverse moisture-loving herbaceous plant community, including enchanter's nightshade (*Circaea alpina*), little western bittercress (*Cardamine oligosperma*), meadow nemophila (*Nemophila pedunculata*), and native grasses such as Alaska onion grass. Released from the shade and competition of surrounding forests Douglas-firs develop a unique growth form (called "wolf trees"), retaining and extending their lower branches. In this aspect, Douglas-firs, Garry oaks (*Quercus garryana*) and arbutus are all comparably larger than those seen on the steep rocky slopes below, supporting a diverse epiphytic community of mosses and lichens.

On the outcrops and slopes descending below the lookout, soils become rockier and shallower and the vegetation more stunted and sparse. Open meadows are dominated by exotic grasses and a diverse herbaceous community of drought-tolerant native lupines (*Lupinus* spp.), clovers (*Trifolium* spp.), and onions (*Allium* spp.). Along the bases of outcrops, where water tends to seep, a niche opens up for moisture-loving herbaceous plants such as Menzies' larkspur (*Delphinium menziesii*), grassland saxifrage (*Micranthes integrifolia*), and monkeyflowers (*Erythranthe* spp.). Outcrops also support an extremely diverse nonvascular community, including no fewer than 42 moss species. Many of these moss species are drought-adapted, enabling them to occupy a selective niche within this dry woodland environment.

The steep southern slopes and outcrops of the Bluffs descend from 140 m to sea level, leveling out into a series of gradual moisture-receiving slopes and narrow plateaus before

dropping precipitously to the sea. A stand of old growth Douglas-firs covers about 4.7 ha of these lower slopes toward the Bluffs' southeastern extent. This magnificent stand includes many large diameter Douglas-firs which exhibit structurally complex crowns and low live-branch density. One large fallen tree with an obliterated crown was measured to be 40–50m in height; another live-standing tree's circumference was measured at 5.2 m (1.65 m diameter). The stand exhibits many of the attributes of old growth Douglas-fir forest yet has been mapped as woodland because of its relatively open spacing, contrasting with the mature and old growth conifer forests established throughout the rest of the Bluffs.

Wetlands

Wetlands toward the northeast (Plot 3, shown left) and southwest boundaries, and along the western extent of Bluff Road (Plot 6, right), are dominated by red alder and western red cedar trees. The canopy is open and understory plants are indicators of moist-to-wet/ medium-to-rich conditions. Sword fern is abundant on all sites. Salmonberry and skunk cabbage are mostly present along the road.

Wetlands form a marginal part of the ecological mosaic of the Bluffs, comprising approximately 1.2 ha or 1% of this protected area. These wetlands occur as cedar swamps, with an assemblage of skunk cabbage, salmonberry (*Rubus spectabilis*) and lady fern (*Athyrium filix-femina*), and as seasonally inundated floodplains dominated by slough sedge (*Carex obnupta*). Both plots sampled during this vegetation inventory are characteristic of cedar swamplands. Floodplains represent a much more marginal community similar in composition to cedar swamplands but with less of a shrub and tree component.

Littoral

The Bluffs features nearly one kilometer of shoreline along the northwestern shores of Active Pass. This ocean-side or "littoral" community covers about half a hectare and is host to its own distinct assemblage of coastal species, interfacing with the richest ecosystem of the Salish Sea: the marine environment. This area is difficult to access and was not inventoried as part of the Bluffs Management Plan.

2.2.6. Species at Risk

Twelve species of conservation concern are reported for the Bluffs, including 5 species of birds, 2 butterflies, 2 mosses, and 3 vascular plants. Among the most vulnerable species found here are the endangered Lindley's false silverpuffs (*Uropappus lindleyi*) and the rare moss *Triquetrella californica*: a red-listed (S1S2 2018) species considered critically imperilled on a global scale (G1).

Within Canada, *Uropappus lindleyi* (1-E SARA 2010) is only known from southeastern Vancouver Island and the adjacent Gulf Islands, with a range that extends south to California and east to Texas and Utah.[9] This species is protected under the Species at Risk Act (SARA). Only 4 subpopulations have been documented on the island, all occurring within the Bluffs and Matthews Point Regional Park Reserve. An area surrounding these protected areas has been designated as critical habitat for this species under SARA.

First located by Olivia Lee in April, 2017, the Bluffs population of *Triquetrella californica* is currently the only population of this vulnerable moss known throughout all of Canada, with a

[9] Parks Canada Agency. 2012. Recovery Strategy for the Lindley's False Silverpuffs (*Uropappus lindleyi*) in Canada [PROPOSED]. *Species at Risk Act* Recovery Strategy Series. Parks Canada Agency, Ottawa. vi + 29 pp.

range otherwise limited to California and Oregon. In 2018, subsequent efforts were made by Olivia Lee, Steve Joya and Andrew Simon to locate this rare moss elsewhere within the Bluffs but were unsuccessful. The Bluffs is also host to one SARA-listed moss species, the twisted oakmoss (*Syntrichia laevipila*), which was documented during surveys conducted by Andrew Simon in 2016. The twisted oakmoss is a Species of Special Concern under SARA, ranked as blue-listed (S3 2015) in British Columbia.

The Propertius duskywing (*Erynnis propertius*) is a red-listed (S2 2013) butterfly species frequently seen throughout Galiano Island's Garry oak woodlands, documented during the 2018 Bluffs inventory. Another blue-listed butterfly species, the moss' elfin (*Callophrys mossii mossii,* S2S3 2013), was reported for the Bluffs by Gerald Straley in 1981 but has not been reported since.

Also reported for the Bluffs are the threatened olive-sided flycatcher (*Contopus cooperi*, 1-T SARA 2010),[10] common nighthawk (*Chordeiles minor*, 1-T SARA 2010)[11] and barn swallow (*Hirundo rustica*, 1-T 2017),[12] which are protected under the Species at Risk Act (SARA) in Canada. The band-tailed pigeon (*Patagioenas fasciata,* 1-SC SARA 2011)[13] and the peregrine falcon (*Falco peregrinus,* 1-SC SARA)[14] are reported as Species of Special Concern. However, it is not known whether the Bluffs is host to either of the subspecies of peregrine falcon (*F. p. anatum & F. p. pealei*) protected under SARA and considered vulnerable at the provincial scale. All of these bird species occur commonly on Galiano Island.

Two provincially-ranked vascular plant species were recorded during the 2018 inventory of the Bluffs, including the blue-listed Ozette coralroot orchid (*Corallorhiza maculata* var. *ozettensis,* S3 2018) and leafless wintergreen (*Pyrola aphylla*, S2S3 2015). The former species appears to be locally abundant on Galiano Island; the latter is currently only known to the Bluffs, though its taxonomic status is currently in question.

Note: Species of Special Concern are not afforded the same protection status as species ranked as Endangered or Threatened under SARA.

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[10] Environment Canada. 2015. Recovery Strategy for Olive-sided Flycatcher (Contopus cooperi) in Canada [Proposed]. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. vi + 51 pp.

[11] Environment Canada. 2015. Recovery Strategy for the Common Nighthawk (*Chordeiles minor*) in Canada [Proposed]. *Species at Risk Act* Recovery Strategy Series. Environment Canada, Ottawa. vi + 48 pp.

[12] COSEWIC. 2011. COSEWIC assessment and status report on the Barn Swallow *Hirundo rustica* in Canada. Committee on the Status of Endangered Wildlife in Canada, Ottawa. ix + 37 pp.

[13] Environment and Climate Change Canada. 2016. Management Plan for the Band-tailed Pigeon (Patagioenas fasciata) in Canada [Proposed]. Species at Risk Act Management Plan Series. Environment and Climate Change Canada, Ottawa. iii + 14 pp.

[14] COSEWIC. 2007. COSEWIC assessment and update status report on the Peregrine Falcon *Falco peregrinus* (*pealei* subspecies - *Falco peregrinus* and *pealei anatum/tundrius - Falco peregrinus anatum/tundrius*) in Canada. Committee on the Status of Endangered Wildlife in Canada, Ottawa. vii + 45 pp.

Species at Risk Reported for the Bluffs

Species	Common Name	Group	Conservation Rank
Contopus cooperi	olive-sided flycatcher	Bird	Threatened (SARA 1-T 2010)
Chordeiles minor	common nighthawk	Bird	Threatened (SARA 1-T 2010)
Falco peregrinus	peregrine falcon	Bird	Species of Special Concern (SARA 1-SC)
Hirundo rustica	barn swallow	Bird	Threatened (SARA 1-T 2017)
Patagioenas fasciata	band-tailed pigeon	Bird	Species of Special Concern (SARA 1-SC)
Callophrys mossii mossi	Moss' elfin	Butterfly	Blue-listed (S2S3 2013)
Erynnis propertius	Propertius duskywing	Butterfly	Red-listed (2013)
Syntrichia laevipila	Twisted oakmoss	Moss	SARA 1-SC
Triquetrella californica	California triquetrella	Moss	Red-listed S1S2 (2018)
Corallorhiza maculata var. *ozettensis*	Ozette coralroot orchid	Vascular Plant	Blue-listed S3 2018
Pyrola aphylla	Leafless wintergreen	Vascular Plant	Blue-listed S2S3 2015
Uropappus lindleyi	Lindley's false silverpuffs	Vascular Plant	1-E SARA 2010

Table 1. Species at Risk reported for Bluffs. Note: it is not known whether Bluffs is host to either of the subspecies of peregrine falcon (F. p. anatum & F. p. pealei) protected under SARA and considered vulnerable at the provincial scale.

2.2.7. Management Recommendations

Species at Risk

Many of the species at risk in the Bluffs can be managed through a hands-off approach, though Scotch broom (*Cytisus scoparius*) removal and monitoring of the endangered Lindley's false silverpuffs (*Uropappus lindleyi*) and the rare moss *Triquetrella californica* are recommended. Stewardship emphasis should be placed on the vulnerable subpopulation of Lindley's false silverpuffs that is currently at risk of disappearing from Bluffs.

Among the threats to Lindley's false silverpuffs encroachment by invasive plants ranks the highest, followed by habitat loss and degradation, and grazing by goats and deer. According to the recovery strategy for this species, the number one priority is the maintenance of our local subpopulations. This goal can be achieved through active conservation, stewardship, control of invasive species, and monitoring of population numbers in the area.

Inventory work to assess the status of the Bluffs subpopulation of Lindley's false silverpuffs was last conducted in June, 2003, when Harvey Janszen reported a healthy population of more than 390 healthy and vigorous plants over 512 square metres, on dry slopes toward the

southwestern extent.[15] Well over 1,400 plants were also reported from Matthews Point around that time.[16] However, in 2018, only 75 plants were seen in the Bluffs after a thorough assessment of the same sites visited by Harvey Janszen in 2003. This recent assessment of the subpopulation's decline has been reported to the B.C. Conservation Data Centre.

Judging by the amount of Scotch broom seen in this area, it is quite possible that the Bluffs subpopulation of Lindley's false silverpuffs has been reduced by encroachment from this invasive species. Removal of Scotch broom from this area is therefore highly recommended. However, it should be conducted carefully by someone familiar with this precarious cliff-side site, to avoid injury and to minimise any further disturbance to the subpopulation. Ideally broom control on rock outcrops should be conducted in the early season while soil is still moist and disturbance of the shallow soil profile can be minimised. The Bluffs subpopulation of Lindley's false silverpuffs should be monitored to ensure its recovery.

The rare moss *Triquetrella californica* should also be monitored. The population that was found in the Bluffs occurs in a highly transited area to the east of the main outlook. Little is known about the life history of this species, which has never been found to produce reproductive sporophytes. Because of this dearth of knowledge, the risk posed by human and other disturbances is unknown. It is possible that disturbance due to hikers and grazing by ungulates may even benefit the dispersal of this species, for it is locally abundant on a well-trodden plateau within the Bluffs.

While care should be taken to minimise disturbance of other species, many of those identified in Map 3 are protected by virtue of the steep rocky slopes that comprise their habitat, which offer no easy footing. Visitors to the Bluffs should nevertheless be discouraged from traversing these steep slopes and rock outcrops, which provide habitat for several rare species. Not only are these outcrops dangerous; they are easily eroded. Trailing through these areas brings the risk of further dispersing seed from exotic species. De-commissioning trails leading south from the main look-out area is therefore encouraged.

Dieback

Two areas exhibiting dieback were identified from satellite imagery within the Bluffs (see Map 3), including stands of Douglas-fir to the western extent of the property and stands of western red cedar to the southeastern extent. Dieback may be due to root rot caused by saprophytic fungi such as *Phellinus weirii* or *Armillaria*, which, as noted previously, are part of the natural disturbance regime of coastal Douglas-fir forests. Alternatively, dieback may be related to climate impacts such as drought. Field surveys revealed dieback to be especially concentrated among young western red cedar trees established on sites with well-draining shallow soils to the southeastern extent of the Bluffs.

Research has shown that dieback in Western red cedar has occurred primarily in areas of shallow or poor soils, where these water-loving trees are prone to increased drought-related stress (Seebacher 2007). Further declines of Western red cedar are thus expected to occur in drier, moisture-shedding aspects of the island such as areas found toward the southern extent

[15] Harvey Janszen, personal communication, 2018.

[16] Marta Donovan, Conservation Data Centre of BC, personal communication, 2018.

of the Bluffs. Western red cedar in the moister areas of the Bluffs do not show signs of stress, however, and are likely to be more resilient to the impacts of climate change.

The current extent of dieback of Douglas-fir and Western red cedar trees is relatively limited and does not require active management intervention. However, it is well documented that cedar is under stress throughout southern Vancouver Island and the Gulf Islands due to climate change and increasingly prolonged summer droughts. Climate change models predict that there will be even less summer rain and more lengthy summer droughts in our region over the next 30 years, which could potentially cause significant changes in forest vegetation. Careful monitoring of the extent of dieback and vegetation change is therefore called for, as is consideration of mitigation measures should the fire risk become problematic. Mitigations such as silvicultural thinning treatments have proven to have unpredictable and sometimes deleterious outcomes, however, and should thus be carefully implemented under a monitoring regime, to limit undesirable outcomes and inform adaptive management practices.

Invasive Species

A total of 60 exotic species are reported for the Bluffs (see Appendix 5.6). Many of these species pose no serious risk to the Bluffs ecosystems, however several are considered to be particularly invasive and should be controlled—particularly where they threaten endangered species. Scotch broom and spurge laurel (*Daphne laureola*) present the most serious management concern at present. Others, including broad-leaved helleborine (*Epipactis helleborine*) and holly (*Ilex aquifolium*) are of secondary concern and should be controlled if resources are available. Climate change may render certain ecosystems more vulnerable to invasion by alien species in the future. Ongoing adaptive management of these communities is therefore recommended. However, certain exotic species, including the grasses which dominate the open woodlands of Bluffs, will likely prove impossible to control.

2.3. Cultural Heritage

2.3.1. Japanese Pit Kiln

Japanese pioneers coming to British Columbia in the late 1800s and early 1900s established communities in Steveston on the banks of the Fraser River, in the Gulf Islands and along the BC coasts, where they engaged in logging, fishing and farming. Many who settled in Steveston and on Galiano Island were from Wakayama Prefecture in Japan, where the ancient technology of charcoal making was practiced.

The 1901 Galiano Island Census lists 9 Japanese charcoal makers and 14 Japanese wood cutters. Charcoal was a part of daily life, a fuel source used by many for domestic cooking and heating, in blacksmithing, the manufacture of explosives and soap, and in BC's booming salmon canning industry.

In 1981-82, resident Steve Nemtin rediscovered five Japanese charcoal pit kilns on the island and over a period of 20 years researched and restored two. Due to Mr. Nemtin's documentation, the Bluffs Charcoal Pit Kiln is now an official historic Japanese Canadian archaeology site.

2.3.2. Garbage Dump

A garbage dump was created when the Galiano Club took on the management of the newly created Bluffs in 1951. It was a time when most islanders either burned or buried their small

amounts of household garbage in private burn barrels and "in the forest somewhere". However, the larger pieces of junk such as unrepairable old cars and farm machinery and broken household appliances were dumped at this location. On August 1st, 1967, an uncontrolled fire burned for two weeks. It is believed that toxic materials would have been burned at the time. Materials were no longer deposited at the site after the fire. The dump was officially closed in 1971. Outflow into Georgeson Creek is being monitored by CRD and a recent sampling indicated no results of concern of contamination from the dump.

2.3.3. Shelter

A three-sided log structure with a corrugated metal roof was constructed on the lookout ridge in 1955 by islander and skilled axe-man, Mr.Fritz Revelj, as the newly created Bluffs was being established. The building became a very popular stop for visitors to the lookout area with the log walls becoming a favourite place to carve personal initials. During the winter of 2016, a wind storm seriously damaged the roof, exposing some much weakened walls. The decision was made to remove the roof and lower the walls to three remaining logs. This has now become a preferred place to sit.

2.3.4. Archeological Site

A registered archeological site exists on the property. In order to protect the site, the exact location is not public. Under contract with the Capital Regional District an archaeological firm inadvertently went beyond the Matthews Point boundary and found evidence of a potential sub-surface archeological deposit on the lookout trail within the Bluffs. The consultant's recommendation was that any trail improvements within this area should be designed to avoid impacts to the ground. Further, she noted that if any proposed improvements within the archaeological area of potential requires ground disturbance, an Archaeological Impact Assessment (AIA) level study should be completed in advance of construction (an AIA requires a Heritage Inspection Permit from the Provincial Archaeological Branch, MFLNRO).

2.4. First Nations History

For millennia before Spanish and British explorers first saw the Gulf Islands in the 1790s, or the first settlers arrived on Galiano in the 1850s, indigenous people occupied the islands and harvested the resources of the land and sea. The archaeological research conducted on the Active Pass shoreline at Georgeson Bay on Galiano[17], and Helen Point on Mayne Island[18], shows that indigenous peoples have traveled through Active Pass on their seasonal rounds and lived along the shoreline of the Pass for at least 5000 years.

These peoples fished, collected shellfish, and hunted marine mammals in the Pass, and foraged and hunted in adjacent forest and meadow lands. Deer would have been hunted on the lands that now comprise the Bluffs, and the high bluffs would have been an important view point to observe movements of marine animals and people through Active Pass.[19]

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[17] Test Excavation at Georgeson Bay, British Columbia, by James C. Haggarty and John H.W. Sendey. 1976. British Columbia Provincial Museum, No. 19 Occasional Papers Series.

[18] Excavations at Helen Point on Mayne Island, by Roy L. Carlson. 1970. BC Studies 6/7.

[19] Cowichan Tribes elder Luschiim (Arvid Charlie), quoted in Matthews Point Regional Park Draft Management Plan, 2018, Capital Regional District.

The southern Gulf Islands are within the traditional territories of several Coast Salish First Nations. Three groups of these First Nations have made land claims and/or asserted aboriginal harvesting rights either to the southern portion of Galiano Island, or to the entire island. These include the Hul'qumi'num Treaty Group (HTG), the Tsawwassen First Nation, and the W̱SÁNEĆ (or Saanich) First Nations. The Hul'qumi'num Treaty Group includes the Penelakut First Nation, which holds a Reserve at the north end of Galiano. The W̱SÁNEĆ include the Tsartlip First Nation, which holds the Helen Point Reserve on Mayne Island directly across Active Pass from the Bluffs.

In the Hul'qumi'num language the name of Active Pass is ***Sqthaqa'lh***, which means "bigger passage or entrance", in contrast to ***Sqtheq*** ("narrows") which is the name for Porlier Pass at the north end of Galiano.[20] There is a story in Hul'qumi'num oral tradition about ***Xeel's***, the "Transformer", who stepped across to Vancouver Island from Washington State on a mythic journey and left his giant footprint (***Shxixnetun***) along the Galiano shoreline of Active Pass.[21]

2.5. Bluff and Lookout/Viewpoint Roads

Bluff Road was built in 1926 and is the first and oldest road on the island. It is a one lane dirt road with a number of pullouts should two oncoming vehicles meet. It is the only alternative route to Sturdies Bay if Sturdies Bay Road is blocked. Traffic control is required to manage the flow of vehicles on Bluff Road in the event that Sturdies Bay Road is not passable. MoTI has advised that Mainroad (South Island) is responsible for traffic control using an individual with traffic control certification.

The 2018 Ministry of Transportation and Infrastructure (MoTI) classification of Bluff Road is 6C.[22] MoTI has no jurisdiction beyond the actual road bed, however it has indicated a willingness to install signs related to the roadway (such as "Slow" and "Single Lane"). Under current provincial law the surface of Bluff road is owned and maintained by the province. Maintenance of the road and any improvements are the responsibility of Mainroad South Island.
The lookout/viewpoint road was built by Mr.Ollie Garner in 1954 for the Galiano Club; the Club continues to own and maintain this roadway.

2.6. Fire Prevention

The fire access road within the Bluffs consists of Canter Road, Jumping Mouse Trail and Owl Tree Trail. The access is from Bluff Road on the west side, Whaler Bay Strata property on the north side and Winstanley road on the east side. The roads must have clearances of 12 feet wide and 13 feet high. There is a 5,000 gallon below ground tank at the bottom of the lookout road with a padlock on the lid. The South Galiano Fire Department has the key and maintains the water in the tank. The fire pond is in the middle of the Bluffs and is accessible by Canter Road. The Bluffs is on the regular annual inspection schedule for the South Galiano Fire Department. An inspection notice will be issued to The Club noting any concerns.

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[20] Hul'qumi'num Peoples in the Gulf Islands: Re-Storying the Coast Salish Landscape, by Ursula Abramczyk, 2017. MA Thesis, University of Victoria.

[21] Shxunutun's Tu Suleluxwtst: In the Footsteps of our Ancestors. 2005. Hul'qumi'num Treaty Group.

[22] Heritage Road

2.7. Bluffs Vandalism

There have been a number of incidents of vandalism during the period of time when the Bluffs Management Plan was developed. This included campfires, motorized vehicles on trails and dumping of construction materials. Overnight parking and camping was also prevalent. Management of the Bluffs will need clear signage, patrols and closing of lookout gates after dark. As use increases through both population and tourism growth, some people may become disconnected from a sense of community ownership and responsibility for the Bluffs. Keeping the community and tourists aware of the importance of protecting the Bluffs will be an ongoing process.

2.8. Bluffs Zones

Throughout the process of developing this Management Plan it became evident that there are differences of opinion and interests in the Bluffs management. Management of the Bluffs can be sectioned in zones that address the differing interests.

- Zone 1 - This area consists of everything south of Bluff Road which includes the trail system from Matthews Point Regional Park through to the Japanese Pit Kiln, the lookout road and parking area. This area is the destination for most tourists.
- Zone 2 - This is the trail system leading from the Sturdies Bay Trail through to Zone 1. This allows for day hikers coming from the ferries to be directed through to the lookout, the Japanese Pit Kiln and on to Mt. Galiano.
- Zone 3 - This area includes the Canter Trail past the old garbage dump and through to Bluff Road east. This zone would be left undeveloped.

3. MANAGEMENT

3.1. Management Vision

The 1988 revised Deed of Trust identifies the vision for this property as:

> *"To hold the lands solely and irrevocably as a nature conservancy area as defined under the Park Act Ch. 309, 1979, for such recreational uses and enjoyment of the general public which do not disturb or interfere directly or indirectly with the soil, vegetation or animals and their habitat, except as may be approved by the Directors of the Trustee in accordance with a continuing inventory and management plan endorsed and ratified from time to time at the annual general meeting and at any extraordinary general meeting called for this specific purpose."*

The intent of this vision is to build, update and add new components as endorsed by the Galiano Club Board and ratified by the membership, providing these components are consistent with the above statement. The Bluffs is also considered to be a spiritual place offering experiences to refresh the soul in nature and as such it is invaluable to the people of Galiano.

3.2. Cooperation with Other Agencies and Groups

The Galiano Club is committed to working with other agencies and groups in order to effectively implement the above vision. Examples of other partners include, but are not limited to:

Capital Regional District

- South Galiano Volunteer Fire Department
- Regional Parks - Matthews Point Regional Park, South Gulf Island Regional Trails Plan
- Galiano Island Parks and Recreation Commission – Sturdies Bay Trail, Winstanley Trail Access

Province of BC

- Crown Lands
- Ministry of Transportation and Infrastructure

Galiano Trail Society
First Nations

3.3. Objectives for the Property

3.3.1. Conservation

- To establish a protected area for the conservation of the Coastal Douglas-fir bio-geoclimatic zone.
- To create trail connections with the adjacent Crown lands and Matthews Point Regional Park, avoiding further forest fragmentation.
- To prevent development of the Bluffs Active Pass shore line by not building or sanctioning trails to the protected area above the high tideline, water and foreshore.
- To maintain and conserve the diversity of ecosystems and ecological processes in their natural successional development.
- To identify, protect and enhance (if consistent with this Plan) the ecosystem/ecological services provided.
- To protect the watershed through limiting development and other activities that might affect groundwater.
- To be aware and monitor the impact of the decommissioned garbage dump on the Bluffs property.
- To determine the fire hazard risk to the Bluffs and develop mitigation strategies and actions.
- To be aware of and monitor the presence of invasive species.
- To improve protection of sensitive habitats.
- To gain a better understanding of the impacts of climate change on the Bluffs and respond using adaptive management.

3.3.2. Recreation

- To maintain, enhance where desirable, and reduce impacts of permitted recreational activities.
- To encourage activities which promote health, well being and spiritual benefits.
- To support the safety of users, within the confines of a nature protection zone.
- To plan with the CRD (Matthews Point) regarding recreational activities that affect both properties.

3.3.3 Education

- To encourage public awareness and understanding of the Bluffs purpose, objectives, history and permitted activities.

- To facilitate management activities by encouraging and developing information and activities that build awareness and appreciation of the Bluff's natural environment and history.
- To encourage appreciative behaviour in the Bluffs (e.g. avoid trampling sensitive ecosystem areas).
- To encourage organised public participation and volunteerism to achieve Bluffs objectives.
- To allow schools, educational institutions and learning centres to develop and offer public programs explaining the natural and cultural history of the Bluffs.
- To augment visitor safety by providing general information on the website, on signage and at the Bluffs kiosk.

3.4. Management Policies

3.4.1. General

- In recognition of the rare and endangered status of the Coastal Douglas Fir Bio-geoclimatic zone contained within the Bluffs, protection of the ecosystem shall be a primary consideration and context for management decision-making.
- No development of any kind will take place in any archaeological sites. An Archaeological Impact Assessment study shall be completed prior to any development in the lookout trail area.
- The Galiano Club will apply the precautionary principle[23] in decision making.
- Adaptive management[24] techniques and procedures will be used.
- The Galiano Club shall seek public input and the Galiano Club membership approval before implementing any material changes not in the Management Plan. This does not in any way limit the ability of the Board to manage the Bluffs and to deal with emergent issues.
- Volunteer activities under the direction of or with the permission of the Galiano Club shall be sought and utilised to assist with the management of the Bluffs.

2. Conservation

- No commercial ventures are allowed anywhere in the Bluffs.
- The removal of Scotch Broom is a priority and annual removal initiatives, in accordance with best practices, will be initiated.
- Standing dead trees are to be left if they are not close to trails to promote wildlife habitat.
- The decommissioned garbage dump will continue to be monitored by the CRD, and water quality reports published by government inspection agencies for the watershed will be regularly reviewed to ensure that any changes linked to the dump are understood.

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23 Precautionary principle – definition - When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. The precautionary principle denotes a duty to prevent harm, when it is within our power to do so, even when all the evidence is not in.

24 Adaptive management – definition - A systematic process for continually improving management policies and practices by learning from the outcomes of previously employed policies and practices.

3. Trails and Roads

For the protection of the Bluff's ecosystems:

- trails within the Bluffs will be limited in number and location.
- the existing trails will be maintained and managed to cause minimal impact or disturbance to fragile, endangered or otherwise protected habitats, species and landscapes.
- all travel through the Bluffs is to remain on the Bluff and lookout roads and designated trails.
- trails will be maintained consistent for use by the public with a natural surface suitable for low to moderate use.
- adjacent property owners will be discouraged from making trails into the Bluffs.
- trails will only enter the Bluffs from public lands or public roads and not from private lands.
- existing trails can be closed and/or relocated.
- closed trails will be allowed to return to a natural state.
- proposals for new trails or alteration of existing trails must be consistent with the Bluffs Management Plan and have approval of the Board.
- except for emergency vehicles, no motorised vehicles will be permitted on trails or fire access lanes.
- For safety reasons, trails leading south from the main lookout area will be decommissioned.
- The Galiano Club will encourage the province to keep Bluff Road well maintained as a single lane gravel road that has limited impact on the surrounding land.
- The Galiano Club will cooperate with the Ministry responsible for the management of Bluff Road to ensure that the Road provides a functional emergency connection between Sturdies Bay and the rest of Galiano Island.
- A stem trail approach from Sturdies Bay trail to Section 4 of the Bluffs will be identified in order to encourage visitors to enjoy the most pristine walk through Section 4 effectively directing them to the major areas of interest in Zone 1 and Zone 2 to minimize foot traffic elsewhere and, increase safety by providing an alternative to Burrill Road.

4. Parking

- Vehicle parking areas will have a non paved gravel surface.
- To minimise impact on surrounding land, parking spaces will be limited in number and will be located only in areas of previous development - the lookout, the entrance to the old dump road and the horseshoe pullout. Parking will be prohibited off the edge of Bluff Road within the Bluffs and will not be increased or altered without consultation except as required to deal with emergent issues.

5. Fire Protection and Emergency Access Lanes

- Emergency Access lanes and other fire mitigation activities will be developed and implemented in consultation with the South Galiano Fire Chief.
- The Galiano Club will have discretion in taking actions such as patrolling and even closing the Bluffs in cases of extreme fire hazard or other risks. The Bluffs <u>will</u> be closed when the Galiano Fire Chief closes Galiano Island Forests.
- If the Bluffs is closed due to extreme fire hazard or other risks, the Galiano Club will try to post signs at the entrances and recruit volunteers to patrol.

- A limited number of undeveloped, vehicle width Emergency Access lanes, deemed sufficient for emergency purposes, will be kept passable within the Bluffs.
- Emergency Access lanes may enter from both public and private lands.
- The gates at the entrances of the Emergency Access lanes gates will be kept locked with keys given to appropriate emergency agencies. The entrances will be kept clear by the Galiano Club.

6. Recreation

- Within the context of the nature protection zoning and the conservation policies, compatible, low-impact outdoor recreation activities such as walking on designated trails, nature appreciation, and educational activities are permitted. Users are expected to comply with the Bluffs rules.
- Within the context of the nature protection zoning, safety of users will be the primary consideration regarding maps, signage and other issues.
- In keeping with the nature protection zoning of the Bluffs, with the exception of the lookout parking lot, no structures or barriers will be placed along the cliff edge.
- The Bluffs will be patrolled regularly during the summer months and weekends throughout the year in order to support the conservation, recreation and education objectives, ensure usage is consistent with the nature protection zoning, ensure compliance with the Bluffs rules, identify issues
- Equestrian use shall be limited to designated trails in the north and east side of Bluff Road. Equestrian use will be reviewed if there is significant damage caused by horses.
- No benches are permitted anywhere in the Bluffs.

3.4.7 Signage

Where suitable, major signs will be constructed from untreated cedar. Appropriately located signage will:

- warn visitors of the steep cliff edges.
- direct people to the lookout, Mt Galiano and the Japanese Pit Kiln.
- indicate location ("you are here") and the Bluffs trails
- inform visitors of the "nature protection area"
- inform visitors of Bluffs rules

3.4.8. Education

The Galiano Club will inform the public of the purpose of the Bluffs, management policies, permitted activities, safety messages and any other information the Club deems appropriate and required utilising appropriate communication media and techniques. Research, data gathering and monitoring activities that aid in management decision-making shall be permitted with the approval of the Galiano Club.

The Galiano Club will widely distribute the following **Bluffs Rules:**

- Flora and wildlife is protected and may not be damaged or removed.
- Camping, hunting, fires or structures of any kind are prohibited.
- No motorised vehicles of any kind are permitted, other than on Bluffs Road and the access to the lookout (exception: emergency vehicles).
- No bicycles are permitted on trails.
- Drones are not permitted anywhere in the Bluffs without prior approval from the Galiano Club.

- Domestic pets must be controlled at all times.
- Equestrian use is limited to designated trails in the north and east side of Bluff Road.
- Bluffs users should not access the steep slopes and rock outcrops below the ridge.

3.5. Management Responsibilities

3.5.1. Management Planning

The Management Plan for Mount Galiano (March 1992) states:

> *"(proposed changes to the Galiano Club constitution – Appendices J1 & J2) "The Directors shall appoint two (2) directors to form a permanent committee to manage Bluffs and Mount Galiano according to Section 2, Paragraph c of the Constitution[25]."*

The Galiano Club will annually establish a committee of at least 2 Board Members to be responsible for the Galiano Club lands (the Bluffs, Mt. Galiano and the Community Forest). Interested Galiano Club members may be included on this committee. The responsibilities of this committee will include:

- identifying the primary contact for each of the lands.
- promoting the purposes of the lands
- implementing, monitoring, promoting and updating the three land management plans (as required).
- monitoring the CRD water quality tests for the Bluffs.
- documenting, through minutes, issues and decisions and reporting to the Board monthly.
- organising volunteer activities in the lands in support of the Management Plans.
- communicating, overseeing and recognising volunteer involvement.
- making recommendations to the Galiano Club Board on substantive decisions and/or directions.
- implementing and communicating Board decisions in relation to the Bluffs.

3.5.2. Risk Management

The Galiano Club will develop a Risk Management Plan to identify and analyse potential risks to both the properties and programs and articulate the risk mitigation strategies in place or to be considered.

As part of the risk management planning, the Galiano Club will seek advice on potential liabilities in a nature preserve with steep cliffs and potential tree falls. The Club will also obtain advice on recommended wording for any warning signs, brochures and the website.

3.5.3. Mitigation of Fire Hazard – Best Practices

The Galiano Club will work with the South Galiano Fire Department to mitigate the fire risk in the Bluffs to the extent possible within existing resources. The identified Directors will consult with the Fire Department annually to ensure that any mitigation of fire risk remains current with best practices.

[25] Due to changes in the *Societies Act*, 2017, the constitution is limited to the societies' purpose so this proposal is no longer possible.

3.5.4. Galiano Club Financial Responsibilities

- holding liability insurance.
- to the extent possible within existing resources, maintenance of existing infrastructure (trails, fire access lanes) and facilities (parking areas, water tank and pond).
- to the extent possible within existing resources, maintenance of signage, information kiosk and information materials.

3.6. Community Involvement

- provide input into the lands' management plans.
- ratify lands' management plans (Galiano Club membership).
- volunteers to implement aspects of the Plan (e.g. patrols, broom pulling, clearing trails).
- notify the Galiano Board contact of any issues observed.

4. PLAN IMPLEMENTATION

Should resources (human and/or financial) become available, the following strategies will be undertaken. Implementation may be dependent on donor or funder requirements, emergent issues of other considerations.

	1. Priority Strategies and Actions	Priority	Status October 2020
1	The Club establish an operational policy which defines a process for implementing, monitoring and updating the Management Plans for the Galiano Club properties.		Complete
2	Subject to available funds, a public education strategy be defined to inform the public of the vision and objectives of the Bluffs.	4	
3	The information kiosk content will be updated to be consistent with the approved Management Plan.	9	
4	Remove the map sign at the kiosk and move the map signs at the entrance to the trails on Bluff Road slightly (2-3m) back off the road.		
5	All fire access roads be cleared at a width of 12 feet and height of 13 feet. To be completed by a work party before the fire season (including deadfall and danger trees only, not salal).	2	Complete
6	The vehicles and metal debris be removed from the garbage dump.		under discussion
7	The pit near the garbage dump be filled in.	6	Complete
8	"Caution steep cliff" signs to be posted on the trail coming from Matthews Point, Lookout area and the pullout.		Complete
9	"Nature Protection Area" signs to be posted at each entrance to the Bluffs.	8	redesigned
10	Signage to direct hikers from Sturdies Bay Trail along Jumping Mouse trail to the Lookout.	3	Complete
11	Signage include “nature protection area, please stay on marked trail”.	5	
12	The gates at each side of Bluff Road be moved to the bottom of the Lookout road and the entrance to Canter trail.	10	Complete

13	The shelter information sign be erected to explain the history of that structure.	1	Complete
14	A request be made to MoTI to post "slow, single lane road" signs at each end of Bluff Road.		Complete
15	“No parking” sign be erected in front of Canter Road gate to allow fire truck access.	7	Complete
16	The road contractor be asked to have a traffic control plan in place in the event that Sturdies Bay Road is blocked.		
17	The existing trail from Winstanley road down the slope to Jumping Mouse Trail be de-commissioned and the alternative trail be maintained. Note: maintaining means removing windfalls, repairing water runoff damage, keeping fire access routes clear		Complete
18	The fire access lane from Winstanley will remain in place for fire access but not publicised. note: this road is partly on private property.		Complete
19	The Moss trail be decommissioned.		Complete
20	An annual broom cutting program be implemented in accordance with best practices.		In place
21	A Certified Danger Tree Assessor be contracted with to do an annual inspection or in the event of trees of concern.		being discussed
22	A volunteer summer and weekend, volunteer patrol program be implemented to control overnight parking and camping.		In place
23	The Volunteer Guardian program be resurrected to assist in supervising and maintaining the Bluffs. See Appendix 5.6 for Guardianship Role Description.		In place
24	The well at the top of Highland Road be decommissioned.		Complete

5. APPENDICES

5.1. Deeds of Trust (1988 and 1951, posted separately on website)
5.2. Matthews Point Regional Park Management Plan (highlights)
5.3. Ecosystem Report
5.4. Land Use Bylaws
5.5. Guardianship Program
5.6. Biological Inventory (posted separately on website)

2. MAPS (posted separately on website)

Map 1 Location (south Galiano Island)
Map 2 Location (Plan A, Section 2 & 4)
Map 3 Ecological Communities
Map 4 Conservation Areas
Map 5 Galiano Club Trail Map