

Management Plan for  
**HORTON BAYVIARY NATURE RESERVE**  
Mayne Island, BC

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Approved by the Trust Fund Board  
(Resolution # TFB 02/501)

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## **EXECUTIVE SUMMARY**

Horton Bayviary Nature Reserve consists of one lot, Lot A Section 2, Mayne Island, Cowichan District, Plan VIP64282. It is of regional significance by virtue of protecting a young Coastal Douglas-fir ecosystem. This ecosystem is one of the most threatened in B.C. with less than 1% protected. As well, a First Nation midden site is located on the Nature Reserve.

The previous landowners wished to donate the property for the purpose of conservation, especially in providing habitat for a number of bird species living in the area. The Islands Trust Fund worked with the American Land Conservancy to ensure the landowners wishes could be met.

It is ITF's policy to develop management plans for all properties it owns, and Searle & Associates was retained in May 2002 to provide an overview site inventory, receive public comment and develop a management plan for this property.

The principal objectives of this plan are to:

- Provide an overview of environmental features and values of the property;
- Identify management issues; and
- Make recommendations for management strategies and actions to address the identified issues and the long-term protection of environmental values and natural character of the site.

The purpose of the Nature Reserve is to protect a site with natural and cultural significance. The management objectives for the reserve are to:

- Allow natural ecological processes to function without human interference, except in the case of fire; and
- Ensure that permitted uses will not significantly impair the natural condition of the site or impact the special features or resources.

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## 1.0 Introduction

The object of the Islands Trust is to “preserve and protect the Trust Area and its unique amenities and environment for the benefit of the residents of the Trust Area and of British Columbia generally, in co-operation with municipalities, regional districts, improvement districts, other persons and organizations and the government of British Columbia.” The Islands Trust Fund (ITF) assists in implementing this objective by establishing nature reserves and nature sanctuaries and by working with interested landowners to protect special features and values on their private lands through voluntary conservation initiatives.

The American Land Conservancy donated Lot A, Section 2, Mayne Island, Cowichan District Plan VIP58933 in 2002 to the Trust Fund Board (TFB) (Figure 1 and 2). The previous owners, who donated the lot to the American Land Conservancy, named the nature reserve Horton Bayviary based on its location on Horton Bay and a combination of their grandchildren’s names.

The lot is typical of a young second growth Coastal Douglas-fir ecosystem that has had some human disturbance in the form of clearing, as is evident by a regularly shaped patch of sword fern in the northeast corner. Some of the firs have fire scars indicating a fire swept through the area in the 1940s or 1950s.

The Islands Trust Fund Plan (ITFP 1997) sets out the framework for managing properties owned by the Trust Fund Board. The ITFP requires the Board to approve a management plan for each property it owns.

Searle & Associates was retained in May 2002 to prepare an overview site inventory, facilitate a public open house, receive public input and develop the management plan for Horton Bayviary Nature Reserve. A management plan provides short-term and long-term direction and guidance for the management of values and features of significance on properties owned by the ITF. It includes a biophysical description of the property, an overview of present land use and zoning, identification and discussion of management issues, and recommendation of management strategies.

## 1.1 Nature Reserve

The purpose of establishing this nature reserve is to protect a site with natural and cultural significance. In particular to protect:

- An area of geographically limited Coastal Douglas-fir biogeoclimatic zone; and
- a First Nation midden site.

## 1.2 Overall Objectives

The objective of the Management Plan is to provide overall direction that will protect the natural state of the property. The objectives for management of the Horton Bayviary Nature Reserve include:

- Allowing natural ecological processes to function without human interference, except in the case of fire; and
- Ensuring that permitted uses will not significantly impair the natural condition of the site or impact the special features or resources.

## 2.0 Background

The Horton Bayviary Nature Reserve is located adjacent to the Twin Totems property on the south eastern side of Mayne Island. It is located between Horton Bay and Horton Bay Road and can be reached via Horton Bay Road, which runs off of Fernhill Road (Figure 1).

The previous landowners, American citizens, wished to donate the land for conservation purposes with special consideration for the birds that inhabit the area. They donated the land to the American Land Conservancy, who in turn, with consent from the donors, later donated the land to the Islands Trust Fund. The landowners requested that the lot be called the Horton Bayviary Nature Reserve.

The ITF has adopted Horton Bayviary Nature Reserve as the name for the site, as has been requested by the original donating landowners.

## 2.1 Methods

Information gathered for this report was derived from four sources:

- two site visits;
- a review of existing information;
- an open house and public comment; and
- discussions with relevant experts.

## 2.2 Public Consultation

An open house, will be held on July 6, 2002, at the Community Market. This open house is advertised in the June edition of the Mayneliner. The draft management plan is available, for public review, from the local Trustees on Mayne Island and on the Islands Trust Fund website ([www.islandstrustfund.bc.ca](http://www.islandstrustfund.bc.ca)). Oral and written submissions will be received at the open house, and written submissions can be made to the consultants until July 15, 2002.

## 2.3 Legal Description

Horton Bayviary is approximately 0.52 hectares in size and is legally described as: Lot A Section 2, Mayne Island, Cowichan District, Plan VIP64282 (Figure 2).

## 2.4 Site History

The site was previously owned by American citizens who wished to protect the area, not only for its own intrinsic value, but also for the many species of birds that inhabited the land. The land was donated to the American Land Conservancy in 2001 with the understanding that this organization could donate the property to the Islands Trust Fund (a Canadian land trust).

The following covenants and easement exist on the property:

<b>EH66494</b>	Owner	Mayne Island Local Trust Committee
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	Covenant (94/05/16)	Held by Victor Morris and Carolyn Dohrmann Morris and the Mayne Island Trust Committee; there shall be no further subdivision of the lot, except to the part formerly Lot 1, Plan VIP589333.
<b>EH66495</b>	Owner	Province of BC
	Covenant (94/05/16)	Held by Victor Morris and Carolyn Dohrmann Morris and the Province of BC; the lot shall not have any building constructed or mobile home placed within 15.0 metres from the Sea, Horton Bay, to protect from flooding danger.

<b>EH98416</b>	Owner	Victor Morris and Carolyn Dohrmann Morris
	Covenant (94/07/18)	Inter alia; the lot shall not have any living vegetation within the area cut, limbed, trimmed, topped, disturbed, or removed, except in the event of constructing a driveway and then should be done so with the least amount of disturbance.
<b>ES111746</b>	Owner	Islands Trust Fund
	Easement (01/12/11)	Held by Victor Morris and Carolyn Dohrmann Morris and John Dickinson and Nancy Van Natta; a portion of Lot A, Section 2, Mayne Island, Cowichan District Plan VIP64282 shall be available for the construction and maintenance and use of a water pump that will supply water to Lot B, Section 2, Mayne Island, Cowichan District Plan VIP64282.

## 2.5 Local and Regional Context

The 1994 Official Community Plan (OCP) designation on Lot A, Section 2, Mayne Island, Cowichan District, Plan VIP 64282 is Settlement Residential. The OCP does not currently have a designation specifically for protected areas. Since it is the intent of the ITF to maintain the lot in an undeveloped manner this is not critical at this time. However, it is recommended that the next time the OCP is comprehensively amended, the Horton Bayviary be designated in the most appropriate manner for a nature protection area.

According to the Provincial Capital Commission's and CRD Parks' Regional Green/Blue Spaces Strategy, maintaining green/blue space values is considered a priority where the area would help meet the objectives of the Regional Green/Blue Spaces Strategy (CRD/PCC, 1997).

The Horton Bayviary Nature Reserve fulfils this priority and as such is considered of regional significance within the Capital Regional District, which includes the Southern Gulf Islands.

The BC Conservation Data Centre identifies Coastal Douglas-fir and older second growth ecosystems as ecosystems of conservation concern.

In time, as the site regenerates, the Horton Bayviary Nature Reserve will take on these characteristics. Past logging activity on the properties is apparent and the ecosystem is clearly a young second growth Douglas Fir. As well, a very regularly shaped patch of sword fern on the north east portion of the lot indicates that the land was cleared at one time but has been left to regenerate.

Other disturbances to the site include a fire, most likely in the 1940s or 1950s, and five or six percolation holes, approximately 3'x4'x5', that were dug during past development queries. Recently, there has been a small amount of refuse dumping on the northwest portion of the Nature Reserve and cedar fence posts have been dumped near the southeastern section of the lot. One footpath exists but shows minimal use.

Historical aboriginal use in the area is evident from a midden site near the beach on the Nature Reserve (Figure 3).

### 3.0 Overview Environmental Inventory

The environmental inventory includes an overview of geology and physiography, soils, watercourses, and biological resources.

#### 3.1 Geology and Physiography

Approximately 85 million years ago a broad basin formed in the Strait of Georgia area. Mayne Island is underlain completely by the sand, gravel, and mud deposits that were made into this basin as well as a small amount of coal (Yorath and Nasmith, 1995). The island is a combination of promontories comprised of conglomerate and resistant sandstone and bays formed within shales. Agriculture Canada characterizes Mayne Island as having northeast-to-southwest dipping, overturned beds as a result of a broad fault zone. As well, Mayne is typified by differential erosion that resulted in ridges or hills with steep slopes on one side and gentle slopes on the other. The Horton Bayviary Nature Reserve is typical of Mayne Island. There is a steep slope dropping off from Horton Bay Road to the bay. The site slopes to the north east with an elevation change of approximately 30m. No drainage areas were found on the Reserve.

#### 3.2 Soils

There are two major types of soil found on the Horton Bayviary: Galiano which covers approximately 90% of the land, and Saturna-Qualicum which covers the remaining land (Research Branch of Agriculture Canada and Green et al., 1988). These are described as follows:

Galiano: Well-drained, shaly loam textured soils that have developed on shallow colluvial, residual, and glacial drift materials less than 100 cm of the surface. The coarse fragment content is between 20 – 50%, increasing with depth. Where this soil type exists on the Horton Bayviary Nature Reserve, the soil is in a very shallow lithic phase with associated bedrock exposures. There is often a layer of fractured bedrock between the solum and the unweathered consolidated bedrock. Because of the limited soil cover, the best use of the land is conifer growth although growth may be limited.

Saturna-Qualicum: This soil type exists on the most south eastern portion of the Horton Bayviary. It is mainly well-drained Saturna soil, channery<sup>1</sup> sandy loam to channery loamy sand colluvial and glacial drift materials less than 200 cm deep over sandstone bedrock, that is moist during the fall and winter months but dry in the summer months. The Qualicum component is comprised of gravely sandy loam to gravely sand textured soils. Compared to the Galiano soil type, this soil is better suited for vegetation growth.

### 3.3 Watercourses

There are no watercourses running through the Horton Bayviary Nature Reserve.

### 3.4 Biological Resources

The biological resources of the reserve are described under the headings of vegetation communities, wildlife and wildlife habitat, and marine intertidal communities.

#### 3.4.1 Vegetation Communities

As stated above, the site lies within the Coastal Douglas-Fir Biogeoclimatic Zone. The plant ecosystem structure is mainly second growth coastal Douglas Fir, approximately 50-60 years; there were a couple of Douglas Firs along the edge of the property, near to Horton Bay Road, that appeared to be over 100 feet in height. The forest is mainly characterized by Douglas Fir and Western Red Cedar with a small dispersal of Grand Fir and Broad Leaf Maple and a Western Yew along the edge of the Nature Reserve on the southwest portion of the lot. There is a solitary Red Alder near the water's edge. The understory is dominated by salal, sword fern, and vanilla leaf. There is a large rectangular shaped patch of sword fern in the northeast corner of the Reserve; most likely resulting from previous clearing of the land and consequent rejuvenation. There is a remarkable absence of invasive species although nearby properties are inhabited by ivy, blackberry, holly, and/or broom. There is evidence of a past fire in the area.

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<sup>1</sup> Thin, flat fragments of limestone, sandstone, or schist up to 15 cm in major diameter (Brady 1990).

Rare and endangered species in British Columbia are designated as either red- or blue-listed. Red includes any indigenous species or subspecies considered to be extirpated, endangered, or threatened in BC and blue includes any indigenous species or subspecies considered to be vulnerable in BC.

A data request was submitted to the CDC and there were no records in the database for the Horton Bayviary site. However, not of all Mayne Island has been surveyed and the lack of records may reflect a lack of field inventory work rather than an absence of sensitive species.

The following is a list of all species observed in the Horton Bayviary Nature Reserve, none of which are red or blue listed by the CDC:

<b>Group</b>	<b>Common Name</b>	<b>Latin Name</b>
<b>Coniferous Trees</b>	Grand fir	<i>Abies Grandis</i>
	Douglas-fir	<i>Pseudotsuga menziesii</i>
	Western yew	<i>Taxus brevifolia</i>
	Western red-cedar	<i>Tuhja plicata</i>

<b>Deciduous Trees</b>	Broadleaf maple	<i>Acer macrophyllum</i>
	Red alder	<i>Alnus rubra</i>

<b>Shrubs</b>	Sasatoon berry	<i>Amelanchier alnifolia</i>
	Salal	<i>Gaultheria shallon</i>
	Oceanspray	<i>Holodiscus discolor</i>
	Honeysuckle	<i>Lonicera sp.</i>
	Common Oregon-grape	<i>Mahonia nervosa</i>
	Nootka rose	<i>Rosa nutkana</i>
	Baldhip rose	<i>Rosa gymnocarpa</i>
	Salmonberry	<i>Rubus spectabilis</i>

<b>Herbaceous</b>	Vanilla leaf	<i>Achlys triphylla</i>
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<b>flowering plants</b>		
	Spotted coralroot	<i>Corallorhiza maculata</i> ssp. <i>Maculata</i>
	Broad leaved starflower	<i>Trientalis latifolia</i>
<b>Ferns</b>	Sword fern	<i>Polystichum munitum</i>
	Bracken fern	<i>Pteridium aquilinum</i>

### 3.4.2 Wildlife and Wildlife Habitat

#### 3.4.2.1 Wildlife Habitat

Because of the small size of the Horton Bayviary Nature Reserve and the relatively young age of the second growth forest, the Nature Reserve does not have a large number of wildlife inhabitants. This could be due to the fact that there were no apparent snags or trees with cavities. However, the Nature Reserve does have a forest/marine ecotone<sup>2</sup> influence so there is a range of habitats available. Although there have been no official wildlife inventories in this area, and the beach was not closely examined for invertebrates or fish, a variety of birds were noted as well as the presence of deer.

A request to the CDC did not reveal any rare wildlife species within these lots. However, a detailed assessment should be conducted.

#### 3.4.2.2 Birds

Many of the following species were heard but not seen. There is also evidence of pileated woodpeckers on site. The following is a list of all the bird species noted in the Horton Bayviary Nature Reserve, none of which are red or blue listed by the CDC:

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<sup>2</sup> An ecotone is the transitional area between two ecosystems, in this case, it is the area which is largely influenced by both the forest ecosystem and the marine ecosystem.

### Birds Identified Onsite at Horton Bayviary Nature Reserve

Common Name	Latin Name
Bald eagle	<i>Haliaeetus leucocephalus</i>
Rufous-sided towhee	<i>Pipilo erythrophthalmus</i>
Golden-crowned kinglet	<i>Régulus sátrapa</i>
Varied thrush	<i>Ixóreus naévius</i>
Winter wren	<i>Troglódytes troglódytes</i>
Dark-eyed juncos	<i>Junco hyemalis</i>
Red-breasted nuthatch	<i>Sítta canadénsis</i>
Turkey vulture	<i>Cathártes áura</i>
Olive-sided flycatcher	<i>Contópus borealis</i>
Black-capped chickadee	<i>Párus atricapíllus</i>
Pileated woodpecker	<i>Dryocopus pileatus</i>

#### 3.4.2.3 Other Vertebrates

During the site visit, evidence of deer was observed. There was no active search to determine the variety of amphibians or reptiles present on the Nature Reserve.

#### 3.4.2.4 Marine Intertidal Communities

Although the marine intertidal communities were not thoroughly examined in either of the site visits, the following description of a general community likely to be found at Horton Bay is from a field guide for British Columbia's seashore (Snively, 1978). The Horton Bay beach is comprised of mud and gravel. Mud flat beaches are typical of protected bays and have few hard surfaces for attachment. Consequently, there is likely to be a variety of animals that live near the surface or in tubes and shallow burrows that open to it. For example, invertebrates that might inhabit Horton Bay may include: black dog whelk, mud clam, tube-dwelling anemone, brittle star, mud shrimp, sea mouse, lugworm, or cockle clam. Muddy beaches are absent of many of the spectacularly coloured plants that may inhabit a rocky intertidal community; however, algae such as sea lettuce is often present.

## 4.0 Management Plan

Management plans are used to provide short and long-term direction and guidance for the management of values and features of significance on properties owned by the Trust Fund Board.

It is the policy of the ITF to develop a management plan for each of its properties and then work with a Management Group, where possible, to implement the plan. The Mayne Island Nature Club may act as the Management Group or as volunteer wardens for the Nature Reserve.

Section 4.1 identifies and discusses management issues while section 4.2 outlines management strategies and associated action items to address them and guide long term management of the sanctuary.

### 4.1 Management Issues

The management issues identified for the Horton Bayviary Nature Reserve can be categorized according to conservation management; recreation management; interpretation/education and research management; and legal management.

#### 4.1.1 Conservation Management

##### 4.1.1.1 Site Restoration

The site has had little recent disturbance that requires restoration. Five or six percolation holes (approximately 3'x4'x5') were identified within the Reserve but it has been so long since the holes were formed that it would do more damage than good to restore the landscape. Although most of the percolation holes are visible, there are liability concerns associated with the holes; consequently, caution signs or bright tape marking the holes is recommended.

##### 4.1.1.2 Removal of Non-Indigenous Vegetation

No non-indigenous vegetation was observed on the Horton Bayviary Nature Reserve. Consequently, there is no vegetation that requires removal at the present time; however,

if non-indigenous vegetation is found on the site, it should be removed as quickly as possible. Generally, the best management for this site is to allow natural processes – limited “management” or intervention is necessary.

#### 4.1.1.3 Conservation of Midden

The midden has already been registered with the Province of BC. The donors requested the restriction of an archaeological dig so as to limit disturbance to the land. Consequently, the midden site should be left intact with limited disturbance.

### 4.1.2 Recreation Management

#### 4.1.2.1 Access

There are no developed access points into the Reserve although there is a slightly indented area along Horton Bay Road that can be utilized as parking for one vehicle. This situation should be maintained at present with a review in 3-5 years to determine if the clearing for parking should be maintained or enhanced.

#### 4.1.2.2 Trails

Currently, there is one small footpath within the Reserve that has not been heavily used. The footpath starts at the southeast corner of the site and runs roughly parallel to Horton Bay Road and then slightly veers to the northeast until reaching Horton Bay. The path picks up again at the northeastern corner of the Nature Reserve and loops through the sword fern patch until coming back to the first part of the trail (Figure 4). There is a drop off from the vegetation to the beach making the beach less accessible and posing some management questions. Consequently, it is recommended that a rope handle be attached from tree to tree as a type of support down the steep part of the path to Horton Bay.

The Horton Bayviary Nature Reserve will likely have little human use. Thus, there is no need for anything more than the small footpath and trail work is not required. Each year the volunteer wardens, management group, or annual monitor could be asked to “clear” the trail of debris that could be a potential liability issue.

#### 4.1.2.3 Interpretation/Public Awareness

There is no need for interpretive initiatives at this site given the Nature Reserve's purpose and the site's resources. In addition, no broad advertising of the site is recommended beyond the Board's general communications (e.g. news releases, articles in area newspapers, listed on the ITF website, and other databases of protected areas).

#### 4.1.3 Research Management

Based on the size of the site and the nature of the biological resources noted, it is unlikely that Horton Bayviary would attract any volume of research. No specific management requirements are needed beyond the Trust Fund Board's standard policies and procedures.

#### 4.1.4 Legal Management

##### 4.1.4.1 Liabilities

There are several potential areas of concerns, including: five or six percolation holes on the property; and a few metre drop from the vegetated area of the property to the beach. Suggestions have been made elsewhere as to how these potential liabilities might be addressed, i.e., warning flagging and ropes.

##### 4.1.4.2 Land Use Planning

The current OCP designation and zoning for the Horton Bayviary Nature Reserve is "Settlement Residential" with one permitted land use being nature protection. Until the OCP is comprehensively reviewed, the Management Plan recommends that the zoning and OCP designation for the lot remain unchanged. The Board should work with local planning staff and trustees to determine the best designation and zone for this site. At such a time as the OCP or Land use Bylaw are being reviewed, the Horton Bayviary Nature Reserve should be rezoned as "Nature Protection".

##### 4.1.4.3 Easements and Covenants

Currently there are three covenants and one easement on the site. The covenants restrict subdivision of the lot; the disruption, (by means of cutting, limbing, trimming, topping, disturbing, or moving) of any of the vegetation within the area unless, and then only as is

truly necessary, for the purpose of building a driveway to a dwelling on the lot; and that no building will be constructed, or mobile home placed, within a specified distance or elevation from the natural boundary of sea at Horton Bay or if one is, then the Capital Regional District is not responsible for damages.

The easement states that the registered owners of Lot B, Section 2, Mayne Island, Cowichan District Plan VIP 64282 have an easement over a portion of the Reserve on the southeastern side (Figure 2) that provides the right to enter into the easement area and install, use, maintain, repair or replace, a water pipeline, pump, electrical connection, and small shelter for the water pump, in order to draw water from the well located on the Easement Area.

The covenants and easements generally state that the Nature Reserve shall not be developed for any purpose other than nature protection except to maintain the well.

#### 4.1.5 Monitoring

An annual site visit should be conducted to monitor the condition of the Horton Bayviary Nature Reserve. As well, the monitoring should check property boundary on each side to ensure no encroachment from neighbours. The best time to monitor the site would be during the spring months when the majority of floral vegetation is identifiable. Recommended monitoring routes are shown on Figure 4 and are loosely described as: along the trail to the beach, along the beach and back up through the sword fern patch and loop back onto the trail, as well as a walk along Horton Bay Road following the edge of the Horton Bayviary Nature Reserve. There are five photo locations as follows: (1) at the pullout along the edge of Horton Bay Road; (2) along the trail half-way to the well; (3) midway on the trail; (4) beach front; and (5) sword fern patch (Figure 4). The photographs provide an objective view of the entire site from multiple directions, thus providing the ITF with visual observations of the site over time.

## 4.2 Management Strategies

### 4.2.1 General Management Direction

The general management direction is to allow natural processes to continue throughout the Nature Reserve and ensure uses made of the site do not impair the natural condition of the site.

Specific management initiatives for Horton Bayviary Nature Reserve have been grouped into short-term and mid- to long-term management strategies and actions.

#### 4.2.2 Short-term Management Strategies

Short-term management strategies include initiatives that should be implemented during the first two years of management.

**Action Item 1: The ITF will try to establish a Management Group or volunteer warden(s) for the site.**

**Action Item 2: The ITF will establish a communication process with the Management Group, or volunteer warden(s), in the event that the human-caused disturbances and any inappropriate use of the Nature Reserve are observed.**

**Action Item 3: Request the CDC, or other qualified individuals, to conduct a site assessment for potential rare plant and animal species in the Nature Reserve including the marine intertidal region.**

**Action Item 4: Remove any refuse or garbage from the site and post “No Dumping” signs along the edge of the Nature Reserve.**

**Action Item 5: Mark the percolation holes by either posting “Caution - Keep Back” signs or bright tape near the holes to increase awareness of the holes.**

**Action Item 6: Secure a rope “handle” from tree to tree as a support mechanism to increase accessibility to the beach.**

#### 4.2.3 Mid- to Long-term Management Strategies

Mid- to long-term management strategies include initiatives that should be implemented within three to ten years.

**Action Item 7: Removal of any non-indigenous vegetation that may appear on the site.**

**Action Item 8: Review the need for access and trail clearings.**

**Action Item 9: When OCP and/or Land Use Bylaws are being comprehensively reviewed, request a change in designation and zone to ones appropriate to protected areas.**

## **5.0 Conclusions**

Horton Bayviary Nature Reserve is of regional significance by virtue of protecting a young second growth Coastal Douglas-fir ecosystem with no non-indigenous vegetation. The site will become increasingly significant for wildlife habitat and vegetation complexes characteristic of Coastal Douglas-fir stands if there is little human impact on the Nature Reserve.

Use of Horton Bay has been long standing dating back to historical aboriginal use. At least one archaeological midden site has been identified at Horton Bay. However, the donating owners requested the restriction of an archaeological dig, if possible, to limit disturbance to the land.

Key management directions identified in this Plan include leaving the site to natural processes, assessing the vegetation and intertidal areas in more detail, and identifying or improving areas of concern for public safety.

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## APPENDIX ONE – Maps

Figure 1 – Overview Map – Regional Context

Figure 2 – Overview Map – Local Context

Figure 3 – Ecological and Special Features Map

Figure 4– Monitoring Route and Photo Locations

## APPENDIX TWO – Site Photographs from field visits 2002

**Figures 5a and 5b – Sword Fern Patch and Surrounding Vegetation**



Figure 6 – Well



**Figure 7 – Portion of the Footpath**



**Figures 8a and 8b – Exposed Midden**



**Figure 9 – View from Horton Bay towards Horton Bayviary Nature Reserve**

