



Islands Trust Conservancy

Regular Meeting Agenda

Date: Tuesday, July 17, 2018
Time: 10:00 am - 12:30 pm
Location: Islands Trust Victoria Boardroom
200-1627 Fort Street, Victoria, BC

Pages

1. CALL TO ORDER
2. APPROVAL OF AGENDA
3. CLOSED MEETING
4. RISE AND REPORT
5. MINUTES/COORDINATION
 - 5.1 Minutes of Meetings/Resolutions without Meetings
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6. BUSINESS
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 - 6.2 Items for Discussion/Direction
 - 6.2.1 LTC Briefing on Regional Conservation Plan 139 - 143
 - 6.2.2 Review of ITC-EC Liaison Meeting Agenda (see ITC-EC Agenda Package)
 - 6.3 Correspondence
 - 6.3.1 Chair Correspondence to Minister Robinson re: Name Change 144 - 144
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7. NEW BUSINESS
8. NEXT MEETING
9. ADJOURNMENT



Trust Fund Board Minutes of Regular Meeting

Date: Tuesday, May 29, 2018
Time: 10:00 am
Location: Islands Trust Victoria Boardroom
200-1627 Fort Street, Victoria, BC

Board Members Present Tony Law, Chair
Hoops Harrison
Kate-Louise Stamford
Robin Williams
Ronald Bertrand
Susan Morrison

Staff Present Jennifer Eliason, Islands Trust Fund Manager
Kate Emmings, Ecosystem Protection Specialist, joined the meeting at 11:30 am
Corlynn Strachan, Administrative Assistant
Crystal Oberg, Communications & Fundraising, Specialist joined the meeting at 11:30 am
Clare Frater, Director, Trust Area Services, joined the meeting at 10:19 am

1. CALL TO ORDER

Chair Law called the meeting to order at 10:02 am and acknowledged that the meeting was being held in Coast Salish First Nations territory.

2. APPROVAL OF AGENDA

The following addition to the agenda was presented for consideration:

- 6.3.1 Letter from Minister Robinson regarding TFB name change

By general consent, the agenda was approved as amended.

3. CLOSED MEETING

The Trust Fund Board convened the closed portion of the meeting at 10:04 am and resumed in open meeting at 11:29 am to Rise and Report.

TFB-2018-015

It was MOVED and SECONDED,

that the meeting be closed to the public in accordance with the Community Charter, Part 4, Division 3, section 90 (1) (e) the acquisition, disposition or expropriation of land or improvements, if the board considers that disclosure could reasonably be expected to harm the interests of the Trust Fund Board; (k) negotiations and related discussions respecting the proposed provision of a service that are at their preliminary stages and that, in the view of the board, could reasonably be expected to harm the interests of the Trust Fund Board if they were

held in public; and that Jennifer Eliason, and Corlynn Strachan be invited to remain in the meeting.

CARRIED

4. RISE AND REPORT

The Trust Fund Board reported on the following item:

- The Board discussed land protection opportunities on Lasqueti Island and requested that Trustee Morrison encourage interested community members to contact staff about the conservation proposal process.

5. MINUTES/COORDINATION

5.1 Minutes of Meetings/Resolutions without Meetings

5.1.1 Approval of the April 3, 2018 Regular Meeting Minutes

By general consent, the Trust Fund Board meeting minutes of April 3, 2018 were adopted.

5.2 Follow-up Action List

The Islands Trust Fund Manager provided an update on the Follow-up Action List.

6. BUSINESS

6.1 Items for Approval

6.1.1 Parks Canada - Sidney Island Forest Restoration Proposal

Board members reviewed the proposal and discussed potential public reaction.

TFB-2018-016

It was MOVED and SECONDED,

that the Trust Fund Board supports, in principle, Parks Canada's Sidney Island Forest Restoration Proposal.

CARRIED

6.1.2 Medicine Beach Nature Sanctuary Management Plan

The ITF Manager presented the management plan to the Board noting this is a heavily utilized beach with a fenced marsh area, and highlighted the importance of active monitoring.

Board members commented this is an "incredible" document and questioned cost effectiveness of producing this level of detail. Board members discussed providing the management plan to the Local Trust Committee, and suggested creating a summary report for the Pender Island Post to identify management issues and engage the community.

Board members also discussed long term concerns regarding climate change and effects on wetlands, considerations of mediation and intervention.

TFB-2018-017

It was MOVED and SECONDED,

that the Trust Fund Board approve the 2018 Medicine Beach Nature Sanctuary Management Plan, dated May 16, 2018.

CARRIED

- 6.1.3 ITF 2017-2018 Annual Report Submission
The Board reviewed the report.

TFB-2018-018

It was MOVED and SECONDED,

that the Trust Fund Board approves the attached text for inclusion in the 2017-2018 Annual Report for approval by Trust Council and submission to the Minister of Municipal Affairs and Housing.

CARRIED

6.2 Items for Discussion/Direction

- 6.2.1 Draft Agenda for Liaison Meeting with Executive Committee

The Board reviewed agenda topics and suggested the following item additions:

- ITF Budget Resourcing
- TFB Preparation for Next Term
- LTC Meeting Agendas and TFB Reports

- 6.2.2 Name Change Implementation Plan

The Communications and Fundraising Specialist provided an update for the Board on the status of the *Miscellaneous Statutes Amendment Act* that will result in the name changing to the Islands Trust Conservancy. Staff anticipate the change to the Act will be finalized by the end of May.

Board members reviewed the plan, discussed timing, and expressed concern regarding the message “getting lost” during elections.

- 6.2.3 Request for Meeting with Minister of Municipal Affairs and Housing

Trustee Williams briefed the Board on the Ducks Unlimited 80th Anniversary Party he attended in Victoria over the weekend, noting the meeting provided a great opportunity for relationship building and highlighted Ducks Unlimited success with fundraising. Trustee Williams suggested relationship building with our Minister, possibly inviting to “good news” event.

Board members discussed requesting a separate Trust Fund Board meeting with the Minister to highlight the work of the Islands Trust Fund and its unique provincial mandate. The Board agreed to discuss this at the upcoming liaison meeting with the Executive Committee.

6.3 Correspondence

- 6.3.1 Letter from Minister Robinson regarding the TFB Name Change

The Trust Fund Board accepted the letter for information.

6.4 Updates for Information

6.4.1 Public Acquisitions Report

The Trust Fund Board reviewed the Public Acquisitions Report for information.

6.4.2 Public Covenants Report

The Trust Fund Board reviewed the Public Covenants Report for information.

6.4.3 Regional Conservation Plan Progress Report

The Trust Fund Board reviewed the Regional Conservation Plan Progress Report for information.

6.4.4 Budget Report

The Trust Fund Board reviewed the Budget Report for information.

7. NEW BUSINESS

There was no new business.

8. NEXT MEETING

The next meeting will take place on July 17, 2018 at 10:00 am.

9. ADJOURNMENT

By general consent, the meeting adjourned at 1:27 pm.

Tony Law, Chair

Certified Correct:

Corlynn Strachan, Recorder

Follow Up Action Report

Trust Fund Board

24-Sep-2010

No	Activity	Responsibility	Target Date	Status
1	Staff to work with landowners to clarify wording of Cunningham Covenant regarding vegetation removal, while maintaining conservation as a priority.	Jennifer Eliason	30-Sep-2011	On Going

31-Mar-2015

No	Activity	Responsibility	Target Date	Status
1	Staff to prepare possible revisions to the Trust Council Procedure 2.1.xxi Administration of the Crown Land Acquisition Initiative.	Jennifer Eliason	31-Dec-2016	On Going

07-Feb-2017

No	Activity	Responsibility	Target Date	Status
1	The Trust Fund Board will consult the Thetis Island Nature Conservancy (ThINC) during the development of a management plan for the nature reserve on Moore Hill.	Nuala Murphy Jennifer Eliason	31-Mar-2017	On Going

20-Jun-2017

No	Activity	Responsibility	Target Date	Status
1	TC-2017-029 Investigate options for increased use of federal or provincial stewardship agreements for species at risk in the Islands Trust Area.	Jennifer Eliason Karen Hurley Clare Frater	12-Sep-2017	On Going

Follow Up Action Report

18-Jul-2017

No	Activity	Responsibility	Target Date	Status
1	Staff to provide a report regarding the organizational implications of acting on the Trust Council request to investigate provincial and federal stewardship agreements as a protection tool	Clare Frater Jennifer Eliason	21-Nov-2017	On Going

03-Apr-2018

No	Activity	Responsibility	Target Date	Status
1	Staff to provide a briefing to all local trust committees and Bowen Island Municipality requesting that consideration be given to incorporating elements of the 2018-2027 Regional Conservation Plan (including associated data and mapping) into Official Community Plans.	Jennifer Eliason	31-May-2018	On Going

29-May-2018

No	Activity	Responsibility	Target Date	Status
1	Staff to contact Sallas Forest Strata Council and Parks Canada to let them know of ITC support for Sidney Island forest restoration proposal.	Jennifer Eliason	17-Jul-2018	Done
2	Staff to develop a budget proposal including a threefold business case. See TFB-IC-2018-007	Jennifer Eliason	17-Jul-2018	On Going
3	Staff to develop a discussion paper regarding long-term funding options.	Jennifer Eliason	17-Jul-2018	Done



REQUEST FOR DECISION

To: Islands Trust Conservancy

For the Meeting of: July 3, 2018

From: Jennifer Eliason

Date Prepared: July 17, 2018

SUBJECT: 2017-2018 Audited Financial Statements

RECOMMENDATION: That the Islands Trust Conservancy approve the Audited Financial Statements for the 2017-2018 fiscal year, and refer the statements to Islands Trust Council for information.

- 1 **PURPOSE:** To review and approve the Audited Financial Statements for 2017-2018.
- 2 **BACKGROUND:** The Islands Trust Conservancy undergoes an annual audit each year. The Audited Financial Statements and Audit Findings Report are provided to the board for review and approval. There are no findings that require any action.
- 3 **IMPLICATIONS OF RECOMMENDATION**

ORGANIZATIONAL: There are no findings that require action.

FINANCIAL: None.

POLICY: None.

IMPLEMENTATION/COMMUNICATIONS: The approved Audited Financial Statements will be posted to the Islands Trust Conservancy website and included in the 2017-2018 Annual Report. The Audited Financial Statements will be provided to Trust Council at their September meeting as an information item.
- 4 **RELEVANT POLICY(S):** None.
- 5 **ATTACHMENT(S):**
 - Islands Trust Fund Audit Findings Report for the Year Ended March 31, 2018
 - Audited Financial Statements of the Islands Trust Fund Year Ended March 31, 2018

RESPONSE OPTIONS

Recommendation: That the Islands Trust Conservancy approve the Audited Financial Statements for the 2017-2018 fiscal year, and refer the statements to Islands Trust Council for information.

Alternative: None identified.

Prepared By: Jennifer Eliason, Manager, Islands Trust Conservancy

Financial Statements of

THE ISLANDS TRUST FUND

Year ended March 31, 2018

INDEPENDENT AUDITORS' REPORT

To the Trustees of the Islands Trust Fund Board, the Trustees of the Islands Trust Council and the Minister of Municipal Affairs and Housing

We have audited the accompanying financial statements of The Islands Trust Fund, which comprise the statement of financial position as at March 31, 2018, the statements of operations, changes in fund balances and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.



We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our qualified audit opinion.

Basis for Qualified Opinion

In common with many charitable organizations, The Islands Trust Fund derives revenue from donations, the completeness of which is not susceptible to satisfactory audit verification. Accordingly, verification of these revenues was limited to the amounts recorded in the records of The Islands Trust Fund. Therefore, we were not able to determine whether as at March 31, 2018 and for the years ended March 31, 2018 and March 31, 2017, any adjustments might be necessary to revenue and excess of revenue over expenses reported in the statement of operations, statement of cash flows, statement of changes in fund balances and assets and fund balances reported in the statement of financial position as at March 31, 2018. This caused us to qualify our audit opinion on the financial statements as at and for the year ended March 31, 2017.

Qualified Opinion

In our opinion, except for the possible effects of the matter described in the Basis for Qualified Opinion paragraph, the financial statements present fairly, in all material respects, the financial position of The Islands Trust Fund as at March 31, 2018, its results of operations and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Chartered Professional Accountants

Victoria, Canada

_____, 2018

THE ISLANDS TRUST FUND

Statement of Financial Position

March 31, 2018, with comparative information for 2017

	Opportunity Fund	Restricted Fund	Capital Fund	Endowment Fund	2018 Total	2017 Total
(Schedule 1)						
Assets:						
Current assets:						
Cash	\$ 29,214	\$ 184,597	\$ -	\$ -	\$ 213,811	\$ 249,356
Short-term investments (note 2)	-	164,772	-	88,000	252,772	253,452
Accounts receivable	-	-	-	-	-	27,300
Inventory of fundraising items	667	-	-	-	667	1,342
	29,881	349,369	-	88,000	467,250	531,450
Investments (note 3)	-	66,522	-	-	66,522	64,870
Land (notes 4 and 6)	-	-	7,624,169	6,176,601	13,800,770	13,250,504
	\$ 29,881	\$ 415,891	\$ 7,624,169	\$ 6,264,601	\$ 14,334,542	\$ 13,846,824
Liabilities:						
Current liabilities:						
Property tax payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 498
Due to Islands Trust	-	-	-	-	-	2,921
Deferred revenue	-	-	-	-	-	541
	-	-	-	-	-	3,960
Fund Balances:						
Unrestricted	29,881	-	-	-	29,881	31,950
Investment in land (note 4)	-	-	7,624,169	-	7,624,169	7,073,903
Internally restricted (note 5)	-	23,439	-	-	23,439	24,327
Externally restricted (note 5)	-	392,452	-	-	392,452	420,783
Restricted for endowment purposes (note 6)	-	-	-	6,264,601	6,264,601	6,291,901
	29,881	415,891	7,624,169	6,264,601	14,334,542	13,842,864
	\$ 29,881	\$ 415,891	\$ 7,624,169	\$ 6,264,601	\$ 14,334,542	\$ 13,846,824

The accompanying notes are an integral part of these financial statements.

Approved by the Trust Fund Board:

_____ Board member

_____ Board member

DRAFT - May 23, 2018

THE ISLANDS TRUST FUND

Statement of Operations

Year ended March 31, 2018, with comparative information for 2017

	Opportunity Fund	Restricted Fund	Capital Fund	Endowment Fund	2018 Total	2017 Total
(Schedule 2)						
Revenue:						
Donations:						
Cash	\$ 3,475	\$ 466,755	\$ -	\$ -	\$ 470,230	\$ 260,724
Land	-	-	-	-	-	156,000
Grants	2,041	23,660	-	-	25,701	281,371
Rental income	-	10,200	-	-	10,200	10,200
Investment income	20	1,417	-	-	1,437	16,089
Sale of fundraising items	136	-	-	-	136	133
	5,672	502,032	-	-	507,704	724,517
Expenses:						
Repairs and maintenance - Alton property	-	1,962	-	-	1,962	1,181
Cost of sales of fundraising items	675	-	-	-	675	270
Bank charges	61	1,637	-	-	1,698	235
Donations to conservancy groups	5,000	-	-	-	5,000	6,460
Consultant fees	2,005	4,686	-	-	6,691	8,995
	7,741	8,285	-	-	16,026	17,141
Excess (deficiency) of revenue over expenses	\$ (2,069)	\$ 493,747	\$ -	\$ -	\$ 491,678	\$ 707,376

The accompanying notes are an integral part of these financial statements.

THE ISLANDS TRUST FUND

Statement of Changes in Fund Balances

Year ended March 31, 2018, with comparative information for 2017

	Opportunity Fund	Restricted Fund	Capital Fund	Endowment Fund	Total
Fund balances, March 31, 2016	\$ 36,113	\$ 540,871	\$ 7,073,903	\$ 5,484,601	\$ 13,135,488
Excess of revenue over expenses	(4,163)	282,539	-	429,000	707,376
Interfund transfer	-	(378,300)	-	378,300	-
Fund balances, March 31, 2017	31,950	445,110	7,073,903	6,291,901	13,842,864
Excess of revenue over expenses	(2,069)	493,747	-	-	491,678
Interfund transfer (note 7)	-	(522,966)	550,266	(27,300)	-
Fund balances, March 31, 2018	\$ 29,881	\$ 415,891	\$ 7,624,169	\$ 6,264,601	\$ 14,334,542

The accompanying notes are an integral part of these financial statements.

THE ISLANDS TRUST FUND

Statement of Cash Flows

Year ended March 31, 2018, with comparative information for 2017

	2018	2017
Cash provided by (used in):		
Operating activities:		
Excess of revenue over expenses	\$ 491,678	\$ 707,376
Item not involving cash:		
Donation of land	-	(156,000)
Changes in non-cash operating working capital:		
Inventory of fundraising items	675	270
Accounts receivable	27,300	(27,300)
Property tax payable	(498)	498
Due to Islands Trust	(2,921)	2,921
Deferred revenue	(541)	541
	515,693	528,306
Capital activities:		
Cash paid to acquire land	(550,266)	(624,000)
Investing activities:		
Increase (decrease) in short-term investments	680	(13,667)
(Decrease) in long-term investments	(1,652)	(1,613)
	(972)	(15,280)
(Decrease) in cash	(35,545)	(110,974)
Cash, beginning of year	249,356	360,330
Cash, end of year	\$ 213,811	\$ 249,356

The accompanying notes are an integral part of these financial statements.

THE ISLANDS TRUST FUND

Notes to Financial Statements

Year ended March 31, 2018

The Islands Trust (the "Trust") is incorporated under The Islands Trust Act of British Columbia (as amended). The objectives of the Trust are 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 the Province generally.

The Islands Trust Fund (the "Trust Fund") is also incorporated under The Islands Trust Act of British Columbia and is empowered to accept donations, grants and bequests on behalf of the Trust and to hold land and other property in compliance with a Trust Fund plan approved by the Ministry of Municipal Affairs and Housing.

The Trust Fund is administered by the Trust and for financial reporting purposes, the Trust and the Trust Fund are reported on separately. The Trust Fund's annual expenses are funded by and reported as part of the Trust in accordance with The Islands Trust Act. These financial statements present the financial position and changes in fund balances of the Trust Fund.

1. Significant accounting policies:

The financial statements have been prepared in accordance with Canadian Public Sector Accounting Standards including the 4200 standards for government not-for-profit organizations:

(a) Fund accounting:

The Trust Fund follows the restricted fund method of accounting for contributions.

The Opportunity Fund reports unrestricted resources.

The Restricted Fund reports the assets, liabilities, revenue and expenses related to internally and externally restricted assets.

The Capital Fund reports the assets, liabilities, revenue and expenses related to the Trust Fund's capital assets.

The Endowment Fund reports resources that are contributed for endowment purposes.

(b) Financial instruments:

Financial instruments are recorded at fair value on initial recognition. Derivative instruments and equity instruments that are quoted in an active market are reported at fair value. All other financial instruments are subsequently recorded at cost or amortized cost unless management has elected to carry the instruments at fair value. Management has elected to record all investments at fair value as they are managed and evaluated on a fair value basis.

Unrealized changes in fair value are recognized in the statement of remeasurement gains and losses until they are realized, when they are transferred to the statement of operations.

THE ISLANDS TRUST FUND

Notes to Financial Statements

Year ended March 31, 2018

1. Significant accounting policies (continued):

(b) Financial instruments (continued):

Transaction costs incurred on the acquisition of financial instruments measured subsequently at fair value are expensed as incurred. All other financial instruments are adjusted by transaction costs incurred on acquisition and financing costs, which are amortized using the straight-line method.

All financial assets are assessed for impairment on an annual basis. When a decline is determined to be other than temporary, the amount of the loss is reported in the statement of operations and any unrealized gain is adjusted through the statement of remeasurement gains and losses. When the asset is sold, the unrealized gains and losses previously recognized in the statement of remeasurement gains and losses are reversed and recognized in the statement of operations. During the years presented, there are no unrealized gains and losses, and as a result, no statement of remeasurement gains and losses has been included in these financial statements. All investments held by the Trust Fund are classified as Level 2 investments for fair value measurement and there were no changes in classification in the years presented.

(c) Land:

Purchased land is recorded at cost. Contributed land is recorded at estimated fair value at the date of contribution.

(d) Revenue recognition:

Restricted contributions are recorded as revenue of the appropriate restricted fund when received or receivable, if the amount can be reasonably estimated and collection is reasonably assured.

Unrestricted contributions are recorded as revenue of the Opportunity Fund in the year received or receivable if the amount can be reasonably estimated and collection is reasonably assured.

Contributions for endowment are recorded as revenue in the Endowment Fund balance.

Interest income earned on Endowment Fund resources is restricted for the purpose of maintaining certain specified property and is recorded in the Restricted Fund. Interest income of internally restricted funds is recorded as revenue of the Restricted Fund. Other interest income is recorded as revenue of the Opportunity Fund when earned.

All other forms of income are recorded as revenue of the Opportunity Fund when received or receivable.

THE ISLANDS TRUST FUND

Notes to Financial Statements

Year ended March 31, 2018

1. Significant accounting policies (continued):

(e) Liability for contaminated sites:

A liability for contaminated sites is recognized when a site is not in productive use and the following criteria are met:

- (i) an environmental standard exists;
- (ii) contamination exceeds the environmental standard;
- (iii) the Trust Fund is directly responsible or accepts responsibility;
- (iv) it is expected that future economic benefits will be given up; and
- (v) a reasonable estimate of the amount can be made.

The liability is recognized as management's estimate of the cost of post-remediation including operation, maintenance and monitoring that are an integral part of the remediation strategy for a contaminated site.

(f) Use of estimates:

The preparation of financial statements in conformity with Canadian generally accepted accounting principles requires management to make estimates and assumptions which affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenditures during the period. Significant estimates include assumptions used in estimating the fair value of contributed land at the date of contribution. Actual results could differ from those estimates.

(g) Adoption of new accounting standards:

On April 1, 2017, the Trust adopted PS2200, *Related Party Disclosures*, PS 3420, *Inter-entity Transactions*, PS3210 *Assets*, PS3320 *Contingent Assets* and PS3380 *Contractual Rights*. There were no transitional adjustments recorded to accumulated surplus, annual surplus or disclosures as a result of adoption of the new standards.

2. Short-term investments:

Short-term investments consist of an endowment fund with the Victoria Foundation and Municipal Finance Authority of British Columbia ("MFA") Short Term Bond and Money Market Funds. Investments in MFA Funds are recorded at market value.

3. Investments:

Investments consist of a guaranteed investment certificate that matures on April 16, 2019. It has an interest rate of 2.55%.

THE ISLANDS TRUST FUND

Notes to Financial Statements

Year ended March 31, 2018

4. Land:

	Acquisition date	2018	2017
Inner Island Nature Reserve, Denman Island	1992	\$ 70,000	\$ 70,000
Coats Millstone Reserve, Gabriola Island	1994	100,000	100,000
Medicine Beach Nature Sanctuary, North Pender Island	1996	477,000	477,000
Cunningham Reserve, Salt Spring Island	1994	265,000	265,000
Deep Ridge Reserve, Salt Spring Island	1992	255,000	255,000
Lower Mt. Erskine Nature Reserve, Salt Spring Island	1996	284,000	284,000
Kwel Nature Sanctuary, Lasqueti Island	1997	195,497	195,497
Singing Woods Nature Reserve, Bowen Island	1999	157,000	157,000
Trincomali Nature Sanctuary, Galiano Island	2001	242,406	242,406
Horton Bayviary Nature Reserve, Mayne Island	2002	210,000	210,000
Morrison Marsh Nature Reserve, Denman Island	2006	438,000	438,000
Brigade Bay Bluffs Nature Reserve, Gambier Island	2006	150,000	150,000
Long Bay Wetland Nature Reserve, Gambier Island	2006	305,000	305,000
Elder Cedar Nature Reserve, Gabriola Island	2007	658,000	658,000
Mount Artaban Nature Reserve, Gambier Island	2009	1,177,000	1,177,000
Fairy Fen Nature Reserve, Bowen Island	2011	1,817,000	1,817,000
Laughlin Lake Nature Reserve, Galiano Island	2013	56,000	56,000
Vanilla Leaf Land Nature Reserve, Galiano Island	2014	217,000	217,000
Fairy Slipper Forest Nature Reserve, Thetis Island	2017	550,266	-
		\$ 7,624,169	\$ 7,073,903

5. Restricted Fund balances:

	2018	2017
Internally restricted:		
McFadden Creek management fund	\$ 23,439	\$ 24,327
Externally restricted:		
Alton Nature Reserve - maintenance fund	115,080	102,043
Morrison Fund	20,070	20,062
Covenant Defense Fund	105,534	103,824
Lasqueti Acquisition Fund	34,114	33,344
Gambier Acquisition Fund	116,368	116,891
Thetis Island Acquisition Fund	1,285	44,619
	392,452	420,783
	\$ 415,891	\$ 445,110

THE ISLANDS TRUST FUND

Notes to Financial Statements

Year ended March 31, 2018

6. Restricted for endowment purposes:

	Acquisition date	2018	2017
Short-term investments			
Alton Nature Reserve – maintenance	2002	\$ 88,000	\$ 88,000
Land:			
Lindsay Dickson Nature Reserve, Denman Island	2001	\$ 2,200,000	\$ 2,200,000
Alton Nature Reserve, Salt Spring Island	2002	454,000	454,000
McFadden Creek Nature Sanctuary, Salt Spring Island	2015	422,601	422,601
Properties acquired under the Federal Government Ecological Gifts program:			
Mt. Trematon Nature Reserve, Lasqueti Island	2006	320,000	320,000
David Otter Nature Reserve, Bowen Island	2007	620,000	620,000
John Osland Nature Reserve, Lasqueti Island	2012	890,000	890,000
Valens Brook Nature Reserve, Denman Island	2013	280,000	280,000
Burren's Acres Nature Reserve, Gabriola Island	2014	210,000	210,000
Moore Hill Nature Reserve, Thetis Island	2017	780,000	780,000
		6,176,601	6,176,601
		\$ 6,264,601	\$ 6,264,601

Investment gains (losses) on endowment funds for the year of (\$157) (2017 - \$12,306) have been recorded in the Restricted Fund.

Two properties owned by the Trust Fund, the Lindsay Dickson property on Denman Island, and the Alton property on Salt Spring Island, were donated on the condition that the properties be used and managed in certain ways. The Lindsay Dickson property was donated "for so long as the land is used as a nature reserve for the use, benefit and enjoyment of the residents of B.C.". The Alton property is to be held, managed and preserved for its ecological environment and scenic features and not as a recreational park. The residence, gardens and driveway are to be preserved and managed for non-profit purposes.

In the event that these properties are not managed accordingly, the properties could revert to the Province of British Columbia in the case of the Lindsay Dickson Nature Reserve and to the Executors of the donor's estate in the case of the Alton Nature Reserve.

In 2015, the McFadden Creek Nature Sanctuary on Salt Spring Island was donated to the Trust Fund on the condition that the property was to be protected, preserved and maintained in its natural state. Should a disposition of this property ever be triggered, there is a Right of First Refusal on the property in favor of the Wild Bird Trust of BC.

Certain properties as listed in the preceding table were acquired under the Federal Government Ecological Gift program. Recipients of ecological gifts are responsible for maintaining the biodiversity and environmental heritage values of the property in perpetuity.

THE ISLANDS TRUST FUND

Notes to Financial Statements

Year ended March 31, 2018

7. Interfund transfer:

During the year, there were interfund transfers of \$550,266 (2017 - \$nil) from the Restricted Fund to the Capital Fund, representing cash paid to acquire the Fairy Slipper Forest Nature Reserve on Thetis Island, and \$27,300 from the Endowment Fund to the Restricted Fund representing grant monies received for the purchase of Moore Hill Nature Reserve in the previous fiscal period.

8. Related party:

The Trust is related to the Trust Fund through the composition of the Trust Fund's Board. The Trust Fund's Board is comprised of three members from the Trust's Council and up to three members appointed by the Minister of Municipal Affairs and Housing.

The Trust Fund's annual expenses are funded by and reported as part of the Trust in accordance with The Islands Trust Act. The expenses are summarized as follows:

	2018	2017
Operations and property management	\$ 515,807	\$ 459,775
Board	23,098	15,566
Administration	164,046	154,286
	<u>\$ 702,951</u>	<u>\$ 629,627</u>

For the year ended March 31, 2018, amounts payable to Islands Trust were \$nil (2017 - \$2,921).

9. Financial risks and concentration of risk:

The Trust Fund's financial instruments consist of cash, short-term investments, accounts receivable, investments, property tax payable and due to Islands Trust. It is management's opinion that the Trust Fund is not exposed to significant interest, currency or credit risk arising from these financial instruments. The maximum exposure to credit risk at March 31, 2018 is the carrying value of cash, accounts receivable, short-term investments and investments. The Trust Fund deals with creditworthy counterparties to mitigate credit risk. The Trust Fund manages its liquidity risk by monitoring its operating requirements. Interest rate risk is not significant due to the short term nature of investments held. There have been no significant changes to risk exposure in the years presented.

THE ISLANDS TRUST FUND

Statement of Financial Position

Schedule 1

March 31, 2017

	Opportunity Fund	Restricted Fund	Capital Fund	Endowment Fund	2017 Total
Assets:					
Current assets:					
Cash	\$ 34,144	\$ 215,212	\$ -	\$ -	\$ 249,356
Short-term investments (note 2)	-	165,452	-	88,000	253,452
Accounts receivable	-	-	-	27,300	27,300
Inventory of fundraising items	1,342	-	-	-	1,342
	35,486	380,664		115,300	531,450
Investments (note 3)	-	64,870	-	-	64,870
Land (notes 4 and 6)	-	-	7,073,903	6,176,601	13,250,504
	\$ 35,486	\$ 445,534	\$ 7,073,903	\$ 6,291,901	\$ 13,846,824
Liabilities:					
Current liabilities:					
Property tax payable	\$ -	\$ 498	\$ -	\$ -	\$ 498
Due to Islands Trust	2,995	(74)	-	-	2,921
Deferred revenue	541	-	-	-	541
	3,536	424	-	-	3,960
Fund Balances:					
Unrestricted	31,950	-	-	-	31,950
Investment in land (note 4)	-	-	7,073,903	-	7,073,903
Internally restricted (note 5)	-	24,327	-	-	24,327
Externally restricted (note 5)	-	420,783	-	-	420,783
Restricted for endowment purposes (note 6)	-	-	-	6,291,901	6,291,901
	31,950	445,110	7,073,903	6,291,901	13,842,864
	\$ 35,486	\$ 445,534	\$ 7,073,903	\$ 6,291,901	\$ 13,846,824

DRAFT - May 23, 2018

THE ISLANDS TRUST FUND

Statement of Operations

Schedule 2

Year ended March 31, 2017

	Opportunity Fund	Restricted Fund	Capital Fund	Endowment Fund	2017 Total
Revenue:					
Donations:					
Cash	\$ 2,480	\$ 258,244	\$ -	\$ -	\$ 260,724
Land	-	-	-	156,000	156,000
Grants	2,959	5,412	-	273,000	281,371
Rental income	-	10,200	-	-	10,200
Investment income	21	16,068	-	-	16,089
Sale of fundraising items	133	-	-	-	133
	5,593	289,924	-	429,000	724,517
Expenses:					
Repairs and maintenance - Alton property	-	1,181	-	-	1,181
Cost of sales of fundraising items	270	-	-	-	270
Bank charges	31	204	-	-	235
Donations to conservancy groups	6,460	-	-	-	6,460
Consultant fees	2,995	6,000	-	-	8,995
	9,756	7,385	-	-	17,141
Excess (deficiency) of revenue over expenses	\$ (4,163)	\$ 282,539	\$ -	\$ 429,000	\$ 707,376

DRAFT - May 23, 2018



Islands Trust Fund

**Audit Findings Report
For the year ended March 31, 2018**

KPMG LLP

For the meeting on May 30, 2018

kpmg.ca/audit

The contacts at KPMG in connection with this report are:

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Areas of audit focus	5
Financial statement presentation and disclosure	6
Adjustments and differences	7
Appendices	8

Executive summary

Purpose of this report

The purpose of this Audit Findings Report is to assist you, as a member of the Board, in your review of the results of our audit of the financial statements of Islands Trust Fund as at and for the year ended March 31, 2018.

Changes from the Audit Plan

There have been no significant changes regarding our audit from the Audit Planning Report previously presented to you.

Audit risks and results

We discussed with you at the start of the audit a number of significant financial reporting risks. These risks have been addressed in our audit.

We also discussed with you some other areas of audit focus. We have no significant matters to report to the audit committee in respect of them.

Adjustments and differences

We identified one adjustment that was communicated to management and subsequently corrected in the financial statements, related to \$1,381 under-accrual of interest on investments.

We identified one uncorrected adjustment in relation to recognizing \$10,000 of revenue and expenses for a grant received and subsequently paid to Islands Trust.

Control and other observations

We did not identify any control deficiencies that we determined to be significant deficiencies in internal control over financial reporting.

*This Audit Findings Report should not be used for any other purpose or by anyone other than the Board of Directors. KPMG shall have no responsibility or liability for loss or damages or claims, if any, to or by any third party as this Audit Findings Report has not been prepared for, and is not intended for, and should not be used by, any third party or for any other purpose.

Significant accounting policies and practices

There have been changes to significant accounting policies and practices to bring to your attention.

New accounting standards for related party transactions, assets, contingent assets and contractual rights are applicable for this year. Management has appropriately adopted these new standards.

Finalizing the audit

As of May 30, 2018, we have completed the audit of the financial statements, with the exception of certain remaining procedures, which include amongst others:

- completing our discussions with the Board;
- obtaining evidence of the Board's approval of the financial statements; and
- obtaining the signed management representation letter.

We will update the Board, and not solely the Chair (as required by professional standards), on significant matters, *if any*, arising from the completion of the audit, including the completion of the above procedures. Our auditors' report will be dated upon the completion of any remaining procedures.

Independence

We are independent with respect to the Trust within the meaning of the relevant rules and related interpretations prescribed by the relevant professional bodies in Canada and any applicable legislation bodies in Canada and any applicable legislation or regulation.

Audit risks and results

Inherent risk of material misstatement is the susceptibility of a balance or assertion to misstatement which could be material, individually or when aggregated with other misstatements, assuming that there are no related controls. We highlight our significant findings in respect of significant financial reporting risks as identified in our discussion with you in the Audit Plan, as well as any additional significant risks identified.

Significant financial reporting risks	Why	Our response and significant findings
Fraud risk from management override of controls.	This is a presumed fraud risk. We have not identified any specific additional risks of management override relating to this audit.	We performed the required procedures under professional standards: • Test all material journal entries made in the preparation of the year-end financial statements and other adjustments. • A retrospective review of estimates, including the assumptions used by management. • Evaluating the business rationale of significant unusual transactions. We are satisfied that our audit work has appropriately dealt with the fraud risk from management override of controls.
Fraud risk from revenue recognition	Not applicable	We did not identify any incentives to fraudulently recognize revenue, and there are no indications of opportunities or rationalization to perpetrate fraud. The presumed fraud risk related to revenue recognition has been rebutted.

Areas of audit focus

We identified other areas of focus for our audit in our discussion with you in the Audit Plan. Significant findings from the audit regarding other areas of focus are as follows:

Other areas of focus	Our response and significant findings
Acquisition of Fairyslipper Nature Reserve – Thetis Island	• The Trust Fund entered into a partnership agreement with The Cowichan Community Land Trust Society and the Thetis Island Nature Conservancy Society to purchase the Fairyslipper Forest Nature Reserve on Thetis Island. The Cowichan Community Land Trust Society and the Thetis Island Nature Conservancy Society agreed to assist in raising the funds and the Trust Fund would execute the purchase of the land. The land title would be held by the Trust Fund and the Trust Fund would manage the land as a nature reserve. • We obtained and inspected the purchase agreement for the Fairyslipper acquisition for \$550,266 on November 30, 2017. • We agreed donations of \$466,719 designated to the purchase of the land to donation receipts and cash received. • No discrepancies were noted in the procedures performed.
Presentation in the financial statements and other matters	• We reviewed financial statement presentation to ensure it is consistent with PSAB requirements. • We reviewed relevant documentation surrounding the adoption of new accounting standards applicable in the current year. We recommended disclosures for related parties which management has addressed. Implications related to new accounting standards have been appropriately disclosed.

Financial statement presentation and disclosure

The presentation and disclosure of the financial statements are, in all material respects, in accordance with the Trust Fund's relevant financial reporting framework. Misstatements, including omissions, if any, related to disclosure or presentation items are in the management representation letter included in the Appendices. We also highlight the following:

Form, arrangement, and content of the financial statements	Adequate
Application of accounting pronouncements issued but not yet effective	We include a summary of future accounting standards in Appendix 5.

Adjustments and differences

Adjustments and differences identified during the audit have been categorized as “Corrected adjustments” or “Uncorrected differences”. These include disclosure adjustments and differences. Professional standards require that we request of management and the audit committee that all identified differences be corrected. We have already made this request of management.

Corrected adjustments

We recommended and management agreed to record accrued investment income of \$1,381.

Minor presentation and disclosure adjustments were recommended and adjusted, which is routine as part of the audit process.

Uncorrected differences

We recommended an adjustment to recognize \$10,000 of revenue and expenses related to a grant from TD Friends of the Environment for property management of the Elder Cedar Boardwalk Project. The grant was applied for and received by the Trust Fund and subsequently paid to the Islands Trust, as it is responsible for all property maintenance expenses on behalf of the Trust Fund. The Islands Trust has recorded the revenues and expenses of the \$10,000 in keeping with this arrangement.

Appendices

Appendix 1: Required communications

Appendix 2: Management Representation Letter

Appendix 3: Audit Quality and Risk Management

Appendix 4: Background and Professional Standards

Appendix 5: Current developments

Appendix 1: Required communications

In accordance with professional standards, there are a number of communications that are required during the course of and upon completion of our audit. These include:

- **Audit Planning Report** – as previously presented on February 21, 2018.
- **Audit Findings Report** – as attached.
- **Auditors' report** – the conclusion of our audit is set out in our draft auditors' report attached to the draft financial statements.
- **Management representation letter** – we will obtain from management at the completion of the annual audit. In accordance with professional standards, a copy of the representation letter is provided to the Board of Directors in Appendix 2.
- **Independence letter** – we are independent with respect to the Trust Fund within the meaning of the relevant rules and related interpretations prescribed by the relevant professional bodies in Canada and any applicable legislation or regulation.

Appendix 2: Management Representation Letter

Prior to the release of the auditors' report, we will obtain from management a signed management representation letter – a copy of the letter is included below.

Date of Board approval of Financial Statements

Ladies and Gentlemen:

We are writing at your request to confirm our understanding that your audit was for the purpose of expressing an opinion on the financial statements (hereinafter referred to as "financial statements") of Islands Trust Fund ("the Entity") as at and for the period ended March 31, 2018.

General:

We confirm that the representations we make in this letter are in accordance with the definitions as set out in [Attachment I](#) to this letter.

We also confirm that, to the best of our knowledge and belief, having made such inquiries as we considered necessary for the purpose of appropriately informing ourselves:

Responsibilities:

- 1) We have fulfilled our responsibilities, as set out in the terms of the engagement letter dated January 10, 2017, including for:
 - a) the preparation and fair presentation of the financial statements and believe that these financial statements have been prepared and present fairly in accordance with the relevant financial reporting framework.
 - b) providing you with all information of which we are aware that is relevant to the preparation of the financial statements, such as all financial records and documentation and other matters, including (i) the names of all related parties and information regarding all relationships and transactions with related parties; and (ii) the complete minutes of meetings, or summaries of actions of recent meetings for which minutes have not yet been prepared, of the board of directors and committees of the board of directors that may affect the financial statements, and providing you with access to such relevant information. All significant board and committee actions are included in the summaries.
 - c) providing you with additional information that you may request from us for the purpose of the engagement.
 - d) providing you with unrestricted access to persons within the Entity from whom you determined it necessary to obtain audit evidence.
 - e) such internal control as we determined is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error. We also acknowledge and understand that we are responsible for the design, implementation and maintenance of internal control to prevent and detect fraud.
 - f) ensuring that all transactions have been recorded in the accounting records and are reflected in the financial statements.
 - g) providing you with written representations that you are required to obtain under your professional standards and written representations that you determined are necessary.

Internal control over financial reporting:

- 2) We have communicated to you all deficiencies in the design and implementation or maintenance of internal control over financial reporting of which we are aware.

Fraud & non-compliance with laws and regulations:

- 3) We have disclosed to you:
 - a) the results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.
 - b) all information in relation to fraud or suspected fraud that we are aware of and that affects the financial statements and involves: management, employees who have significant roles in internal control over financial reporting, or others, where the fraud could have a material effect on the financial statements.
 - c) all information in relation to allegations of fraud, or suspected fraud, affecting the financial statements, communicated by employees, former employees, analysts, regulators, or others.
 - d) all known instances of non-compliance or suspected non-compliance with laws and regulations, including all aspects of contractual agreements, whose effects should be considered when preparing financial statements.
 - e) all known actual or possible litigation and claims whose effects should be considered when preparing the financial statements.

Subsequent events:

- 4) All events subsequent to the date of the financial statements and for which the relevant financial reporting framework requires adjustment or disclosure in the financial statements have been adjusted or disclosed.

Related parties:

- 5) We have disclosed to you the identity of the Entity's related parties.
- 6) We have disclosed to you all the related party relationships and transactions/balances of which we are aware.
- 7) All related party relationships and transactions/balances have been appropriately accounted for and disclosed in accordance with the relevant financial reporting framework.

Estimates:

- 8) Measurement methods and significant assumptions used by us in making accounting estimates, including those measured at fair value, are reasonable.

Going concern:

- 9) We have provided you with all information relevant to the use of the going concern assumption in the financial statements.
- 10) We confirm that we are not aware of material uncertainties related to events or conditions that may cast significant doubt upon the Entity's ability to continue as a going concern.

Misstatements:

- 11) The effects of the uncorrected misstatements described in [Attachment II](#) are immaterial, both individually and in the aggregate, to the financial statements as a whole.

- 12) We approve the corrected misstatements identified by you during the audit described in [Attachment II](#).

Non-SEC registrants or non-reporting issuers:

- 13) We confirm that the Entity is not a Canadian reporting issuer (as defined under any applicable Canadian securities act) and is not a United States Securities and Exchange Commission ("SEC") Issuer (as defined by the Sarbanes-Oxley Act of 2002). We also confirm that the financial statements of the Entity will not be included in the consolidated financial statements of a Canadian reporting issuer audited by KPMG or an SEC Issuer audited by any member of the KPMG organization.

Commitments & contingencies:

- 14) There are no:
- a) other liabilities that are required to be recognized and no other contingent assets or contingent liabilities that are required to be disclosed in the financial statements in accordance with the relevant financial reporting framework, including liabilities or contingent liabilities arising from illegal acts or possible illegal acts, or possible violations of human rights legislation
 - b) other environmental matters that may have an impact on the financial statements.

Yours very truly,

ISLANDS TRUST

Mr. Russ Hotsenpiller, Chief Administrative Officer

Ms. Julia Mobbs, Director of Administrative Services

Attachment I – Definitions

Materiality

Certain representations in this letter are described as being limited to matters that are material. Misstatements, including omissions, are considered to be material if they, individually or in the aggregate, could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements. Judgments about materiality are made in light of surrounding circumstances, and are affected by the size or nature of a misstatement, or a combination of both.

Fraud & error

Fraudulent financial reporting involves intentional misstatements including omissions of amounts or disclosures in financial statements to deceive financial statement users.

Misappropriation of assets involves the theft of an entity's assets. It is often accompanied by false or misleading records or documents in order to conceal the fact that the assets are missing or have been pledged without proper authorization.

An error is an unintentional misstatement in financial statements, including the omission of an amount or a disclosure.

Related parties

In accordance with Canadian public sector accounting standards (PSAB) *related party* is defined as:

- 1) A related party is a person or entity that is related to the entity that is preparing its financial statements (in this Standard referred to as the 'reporting entity').
- 2) A person or a close member of that person's family is related to a reporting entity if that person:
 - a) has control or joint control over the reporting entity;
 - b) has significant influence over the reporting entity; or
 - c) is a member of the key management personnel of the reporting entity or of a parent of the reporting entity.

An entity is related to a reporting entity if any of the following conditions applies:

- a) The entity and the reporting entity are members of the same group (which means that each parent, subsidiary and fellow subsidiary is related to the others).
- b) One entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of a group of which the other entity is a member).
- c) Both entities are joint ventures of the same third party.
- d) One entity is a joint venture of a third entity and the other entity is an associate of the third entity.
- e) The entity is a post-employment benefit plan for the benefit of employees of either the reporting entity or an entity related to the reporting entity. If the reporting entity is itself such a plan, the sponsoring employers are also related to the reporting entity.
- f) The entity is controlled or jointly controlled by a person identified in (a).
- g) A person identified in (a) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity).

In accordance with Canadian public sector accounting standards (PSAB) a *related party transaction* is defined as:

- a) A related party transaction is a transfer of resources, services or obligations between a reporting entity and a related party, regardless of whether a price is charged.

Attachment II – Summary of Audit Misstatements Schedule

Corrected Audit Misstatements

- To record the accrued investment income of \$1,381.

Uncorrected Audit Misstatements

- KPMG recommended an adjustment to recognize \$10,000 of revenue and expenses related to a grant from TD Friends of the Environment for property management of the Elder Cedar Boardwalk Project. The grant was applied for and received by the Trust Fund and subsequently paid to the Islands Trust, as it is responsible for all property maintenance expenses on behalf of the Trust Fund. The Islands Trust has recorded revenues and expenses of the \$10,000 as property manager.

Appendix 3: Audit Quality and Risk Management

KPMG maintains a system of quality control designed to reflect our drive and determination to deliver independent, unbiased advice and opinions, and also meet the requirements of Canadian professional standards. Quality control is fundamental to our business and is the responsibility of every partner and employee. The following diagram summarises the six key elements of our quality control systems.

Visit our [Audit Quality Resources page](#) for more information including access to our audit quality report, [Audit quality: Our hands-on process](#).

— Other controls include:

- Before the firm issues its audit report, the Engagement Quality Control Review reviews the appropriateness of key elements of publicly listed client audits.
- Technical department and specialist resources provide real-time support to audit teams in the field.

- We conduct regular reviews of engagements and partners. Review teams are independent and the work of every audit partner is reviewed at least once every three years.
- We have policies and guidance to ensure that work performed by engagement personnel meets applicable professional standards, regulatory requirements and the firm's standards of quality.
- All KPMG partners and staff are required to act with integrity and objectivity and comply with applicable laws, regulations and professional standards at all times.



- We do not offer services that would impair our independence.
- The processes we employ to help retain and develop people include:
 - Assignment based on skills and experience;
 - Rotation of partners;
 - Performance evaluation;
 - Development and training; and
 - Appropriate supervision and coaching.
- We have policies and procedures for deciding whether to accept or continue a client relationship or to perform a specific engagement for that client.
- Existing audit relationships are reviewed annually and evaluated to identify instances where we should discontinue our professional association with the client.

Appendix 4: Background and professional standards

Internal control over financial reporting

As your auditors, we are required to obtain an understanding of internal control over financial reporting (ICFR) relevant to the preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances for the purpose of expressing an opinion on the financial statements, but not for the purpose of expressing an opinion on internal control. Accordingly, we do not express an opinion on the effectiveness of internal control.

Our understanding of ICFR was for the limited purpose described above and was not designed to identify all control deficiencies that might be significant deficiencies and therefore, there can be no assurance that all significant deficiencies and other control deficiencies have been identified. Our awareness of control deficiencies varies with each audit and is influenced by the nature, timing, and extent of audit procedures performed, as well as other factors.

The control deficiencies communicated to you are limited to those control deficiencies that we identified during the audit.

Documents containing or referring to the audited financial statements

We are required by our professional standards to read only documents containing or referring to audited financial statements and our related auditors' report that are available through to the date of our auditors' report. The objective of reading these documents through to the date of our auditors' report is to identify material inconsistencies, if any, between the audited financial statements and the other information. We also have certain responsibilities, if on reading the other information for the purpose of identifying material inconsistencies, we become aware of an apparent material misstatement of fact.

Appendix 5: Current developments

Standard	Summary and implications
Related Party Transactions and Inter-entity Transactions	— Two new Handbook sections were approved in December 2014, effective for fiscal years beginning on or after April 1, 2017. — Related parties include entities that control or are controlled by a reporting entity, entities that are under common control and entities that have shared control over or that are subject to shared control of a reporting entity. — Individuals that are members of key management personnel and close members of their family are related parties. Disclosure of key management personnel compensation arrangements, expense allowances and other similar payments routinely paid in exchange for services rendered is not required. — Determining which related party transactions to disclose is a matter of judgment based on assessment of: • the terms and conditions underlying the transactions; • the financial significance of the transactions; • the relevance of the information; and • the need for the information to enable users' understanding of the financial statements and for making comparisons. — A related party transaction, with the exception of contributed goods and services, should normally be recognized by both a provider organization and a recipient organization on a gross basis. — Related party transactions, if recognized, should be recorded at the exchange amount. A public sector entity's policy, budget practices or accountability structures may dictate that the exchange amount is the carrying amount, consideration paid or received or fair value.
Assets, Contingent Assets and Contractual Rights	— Three new Handbook sections were approved in March 2015, effective for fiscal years beginning on or after April 1, 2017. — The intended outcome of the three new Handbook Sections is improved consistency and comparability. — The standard includes enhanced guidance on the definition of assets and disclosure of assets to provide users with better information about the types of resources available to the public sector entity. — Disclosure of contingent assets and contractual rights is required to provide users with information about the nature, extent and timing of future assets and potential assets and revenues available to the public sector entity when the terms of those contracts are met.

Standard	Summary and implications
Employee Future Benefit Obligations	— PSAB has initiated a review of sections PS3250 Retirement Benefits and PS3255 Post-Employment Benefits. Given the complexity of issues involved and potential implications of any changes that may arise from this review, the project will be undertaken in phases. Phase I will address specific issues related to measurement of employment benefits. Phase II will address accounting for plans with risk sharing features, multi-employer defined benefit plans and sick leave benefits. — An Invitation to Comment was issued in November 2016 and closed March 2017, seeking guidance on whether the deferral provisions in existing public sector standards remain appropriate and justified and the appropriateness of accounting for various components of changes in the value of the accrued benefit obligation and plan assets. Responses are currently under deliberation. — An Invitation to Comment is expected to be issued in November 2017 seeking guidance on the present value measurement of accrued benefit obligations. Webinars with an overview of the Invitation to Comment were held in January 2018. — The ultimate objective of this project is to issue a new employment benefits section to replace existing guidance.
Asset Retirement Obligations	— A new standard is approved addressing the recognition, measurement, presentation and disclosure of legal obligations associated with retirement of tangible capital assets in productive use. Retirement costs would be recognized as an integral cost of owning and operating tangible capital assets. PSAB currently contains no specific guidance in this area. The standard requires the Trust Fund to record a liability related to future costs of any legal obligations to be incurred upon retirement of any controlled tangible capital assets (TCA). — An ARO liability is initially be recorded at its fair value (normally estimated using a present value technique), at the time of acquisition or construction of the TCA. The liability is subsequently increased or “accreted” up to the settlement date using an effective interest rate (normally the rate used to estimate the present value of the liability), with the corresponding debit amount being expensed. — A corresponding addition to the carrying amount of TCA is recognized at the same time as the ARO liability, which is then amortized over the TCA’s useful life. The net effect is an increase in TCA and ARO liability upon recognition, and over time, an increase in amortization expense and accretion expense. If the TCA is no longer in use, the amount of the ARO is expensed immediately. — The ARO standard requires the public sector entity to record a liability related to future costs of any legal obligations to be incurred upon retirement of any controlled tangible capital assets (“TCA”). The amount of the initial liability would be added to the historical cost of the asset and amortized over its useful life. — As a result of the new standard, the public sector entity has to: — consider how the additional liability will impact net debt, as a new liability will be recognized with no corresponding increase in a financial asset;

	— carefully review legal agreements, senior government directives and legislation in relation to all controlled TCA to determine if any legal obligations exist with respect to asset retirements; and — begin considering the potential effects on the organization as soon as possible to coordinate with resources outside the finance department to identify AROs and obtain information to estimate the value of potential AROs to avoid unexpected issues. — The new standard has an effective date of April 1, 2021.
Public Private Partnerships	— A taskforce was established in 2016 as a result of increasing use of public private partnerships for the delivery of services and provision of assets. — A Statement of Principles (SOP) was issued in August 2017 which proposes new requirements for recognizing, measuring and classifying infrastructure procured through a public private partnership. Responses are currently under deliberation. — The SOP proposes that recognition of infrastructure by the public sector entity would occur when it controls the purpose and use of the infrastructure, when it controls access and the price, if any, charged for use, and it controls any significant interest accumulated in the infrastructure when the P3 ends. — The SOP proposes the public sector entity recognize a liability when it needs to pay cash or non-cash consideration to the private sector partner for the infrastructure. — The infrastructure would be valued at cost, with a liability of the same amount if one exists. Cost would be measured by discounting the expected cash flows by a discount rate that reflects the time value of money and risks specific to the project.
Revenue	— PSAB is proposing a single framework to categorize revenues to enhance the consistency of revenue recognition and its measurement. — An Exposure Draft (ED) was issued in May 2017 seeking feedback from stakeholders. Responses are currently under deliberation. — The ED proposes that in the case of revenues arising from an exchange, a public sector entity must ensure the recognition of revenue aligns with the satisfaction of related performance obligations. — The ED proposes that unilateral revenues arise when no performance obligations are present, and recognition occurs when there is authority to record the revenue and an event has happened that gives the public sector entity the right to the revenue. — The new section would be applied retroactively with restatement for fiscal years beginning on or after April 1, 2021.

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REQUEST FOR DECISION

To: Islands Trust Conservancy **For the Meeting of:** July 17, 2018
From: Nuala Murphy **Date Prepared:** June 28, 2018
SUBJECT: Morrison Marsh Nature Reserve Management Plan, Denman Island

RECOMMENDATION:

That the Island Trust Conservancy approve the Morrison Marsh Nature Reserve Management Plan, dated July 17, 2018.

1 **PURPOSE:** To approve a management plan revision for Morrison Marsh Nature Reserve.

2 **BACKGROUND:**

Islands Trust Conservancy policy 2.3 indicates that “The Islands Trust Conservancy will prepare and approve a management plan for each property it acquires as a Nature Reserve. The Islands Trust Conservancy will approve a management plan for its properties within one year of acquisition, and will update each management plan approximately every 10 years”. Islands Trust Conservancy management plans:

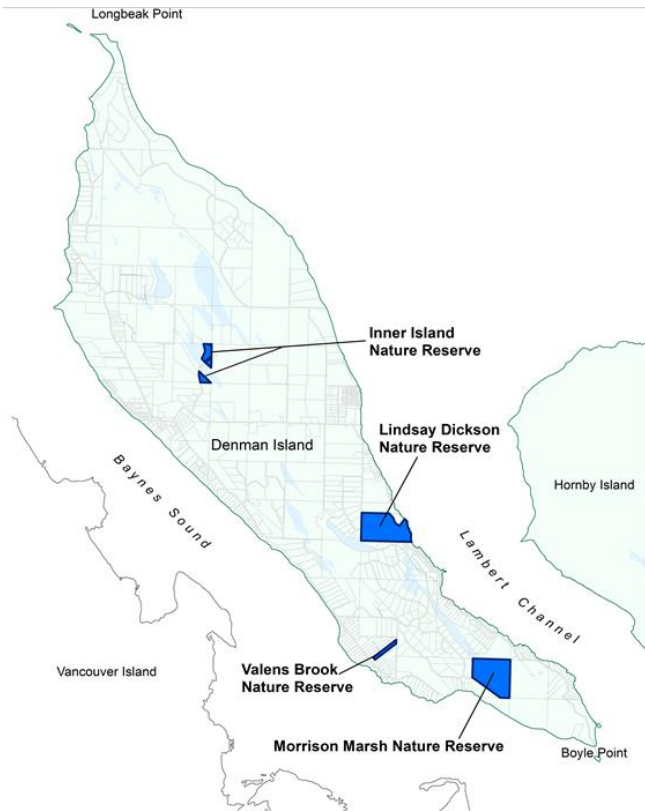
- Provide general and descriptive information on the property, including location, history, and land use;
- Set out the conservation goals and objectives for the property;
- Identify the property's ecological and/or cultural values and features;
- Describe the management issues associated with the property;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

Morrison Marsh Nature Reserve is a 51.73 hectare (127.77 acre) property which includes the southern portion of Denman Island’s largest marsh and the headwaters to Boyle Creek. The marsh is surrounded by third growth Douglas-fir forests with rocky outcrops and there are several smaller wetlands within the forested areas. The land was most recently logged in 1979.

The land was donated to the Islands Trust Conservancy (ITC) in 2005 by the former land holder. The land is protected by a conservation covenant which was registered to the Denman Conservancy Association (DCA) in 2006. The ITC manages the Reserve in cooperation with the DCA guided by the management plan which was written in 2007.

There are hiking trails along the old logging roads that are used by the public. The trails connect with Boyle Point Provincial Park to the south and east of the Reserve. The low impact hiking trails will continue to be open to the public. There are seven confirmed rare species noted in the Reserve including one dragonfly, one frog, four birds and two bats. There are also two ecological communities which are ranked as rare by the BC Conservation Data Centre. The marsh is important habitat for waterfowl and the eight species of bat which have been detected.

The 2018 Management Plan was completed by Carrina Maslovat, RPBio and has been provided to DCA for their input and initial approval.



The ITF objectives of the management of the Reserve are:

- Preserve the Morrison Marsh and adjacent forested areas as an undisturbed natural area and nature reserve;
- Protect the distinct ecological communities and the Species at Risk that depend on them;
- Protect and, where necessary and feasible, restore the plant and animal communities and ecological processes at the site;
- Allow for continued low impact public access and enjoyment of the site in areas where such uses are compatible with protection of ecological values;
- Support ongoing inventory, mapping and monitoring to guide management provided it does not interfere with Species at Risk protection; and,
- Allow the natural ecological processes and functions of the site to proceed unimpeded without human intervention, except in the case of wildfire or other exceptional situations where remediation is considered imperative.

Immediate Action Items (1-2 years)

- Continue to remove invasive, non-native species through cooperation between the DCA and the ITC and conduct regular monitoring to assess effectiveness of management.
- Monitor re-routed trail that leads south to Boyle Point Provincial Park to ensure the former trail through the wetland is not being used. The former trail could be decommissioned by piling woody debris on it or a barrier such as a split rail fence could be placed with interpretive information to limit use of the former trail.
- Maintain kiosk, signs and trails (including culvert monitoring) and continue to remove garbage as necessary.
- Install reserve boundary signs at Greenhill Road if deemed necessary.

- Consider developing educational signage that describes the sensitivity of breeding waterfowl. Signage could be installed at the kiosk.
- Ensure trail is closed to the north to avoid trespass onto neighbouring property and remove “seasonally closed” trails from map in kiosk. If trespassing continues, consider further restoration of the spur trail.
- Consider an additional survey for Western Screech-owl to determine if they are present in the Reserve.

7.2 Short term Actions (3-5 years)

- If Western Screech-owls are found on the property, install and monitor nest boxes in the Reserve. Consider installing boxes even if Screech-owls are not found since the lack of nest cavities may be the limiting factor.
- Engage with the K’omoks First Nation as potential educators for residents to learn about ecological and bicultural history, traditional ethnobotanical use and ecological management.
- Work with the DCA to develop a land holder contact program to contact land holders within 1 km of Morrison Marsh to:
- Establish a volunteer warden program or Friends of Morrison Marsh group to support the DCA Land Manager to monitor the property and identify management concerns such as disturbance of wildlife, mountain biking, salal and wood harvest, maintenance needs and other issues that arise.
- Encourage long-term conservation and protection of nearby properties within the watershed;
- Provide information to land holders related to protecting water quality;
- Provide information related to disturbance of waterfowl and other wildlife associated with dogs, canoeing/kayaking and other human impacts.
- Remain in contact with other land holders adjacent to the marsh, Ducks Unlimited Canada and the Nanaimo Water District to influence management of the water levels in the marsh, including weir management and removal of beaver dams downstream of the Reserve. Keep informed of any water quality and water level monitoring programs in the area.
- Keep informed of any studies completed to determine which fish species are found in the marsh. If fish are found to be present at any time, evaluate perched culvert south of marsh and consider replacement with a foot bridge to allow fish passage.
- If resources permit, survey for other Species at Risk over a range of seasons to more fully document the biodiversity of the Reserve.
- Prepare a wildfire management plan that considers both forest ecology and prevention of damage to surrounding neighbourhoods in consultation with the Denman Island Volunteer Fire Department and the BC Wildfire Service.

7.3 Long term Actions (5+ years)

- Develop strategies to control non-woody invasive plants, in particular Reed Canarygrass.
- Continue to work with the DCA and any land holders of adjacent land who would like to achieve protection mechanisms (such as covenants) to create a buffer zone on neighbouring properties to protect the quality and quantity of water flowing to the Reserve and increase connectivity of protected areas.

7.4 Ongoing or Annual Action Items

- Conduct annual monitoring to monitor covenant compliance and identify and address management concerns.
- Continue ongoing invasive species removal and management. Monitor effectiveness of management and monitor to identify new locations of invasive species that can be targeted for removal.
- Conduct annual trail monitoring to evaluate erosion and impacts to adjacent areas.

- Conduct ongoing maintenance of kiosk, signs and trails and continue to remove garbage as required.
- Continue to work with the DCA and perhaps a Friends of Morrison Marsh group to identify any concerns on the Reserve on an ongoing basis.
- Continue to inform the general public of the natural values of the site and the permitted and prohibited uses through information placed in local publications from time to time by the DCA.

3 IMPLICATIONS OF RECOMMENDATION

ORGANIZATIONAL: This management plan will guide the management of this property and assist staff in budgeting property management funds over the next 10 years.

FINANCIAL: The property management budget is allocated each year depending on available funds and the work that is most needed, balanced between all TFB properties. This is a well-used protected area requiring trail maintenance and invasive species removal.

POLICY: Consistent with policy.

IMPLEMENTATION/COMMUNICATIONS: Staff will provide the final version of the management plan to the covenant holder, DCA, for their final approval. The ITC's property monitors will be provided with the Management Plan and it will be posted to the ITF website.

FIRST NATIONS: First Nations with interests in this area were contacted as part of the community engagement process. No responses were received.

OTHER: None.

4 **RELEVANT POLICY(S):** ITC 2.3 Acquisition and Management of Land Procedure
2.3.2 Management Preparations for ITF Properties and Property Interests

5 **ATTACHMENT(S):** ITC_2018-07-17_MorrisonMarshNRManagementPlan

RESPONSE OPTIONS

Recommendation: As above

Alternative: That the Islands Trust Conservancy approve the Morrison Marsh Nature Reserve Management Plan as amended.

Prepared By: Nuala Murphy, Property Management Specialist

Reviewed By/Date: Jennifer Eliason, Manager, Islands Trust Conservancy

**Morrison Marsh Nature Reserve
Management Plan
Denman Island, British Columbia**



Prepared for:



Prepared by:

M. Durand and R. Durand, Taara Environmental, 2007

REVISED 2018 by Carrina Maslovat, R. P. Bio. #1407, 175 Stewart Road, Salt Spring Island, BC

Approved by

**the Islands Trust Conservancy, Date
Denman Conservancy Association, Date**

i. Executive Summary

Morrison Marsh Nature Reserve is a 51.73 hectare (127.77 acre) property which includes the southern portion of Denman Island's largest marsh and the headwaters to Boyle Creek. The marsh is surrounded by third growth Douglas-fir forests with rocky outcrops and there are several smaller wetlands within the forested areas. The land was most recently logged in 1979.

The land was donated to the Islands Trust Conservancy (ITC) (previously the Islands Trust Fund) in 2005 by the former land holder. The land is protected by a conservation covenant which was registered to the Denman Conservancy Association (DCA) in 2006. The ITC manages the Reserve in cooperation with the DCA guided by the management plan which was written in 2007 and revised in 2018. The Reserve was established to protect the marsh, the wetlands, the rocky outcrops and the upland forests for the benefit of the flora, fungi and fauna of the Reserve and the residents of Denman Island.

There are hiking trails along the old logging roads that are used by the public. The trails connect with Boyle Point Provincial Park to the south and east of the Reserve. The low impact hiking trails will continue to be open to the public. There are seven confirmed rare species noted in the Reserve including one dragonfly, one frog, four birds and two bats. There are also two ecological communities which are ranked as rare by the BC Conservation Data Centre. The marsh is important habitat for waterfowl and the eight species of bat which have been detected.

Threats to the property include invasive non-native woody plants. There has been disturbance from recreational use, primarily in areas where the trails have been routed through wetlands or wet areas, and from occasional mountain bike use. There are concerns related to disturbance of waterfowl, with the biggest impact during the breeding season. Impacts associated with fluctuations in water levels and water quality as well as over-grazing by native Black-tailed Deer may also threaten the Reserve.

In cooperation with DCA, invasive species removal should continue. Removal efforts should focus on woody invasive species such as spurge-laurel (*Daphne*), English holly and Scotch broom. Trail maintenance/re-routing is recommended to address disturbance in wet areas. A volunteer warden program would be useful to conduct regular monitoring of the property and provide early detection of management concerns such as dogs off leash, mountain biking, disturbance to waterfowl and other issues.

ii. Tables and Lists

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Acknowledgements

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1 Introduction

Morrison Marsh Nature Reserve is a 51.73 hectare (127.77 acre) property located on the southern end of Denman Island. The property includes the southern portion of Denman Island's largest marsh and the headwaters to the marsh including Boyle Creek. The marsh is surrounded by third growth Douglas-fir forests with rocky outcrops with several smaller wetlands throughout the property. The marsh is home to over 80 bird species and is a key over-wintering area for waterfowl (ITC 2018).

The land has been logged repeatedly, most recently in 1979. Old logging roads cross the property and these are used for hiking and nature appreciation by the public. The trails connect to Boyle Point Provincial Park to the south and east of the Reserve.

There is much more to learn about the First Nations use of the property. It is likely that the area was used for hunting and plant gathering.

The land was given to the Islands Trust Conservancy (ITC) in 2005 by the former land holder who chose to remain anonymous and a conservation covenant was registered in favour of the Denman Conservancy Association (DCA) in 2006. The DCA remains committed to the long-term management of the Nature Reserve and works in partnership and under contract to the Islands Trust Conservancy to carry out management activities in accordance with the management plan. The original management plan was approved in 2007 and revised in 2018.

1.1 Islands Trust Conservancy (ITC)

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

"To preserve and protect the trust area and its unique amenities and environment for the benefit of the residents of the trust area and of British Columbia generally, in cooperation with municipalities, regional districts, improvement districts, other persons and organizations and the government of British Columbia" (Islands Trust 2018a).

In 1990, through the enactment of a section of *Islands Trust Act*, the Islands Trust Conservancy was established as a conservation land trust to assist in carrying out the "preserve and protect" mandate. Part 6 of the *Islands Trust Act* establishes the corporate status, responsibilities, and governance structure of the Islands Trust Conservancy. The Islands Trust Conservancy is one of fifteen corporate entities¹ charged to uphold the Object

¹ The corporate entities charged to uphold the Object of the Islands Trust include the Trust Council, the Executive Committee, thirteen local trust committees and the Islands Trust Conservancy.

of the Islands Trust and since 1990 has protected over 1,267 hectares (3,130 acres) of land as nature reserves, nature sanctuaries and conservation covenants.

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

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

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

1.2 Purpose of Islands Trust Conservancy Management Plans

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

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

Once the management plan process is complete, the ITC will work to carry out the management actions or strategies identified in the plan, as resources allow. Following general practice and as outlined in the conservation covenant and statutory right of way, the ITC will revise the Management Plan every ten years.

1.3 Protected Area Purpose

The purpose of Morrison Marsh Nature Reserve is to protect, in perpetuity, the marsh, upland forest, rocky outcrops and wetlands for the benefit of the flora, fungi and fauna of the Reserve, the residents of Denman Island, and the province generally. The property will

be protected as a nature reserve in accordance with the objectives of the Islands Trust and the ITC.

1.4 Protected Area Objectives

The objectives for Morrison Marsh Nature Reserve are:

1. Preserve the Morrison Marsh and adjacent forested areas as an undisturbed natural area and nature reserve;
2. Protect the distinct ecological communities and the Species at Risk that depend on them;
3. Protect and, where necessary and feasible, restore the plant and animal communities and ecological processes at the site;
4. Allow for continued low impact public access and enjoyment of the site in areas where such uses are compatible with protection of ecological values;
5. Support ongoing inventory, mapping and monitoring to guide management provided it does not interfere with Species at Risk protection; and,
6. Allow the natural ecological processes and functions of the site to proceed unimpeded without human intervention, except in the case of wildfire or other exceptional situations where remediation is considered imperative.

2 Property Information

Morrison Marsh Nature Reserve is 51.73 hectares (127.77 acres) in size and includes the southern portion of the marsh and surrounding upland areas with the southern headwaters to Morrison Marsh including Boyle Creek.

2.1 Location

Morrison Marsh Nature Reserve is located in the southern portion of Denman Island, north of Boyle Point Provincial Park (Figure 1). From the BC Ferries Terminal at Denman West, travel east for 0.5 km on Denman Road. Turn right at the junction of Northwest Road and continue east on Denman Road for another 0.5 km. Turn right on Lacon Road and travel south for 5.4 km then turn left on McFarlane Road and travel east for 2 km. Turn right on Greenhill Road and travel 2 km southeast until the end of the road. Access to the property is from the cul-de-sac at the southern end of Greenhill Road.

The Reserve can also be accessed by hiking trails that enter the property from Boyle Point Provincial Park to the south and east.

2.2 Legal Description

Parcel Identifier No. (PID): 026-532-913. The property is defined as Lot A, Section 7, Denman Island, Nanaimo District, Plan VIP80177.

2.3 Legal Access

Legal access to the property is over a short easement from the cul-de-sac at the end of Greenhill Road (Appendix A).

2.4 Local and Regional Context

Denman Island is located between Hornby Island and the central east coast of Vancouver Island in the Strait of Georgia. The nearest urban centers are Courtney, Comox and Nanaimo. Parcels surrounding the Reserve are a mix of residential lots and provincially managed lands. To the southwest, west and north are privately managed residential lots that vary in size and provincial parkland is to the south and east.

Morrison Marsh Nature Reserve is next to Boyle Point Provincial Park which is to the south and east of the Reserve. Boyle Point Protected Area and Bill Mee Community Recreation Park and Boat Ramp extend the protected area to the ocean on the east side of Denman Island. Two other small protected areas are found in the southern portion of Denman Island: Stanehill Park, 0.7 km northwest of the Reserve and Valens Brook Nature Reserve, 1.6 km west of the Reserve. The northern portion of the marsh was identified as a potential provincial park during the creation of Denman Island Provincial Park and Protected Area but was ultimately determined not ideal so was left out when it was created in 2013. It was felt that it should remain protected and is currently provincially managed by Ministry of Forests, Lands and Natural Resource Operations and Rural Development (Moore pers. comm. 2018) and is zoned for Conservation (Figure 1).

There are other properties on Denman Island protected by ITC and DCA. ITC protects Inner Island Nature Reserve, Lindsay Dickson Nature Reserve, and Valens Brook Nature Reserve. DCA protects Central Park, Winter Wren Wood, and the Settlement Lands, as well as several covenant areas.

2.5 Adjacent Land Use and Connectivity

The lands adjoining Morrison Marsh Nature Reserve are zoned for a mixture of uses including Rural Residential (RR), Residential (R2), Agriculture (A), Conservation (CN) and Park (PK) (Islands Trust 2018b).

To the south and east of the Reserve is Boyle Point Provincial Park which includes 4 parcels totaling 188 hectares (465 acres) of provincial park plus 9.3 hectares (23 acres) Boyle Point Protected Area (BC Parks 2018). The provincial park contains some of Denman Island's oldest and largest Douglas-fir (*Pseudotsuga menziesii*), Hemlock (*Tsuga heterophylla*) and Western Redcedar trees (*Thuja plicata*) (BC Parks 2018).

Residential lots surround the remainder of the Reserve. To the southwest, is the 12 hectares (29 acre) parcel that was previously part of the parent lot that is now zoned Conservation. There has been some residential development on this lot. To the southwest are small lots (2 hectares/5 acre) that are zoned Rural Residential and to the west is a 7 hectares (16 acre) lot zoned Rural Residential /Agriculture. To the north is a 25 hectares (63 acre) parcel zoned Rural Residential/ Residential/Agriculture (Islands Trust 2018b).

The northern portion of Morrison Marsh is zoned CN for Conservation and is provincially managed (Islands Trust 2018b).

Ducks Unlimited Canada holds a water license as well as several flooding consent agreements on lands surrounding Morrison Marsh. In 2015, DUC approached the ITC to enter into a flooding agreement. The agreement remains unsigned as of the approval of this Management Plan.

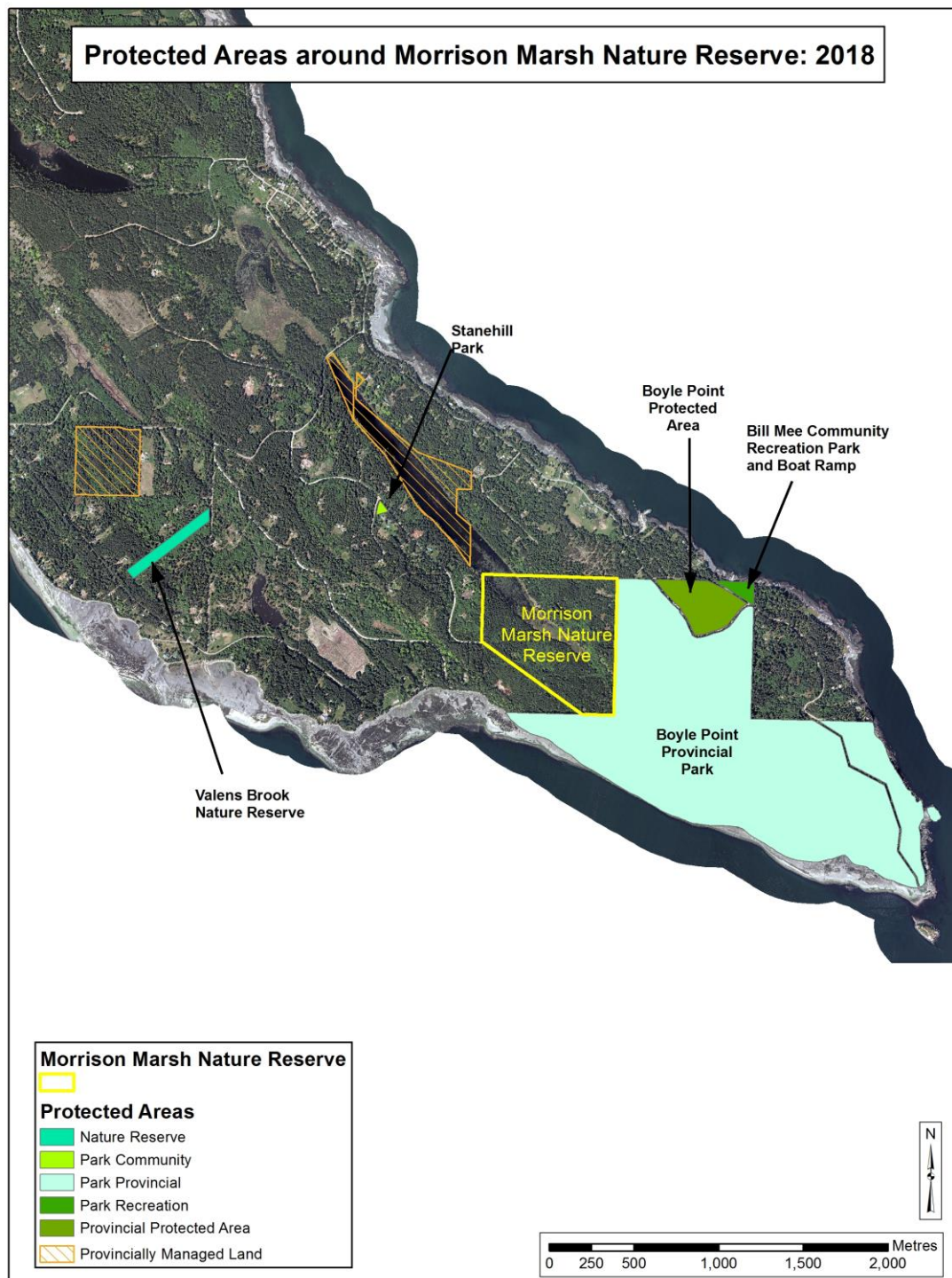


Figure 1. Map of Protected Areas Near Morrison Marsh Nature Reserve

2.6 Site History²

Denman Island was used seasonally by the Pentlatch Peoples and K'omoks Peoples of Vancouver Island for summer fishing and there is evidence of year-round populations. First Nations archaeological artifacts dated from 3000BC have been found in a midden at Deep Bay, just across Baynes Sound from the property. An ancient Pentlatch village site is located on the west side of Denman Island and Morrison Marsh was likely used by First Nations people for hunting waterfowl and deer and for harvesting plants (Balke 2006).

Morrison Marsh was previously part of a larger wetland that was bisected by the construction of McFarlane Road to form McFarlane or Windy Marsh north of the road and Morrison Marsh south of the road (Balke 2006). There is no apparent surface connection between the two wetlands (Mimulus Biological Consultants 2012). After European settlement, the marsh was farmed, probably for Reed Canarygrass (ITC 2018) and for root crops such as potatoes and turnips. The forests in the upland areas were logged several times. Most recently the Reserve was logged in 1979 and replanted in 1980 by Weldwood of Canada (Balke 2006).

In 1985, Ducks Unlimited Canada, the BC provincial government and residents installed a crest weir and outlet channel to control the water level of the marsh (Balke 2006). A beaver dam downstream of the weir also alters water depth in the marsh (ITC 2018). Material from the top of the dam is removed to keep the water level within 0.5 m of the weir height to limit extreme fluctuations in water levels (Marshall pers. comm. 2018).

The property was part of the original landholdings of 4064 Investments Ltd. and the parcel which included the Reserve was the first block sold by the company (DCA 2018). In 2000, the land was purchased by a land holder with the intent to protect the marsh. With financial support from the DCA, the land holder subdivided the property under Section 99 of the Land Title Act and donated the majority portion to the ITC to hold and steward (ITC 2018). The DCA holds a conservation covenant on the land and since March 2008 has been contracted to perform the management activities on the Reserve (DCA 2018).

2.7 Undersurface Rights

Undersurface rights for Morrison Marsh Nature Reserve are currently held in favour of the Crown in Right of the Province of British Columbia.

2.8 Notations, Charges, Liens and Interests

A Section 219 Covenant and Section 218 Statutory Right of Way were registered on the land September 26, 2006 in favour of the Denman Conservancy Association. The general intent of the covenant is to:

² The Islands Trust Conservancy recognizes that the language commonly used to refer to land may be disrespectful to First Nations. For example, notions of 'private' and 'Crown' land do not appropriately recognize aboriginal title and imply a belief in the concept of terra nullius, the idea that land was not owned prior to the assertion of European sovereignty. The ITC acknowledges that terra nullius is a concept that doesn't apply to the Islands Trust Area. The words "provincially-managed land or federally managed land" will be used in place of "Crown". "Privately managed" will be used in place of "private" and "land holder" instead of "land owner".

- 1) protect, preserve, conserve, maintain, enhance or restore the Land and the Amenities, in a natural state; and
- 2) to prevent any occupation or use of the Land that will impair or interfere with the natural state of the Land or the Amenities.

There are also two Statutory Way of Way in favour of Compliance Holdings Ltd. (EJ49176 and EJ49177).

2.9 Local Planning Designations

Under Denman Island Land Use Bylaw 186, the marsh is zoned for Agriculture (A) and is within the Agricultural Land Reserve. The remainder of the property is zoned Conservation (CN) (Islands Trust 2017a). Under Denman Island Official Community Plan Bylaw 185 the marsh is designated Sustainable Resources (SR) and the remainder of the lot is designated Conservation/Recreation (CR) (Islands Trust 2017b).

There are two Development Permit Areas (DPA) that affect land use within the Reserve: DPA 4 and DPA 2 (Figure 2).

The marsh and streams which feed into it are protected by the Riparian Areas Regulation and DPA 4. Works undertaken by a local government or a body established by a local government are exempt from any requirement for a development permit in DPA 4 (Islands Trust 2017b).

The steep slopes in the eastern portion of the property are protected by DPA 2 which limits activities in areas with slopes of greater than 60% (Islands Trust 2017a). Within DPA2, a permit is required for the following:

- “1. Alteration of land by the cutting or removing of trees:
 - i. on land that:
 - Is not classified as managed forest land under the *Assessment Act*; and
 - Is not the subject of a valid and subsisting woodlot license or tree farm license under the *Forest Act*; and
 - ii. where the quantity cut or removed from the land is to exceed four trees smaller than 30 cm dbh and one tree equal to or larger than 30 cm dbh per parcel in any period of five consecutive calendar years.
2. Development of any impervious surfaces.
3. Construction of buildings or structures.

All other land alteration or development is exempt from the requirements of this development permit area” (Islands Trust 2017b). Ongoing trail maintenance should not require a development permit.

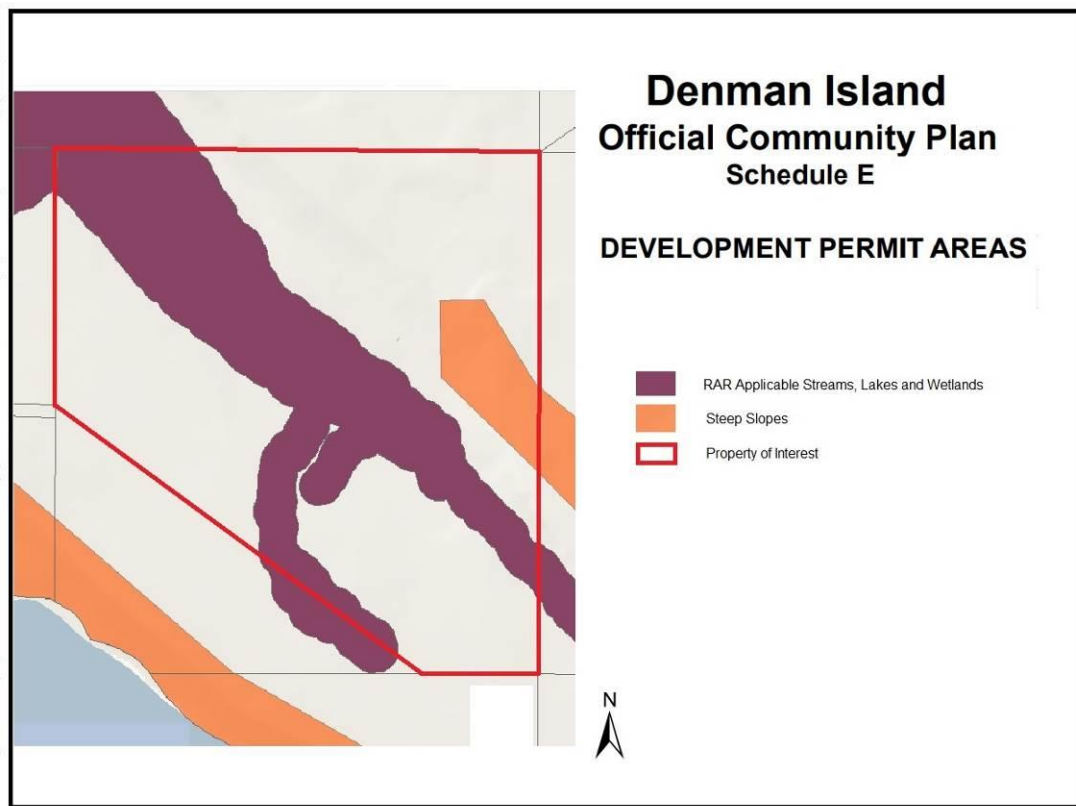


Figure 2. Development Permit Areas in Morrison Marsh Nature Reserve

2.10 Existing Public and Other Use

The property is used by the local community for walking and nature appreciation. The existing hiking trails on the property are the remains of the skid roads from the 1979 logging operations (Balke 2006). The main trail begins at the end of Greenhill Road and travels south east with a minor trail branching south to Boyle Point Provincial Park and through the park to the west shore of Denman Island (Figure 3). The main trail continues east across Morrison Creek then heads north with two spur trails which are “seasonally closed” and lead toward the northern edge of the property. The neighbour has installed a fence to prevent trespass onto their property (Photo 1) although there is evidence of a path around the edge of the fence so some foot traffic occurs. The main trail goes east up the ridge to connect with Boyle Point Provincial Park in two locations on the east side of the Reserve.

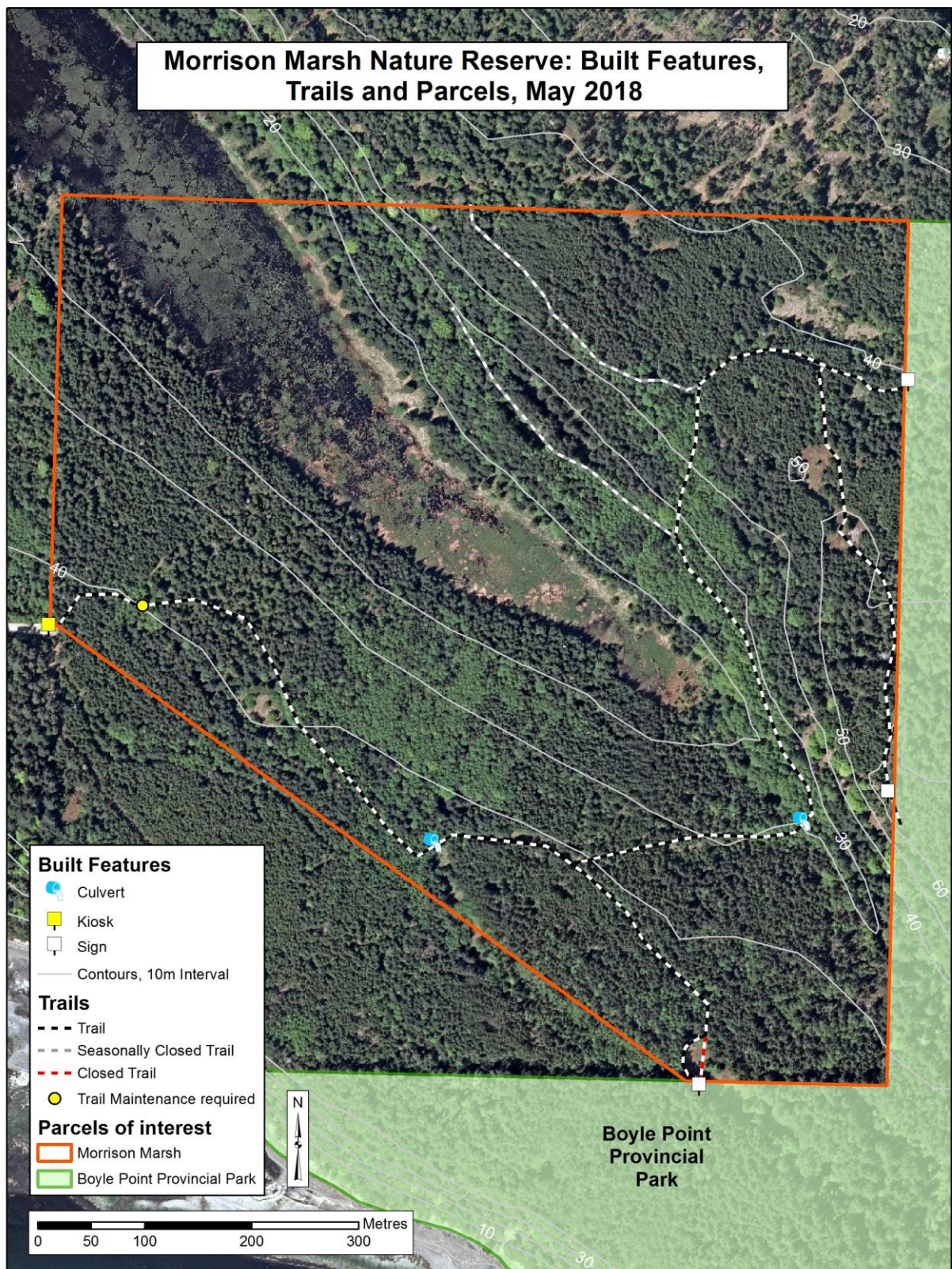


Figure 3. Map of Trails and Other Features



Photo 1. Wood Post and Wire Fence along Northern Boundary

3.0 Ecological Inventory

3.1 Ecological Significance

Morrison Marsh Nature Reserve is a 51.7 hectare (127.8 acre) area that protects the southern portion of Denman Island's largest marsh. The Reserve also contains the upland forests surrounding the marsh, which includes the headwaters of the marsh including Boyle Creek (a.k.a. Upper Morrison Creek). There are open rocky outcrops, a steep bluff, riparian areas and several smaller wetlands in the Reserve. The Reserve is home to a diverse number of bird species and Morrison Marsh is a key waterfowl over-wintering area, with as many as hundreds of individuals from over ten species using the marsh (Balke 2006). The Reserve is adjacent to Boyle Point Provincial Park and provides important connectivity between the ocean and the freshwater marsh.

3.2 Climate

The closest Environment and Climate Change Canada weather station to Denman Island is in Mud Bay on Vancouver Island, which is 7 km from Morrison Marsh (Environment Canada, 2018). Like the other Gulf Islands, precipitation is heaviest in the winter months from October to March and remains at low levels throughout the spring and summer. November has the highest average precipitation at 290 mm with July and August ranging from 26-38 mm. Temperature is highest from June through September and lowest in November through March. At Mud Bay, average daily temperatures peak in July and August at 17°C and are lowest in December and January at 3.0-3.5°C. (Figure 4) (Environment and Climate Change Canada 2018).

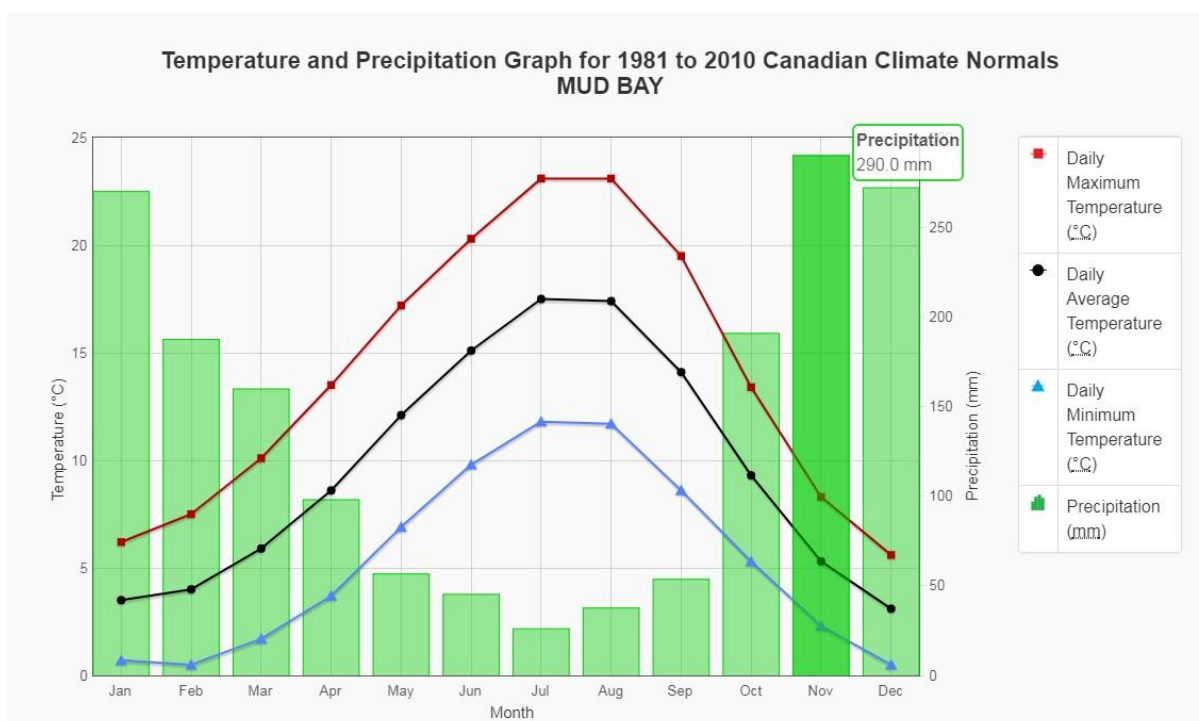


Figure 4. Canadian Climate Normals for Mud Bay, British Columbia (Environment and Climate Change Canada 2018)

3.2.1 Impacts from Climate Change

Long-term impacts from climate change may affect moisture levels in the creeks which feed the marsh and may alter the water table. The overall height of water is determined by an outlet weir so changes to the elevation of the marsh are expected to be minimal, provided the weir remains in place (refer to Section 3.4). The smaller marshes throughout the Reserve may be impacted by changes in creek flow. Climate change may impact the regeneration of the forest, especially Western Redcedar, which is showing dieback associated with unseasonably hot dry summers in other locations.

3.3 Geology and Physiography

Denman Island is underlain by sediments of the Nanaimo Group, deposited approximately 87 to 60 million years ago (Durand and Durand 2007). The property is underlain by fossiliferous shale which is part of the upper Cedar District Formation and is exposed along the shores of Baynes Sound, south of the Reserve. The fossiliferous shale is overlain by thick sandstone of the De Courcy Formation. Conglomerate from the De Courcy Formation is also found underlying the reserve in scattered small outcrops and in larger exposures to the northeast of Morrison Marsh (Trueman 2001 in Durand and Durand 2007).

Glacial striations oriented in a south-easterly direction were observed in two locations on the property. The striations were left from glaciers that filled the Georgia Strait to a depth of greater than one kilometer as recently as 14,000 years ago. These glaciers also left some scattered erratic boulders, several of which are found on the property (Trueman 2001 in Durand and Durand 2007).

The topography and drainage of the reserve is characterized by a gentle dip from the western boundary toward the center of the reserve to a rise in the eastern boundary resulting in two major aspects: northeast and southwest (Balke 2006). The eastern portion of the property slopes upward to a ridge that overlooks the reserve to the west. Slopes vary from nearly flat to 38 degrees (78%) and in places shear sandstone or conglomerate boulders are exposed (Balke 2006). The rise is defined by a ridge system where the line of demarcation between the conglomerates underlying the northeast of the property meets the sandstone underlying the remainder of the property (Trueman 2001 in Durand and Durand 2007).

3.4 Hydrology

In 1985, Ducks Unlimited Canada and the former Ministry of Environment, Lands and Parks installed a variable crest weir and outlet channel next to McFarlane Road at the north end of Morrison Marsh. The weir was designed to maintain the water levels in the marsh at a depth of 0.8-0.9 meters. A beaver dam downstream of the weir previously kept the water levels higher than originally intended (Balke 2006; Durand and Durand 2007). Beavers continue to maintain a dam approximately 10 meters downstream of the weir and a small amount of material from the surface of the dam is removed to keep water above the top of the weir to prevent beavers from damming the weir itself. Removing the top of the dam maintains marsh water levels to within 0.5 m fluctuation and prevents major flooding events (Marshall pers. comm. 2018).

The headwaters of Boyle Creek are within Morrison Marsh Nature Reserve and Boyle Point Provincial Park as are smaller seasonal creeks that feed the marsh. There are several smaller wetlands throughout the reserve that are formed by water collecting in shallow depressions with impermeable surface layers (Balke 2006).

3.5 Soils

Surficial materials within the reserve consist primarily of a thin layer of silty- sandy soils with bedrock close to the surface. Thicker layers of soil are found in the wetland depressions (Durand and Durand 2007).

Soils in the southeast end of the marsh are considered 'peatland' and consist of fibrous peat up to 50 cm thick (Denman Conservancy Association 2006 in Durand and Durand 2007). Soil mapping for the property is incomplete but soils associated with Morrison Marsh are mapped as Arrowsmith which is a peat soil group that is poorly drained and comprised of undecomposed moss and woody accumulations over 36 inches deep (Experimental Farms Service 1958).

3.6 Ecological Classifications

Denman Island is in the northern extent of the Coastal Douglas-fir Biogeoclimatic Zone in the moist maritime subzone (CDFmm). This zone is found only on the Gulf Islands and southeastern Vancouver Island. Adjacent land on Vancouver Island is classified as Coastal Western Hemlock very dry maritime (CWHxm1) and there is evidence of transition between

the two zones on Denman Island. Denman Island is within the Pacific Maritime Ecozone and the Georgia Puget Basin Ecoregion.

3.7 Map of the Protected Area

A map of Morrison Marsh Nature Reserve showing the property lines, contours, trails and built structures is included in Figure 3. A map showing natural features, ecological communities, rare species and invasive plants is included in Figure 5.

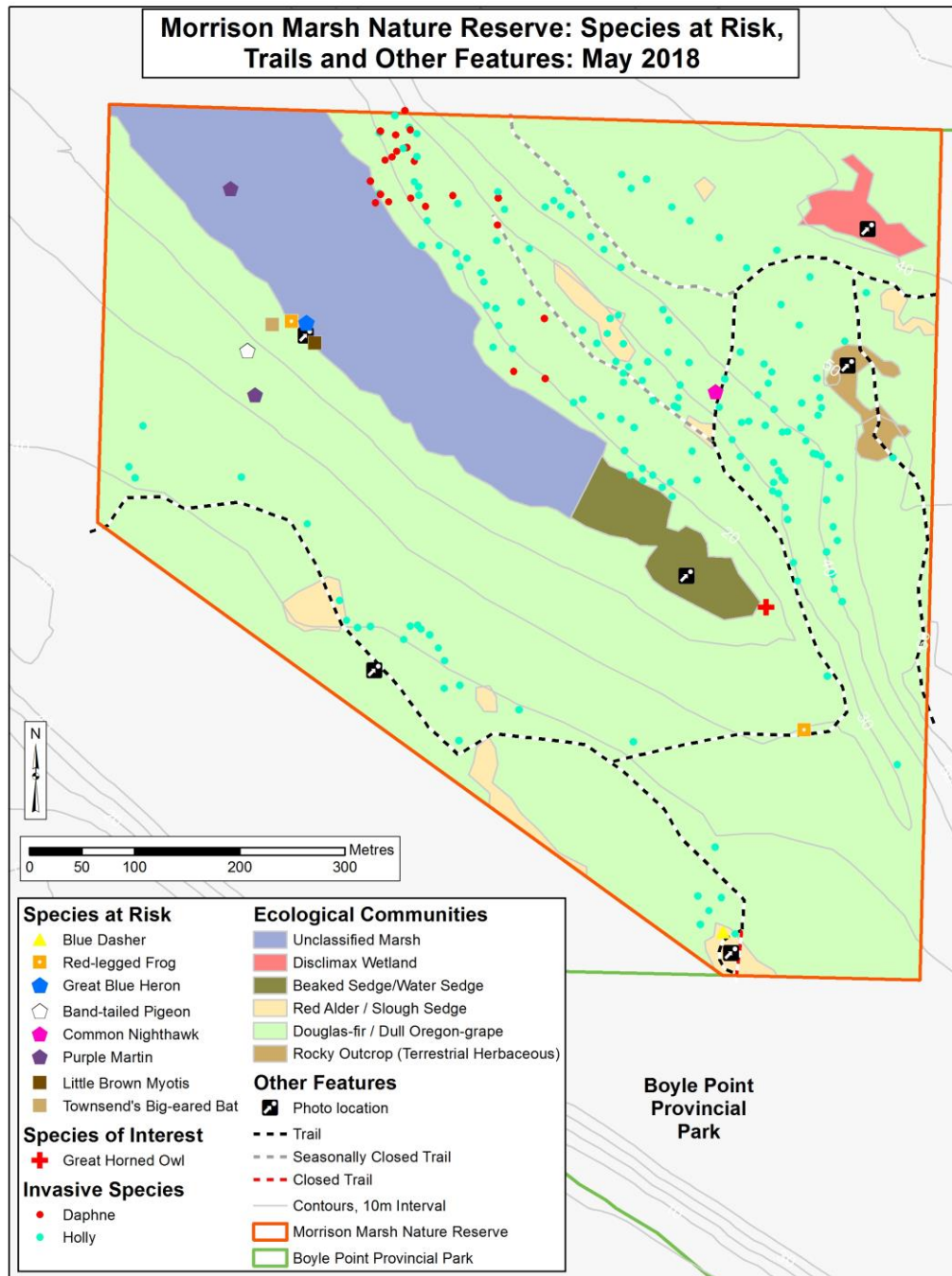


Figure 5. Map of Ecological Communities, Species at Risk and Invasive Species

3.8 Ecological Communities and Site Series

An inventory of the biological features of the Reserve was conducted on July 14 and 15th, 2017 by three consulting biologists, Carrina Maslovat, Ren Ferguson and Laura Matthias. One site series was identified using *A Field Guide for Site Identification and Interpretation for the Vancouver Forest Region* (Green and Klinka, 1994) and three wetland ecological communities as described by McKenzie and Moran (2004). One site remains unclassified. These site series and the corresponding ecological communities were compared to previous terrestrial ecosystem mapping (Islands Trust 2018b) and to previous mapping done during the baseline report and management planning.

Tables of species and descriptions of ecological communities are included in Appendix B. A list of all plant species observed is included in Appendix C. A list of bird species observed during the July 2017 survey can be found in Appendix D and details of the bat acoustic survey are included in Appendix E. The locations of photographic documentation of ecological communities and species are included in Appendix F.

3.8.1 Ecological Community 1: 80% Douglas-fir/Dull Oregon-grape (CDFmm01): 20% Red Alder/Sword Fern



Photo 2. Pole/sapling aged stand of Douglas-fir/Dull Oregon-grape forest (170°)

Description: Ecological Community 1 is a Douglas-fir/Dull Oregon-grape ecological community, which on this site corresponds to the Douglas-fir/ Salal site series (CDFmm01) (Photo 2). The dominant tree species is Douglas-fir (*Pseudotsuga menziesii*) in the age class pole/sapling although there are some slightly older trees mapped as young forest in the eastern part of the reserve next to Boyle Point Provincial Park. In flatter areas and on the

lower slopes, there is a secondary canopy of Western Redcedar (*Thuja plicata*), Western Hemlock (*Tsuga heterophylla*) and Grand Fir (*Abies grandis*).

Dominant shrub species include Salal (*Gaultheria shallon*) and Dull Oregon-grape (*Berberis nervosa*). In the drier areas, there is more Oceanspray (*Holodiscus discolor*) and in the wetter areas, the understory has more Sword Fern (*Polystichum munitum*). The invasive non-native shrub English holly (*Ilex aquifolium*) is found throughout the reserve, in higher densities to the east and north of the marsh.

Due to previous logging, the stand is even aged with stumps and old skid roads throughout. In many areas conifer regeneration has been suppressed due to thin soils and compaction from logging activities. As the forest matures, it will develop into different ecological communities which reflect variation in soil depth and moisture.

In wetter areas at the bottom of depressions, next to streams and other areas with higher moisture, there are pockets of Red Alder (*Alnus rubra*) with an understory that is dominated by Western Sword Fern (*Polystichum munitum*) (Photo 3). These sites may develop into Western Redcedar/Sword Fern/Skunk Cabbage, Red Alder/Skunk Cabbage, Western Redcedar/ Sword Fern or possibly into Sitka Spruce/Sword Fern communities (although the latter is not found in the CWHxm) but they do not currently have the characteristics of these communities.



Photo 3. Red Alder and Sword Fern in wetter portions of Ecological Community 1 (0°)

In the baseline report, this ecological community was separated into several different vegetative areas. Two of these (Type 3: Boyle Creek Riparian Community and Type 4: Red Alder Wet Communities) correspond to the Red Alder/Sword Fern assemblage found in wetter portions of the property. The Vegetation Type 5: Early Douglas-fir/Salal Forest and Vegetation Type 9: Delayed Regeneration/Douglas-fir are consistent with the Douglas-fir/Dull Oregon-grape ecological community described above.

3.8.2 Ecological Community 2: Unclassified Marsh



Photo 4. Morrison Marsh showing an area of open water with sedges and shrubs in shallower areas (30°)

The southern 1/3 of the marsh is within the Reserve and receives moisture from the rest of the property, including three seasonal creeks draining into it. There is standing water throughout the year with open water at the north end of the Reserve. However, most of the marsh within the Reserve has diverse emergent vegetation dominated by sedges and forbs with scattered shrubs growing out of the tussocks (Photo 4). There are large areas that are dominated by the non-native invasive Reed Canarygrass (*Phalaris arundinacea*).

The water level in the marsh is regulated by a variable crest weir installed in 1985. Since the installation of the weir, there have been significant changes in vegetation including a large die off of Hardhack (Balke 2006). No change in the amount of standing water could be detected from historical air photos from 2002-2014 (Islands Trust 2018b).

The standing water supports aquatic insect populations which in turn support avian and mammal insectivores (McKenzie and Moran 2004). The marsh is important habitat for a wide range of waterfowl and other birds, as well as the eight species of bat which were recorded.

3.8.3 Ecological Community 3: Beaked Sedge/Water Sedge



Photo 5. Beaked Sedge/Water Sedge Marsh showing dense stand of Beaked Sedge and Slough Sedge with small Sitka Spruce in the center of the photo (320°). White flowers are Water parsley.

This ecological community is found at southern end of Morrison Marsh and is dominated by a dense cover of sedges, primarily Beaked Sedge (*Carex utriculata*) and Slough Sedge (*Carex obnupta*) (Photo 5). There are a small number of forbs including Water Parsley (*Oenanthe sarmentosa*) and Skunk Cabbage (*Lysichiton americanus*). There are several stunted Sitka Spruce trees in the middle of the marsh and there are Western Redcedar, Western Hemlock and Red Alder in the transitional areas to riparian forests. There is no standing water during the dry season.

3.8.4 Ecological Community 4: Red Alder/Slough Sedge (CDFmm14)



Photo 6. Red Alder/Slough Sedge wetland with Grape Fern (100°)

There are several small wetlands in the Reserve. The most ecologically intact is locally known as Grape Fern Marsh or Boyle Marsh and is found along the southern boundary of the reserve and extends into Boyle Point Provincial Park (Photo 6). Several of the other small wetlands in the upland portions of the reserve have a mix of native sedges and non-native species, primarily the invasive Reed Canarygrass (*Phalaris arundinacea*). One small wetland



in the northeast corner of the reserve is dominated by Reed Canarygrass and is classified as a disclimax wetland (Ecological Community 5).

The water table fluctuates over the year: soils are fully saturated in the winter due to a combination of flat topography and poorly draining soils. During the growing season, the water table drops, leaving rooting zones of varying depth related to microtopography.

The vegetation is dominated by Slough Sedge with a mix of forbs and ferns including Grape Fern (*Botrychium multifidum*) in the southern wetland (Photo 7). Trees surrounding the wetland at the edges include Sitka Spruce (*Picea sitchensis*), Douglas-fir (*Pseudotsuga menziesii*), Western Hemlock (*Tsuga heterophylla*) and Red Alder (*Alnus rubra*).

Photo 7. Grape Fern (*Botrychium multifidum*) in Red Alder/Slough Sedge wetland

The main trail to Boyle Point Provincial Park has recently been rerouted since it previously went through the center of the wetland and became impassible due to flooding during the wet season.

3.8.5 Ecological Community 5. Disclimax Wetlands



Photo 8. Trembling Aspen wetland which has been invaded by Reed Canarygrass (320°)

One of the small upland wetlands, referred to in the baseline as “Aspen” (Balke 2006), is found in the northeast corner of the reserve and is highly degraded (Photo 8). The site has a strongly fluctuating water table with soils that are fully saturated in the winter and the water drops during the growing season.

The plant community is dominated by the non-native Reed Canarygrass (*Phalaris arundinacea*) but there are pockets of Salal on higher mounds. Trees are sparse but there is a small stand of Trembling Aspen in this wetland only. In wetter portions of the wetland there is Musk Monkeyflower (*Mimulus moschatus*), Field Mint (*Mentha arvensis*) and other native wetland species. The edges of the wetland have thick growth of Hardhack (*Spirea douglasii*), Douglas-fir (*Pseudotsuga menziesii*) and Western Redcedar (*Thuja plicata*).

There is only one Ecological Community listed by the BC CDC which includes Trembling Aspen: Trembling Aspen/Pacific Crab Apple/Slough Sedge (CDFmm00) which is red-listed and ranked S1S2 (BC CDC 2017). Green and Klinka (1994), classify this site series as a special site with a strongly fluctuating water table that aligns most closely with C2- Black Twinberry

(summer moist/winter wet) although none of the characteristic species are present because of previous disturbance. Black Twinberry is uncommon on Denman Island, but is present further north in an isolated parcel of provincially managed land on the west edge of Morrison Marsh (Bland pers. comm. 2018). The Aspen wetland may develop into either of these communities over time: however, without restoration the presence of Reed Canarygrass will inhibit the establishment of native species. Reed Canarygrass represents a disclimax community that establishes in cleared swamps or low-bench sites (McKenzie and Moran 2004).

3.8.6 Ecological Community 6: Rock Outcrop (Herbaceous Terrestrial)



Photo 9. Dry rocky outcrop with thin soils and dominated by the non-native Sweet Vernalgrass (180°).

There are small open rocky outcrops towards the northeastern portion of the reserve at the crest of the slope where bedrock is close to the surface (Photo 9). The site has thin, discontinuous soil with a high cover of exposed rock. The vegetation is dominated by drought-tolerant cryptogams and limited cover of vascular vegetation placing it in the Rock Group (R) and the Rock Outcrop site class (Ro) (McKenzie 2012). There is no ecological community listed by the BC CDC that fits this site.

The community is dominated by mosses, lichens and non-native grasses. There are a few patches of Douglas-fir, Dull Oregon-grape and Salal in small patches where the soil is deeper. Because of the prior disturbance, it can be considered a disclimax community. There is a small vernal pool which holds water for much of the year. The open areas are good habitat

for reptiles. The site has potential nesting habitat for Common Nighthawk, although the disturbance caused by the trail would likely act as a deterrent.

An old logging road passes through the middle of the rock outcrops and in the past, there has been disturbance caused by mountain bikes. There is a small amount of erosion next to the trail.

3.9 Vegetation Type Differences from the ITC Terrestrial Ecosystem Mapping

Islands Trust Terrestrial Ecosystem Mapping (TEM) identifies 9 mapped polygons containing 5 different ecosystem types. There are 5 different mapcodes: Douglas-fir Salal (CDFmm/01), Open Water, Western Redcedar – Grand Fir – Foamflower (CDFmm/06), Sitka Willow – Pacific Willow – Skunk Cabbage (Ws51), and Rock Outcrop. Some of the Fd-Salal are in different structural stages (pole/sapling and young forest). Four of the units extend only a very small distance into the reserve (Islands Trust 2018b). Ground truthing in 2017 determined that some of the ecosystems are different from what had been previously mapped.

In the TEM, Morrison Marsh was classified as Wetland - Shallow Water with the primary unit of classification as shallow, open water (<2m deep) (Islands Trust 2018b). According to McKenzie and Moran (2004), sites with this classification should have less than 10% emergent cover but within the reserve, emergent vegetation is much higher with open water averaging only 25-30% depending on the location. It is possible conditions have changed since the terrestrial ecosystem mapping because of changes associated with the variable crest weir or previous beaver dams. Alternatively, this may be because the polygon extends beyond the boundaries of the Nature Reserve and may be a product of mapping scale.

The four other polygons with significant portions in the reserve all have a primary unit classification of Douglas-fir/Salal (CDFmm01) pole/sapling. Secondary and tertiary classification includes: Douglas-fir/Salal pole/sapling; Douglas-fir/Salal Young Forest; Rural Residential; and Rock Outcrop. None of these are classified as SEI (Islands Trust 2018b). The BC CDC maps a polygon in the eastern portion of the reserve as Douglas-fir/Dull Oregon-grape ecological community but the area on the ground is not distinctive from the rest of the reserve.

This report separates the small wetlands and rocky outcrops from the surrounding forest. These polygons are too small for the mapping scale of TEM.

3.10 Red and Blue Listed Communities

The following ecological communities found in Morrison Marsh Nature Reserve have been red and blue listed by the BC Conservation Data Center (BC CDC 2018).

Table 1. Red and Blue Listed Ecological Communities in Morrison Marsh Nature Reserve

Ecological Community	Biogeoclimatic Unit	Provincial Rank
Douglas-fir / Dull Oregon-grape (<i>Pseudotsuga menziesii</i> / <i>Berberis nervosa</i>)	CDFmm/01	Red List S2 (2010)
Red Alder/Slough Sedge [Black Cottonwood] (<i>Alnus rubra</i> / <i>Carex obnupta</i> [<i>Populus trichocarpa</i>])	CDFmm/14	Red List S1 (2006)

3.11 Red and Blue Listed Species

The following Species at Risk have been found on the Morrison Marsh Nature Reserve (Table 2). These species are listed as rare either provincially by the BC Conservation Data Centre or federally by the Committee on the Status of Endangered Wildlife in Canada. Except where otherwise noted, these species were identified during surveys for Islands Trust Conservancy in 2017 (Maslovat *et al.* 2017). The locations of Species at Risk are included in Appendix G. Eight species of bat, including two Species at Risk, were detected using an acoustic bat detector set up over the marsh (Table 2) (survey report in Appendix E).

Table 2. Red and Blue Listed Species found in Morrison Marsh Nature Reserve

Species Common Name	Latin Name	Provincial Status ³	COSEWIC Status ⁴	SARA Schedule 1 Status	Notes
Blue Dasher Dragonfly	<i>Pachydiplax longipennis</i>	Blue-list (S3S4)	Not listed	Not listed	Two adults observed in Grape Fern marsh
Northern Red-legged Frog	<i>Rana aurora</i>	Blue-list (S3)	Special Concern (2015)	Special Concern (2005)	Two adults observed
Band-tailed Pigeon	<i>Patagioenas fasciata</i>	Blue-list (S3S4B)	Special Concern (2008)	Special Concern (2011)	One adult heard calling
Common Nighthawk	<i>Chordeiles minor</i>	Yellow-list (S4B)	Threatened (2007)	Threatened (2010)	Heard at dusk calling and feeding over property
Great Blue Heron <i>fannini</i> subspecies	<i>Ardea herodias fannini</i>	Blue-list (S2S3B, S4N)	Special Concern (2008)	Special Concern (2010)	Observed flying over Morrison Marsh
Purple Martin	<i>Progne subis</i>	Blue-list (S3B)	Not listed	Not listed	Eight individuals observed aerial

³ BC Conservation Data Centre (BC CDC 2018)

⁴ Committee on the Status of Endangered Wildlife in Canada (Government of Canada 2017)

					feeding over marsh and surrounding forest
Western Screech-Owl, <i>kennicotti</i> subspecies*	<i>Megascops kennicotti kennicottii</i>	Blue-list (S2S3)	Threatened (2012)	Special Concern (2005)	Noted in previous management plan
Little Brown Myotis**	<i>Myotis lucifugus</i>	Yellow-list (S4)	Endangered (2013)	Endangered (2014)	Acoustic detection
Townsend's Big-eared Bat**	<i>Corynorhinus townsendii</i>	Blue-list (S3S4)	Not listed	Not listed	Acoustic detection

*It is unclear from the description in the management plan if Western Screech-owl was confirmed in the Reserve. It was not observed or heard during 2017 surveys.

* Bat species were detected using an Anabat Express bat detector mounted above the ground attached to a tree next to the marsh located at 10 U 375496 5483210. It was left on site for eight nights from July 14th-22th. Examination of acoustic spectrograms was done by Peter Ommundsen (report in Appendix E).



The previous management plan noted that Coastal Cutthroat Trout (*Oncorhynchus clarkii clarkii*) may also be present in the marsh or Boyle Creek. This has not been confirmed.

Photo 10. Northern Red-legged Frog in Morrison Marsh Nature Reserve

Adult Northern Red-legged Frogs were observed in the upland forest during 2017 surveys (Photo 10). They require wetlands for breeding and likely use Morrison Marsh as their primary breeding site since some of the smaller wetlands may dry too quickly to support the development of tadpoles.



Photo 11. Blue Dasher dragonfly in Grape Fern Marsh (Photo: L. Matthias)

The blue-listed Blue Dasher dragonfly was observed in the small wetland next to Boyle Point Provincial Park in the

southern portion of the Reserve (Photo 11). This is the least degraded of the small wetlands in the upland areas.

3.12 Wildlife Species

Wildlife species excluding birds are listed in Table 3. A list of birds observed during 2017 surveys is included in Appendix D.

Table 3. Wildlife Species (Excluding Birds) Observed in Morrison Marsh Nature Reserve

Species Common Name	Latin Name	Provincial Status	COSEWIC Status
European Wall Lizard	<i>Podarcis muralis</i>	Introduced	Not listed
Northern Red-legged Frog	<i>Rana aurora</i>	Blue-list S3 (2016)	Special Concern (2015)
Northwestern Gartersnake	<i>Thamnophis ordinoides</i>	Native	Not listed
Northwestern Salamander	<i>Ambystoma gracile</i>	Native	Not listed
Pacific Chorus Frog	<i>Pseudacris regilla</i>	Native	Not listed
Rough-skinned Newt	<i>Taricha granulosa</i>	Native	Not listed
American Beaver***	<i>Castor canadensis</i>		
North American River Otter***	<i>Lontra canadensis</i>		
American Mink	<i>Vison vison</i>	Native	Not listed
Black-tailed Deer	<i>Odocoileus hemionus</i>	Native	Not listed
Raccoon	<i>Procyon lotor</i>	Native	Not listed
Red Squirrel	<i>Tamiasciurus hudsonicus</i>	Native	Not listed
Townsend's Big-eared Bat*	<i>Corynorhinus townsendii</i>	Blue-list S3S4 (2015)	Not listed
Big Brown Bat*	<i>Eptesicus fuscus</i>	Native	Not listed
Hoary Bat*	<i>Lasiurus cinereus</i>	Native	Not listed
Silver-haired Bat*	<i>Lasionycteris noctivagans</i>	Native	Not listed
California Myotis*	<i>Myotis californicus</i>	Native	Not listed
Western Long-eared Myotis*	<i>Myotis evotis</i>	Native	Not listed
Little Brown Myotis*	<i>Myotis lucifugus</i>	Yellow-list S4 (2015)	Endangered (2013)
Yuma Myotis*	<i>Myotis yumanensis</i>	Native	Not listed
Beaded Lancetooth	<i>Ancotrema sportella</i>	Native	Not listed
Blue Dasher	<i>Pachydiplax longipennis</i>	Blue-list S3S4 (2015)	Not listed
Giant Sawfly Larva	<i>Tridchiosoma triangulum</i>	Native	Not listed
Pacific Bananaslug	<i>Ariolimax columbianus</i>	Native	Not listed
Pacific Sideband	<i>Monadenia fidelis</i>	Native	Not listed
Giant Water Bug**	<i>Lethocerus americanus</i>	Native	Not listed
	<i>Vertigo</i> spp.	Native	Not listed

* Bat detector deployed on Southwest side of marsh at 10U 375495 5483210 in July 2017 (refer to Appendix E for summary report).

**Caught in amphibian/minnow traps. Four traps were deployed at 375509 5483209 along downed wood in open water of marsh area (Maslovat *et al.* 2017).

***American Beaver (*Castor canadensis*) and North American River Otter (*Lontra canadensis*) were noted in the previous management plan and on public questionnaires. Beaver activity has been noted at the culvert where the trail crosses Boyle Creek (Bland 2018). Questionnaires also noted the presence of Turtles (possibly Painted), Marten, Shrew, Mouse, Alligator Lizard, Muskrat and Rat.



No information could be found on the type or history of fish presence in the marsh or its associated drainages. For anadromous fish to access the marsh, they would need to swim up Lower Morrison Creek which has a moderately steep gradient (20%) which would prove challenging for fish (Mimulus Biological Consultants 2012). The downstream sections of Boyle Creek (a.k.a. Upper Morrison Creek) have only small patches of small gravels which would provide poor spawning fish habitat (Mimulus Biological Consultants 2012). Further surveys are required to determine if landlocked fish, including Coastal Cutthroat Trout, are present.

Photo 12. Great Horned Owl in Douglas-fir Forest in Morrison Marsh Nature Reserve (Photo: Ren Ferguson)



One of the questionnaire respondents noted a perched culvert in a stream at the south end of the marsh which could potentially block fish passage. No fish were caught in minnow traps deployed in 2017 (Maslovat *et al.* 2017) (Photo 12).

The Reserve has moist forests which provide excellent habitat for salamanders and other amphibians (Photo 13).

Photo 13. Jenny Balke of the Denman Conservancy Association deploys a minnow trap to determine presence of fish and amphibian species in Morrison Marsh



Photo 14. Northwestern Salamander in Morrison Marsh Nature Reserve

3.13 Expected Change over Time

The composition of the marsh may change over time depending on beaver activity and weir management downstream and the associated fluctuating water levels. The small upland wetlands may shrink in size over time as the forests along the edges mature and soils build up over time or if the amount of moisture in the creeks changes with climate fluctuations.

The third growth forests in the upland portions of the Reserve are in good condition and will continue to mature and diversify over time.

4.0 Threats

The following threats were identified in previous versions of the management plan or noted during 2017 field surveys. The threat, status in 2005, current conditions and expected changes are described.

4.1 Invasive non-native species

Non-native invasive species are present throughout the Reserve. Their presence was noted in the 2005 baseline and although DCA has been working to manage them, invasive species are still a management concern.

Mature plants and seedlings of spurge-laurel (*Daphne laureola*) were present along the east side of the marsh and along the northern property line (Figure 2) (Photo 15). The DCA has pulled small seedlings and controlled larger, mature plants by either digging them out or cutting with pruning shears near ground level (Fyson 2011a; 2012). However, spurge-laurel persists in the northern section of the Reserve and should be considered a high priority for removal.



Photo 15. Evergreen Spurge-laurel with flowers in the northern portion of the Reserve

English holly (*Ilex aquifolium*) is ubiquitous on the property (Figure 2) (Photo 16). Plants varying in size from seedlings to trees over 8 m tall are found in all vegetation types, except within Morrison Marsh itself. Beavers have previously cut English holly along the marsh and DCA has cut a few large plants right at the edge of the shoreline (Balke 2006; Fyson 2014). Holly berries are spread by birds and the plants are difficult to control because they may re-sprout from cut stems and re-root from cut branches.

The DCA has been manually cutting holly for over 5 years. Cutting the larger trees at ground level and pulling the layered suckers up by their roots and stacking/composting in piles to decompose and create wildlife habitat has been successful (Laing pers. comm. 2018). Because of the distance and lack of vehicle access, it is unreasonable to remove vegetation for off-site composting.

Some of the holly in the Reserve has been cut approximately 0.5 m above ground level which is not an effective method of control. The cut stems were left in place in contact with the ground and may produce new roots. The trunks will produce new shoots and continue growing.



Photo 16. English holly cut above ground level and branches left on the ground in place

In the baseline report, Scotch Broom (*Cytisus scoparius*) was noted in two sites: on a skid road in the Bench complex, and on a rock outcrop, along the main trail west of Boyle Creek. The plants were cut prior to 2006 but some had re-sprouted (Balke 2006) and were removed again in 2011 and 2012 (Fyson 2011a; 2012). Scotch Broom produces persistent seed banks and ongoing monitoring and removal of new plants will be required. It is best cut while blooming (May and June) to limit re-sprouting of cut stems. No Scotch Broom was noted during 2017 monitoring.

Non-native grasses are present in the Reserve: Sweet Vernalgrass (*Anthoxanthum odoratum*) is dominant in the rock outcrops and Reed Canarygrass (*Phalaris arundinacea*) is dominant in most forested wetlands except for Grape Fern marsh. Reed Canarygrass also occurs along the edge of Morrison Marsh in some locations. An ornamental Aster sp., which was introduced to the north end of Grape Fern wetland has persisted.

Non-native forbs are found throughout the Reserve in disturbed areas and include Oxeye Daisy (*Leucanthemum vulgare*), Hairy Cat's-ear (*Hypochaeris radiata*), Canada Thistle (*Cirsium arvense*), Herb-robert (*Geranium robertianum*), Ribwort Plantain (*Plantago lanceolata*) and Common Tansy (*Tanacetum vulgare*) (Durand and Durand 2007). Most of these species will be shaded out as the forests mature.

There has been recent confirmation of one incidental American Bullfrog found in the north of Denman Island (DCA 2018). If Bullfrogs expand into Morrison Marsh, there would be a real threat to the native frogs including the Northern Red-legged Frog and Pacific Chorus Frog.

4.2 Trail Use and Erosion

Most of the trails in the Reserve are on old skid roads which are largely resilient to the current level of recreational use they receive.

There are some large wet areas, locally called “Froggy Ponds” along the trail near Greenhill Road (Photo 17). The trail has become wider as people look for dry footing in wet conditions and there is trail damage from bikes as they attempt to skirt the wet areas. Trail work is recommended to allow the trail to be passable in all seasons and limit widening.



Photo 17. “Froggy Ponds” area of the trail showing trail widening and bike tracks through the wet soil (location in Figure 3: Map of Trails and other features)

The trail that connects to Boyle Point Provincial Park, south of the Reserve, cuts through Grape Fern wetland (a.k.a. Boyle wetland) and has been an area of concern since the previous baseline report (Balke 2006). The trail floods during wet periods and an unofficial trail has been created to the northwest to avoid the wet area which trespasses over adjacent property. The DCA Lands Committee, with support from the ITC, recently created a new trail section close to the property line that skirts the marsh area which keeps the trail off privately managed property and away from the marsh. The old trail should be decommissioned or signed as closed.

There is still some limited use of the spur trail to the north. An infrequently used trail was noted that skirts the fence installed along the property line. It is advised that these trails be removed from the map at the entrance kiosk to discourage their use.

Infrequent horseback use was noted in the previous management plan (Durand and Durand 2007) but there is no evidence of recent horse use.

There was some interest from the public for additional trails to access the marsh along the

edge of the marsh or to access the property from Thomas Road. Trails next to the marsh will disturb waterfowl, cause increased habitat fragmentation, and may increase the spread/introduction of non-native invasive species. Further trail development next to the marsh is not recommended.

4.3 Disturbance of Waterfowl

Disturbance to waterfowl nesting and breeding was noted as a management concern in the previous management plan (Durand and Durand 2007). Hunting has occurred to the north of the property and may also occur within the Reserve (Durand and Durand 2007).

Canoeing and kayaking in the marsh was noted as a source of disturbance (Durand and Durand 2007). During the 2017 summer survey, there was very little open water within the Reserve portion of the marsh but canoeing or kayaking on the marsh outside of the Reserve will disturb waterfowl within the Reserve and may spread aquatic invasive species.

Although there are no hiking trails next to the marsh, people who hike off trail and off-leash dogs can access the wetland and may cause disturbance during sensitive times.

4.4 Water Quality and Quantity

Within Morrison Marsh, water levels fluctuate because of the weir installed at the outlet by Ducks Unlimited Canada and beaver dam activity (Durand and Durand 2007). Changes to water elevation will alter the plant composition of the marsh and affect use by wildlife.

A decrease in marsh water quality from nutrients or pathogens released by flooded septic systems associated with the rise in water levels from the weir and dam was listed as a concern in the previous management plan (Durand and Durand 2007). This concern was from a single resident that was unrelated to the weir installation and appears to be resolved (Marshall pers. comm. 2018). Further studies of water quality would be beneficial.

4.5 Mountain Bikes

Mountain bike tracks have been observed occasionally through the rock outcrops next to the trail. Prior to 2006, tire tracks and damage were noted on the rock outcrop near the trail where mosses and lichens were dislodged and damage to wetlands was also observed (Balke 2006). There was evidence that the bikes were accessing the Reserve from the parcel to the east which at the time was provincially managed and is now part of Boyle Point Provincial Park (Durand and Durand 2007).

Mountain bikes continue to be a problem: one of the questionnaire respondents said that was his primary use of the Reserve and bike tracks were observed in wet parts of the trail. Disturbance from mountain bikes can expose soils to non-native invasive species, alter hydrology and damage bryophytes which are slow growing and take many years to recover.

4.6 Cannabis Growing

Prior to 2006, evidence of planting was noticed in the isolated wetlands of the Reserve and along the edge of Morrison Marsh. It was assumed that the disturbance was from planting of cannabis plants. The sites had open patches of disturbed soil with introduced plants or large bucket-sized holes (Balke 2006). The bucket holes were damaging because they functioned as pit fall traps, trapping amphibians, invertebrates and possibly shrews which are exposed to predators or are trapped and die (Balke 2006). The holes have been filled in and there is no evidence of recent planting within the Reserve, though during a monitoring visit in 2016 some broken pots were removed from the western edge of the marsh (Bland 2018).

4.7 Wood and Salal Harvest

Prior to the 2007 management plan, local residents reported wood and salal harvest in the Reserve (Durand and Durand 2007). There is no recent evidence of recent wood or salal harvest in the Reserve.

4.8 Overgrazing

In the previous management plan damage to wetlands from grazing cattle was noted. The cattle accessed the wetlands in the northeastern corner of the Reserve from East Road (Durand and Durand 2007). Cattle are not kept on this property anymore and grazing has not been a concern since the neighbouring land use has changed.

Overgrazing by native Black-tailed Deer (*Odocoileus hemionus*) limits the diversity of the site and affects forest regeneration.

4.9 Risk of Wildfire

As with any forested area in the region, there is a risk of wildfire which may impact the upland forests, rocky outcrops and small wetlands throughout the Reserve. Fire suppression techniques including the use of fire retardants or salt water can also damage the habitat in the Reserve.

5.0 Stakeholder Consultation

5.1 Adjacent Land holders

Letters were sent to all adjacent land holders and neighbours (see Appendix H). A total of 9 letters were sent by mail on December 21, 2017 to residents on Greenhill Road, East Road, Pond Place, and Reginald Road. The letters contained information about Morrison Marsh Nature Reserve, a link to the 2007 management plan and a link to the online survey (see Appendix J).

In addition, P. Marshall was contacted by phone on February 28, 2018 to clarify questions related to the weir and beaver dam management on his property.

5.2 First Nations

Letters via email were sent to the following 13 First Nations on December 22, 2017 and can be found in Appendix I:

- Cowichan Tribes
- Halalt First Nation
- Homalco First Nation
- K'omoks First Nation
- Lake Cowichan First Nation
- Lyackson First Nation
- Penelakut Tribe
- Qualicum First Nation
- Snaw-naw-as (Nanoose) First Nation
- Stz'uminus (Chemainus) First Nation
- Tla'amin (Sliammon) First Nation
- We Wai Kai (Cape Mudge First Nation)
- Wei Wai Kum (Campbell River First Nation)

The letters asked how the Islands Trust Conservancy's management planning and actions for this protected areas on Denman Island can acknowledge and respect the cultural significance and traditional use of this area. The letters contained information on the Morrison Marsh Nature Reserve, a link to the 2007 Management Plan and a link to the online survey (see Appendix J). To date, there has been no response from any of the First Nations.

5.3 Conservation Partners and Community Members

A public open house and walk were held on Denman Island on January 27, 2018 to discuss management planning for the Reserve. Maps and photographs were on display at the open house and residents were asked for their input at that time. There were 12 people who signed the check in list for the open house though a few more were present. An online survey was completed by 15 people.

The previous management plan noted that during the public information session, community members expressed a desire for more comprehensive management planning for Morrison Marsh as a whole. Management of the entire marsh would require collaboration with Ducks Unlimited Canada, the Nanaimo Water District, the BC Ministry of Environment, and the Ministry of Forests, Lands, Natural Resource Operations and Rural Development. A more extensive management plan for the area has not been developed.

5.4 Consultation Results

An online survey was also made available to all Denman Island residents and respondents were primarily Denman Island residents with 20% having an off-island residence. Most respondents (80%) have visited the marsh a few times and most engage in hiking/walking (87%) and wildlife viewing (40%). The most important values were conservation for the intrinsic value of nature (80%), protection of habitat for species at risk (73%) and ecosystem services (60%), with recreational opportunities valued by only 20% of respondents.

6.0 Management Plan

6.1 Discussion

The purpose of the Morrison Marsh Nature Reserve is to protect, in perpetuity, the marsh, the wetlands, the rocky outcrops and the upland forests for the benefit of the flora and fauna of the Reserve, the residents of the island and the province generally. Ongoing monitoring and management is required to ensure the ecosystems and species continue to remain protected from threats and to ensure public safety during use of the Reserve. All management activities within the protected area must consider the specific sensitivities of the Species at Risk and their habitat on the property.

6.2 Management Roles

The ITC is the sole land holder of the Reserve but will rely on its partnership with DCA to assist with on the ground management. The DCA is also the covenant holder and is responsible for monitoring the property to ensure compliance with the conservation covenant.

6.3 Permitted and Prohibited Uses

The Reserve is open to the public for hiking and nature appreciation. Visitors are requested to keep dogs under control.

The following activities by the public are prohibited:

- Use of motorized vehicles
- Bicycling
- Canoeing or kayaking in the marsh
- Horseback riding
- Camping
- Fires
- Forestry
- Livestock grazing
- Hunting
- Smoking
- Trail development (outside of established trails)
- Tree cutting
- Collection of plants or animals

6.4 Public Access

There is a well-developed hiking trail from the cul-de-sac at the end of Greenhill Road that connects to hiking trails in Boyle Point Provincial Park on the south and east sides of the Reserve.

To the north, an adjacent private land holder has installed a wire fence with wooden posts to limit trespassing from Morrison Marsh Nature Reserve. The trail leading to the fence still appears to be used and a trail skirting the fence line appears to be used infrequently.

There are currently no trails next to the marsh and no new trails should be developed to limit disturbance to sensitive waterfowl. The trail through Grape Fern (aka Boyle) wetland has been re-routed to avoid the wetland and the old trail should be decommissioned or signed as closed to encourage use of the new trail.

6.5 Signage

There is a kiosk with signs and contact information for the DCA at the main entrance to the Reserve off Greenhill Road (Photo 18). There are signs at all main entrance points to Morrison Marsh Nature Reserve which outline prohibited activities and identify the Reserve as an ITC Reserve (map in Figure 3) (Photo 19). There is also a cautionary sign next to the steep cliffs for public safety (Photo 20). The signs appear in good condition.



Photo 18. Kiosk near trailhead off Greenhill Road

Future signage could include further public education on the sensitivity of marsh, waterfowl and wetland habitats which could be installed on the kiosk. Boundary signs could be installed at Greenhill Road (similar to existing signs along the northern property line). It may be useful to include contact information for the DCA and/or the ITC on all signs.



Photo 19. Signs showing prohibited activities and boundary of the Reserve



Photo 20. Caution Sign next to Steep Cliffs.

6.6 Trail Maintenance

There are low-maintenance hiking trails that lead from the cul-de-sac at Greenhill Road and connect to trails in Boyle Point Provincial Park to the south and east of the Reserve (map in Figure 3). The trails follow old logging roads which are, for the most part, in good condition. There are two culverts under the trail which require ongoing maintenance to remove debris when they become plugged. The culvert is regularly inspected by the DCA and the trail has not flooded in many years. A secondary skid road leading to the marsh which dead ends off the southern trail (referred to in Durand and Durand 2007 page 25) has been decommissioned and has grown over with vegetation.



Photo 21. Culvert under trail at Boyle Creek. Culvert is perched and currently blocked with wood.

The original trail from Greenhill Road trespassed over privately managed property (Durand and Durand 2007). The trail was re-routed so that it is now within the Reserve but the new trail passes through some large, wet areas (“Froggy Ponds”) near Greenhill Road that become impassable in wet conditions. The DCA directors and members of the DCA Lands Committee recently looked at the area and regular users of the Reserve have offered to help with trail work to make the trail passable in all weather.

The section of trail in the south of the Reserve through Boyle wetland (a.k.a. Grape Fern wetland) becomes impassable in the winter and an unauthorized trail had been built around the wetland on adjacent non-Reserve property. The official trail has been re-routed to avoid privately managed property and the wetland. The former trail should be decommissioned and signed as closed.

One small trail spur in the eastern portion of the Reserve leads to the top of a steep cliff face. This trail does not appear to receive much use since the trees have grown taller and the view has been obscured. The trail has been well signed to indicate the danger and no further work is required (photo 20).

Trails are monitored regularly by the DCA Land Manager and require ongoing maintenance. Tree blow down occurs regularly and volunteers or the DCA clear the trails. When blow down occurs, it is recommended that only the portion of the tree blocking the path be removed and the remainder of the wood left on site as woody debris. Vegetation ingrowth is also cleared along trails, as needed.

6.7 Protection Initiatives for Sensitive Ecosystems and Species at Risk

Maintaining the marsh and wetland areas should be sufficient to support the Little Brown Myotis (*Myotis lucifugus*), Townsend's Big-eared Bat (*Corynorhinus townsendii*), Blue Dasher (*Pachydiplax longipennis*), Northern Red-legged Frog (*Rana aurora*) and will also benefit three at risk bird species (Great Blue Heron, Common Nighthawk and Purple Martin) by providing foraging opportunities.

Further monitoring should be done for Western Screech-owl to determine if it can be found in either Morrison Marsh Nature Reserve or in Boyle Point Provincial Park. There are very few suitable nest cavities for this species which may improve over time as the forest matures and woodpeckers excavate more cavities. Installing nest boxes would help improve the habitat for this species.

Increasing the connectivity of protected areas, in particular wetlands would help ensure the persistence of sensitive ecosystems and Species at Risk. There are small wetlands along the southern boundary of the Reserve that straddle the property line that was created during the subdivision of the parent parcel. The new property holder should be encouraged to covenant the wetlands or a boundary adjustment could be investigated provided it does not compromise access off Greenhill Road. The wetlands are protected within the Development Permit Area.

Monitoring the water elevation and water quality of Morrison Marsh would help protect the rare ecosystem of the marsh and the species that depend on it.

6.8 Ecological Restoration Options

Although ecological restoration would be beneficial to the degraded wetlands in the interior of the Reserve, accessing the sites with heavy equipment would cause significant damage to the trails and adjacent upland forest. Less intensive techniques such as smothering the vegetation with cardboard and mulch could be tried to reduce the Reed Canarygrass (*Phalaris arundinacea*) and increase the diversity of native wetland plants.

6.9 Scientific Research/Education

Scientific research plays a critical role in understanding natural processes and shaping potential management options. All research in the Reserve should be approved by the ITC and should ensure there is no associated harm to Species at Risk and their habitat.

Ducks Unlimited Canada and the Ministry of Forests, Lands, Natural Resource Operations and Rural Development have been monitoring duck boxes, conducting waterfowl census and observing marsh flora and fauna in Morrison Marsh since 1985 when the weir was installed. The citizen science Christmas Bird Count has taken place within the Reserve since it was established.

As recommended in the previous management plan (Durand and Durand 2007), a floristic inventory of the marsh was conducted to search for potential rare plant species (Fyson 2011).

If funding is available, monitoring of water quality and water level in the marsh is recommended. Ongoing Species at Risk surveys for Western Screech-owl would be beneficial.

6.10 Exotic and Invasive Species Removal

There has been ongoing woody invasive species removal from the Reserve by the DCA (e.g. Fyson 2011a, 2012). These efforts have been effective at controlling the spread of Scotch broom and should be continued.

Spurge-laurel (*Daphne*) should be considered a high priority for removal. Small plants can be pulled and larger plants cut below the soil surface to limit re-sprouting. Spurge-laurel is in the early stages of infestation and will be most easily controlled if removed soon.

English holly is present in large numbers throughout the Reserve and eradication is unlikely. The DCA found that if cut branches are placed in small piles in open, sunny areas they do not regenerate (Fyson 2011a). A manual removal technique used for larger plants/trees is falling the plants/trees, removing and densely piling layers of branches, and weighing down the piles with cut lengths of the trunk. This method appears promising. However, Holly can also form new sprouts from underground stems and roots. Ongoing control efforts should continue with monitoring to determine if cut branches are re-rooting and cut trunks are re-sprouting. The amount of holly in the steep southwestern facing bluff directly above Boyle Creek has increased over time (Bland pers. comm. 2018).

New regeneration of Scotch broom should continue to be removed. If funding and time is available, invasive species removal efforts could focus on additional measures to control Reed Canarygrass.

6.11 Wildfire Planning

Wildfire and wildfire suppression can be extremely damaging to sensitive ecosystems. Developing a fire management plan in consultation with the Denman Island Volunteer Fire Department is recommended.

7.0 Action Items

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

7.1 Immediate Actions (1-2 years)

1. Continue to remove invasive, non-native species through cooperation between the DCA and the ITC and conduct regular monitoring to assess effectiveness of management.
2. Monitor re-routed trail that leads south to Boyle Point Provincial Park to ensure the former trail through the wetland is not being used. The former trail could be

decommissioned by piling woody debris on it or a barrier such as a split rail fence could be placed with interpretive information to limit use of the former trail.

3. Maintain kiosk, signs and trails (including culvert monitoring) and continue to remove garbage as necessary.
4. Install reserve boundary signs at Greenhill Road if deemed necessary.
5. Consider developing educational signage that describes the sensitivity of breeding waterfowl. Signage could be installed at the kiosk.
6. Ensure trail is closed to the north to avoid trespass onto neighbouring property and remove “seasonally closed” trails from map in kiosk. If trespassing continues, consider further restoration of the spur trail.
7. Consider an additional survey for Western Screech-owl to determine if they are present in the Reserve.

7.2 Short term Actions (3-5 years)

1. If Western Screech-owls are found on the property, install and monitor nest boxes in the Reserve. Consider installing boxes even if Screech-owls are not found since the lack of nest cavities may be the limiting factor.
2. Engage with the K’omoks First Nation as potential educators for residents to learn about ecological and bicultural history, traditional ethnobotanical use and ecological management.
3. Work with the DCA to develop a land holder contact program to contact land holders within 1 km of Morrison Marsh to:
 - a. Establish a volunteer warden program or Friends of Morrison Marsh group to support the DCA Land Manager to monitor the property and identify management concerns such as disturbance of wildlife, mountain biking, salal and wood harvest, maintenance needs and other issues that arise.
 - b. Encourage long-term conservation and protection of nearby properties within the watershed;
 - c. Provide information to land holders related to protecting water quality;
 - d. Provide information related to disturbance of waterfowl and other wildlife associated with dogs, canoeing/kayaking and other human impacts.
4. Remain in contact with other land holders adjacent to the marsh, Ducks Unlimited Canada and the Nanaimo Water District to influence management of the water levels in the marsh, including weir management and removal of beaver dams downstream of the Reserve. Keep informed of any water quality and water level monitoring programs in the area.
5. Keep informed of any studies completed to determine which fish species are found in the marsh. If fish are found to be present at any time, evaluate perched culvert south of marsh and consider replacement with a foot bridge to allow fish passage.
6. If resources permit, survey for other Species at Risk over a range of seasons to more fully document the biodiversity of the Reserve.
7. Prepare a wildfire management plan that considers both forest ecology and prevention of damage to surrounding neighbourhoods in consultation with the Denman Island Volunteer Fire Department and the BC Wildfire Service.

7.3 Long term Actions (5+ years)

1. Develop strategies to control non-woody invasive plants, in particular Reed Canarygrass.
2. Continue to work with the DCA and any land holders of adjacent land who would like to achieve protection mechanisms (such as covenants) to create a buffer zone on neighbouring properties to protect the quality and quantity of water flowing to the Reserve and increase connectivity of protected areas.

7.4 Ongoing or Annual Action Items

1. Conduct annual monitoring to monitor covenant compliance and identify and address management concerns.
2. Continue ongoing invasive species removal and management. Monitor effectiveness of management and monitor to identify new locations of invasive species that can be targeted for removal.
3. Conduct annual trail monitoring to evaluate erosion and impacts to adjacent areas.
4. Conduct ongoing maintenance of kiosk, signs and trails and continue to remove garbage as required.
5. Continue to work with the DCA and perhaps a Friends of Morrison Marsh group to identify any concerns on the Reserve on an ongoing basis.
6. Continue to inform the general public of the natural values of the site and the permitted and prohibited uses through information placed in local publications from time to time by the DCA.

8.0 Conclusion

Morrison Marsh Nature Reserve provides important habitat for seven confirmed rare species and a range of other native species.

The Islands Trust Conservancy will act on the management action items identified in this plan to achieve the vision, objectives and purpose of the Morrison Marsh Nature Reserve. Future management issues may lead to further action items that will be identified in work plans and in future revisions of this plan.

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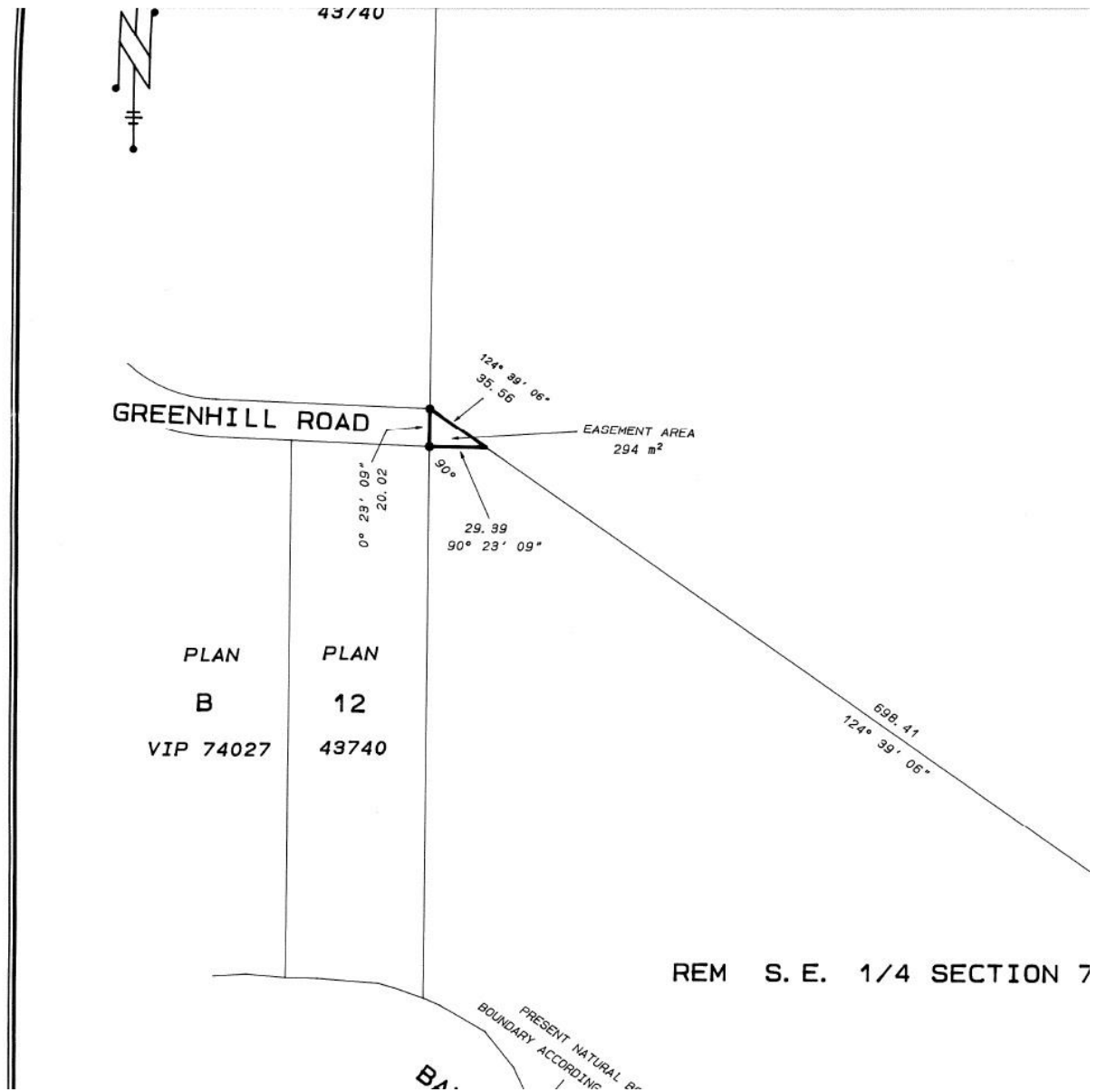
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10.0 Appendices

Appendix A. Legal Easement for Access off Greenhill Road



ANNEXED EASEMENT FA134146 OVER THE SOUTH EAST 1/4, SECTION 7
DENMAN ISLAND, NANAIMO DISTRICT EXCEPT PLAN VIP80177 AS SHOWN ON
PLAN VIP82101

Appendix B. Ecological Community Descriptions

Ecological Community 1. 80% Douglas-fir/ Dull Oregon-grape: 20% Red Alder/Sword Fern

Ecological Community 1 is dominated by a Douglas-fir – Dull Oregon-grape ecological community, which on this site corresponds to the Douglas-fir/ Salal site series (CDFmm01) described by Green and Klinka (1994). Most of the site is poor due to shallow soils and prominent bedrock (Balke 2006).

The dominant tree species is Douglas-fir (*Pseudotsuga menziesii*) primarily in the age class pole/sapling. This ecological community encompasses most of the Reserve. There is relatively thick canopy closure with a moderately well-developed shrub layer. In flatter areas and on the lower slopes, there is a secondary canopy of Western Redcedar (*Thuja plicata*), Western Hemlock (*Tsuga heterophylla*) and Grand Fir (*Abies grandis*). In wetter areas at the bottom of depressions and areas with higher moisture, there are pockets of Red alder (*Alnus rubra*) with an understory of Sword Fern.

Dominant shrub species include Salal (*Gaultheria shallon*) and Dull Oregon-grape (*Berberis nervosa*). In the drier areas, there is more Oceanspray (*Holodiscus discolor*) and in the wetter areas, the understory has more Sword Fern (*Polystichum munitum*). The invasive non-native shrub English holly (*Ilex aquifolium*) is found throughout the Reserve and is found in higher densities to the east and north of the marsh.

There are small pockets of different ecological communities within the Douglas-fir – Dull Oregon-grape. There is a small patch of Douglas-fir – Oniongrass measuring approximately 50 m x 20 m along the trail in the northern portion of the Reserve, which because of its small size was not listed as a separate community. There is a small steep (>30 degree) southwestern facing bluff in the eastern part of the property above Boyle Creek. There are also patches of Evergreen Huckleberry (*Vaccinium ovatum*).

The forest was logged in 1979 by Weldwood of Canada and replanted in 1980, resulting in a young, even aged stand with stumps and old logging roads throughout. The ecological communities will mature into different ecosystem types associated with differences in soil depth and moisture. Trees are subject to considerable windthrow / blowdown from the prevailing southeast winds off the ocean (Balke 2006).

At the point the plot was taken, the slope was gradual (5%) with an east aspect. The slope within this ecological community varies considerably throughout the property: in the southwestern portion the slopes are moderate (15 degrees) and ranges from nearly flat to 75%. The aspect is either northeast or southwest sloping down toward Morrison Marsh.

FLORA

Main Canopy Species & percent cover Age (estimated) Height DBH	40% Douglas-fir (<i>Pseudotsuga menziesii</i>), 10% Red Alder (<i>Alnus rubra</i>) Young, third growth 20-40 years 15-20 m 20-40 cm
Secondary Canopy Species & percent cover Age (estimated) Height DBH	2% Western Redcedar (<i>Thuja plicata</i>), 1% Grand Fir (<i>Abies grandis</i>) 5-20 yrs 3-12 m 5-15 cm
Total Canopy Cover	50%
Understory (species & percent cover) Shrubs, including trees <10 m Herbs, ferns, grasses, mosses, etc.	40% Salal (<i>Gaultheria shallon</i>), 10% Sword fern (<i>Polystichum munitum</i>), 2% Dull Oregon-grape (<i>Berberis nervosa</i>), <1% Cleavers (<i>Galium aparine</i>), <1% California Blackberry (<i>Rubus ursinus</i>), <1% Slough Sedge (<i>Carex obnupta</i>), <1% Vanilla-leaf (<i>Achlys triphylla</i>), <1% Brome (<i>Bromus</i> sp.), <1% *English holly (<i>Ilex aquifolium</i>), <1% Starwort (<i>Stellaria</i> sp.), <1% Little Buttercup (<i>Ranunculus uncinatus</i>), <1% Dewey's Sedge (<i>Carex deweyana</i>), <1% Deer Fern (<i>Blechnum spicant</i>), <1% Red Huckleberry (<i>Vaccinium parvifolium</i>), <1% Alaska Oniongrass (<i>Melica subulata</i>) 20% Mosses include: Oregon Beaked-moss (<i>Eurhynchium oreganum</i>)
Observed rare/threatened species & locally uncommon species	None observed
Special Features	Large parcel of forested area provides an excellent buffer area for the marsh.
Expected Changes	Over time, the stand will self-thin and become more diverse as gaps open and the site becomes more diverse vertically. The understory will continue to develop although this will be limited by high levels of deer browse. Trees may be subject to windthrow/blowdown from prevailing southeast winds off the ocean (Balke 2006).
Disturbance History	Site was logged in 1979 and re-planted with Douglas-fir in 1980 (Balke 2006). The old logging roads form the trail network through the Reserve.

* Indicates non-native species

FAUNA

Wildlife Habitat / Features	As forest matures, cavity nests and suitable perching sites will develop. Southwest facing slopes may provide habitat for snakes & lizards. Many berry producing plants available including Salal and Evergreen Huckleberry. Forest provides important upland overwintering habitat for Northern Red-legged Frog, providing connectivity with breeding wetland habitat.
Observed Species	BIRDS- Refer to bird list for the entire Reserve in Appendix D. MAMMALS Black-tailed Deer (<i>Odocoileus hemionus</i>) (scat) American Mink (<i>Vison vison</i>) Red Squirrel (<i>Tamiasciurus hudsonicus</i>) *European Wall Lizard (<i>Podarcis muralis</i>) INVERTEBRATES Pacific Bananaslug (<i>Ariolimax columbianus</i>)
Rare/threatened species & locally uncommon species	Northern Red-legged Frog (<i>Rana aurora</i>)

* Indicates non-native species

Ecological Community 2. Unclassified Marsh

The southern 1/3 of Morrison Marsh is within the Reserve. Moisture from the rest of the property drains into the marsh and in the northern portion of the marsh there is standing water throughout the year. The emergent vegetation is dominated by sedges and forbs with scattered shrubs growing out of the tussocks. The non-native, invasive Reed Canarygrass (*Phalaris arundinacea*) is present.

The classification of the marsh is challenging. In the baseline, the northern portion was classified as open water and the southern portion was classed as fen (Balke 2006). According to McKenzie and Moran (2004), only sites with <10% emergent vegetation are described as unclassified aquatic ecosystems. The presence of peat moss and organic soils suggests the community should be classified as a fen. Further classification was not possible because the vegetation present did not match the edatopic grids in the guide. It is possible that the vegetation is still adapting to the change in water level associated with the weir.

The water level in the marsh is regulated by a variable crest weir installed in 1985. Water in the marsh is held at an average depth of 0.8 m and after the installation of the weir, there have been significant changes in vegetation including a large die off of Hardhack (Balke 2006). The water level may be slightly higher due to the beaver dam downstream of the weir.

The standing water supports aquatic insect populations which in turn support avian and mammal insectivores (McKenzie and Moran 2004). The marsh is important habitat for waterfowl and the eight species of bats which were recorded. The baseline also notes 65% open water (Balke 2006) but the amount of open water observed in 2017 was much less.

Marshes are the most heavily used wetland type for most wildlife species because they support palatable vegetation, plankton and aquatic invertebrates that support larger animals. They are a focal point for terrestrial animals as a source of drinking water, structural diversity and cover, forage, high prey densities, and unique habitat (McKenzie and Moran 2004).

FLORA

Total Canopy Cover	0%
Understory (species & percent cover) Shrubs, including trees <10 m Herbs, ferns, grasses, mosses, etc.	15% Slough Sedge (<i>Carex obnupta</i>), 4% Common Bladderwort (<i>Utricularia vulgaris</i> ssp. <i>macrorrhiza</i>), 3% Tufted Loosestrife (<i>Lysimachia thyrsiflora</i>), 2% Hardhack (<i>Spirea douglasii</i>), Northern Water Horehound (<i>Lycopus uniflorus</i>), 1% European Bur-reed (<i>Sparganium emersum</i>), 1% Common Rush (<i>Juncus effusus</i>), <1% Rocky Mountain Pond-lily (<i>Nuphar polysepala</i>), <1% Bay Forget-me-not (<i>Myosotis laxa</i>), <1% Bog St. John's Wort (<i>Hypericum anagalloides</i>), <1% Common Duckweed (<i>Lemna minor</i>), <1% Western Inflated Sedge (<i>Carex exsicatta</i>), <1% Star Sedge (<i>Carex echinata</i>), <1% Beaked Sedge (<i>Carex</i>

	<i>utriculata</i>), <1% Small Bedstraw (<i>Galium trifidum</i>), <1% *Reed Canarygrass (<i>Phalaris arundinacea</i>) On mounds within the marsh: <1% Red Huckleberry (<i>Vaccinium parvifolium</i>), <1% Hardhack (<i>Spirea douglasii</i>), <1%, Salal (<i>Gaultheria shallon</i>), <1% Deer Fern (<i>Blechnum spicant</i>), <1% Marsh Skullcap (<i>Skutellaria galericulata</i>) <1% Purple Marshlocks (<i>Comarum palustre</i>) Moss: <i>Sphagnum</i> sp. Open water: 25-30% but highly variable depending on location.
Observed rare/threatened species & locally uncommon species	None observed
Special Features	Diverse wetland which is rich in plant and animal life.
Expected Changes	Previous reports (baseline/management plan) described dense Hardhack (<i>Spirea douglasii</i>) growth which was no longer present by 2006. There is currently very little Hardhack (2%) and what does occur is restricted to higher mounds. Change in vegetation structure may be due to changes in water level associated with the weir downstream. Vegetation composition may continue to change over time. Beaver activity downstream may influence water levels and thereby marsh vegetation.
Disturbance History	Water levels changed with construction of Ducks Unlimited Canada weir in 1985 and marsh vegetation has changed dramatically since that time.

* Indicates non-native species

FAUNA

Wildlife Habitat / Features	Open water with submerged palatable vegetation provides rich habitat for birds, fish, reptiles, amphibians and mammals. Winter open water is important for overwintering waterfowl.
Observed Species	BIRDS (next to or over marsh) Refer to Appendix D for a complete list of birds observed in the Reserve. Bald Eagle (<i>Haliaeetus leucocephalus</i>) Common Raven (<i>Corvus corax</i>) Pileated Woodpecker (<i>Dryocopus pileatus</i>) Turkey Vulture (<i>Cathartes aura</i>) REPTILES/AMPHIBIANS Northwestern Gartersnake (<i>Thamnophis ordinoides</i>) (swimming in marsh)

	Rough-skinned Newt (<i>Taricha granulosa</i>) MAMMALS Black-tailed Deer (<i>Odocoileus hemionus</i>) INVERTEBRATES Giant Water Bug (<i>Lethocerus americanus</i>)
Rare/threatened species & locally uncommon species	Great Blue Heron (<i>Ardea herodias fannini</i>) observed flying overhead Purple Martin (<i>Progne subis</i>) Northern Red-legged Frog (<i>Rana aurora</i>) Little Brown Myotis (<i>Myotis lucifugus</i>)

* Indicates non-native species

Ecological Community 3. Beaked Sedge/Water Sedge (*Carex utriculata*/*Carex aquatilis*)

This ecological community is found at southern end of Morrison Marsh and is dominated by a dense cover of sedges, primarily Beaked Sedge (*Carex utriculata*) and Slough Sedge (*Carex obnupta*). There are a small number of forbs including Water Parsley (*Oenanthe sarmentosa*) and Skunk Cabbage (*Lysichiton americanus*). There are several stunted Sitka Spruce trees in the middle of the marsh and there are Western Redcedar, Western Hemlock and Red Alder in the transitional areas to riparian forests. There is no standing water during the dry season.

According to McKenzie and Moran, this ecological community is classified as a Beaked Sedge/Water Sedge marsh (*Carex utriculata*/*Carex aquatilis*) but the BC CDC does not include this community in the CDFmm. These communities are characterized by low energy floodwaters with some late season drawdown. They provide important habitat for wildlife.

FLORA

Main Canopy Species & percent cover	3% Sitka Spruce (<i>Picea sitchensis</i>)
Age (estimated)	10-30 yrs
Height	7-12 m
DBH	7-30 cm
Total Canopy Cover	3%
Understory (species & percent cover) Shrubs, including trees <10 m Herbs, ferns, grasses, mosses, etc.	80% Beaked Sedge (<i>Carex utriculata</i>) + Slough Sedge (<i>Carex obnupta</i>), 5% Skunkcabbage (<i>Lysichiton americanus</i>), 5% Water Parsley (<i>Oenanthe sarmentosa</i>), 3% Bay Forget-me-not (<i>Myosotis laxa</i>), 2% *Reed Canarygrass (<i>Phalaris arundinacea</i>), 1% Twinberry Honeysuckle (<i>Lonicera involucrata</i>), <1% Marsh Skullcap (<i>Skutellaria galericulata</i>), <1% Ladyfern (<i>Athyrium filix-femina</i>), <1% Common Rush (<i>Juncus effusus</i>), <1% Small Bedstraw (<i>Galium trifidum</i>), <1% Hairy Willowherb (<i>Epilobium ciliatum</i>)

Observed rare/threatened species & locally uncommon species	Sitka Spruce (<i>Picea sitchensis</i>) is uncommon on Denman Island and the Gulf Islands.
Special Features	Open wetland dominated by sedges with diverse forbs. No standing water. Very little Reed Canarygrass present.
Expected Changes	The baseline report prepared in 2006 noted 5% Hardhack (<i>Spirea douglasii</i>) in this area and currently none was observed. Beaver activity downstream may influence water levels and thereby marsh vegetation.
Disturbance History	Water levels changed with construction of Ducks Unlimited Canada weir in 1985 and marsh vegetation has changed dramatically since that time. The baseline report notes the shoreline of the marsh was recently used to grow a crop and bare bucket shaped holes were observed. No evidence of this was observed in 2017.

* Indicates non-native species

FAUNA

Wildlife Habitat / Features	Open sedge wetland provides good foraging for aerial insectivorous birds and bats.
Observed Species	Virginia Rail (<i>Rallus limicola</i>) Mink (<i>Vison vison</i>)
Rare/threatened species & locally uncommon species	None observed

Ecological community 4. Red Alder/Slough Sedge (*Alnus rubra*/*Carex obnupta*)

This small wetland, locally known as Grape Fern Marsh or Boyle Marsh, is found along the southern boundary of the Reserve and extends into Boyle Point Provincial Park. This is the only small wetland in the upland portions of the Reserve that is not dominated by the invasive Reed Canarygrass. The wetland is open, with little tree cover and is found at the bottom of the slope. The vegetation is dominated by Slough Sedge with a mix of forbs and ferns including Grape Fern (*Botrychium multifidum*).

Trees surrounding the wetland at the edges include Sitka Spruce (*Picea sitchensis*), Douglas-fir (*Pseudotsuga menziesii*), and Western Hemlock (*Tsuga heterophylla*). There is a dead Grand Fir (*Abies grandis*) in the middle of the wetland and the wetland has Red Alder (*Alnus rubra*) at its margins and in the middle of the wetland.

The main trail to Boyle Point Provincial Park leads through the center of the wetland although the trail becomes impassible due to flooding during the wet season. This trail should be re-routed.

FLORA

Main Canopy Species & percent cover	5% Red Alder (<i>Alnus rubra</i>)
Age (estimated)	40-60 yrs
Height	15 m
DBH	30 cm
Total Canopy Cover	5%
Understory (species & percent cover) Shrubs, including trees <10 m Herbs, ferns, grasses, mosses, etc.	90% Slough Sedge (<i>Carex obnupta</i>), 7% Marsh Skullcap (<i>Skutellaria galericulata</i>), <1% Ladyfern (<i>Athyrium filix-femina</i>), <1% *Sweet Vernalgrass (<i>Anthoxanthum odoratum</i>), <1% California Blackberry (<i>Rubus ursinus</i>), <1% Violet (<i>Viola</i> sp.), <1% Common Horsetail (<i>Equisetum arvense</i>), <1% Starwort (<i>Stellaria</i> sp.), <1% Cleavers (<i>Galium</i> sp.), <1% Leathery Grape Fern (<i>Botrychium multifidum</i>), <1% *Hairy Cat's-ear (<i>Hypochaeris radicata</i>), <1% Red Alder seedlings (<i>Alnus rubra</i>), <1% California Oatgrass (<i>Danthonia californica</i>), <1% Sitka Spruce seedlings (<i>Picea sitchensis</i>) Mosses include : <i>Dicranum</i> sp.
Observed rare/threatened species & locally uncommon species	Leathery Grape Fern (<i>Botrychium multifidum</i>)
Special Features	Small pocket wetland dominated by native sedges, forbs

	and ferns
Expected Changes	The wetland is currently free from Reed Canarygrass. With the disturbance of building the boardwalk through the path, it is possible although unlikely this invasive grass may expand into this wetland.
Disturbance History	Surrounding forest was logged in 1979 and re-planted in 1980. There is a well-used hiking trail that bisects the wetland. During the winter months, the trail is very wet and hikers were trespassing onto privately managed land on a side trail. The DCA in coordination with ITC has created a new section of trail to avoid the wetland.

* Indicates non-native species

FAUNA

Wildlife Habitat / Features	Open sedge wetland provides good foraging for aerial insectivores and other birds.
Observed Species	BIRDS Spotted Towhee (<i>Pipilo maculatus</i>) Turkey Vulture (overhead) (<i>Cathartes aura</i>) Pacific-slope Flycatcher Purple Finch MAMMALS Red Squirrel (<i>Tamiasciurus hudsonicus</i>) (heard at edge) REPTILES Common Gartersnake (<i>Thamnophis sirtalis</i>)
Rare/threatened species & locally uncommon species	None observed

Ecological Community 5. Disclimax Wetland

There are several small wetlands throughout the Reserve which were referred to in the baseline as “Circle, Curve, Bench, Aspen and Gate”. All of these sites have a strongly fluctuating water table with soils that are fully saturated in the winter with a lowered water table drops during the growing season.

The least disturbed wetland is Aspen wetland which is found in the northeast corner of the Reserve. The fauna table and photo of the ecological community was described from a drier portion of Aspen wetland. The plant community is dominated by the non-native Reed Canarygrass (*Phalaris arundinacea*) but there are pockets of Salal on higher mounds. Trees are sparse but there is a small stand of Trembling Aspen in this wetland only. In wetter portions of the wetland there is Musk Monkeyflower (*Mimulus moschatus*), Field Mint (*Mentha arvensis*) and other wetland species. The edges of the wetland have thick growth of Hardhack (*Spirea douglasii*), Douglas-fir (*Pseudotsuga menziesii*) and Western Redcedar (*Thuja plicata*).

There is only one Ecological Community listed by the BC CDC which includes Trembling Aspen: Trembling Aspen/Pacific Crab Apple/Slough Sedge (CDFmm00) which is red-listed and ranked S1S2 (BC CDC 2017). Green and Klinka (1994), classify this site series as a special site with a strongly fluctuating water table that aligns most closely with C2- Black Twinberry (summer moist/winter wet) although none of the characteristic species are present because of previous disturbance. The Aspen wetland may develop into either of these communities over time: however, without restoration the presence of Reed Canarygrass will inhibit the establishment of native species. Reed Canarygrass represents a disclimax community that establishes in cleared swamps or low-bench sites (McKenzie and Moran 2004).

FLORA

Main Canopy Species & percent cover	30% Trembling Aspen (<i>Populus tremuloides</i>) 1% Red Alder (<i>Alnus rubra</i>) 1% Western Redcedar (<i>Thuja plicata</i>) 2% Douglas-fir (<i>Pseudotsuga menziesii</i>)
Age (estimated)	Uneven-aged, 10-40 yrs
Height	10-15 m
DBH	10-40 cm
Total Canopy Cover	25%
Understory (species & percent cover) Shrubs, including trees <10 m Herbs, ferns, grasses, mosses, etc.	40% *Reed Canarygrass (<i>Phalaris arundinacea</i>) 50%, Salal (<i>Gaultheria shallon</i>), 4% Red Huckleberry (<i>Vaccinium parvifolium</i>), 1% Slough Sedge (<i>Carex obnupta</i>)
Observed rare/threatened species & locally uncommon species	None observed
Special Features	Fungal growth on Aspen
Expected Changes	Western Redcedar plants are yellowing and

	chlorotic and may not survive long-term. The Trembling Aspen have fungal growths on many of the trees and it is unclear if this will harm their growth and survival. Reed Canarygrass will continue to expand into any habitat suitable for this species. Hydrology of site may be changing because of infilling with Reed Canarygrass and build up over time of organic material. This may lead to infilling by tree species.
Disturbance History	Surrounding forest was logged in 1979 and replanted in 1980. The wetlands were likely damaged by the logging and resulted in the invasion of Reed Canarygrass. The baseline suggests that several of these wetlands were used to grow domestic crops (Balke 2006) although it is unclear if this is the case (Balke 2017).

* Indicates non-native species

FAUNA

Wildlife Habitat / Features	Wetlands are important aquatic breeding habitat for amphibians and invertebrates. Avian species also select breeding sites near water and the open areas provide important habitat for aerial insectivores.
Observed Species	MAMMALS Black-tailed Deer (<i>Odocoileus hemionus</i>) (deer scat)
Rare/threatened species & locally uncommon species	None observed

Ecological Community 6: Rock Outcrop (Herbaceous Terrestrial)

There are small open rocky outcrops towards the northeastern portion of the Reserve at the crest of the slope where bedrock is close to the surface. The community is dominated by mosses, lichens and non-native grasses. There are a few patches of Douglas-fir, Dull Oregon-grape and Salal in small patches where the soil is deeper. There is a small vernal pool which holds water for much of the year.

The rock outcrops are primarily on northeastern facing slopes that range from 0-5% with a western aspect. The slope position is top of slope. There is a small amount (1%) of scattered woody debris.

An old logging road passes through the middle of the rock outcrops and there has been ongoing disturbance caused by mountain bikes. The open areas are good habitat for reptiles and Common Nighthawk may be attracted to nesting here although disturbance by trail users would be a deterrent.

FLORA

Main Canopy Species & percent cover Age (estimated) Height DBH	2% Douglas-fir (<i>Pseudotsuga menziesii</i>) (Primarily at edges of rock outcrop with a few small stunted trees in the centre of the ecological community- description below refers to Douglas-fir in the middle of the ecological community) 15-25 years 10m 8-15cm
Total Canopy Cover	0%
Understory (species & percent cover) Shrubs, including trees <10 m Herbs, ferns, grasses, mosses, etc.	30% *Sweet Vernalgrass (<i>Anthoxanthum odoratum</i>), 5% California Oatgrass (<i>Danthonia californica</i>), 3% Dull Oregon-grape, 3% *Hairy Cat's-ear (<i>Hypochaeris radicata</i>), 1% *Sheep Sorrel (<i>Rumex acetosella</i>), 1% Salal (<i>Gaultheria shallon</i>), <1% Small-flowered Blue-eyed Mary (<i>Collinsia parviflora</i>), <1% *Early Hairgrass (<i>Aira praecox</i>), <1% California Blackberry (<i>Rubus ursinus</i>), <1% Willowherb (<i>Epilobium</i> sp.), <1% Fescue (<i>Festuca</i> sp.), <1% Bentgrass (<i>Agrostis</i> sp.), <1% Marsh Cudweed (<i>Gnaphalium palustre</i>), <1% Toad Rush (<i>Juncus bufonius</i>), <1% Sedge (<i>Carex</i> sp.), <1% Douglas-fir seedlings
Observed rare/threatened species & locally uncommon species	None observed

Special Features	Pocket grassland/rock outcrop
Expected Changes	Recruitment of wildflowers common on similar sites on Denman Island is unlikely due to high deer browse pressure and the high level of invasive grasses (i.e. Sweet Vernalgrass) already established. Over the long-term, the soil will gradually deepen which may allow recruitment of tree species.
Disturbance History	Surrounding forest was logged in 1979 and re-planted in 1980. Dirt bike/mountain bike trails have been observed through the vernal pool and rock outcrops (Balke pers. comm. 2017).

* Indicates non-native species

FAUNA

Wildlife Habitat / Features	Open grassy rock outcrops provide food for aerial insectivores. May provide nesting site for Common Nighthawk.
Observed Species	BIRDS Dark-eyed Junco (<i>Junco hyemalis</i>) (feather) MAMMALS Black-tailed Deer (<i>Odocoileus hemionus</i>) (deer scat)
Rare/threatened species & locally uncommon species	None observed

Appendix C. Plant Species Observed in Morrison Marsh, July 2017

The following species were observed during surveys in July 2017 by Carrina Maslovat. Additional species noted in a plant inventory of the marsh are included (Fyson 2011b) with the notation “+”.

Latin Name	Common Name	Status
<i>Abies grandis</i> (Douglas ex D. Don) Lindl.	Grand Fir	
<i>Acer macrophyllum</i> Pursh	Bigleaf Maple	
<i>Achlys triphylla</i> (Sm.) DC.	Vanilla-leaf	
<i>Agrostis stolonifera</i> L.	Bentgrass	Introduced
<i>Aira praecox</i> L.	Early Hairgrass	Introduced
<i>Alnus rubra</i> Bong.	Red Alder	
<i>Anthoxanthum odoratum</i> L.	Sweet Vernalgrass	Introduced
<i>Arbutus menziesii</i> Pursh	Arbutus	
<i>Aster</i> sp.	Aster	Introduced
<i>Athyrium filix-femina</i> (L.) Roth	Ladyfern	
<i>Berberis nervosa</i> Pursh	Dull Oregon-grape	
<i>Blechnum spicant</i> (L.) Sm.	Deer Fern	
<i>Botrychium multifidum</i> (S.G. Gmel.) Rupr.	Leathery Grape Fern	
<i>Brasenia schreberi</i> J. F. Gmel.	Schreber's Watershield	
<i>Bromus vulgaris</i> (Hook.) Shear	Columbia Brome	
<i>Cardamine</i> sp. L.	Bittercress	
+ <i>Carex cusickii</i>	Cusick's Sedge	
<i>Carex deweyana</i> Schwein.	Dewey's Sedge	
<i>Carex echinata</i> Murray	Star Sedge	
<i>Carex exsiccata</i> L. H. Bailey	Western Inflated Sedge	
+ <i>Carex lasiocarpa</i>	Slender Sedge	
+ <i>Carex leptalea</i>	Bristle-stalked Sedge	
<i>Carex obnupta</i> L. H. Bailey	Slough Sedge	
+ <i>Carex sitchensis</i>	Sitka Sedge	
+ <i>Carex viridula</i>	Green Sedge	
<i>Carex utriculata</i> Boott	Beaked Sedge	
<i>Chimaphila umbellata</i> (L.) W.P.C. Barton	Pipsissewa	
<i>Cirsium arvense</i> (L.) Scop.	Canada Thistle	Introduced
+ <i>Cirsium brevistylum</i>	Short-styled Thistle	
<i>Cirsium vulgare</i> (Savi) Ten.	Bull Thistle	Introduced
<i>Claytonia sibirica</i>	Siberian Miner's-lettuce	
<i>Collinsia parviflora</i> Lindl.	Small-flower Blue-eyed Mary	
<i>Comarum palustre</i> L.	Purple Marshlocks	
<i>Corallorhiza maculata</i> var. <i>maculata</i> (Raf.) Raf.	Western Coralroot	
<i>Cornus nuttallii</i> Audubon	Pacific Dogwood	
<i>Dactylis glomerata</i> L.	Orchardgrass	Introduced

<i>Danthonia californica</i> Bol.	California Oatgrass	
<i>Dryopteris expansa</i> (C. Presl) Fraser-Jenk. & Jermy	Spiny Woodfern	
<i>Elymus glaucus</i> Buckley	Blue Wildrye	
+ <i>Epilobium angustifolium</i>	Fireweed	
<i>Epilobium ciliatum</i> Raf.	Hairy Willowherb	
+ <i>Epilobium minutum</i>	Small-flowered Willowherb	
<i>Equisetum arvense</i> L.	Common Horsetail	
+ <i>Equisetum telmateia</i>	Giant Horsetail	
<i>Eurhynchium oreganum</i> (Sull.) Jaeg.	Oregon Beaked-moss	
<i>Festuca occidentalis</i> Hook.	Western Fescue	
<i>Festuca (idahoensis?)</i> Elmer	Idaho Fescue	
<i>Frangula purshiana</i> (DC.) A. Gray (<i>Rhamnus purshiana</i> DC.)	Cascara	
<i>Galium aparine</i> L.	Cleavers	
<i>Galium trifidum</i> L.	Small Bedstraw	
+ <i>Galium triflorum</i>	Sweet-scented Bedstraw	
<i>Gaultheria shallon</i> Pursh	Salal	
<i>Geranium robertianum</i> L.	Herb-robert	
<i>Geum macrophyllum</i> Willd.	Large-leaved Avens	
<i>Goodyera oblongifolia</i> Raf.	Rattlesnake Plantain	
<i>Gnaphalium palustre</i> Nutt.	Marsh Cudweed	
<i>Holcus lanatus</i> L.	Velvetgrass	Introduced
<i>Holodiscus discolor</i> (Pursh) Maxim.	Oceanspray	
<i>Hylocomium splendens</i> (Hedw.) Schimp in B.S.G.	Step Moss	
<i>Hypericum anagalloides</i> Cham. & Scgktdk,	Bog St. John's Wort	
<i>Hypochaeris radicata</i> L.	Hairy Cat's-ear	Introduced
<i>Ilex aquifolium</i> L.	English holly	Introduced
+ <i>Juncus articulatus</i>	Jointed Rush	
<i>Juncus bufonius</i> L.	Toad Rush	
<i>Juncus effusus</i> L.	Common Rush	
+ <i>Juncus ensifolius</i>	Dagger-leaf Rush	
<i>Lemna minor</i> L.	Common Duckweed	
<i>Leucanthemum vulgare</i> Lam.	Oxeye Daisy	Introduced
<i>Linnaea borealis</i> L.	Twinflower	
<i>Lonicera involucrata</i> (Richardson) Banks ex Spreng.	Twinberry Honeysuckle	
<i>Ludwigia palustris</i> (L.) Elliot	Water Purslane	
+ <i>Luzula multiflora</i>	Small-flowered Woodrush	
<i>Lycichiton americanus</i> Hulten & H. St. John	Skunk Cabbage	
<i>Lycopus uniflorus</i> Michx.	Northern Water Horehound	
<i>Lysimachia thyrsiflora</i> L.	Tufted Loosestrife	
<i>Malus fusca</i> (Raf.) C.K. Schneid.	Oregon Crabapple	

<i>Melica subulata</i> (Griseb.) Farw.	Alaska Oniongrass	
<i>Mentha arvensis</i> L.	Field Mint	
<i>Micromeria douglasii</i> (Benth.) Benth.	Yerba Buena	
<i>Mimulus moschatus</i> Douglas ex Lindl.	Musk Monkeyflower	
<i>Monotropa uniflora</i> L.	Indian Pipe	
<i>Mycelis muralis</i> (L.) Dumort.	Wall-lettuce	
<i>Myosotis laxa</i> Lehm.	Bay Forget-me-not	
<i>Nemophila parviflora</i> var. <i>Parviflora</i> Douglas ex Benth	Small-flowered Nemophila	
<i>Nuphar polysepala</i> Engelm.	Rocky Mountain Pond-lily	
<i>Oenanthe sarmentosa</i> C. Presl ex DC.	Water Parsley	
<i>Phalaris arundinacea</i> L.	Reed Canarygrass	Introduced
<i>Picea sitchensis</i> (Bong.) Carriere	Sitka Spruce	
<i>Plagiothecium undulatum</i> (Hedw.) Schimp. in B.S.G.	Wavy-leaved Cotton Moss	
<i>Plantago lanceolata</i> L.	Ribwort Plantain	Introduced
<i>Platanthera transversa</i> (Suksd.) R.M. Bateman	Royal Rein Orchid	
<i>Poa palustris</i> L.	Fowl Bluegrass	
<i>Polystichum munitum</i> (Kaulf.) C. Presl	Western Swordfern	
<i>Polytrichum juniperinum</i> Hedw.	Juniper Haircap Moss	
<i>Populus tremuloides</i> Michx.	Quaking Aspen	
<i>Potamogeton natans</i> L.	Floating-leaved Pondweed	
+ <i>Polypodium glycyrrhiza</i>	Licorice Fern	
<i>Prunella vulgaris</i> L.	Selfheal	
<i>Prunus emarginata</i> (Douglas) Eaton	Bitter Cherry	
+ <i>Prunus laurocerasus</i>	Cherry Laurel	Introduced
<i>Pseudotsuga menziesii</i> (Mirb.) Franco	Douglas-fir	
<i>Pteridium aquilinum</i> (L.) Kuhn	Bracken Fern	
<i>Ranunculus uncinatus</i> D. Don ex G. Don	Little Buttercup	
<i>Rosa gymnocarpa</i> Nutt.	Baldhip Rose	
<i>Rosa nutkana</i> C. Presl	Nootka Rose	
<i>Rubus laciniatus</i> Willd.	Cutleaf Blackberry	Introduced
+ <i>Rubus spectabilis</i>	Salmonberry	
<i>Rubus ursinus</i> Cham. & Schltdl.	California Blackberry	
<i>Rumex acetosella</i> L.	Sheep Sorrel	Introduced
+ <i>Salix</i> sp. (narrow leaved)	Shining Willow	
<i>Salix scouleriana</i> Barratt ex Hook.	Scouler's Willow	
<i>Sambucus racemosa</i> L.	Red Elderberry	
<i>Schoenoplectus tabernaemontani</i> (C.C. Gmel.) Palla	Softstem Bullrush	
+ <i>Scirpus microcarpus</i>	Small-flowered Bulrush	
<i>Skutellaria galericulata</i> L.	Marsh Skullcap	
+ <i>Smilacina stellata</i>	Star-flowered False	

	Solomon's Seal	
+ <i>Sparganium angustifolium</i>	Narrow-leaved Bur-reed	
<i>Sparganium emersum</i> Rehmman	European Bur-reed	
<i>Spirea douglasii</i> Hook.	Hardhack	
<i>Sphagnum</i> L. sp.	Sphagnum Moss	
<i>Stachys chamissonis</i> var. <i>cooleyae</i> (A. Heller) G.A. Mulligan & D.B. Munroe	Cooley's Hedge-nettle	
<i>Stellaria crispa</i> Cham. & Schltld.	Crisp Starwort	
<i>Stellaria (longifolia?)</i> Muhl. ex Willd.	Long-leaved Starwort	
<i>Taraxacum officinale</i> F. H. Wigg.	Common Dandelion	
<i>Thuja plicata</i> Donn ex D. Don	Western Redcedar	
<i>Toxicoscordion venenosum</i> (S. Watson) Rydb.	Meadow Deathcamas	
<i>Trientalis latifolia</i> Hook.	Northern Starflower	
<i>Tsuga heterophylla</i> (Raf.) Sarg	Western Hemlock	
<i>Typha latifolia</i> L.	Cattail	
<i>Urtica dioica</i> L.	Stinging Nettle	
<i>Utricularia vulgaris</i> ssp. <i>macrorhiza</i> (Leconte) R. T. Claussen	Common Bladderwort	
<i>Vaccinium ovatum</i> Pursh	Evergreen Huckleberry	
<i>Vaccinium parvifolium</i> Sm.	Red Huckleberry	
<i>Veronica beccabunga</i> L.	American Brooklime	
<i>Veronica officinalis</i> L.	Common Gypsyweed	
+ <i>Veronica scutellata</i>	Marsh Speedwell	
<i>Viola</i> sp.	Violet	

Appendix D. Avian Species Observed in Morrison Marsh Nature Reserve

Ren Ferguson surveyed Morrison Marsh to compile a bird species list including Species at Risk. Surveys were done during the day on July 14th and 15th and began at dawn on July 15th. An evening survey on July 14th confirmed the presence of crepuscular species, including Common Nighthawk. Survey time was not optimal as the breeding season was ending.

List Order: Species names and order follows the American Ornithologist Union Checklist of Birds of North America, Seventh Edition, 1998 and supplements to July 2017.

Common Name	Scientific Name	Status (BC/COSEWIC)
Canada Goose*	<i>Branta canadensis</i>	
++ Trumpeter Swan	<i>Cygnus buccinator</i>	
Mallard*	<i>Anas platyrhynchos</i>	
++ Ring-necked Duck	<i>Aythya collaris</i>	
+ Bufflehead	<i>Bucephala albeola</i>	
Band-tailed Pigeon*	<i>Patagioenas fasciata</i>	Blue List/Special Concern
Common Nighthawk*	<i>Chordeiles minor</i>	Yellow List/Threatened
Rufous Hummingbird*	<i>Selasphorus rufus</i>	
Virginia Rail**	<i>Rallus limicola</i>	
Great Blue Heron	<i>Ardea herodias fannini</i>	Blue List/Special Concern
Turkey Vulture	<i>Cathartes aura</i>	
Osprey	<i>Pandion haliaetus</i>	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	
Cooper's Hawk*	<i>Accipiter cooperii</i>	
Great Horned Owl*	<i>Bubo virginianus</i>	
Downy Woodpecker*	<i>Picoides pubescens</i>	
Hairy Woodpecker*	<i>Picoides villosus</i>	
Northern Flicker*	<i>Colaptes auratus</i>	
Pileated Woodpecker*	<i>Dryocopus pileatus</i>	
Pacific-slope Flycatcher*	<i>Empidonax difficilis</i>	
Hutton's Vireo*	<i>Vireo huttoni</i>	
Cassin's Vireo*	<i>Vireo cassinii</i>	
Warbling Vireo**	<i>Vireo gilvus</i>	
Common Raven*	<i>Corvus corax</i>	
Purple Martin	<i>Progne subis</i>	Blue List
Chestnut-backed Chickadee**	<i>Poecile rufescens</i>	
Red-breasted Nuthatch*	<i>Sitta canadensis</i>	
Brown Creeper*	<i>Certhia americana</i>	
Pacific Wren*	<i>Troglodytes pacificus</i>	
Marsh Wren*	<i>Cistothorus palustris</i>	

Golden-crowned Kinglet*	<i>Regulus satrapa</i>	
Swainson's Thrush*	<i>Catharus ustulatus</i>	
American Robin**	<i>Turdus migratorius</i>	
Purple Finch*	<i>Carpodacus purpureus</i>	
Spotted Towhee*	<i>Pipilo maculatus</i>	
Song Sparrow*	<i>Melospiza melodia</i>	
Dark-eyed Junco**	<i>Junco hyemalis oreganus</i>	
Red-winged Blackbird*	<i>Agelaius phoeniceus</i>	
Orange-crowned Warbler*	<i>Oreothlypis celata</i>	
Common Yellowthroat**	<i>Geothlypis trichas</i>	
Yellow-rumped Warbler*	<i>Setophaga coronata</i>	
Townsend's Warbler*	<i>Setophaga townsendi</i>	
Wilson's Warbler*	<i>Cardellina pusilla</i>	
Western Tanager*	<i>Piranga ludoviciana</i>	

“+” sign indicates the species was noted as part of the Christmas Bird Count in Morrison Marsh, December 14, 2017.

“++” sign indicates the species was noted at the north end of the marsh near McFarlane Road as part of the Christmas Bird Count, December 14, 2017.

**Confirmed Breeding– Observed nest building, distraction display, used nest, recently fledged young, adults leaving or entering confirmed nest site, adult carrying faecal sac, adult carrying food for young, nest with eggs, and/or nest with young.

*Possible Breeding – Species observed during its breeding season in suitable nesting habitat, singing male present, or breeding calls heard during breeding season in suitable nesting habitat.

Residents and the public questionnaires also noted the presence of Wood Duck, Crested Grebe, Bushtit, Pheasant, Barred Owl, Sharp-shinned Hawk, Falcon, Crow, Sapsucker, Pine Siskin, Finch, Golden Sparrow and White-crowned Sparrow. Common Goldeneyes have been seen on the open marsh.

Appendix E. Bat Acoustic Survey Summary Report for Morrison Marsh Nature Reserve

Report and Analysis Prepared by Peter Ommundsen

BAT ACOUSTIC SURVEY MORRISON MARSH NATURE RESERVE JULY 2017

Summary:

Eight nights were sampled using an Anabat Express bat detector (serial number 314197, microphone number 314386) with a sensitivity setting of 115 and set for “night only” recording.

6,589 recordings (digital files) were triggered by bats, each file containing one or more passing bats. The presence of the following species was inferred from examination of the acoustic spectrograms:

Townsend's Big-eared Bat (*Corynorhinus townsendii*)

Big Brown Bat (*Eptesicus fuscus*)

Hoary Bat (*Lasiurus cinereus*)

Silver-haired Bat (*Lasionycteris noctivagans*)

California Myotis (*Myotis californicus*)

Western Long-eared Myotis (*Myotis evotis*)

Little Brown Myotis (*Myotis lucifugus*)

Yuma Myotis (*Myotis yumanensis*)

One recording is consistent with the call of the Brazilian Free-tailed Bat, *Tadarida brasiliensis*, but is of inadequate clarity for definitive identification.

Number of bat files by date.

Night	Number of bat files	Temperature degrees C evening/morning	Time of first/last bat pass
2017 07 14/15	1,304	20.5 / 13.0	2141 / 0449
2017 07 15/16	706	19.0 / 12.5	2142 / 0448
2017 07 16/17	927	19.0 / 11.0	2136 / 0442
2017 07 17/18	550	19.75 / 11.25	2138 / 0439
2017 07 18/19	749	21.75 / 13.0	2137 / 0455
2017 07 19/20	1,142	21.0 / 16.5	2127 / 0501
2017 07 20/21	567	20.0 / 14.5	2136 / 0504
2017 07 21/22	644	17.25 / 16.25	2118 / 0514

Appendix F. Locations of Photographic Documentation

All coordinates taken at NAD 83 and at 10U.

Photo Number	Direction of Photo	UTM East	UTM North	Date	Comments
1	360°	375691	5483406	July 15, 2017	Post and wire fence along northern boundary
2	170°	375578	5482882	July 15, 2017	Douglas-fir/Dull Oregon-grape ecological community
3	0°	375899	5483057	March 1, 2018	Red Alder/Sword Fern in wetter parts of Ecological Community 1
4	30°	375509	5483209	July 15, 2017	Morrison Marsh ecological community
5	320°	375886	5482979	July 15, 2017	Marsh with dense Beaked Sedge/Slough Sedge with small Sitka Spruce ecological community
6	100°	375917	5482613	July 15, 2017	Red Alder/Slough Sedge ecological community. Small wetland along trail at the boundary of Boyle Point Provincial Park
7		375917	5482613	July 15, 2017	Grape Fern in Red Alder/Slough Sedge wetland
8	320°	376047	5483302	July 14, 2017	Disclimax Wetland ecological community invaded by Reed Canarygrass (aka Aspen wetland)
9	180°	376028	5483172	July 14, 2017	Rock Outcrop (Terrestrial herbaceous) ecological community
10		375987	5482825	July 14, 2017	Northern Red-legged Frog
11		375916	5482614	July 14, 2017	Blue Dasher
12	45°	375509	5483209	July 14, 2017	Jenny Balke of DCA deploying a minnow trap in Morrison Marsh
13		375986	5482873	July 15, 2017	Northwestern Salamander
14		375949	5482943	July 15, 2017	Great Horned Owl
15		375740	5483217	March 1, 20178	Evergreen Spurge-laurel
16		375867	5483132	March 1, 20178	English holly
17		375400	5483037	March 1, 20178	"Froggy Ponds" wet portion in trail
18		375314	5483018	March 1,	Kiosk with map and sign for

				20178	Morrison Marsh Nature Reserve
19	270°	376117	5483247	July 14, 2017	Sign on northern trail to Boyle Point Park on eastern property line showing prohibited activities and boundary
20	360°	376098	5482863	July 14, 2017	Signs (4): Boundary sign, No hunting, ITC Permitted Uses and "Danger Steep Cliff" on southern trail to Boyle Point Park east
21		375684	5482793	March 1, 20178	Culvert Under main trail at Boyle Creek

Appendix G. Locations of Species at Risk and Species of Interest Observed in Morrison Marsh Nature Reserve

All coordinates taken at NAD 83 and at 10U.

Species Common Name	Species Latin Name	UTM Easting	UTM Northing	Number Observed	Comments
Great Horned Owl	<i>Bubo virginianus</i>	375951	5482942	1	Observed perching
Purple Martin	<i>Progne subis</i>	375465	5483144	8	Minimum of eight aerial feeding in the evening
Purple Martin	<i>Progne subis</i>	375442	5483340		Aerial feeding over the marsh in the morning
Common Nighthawk	<i>Chordeiles minor</i>	375903	5483147	1	Calling and displaying over property - location estimated
Band-tailed Pigeon	<i>Patagioenas fasciata</i>	375458	5483186	1	Calling - location estimated
Great Blue Heron	<i>Ardea herodias fannini</i>	375509	5483208	1	Flying over marsh during dawn survey
Blue Dasher	<i>Pachidiplax longipennis</i>	375916	5482614	2	In small wetland with Leathery Grape Fern. Two adults.
Northern Red-legged Frog	<i>Rana aurora</i>	375498	5483207	1	Next to open water in main marsh
Northern Red-legged Frog	<i>Rana aurora</i>	375987	5482825	1	Next to trail

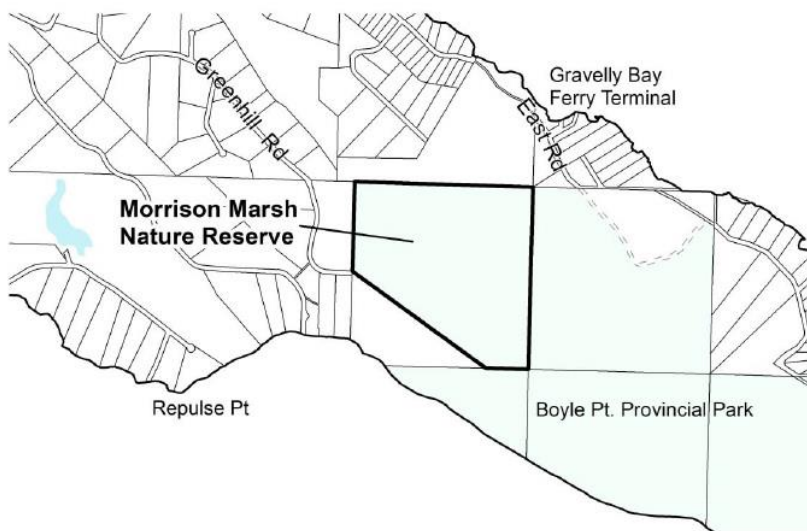
Appendix H. Letter to Neighbours



December 21, 2017

Dear Neighbour,

The Islands Trust Fund is updating the management plan for the Morrison Marsh Nature Reserve on Denman Island and we are interested in hearing from you.



Morrison Marsh Nature Reserve (PID 026-532-913, LOT A SECTION 7 DENMAN ISLAND NANAIMO DISTRICT PLAN VIP80177) is a 52 hectare (128 acre) protected area on the southern portion of Denman Island, adjacent to Boyle Point Provincial Park. The Islands Trust Fund works with the Denman Conservancy Association to manage the property in order to protect its unique ecological values. This property contains the southern headwaters of Morrison Marsh and Boyle Creek, as well as an extensive network of additional wetland areas, rocky outcrops and upland forest.





The management for the nature reserve focuses on protecting the natural values of the property. Development of any kind, including disturbance to native vegetation, soils, and water flow, is prohibited. The updated plan may support ongoing restoration activities such as removing non-native invasive species and enhancing habitat for protecting the native plants and animals. The original management plan was written in 2007 and it can be found on our website:

<http://www.islandstrustfund.bc.ca/media/10382/itfmgmtplanmarsh.pdf>

In order to update the plan, your input is requested. We would like to hear from the neighbours of the Morrison Marsh Nature Reserve with your ideas and concerns regarding the long-term management of this special place. Please complete a questionnaire on our website: <http://www.islandstrustfund.bc.ca/survey.aspx> or complete the enclosed questionnaire and return it to the DCA folder in the Free Post at Abraxas Bookstore, or scan and send it to me by email. There will be an Open House on January 27, 2018 at 10:00 am at the Marcus Isbister Old School Centre (5901 Denman Road) with a walk on the Nature Reserve at 1:30 pm.

Many thanks for taking the time to consider the management of this nature reserve. For more information, please contact me at the number or email below.

Yours sincerely,

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

Enclosure: Morrison Marsh Nature Reserve Questionnaire



Appendix I. Letter to First Nations



December 22, 2017

Cowichan Tribes
Halalt First Nation
Homalco First Nation
K'omoks First Nation
Lake Cowichan First Nation
Lyackson First Nation
Penelakut Tribe

Qualicum First Nation
Snaw-naw-as (Nanoose) First Nation
Stz'uminus (Chemainus) First Nation
Tla'amin (Sliammon) First Nation
We Wai Kai (Cape Mudge First Nation)
Wei Wai Kum (Campbell River First Nation)

Dear Chief and Council,

The Islands Trust Fund is updating the management plan for the Morrison Marsh Nature Reserve on Denman Island. We would like to better understand the historical and current connection First Nations have with this area of Denman Island. We would be very interested in learning from you how the Islands Trust Fund's management planning and actions for this protected area on Denman Island can acknowledge and respect the cultural significance and traditional use of this area.

Morrison Marsh Nature Reserve (PID 026-532-913, LOT A SECTION 7 DENMAN ISLAND NANAIMO DISTRICT PLAN VIP80177) is a 52 hectare (128 acres) protected area on the southern portion of Denman Island, adjacent to Boyle Point Provincial Park. The Islands Trust Fund works with the Denman Conservancy Association to manage the property in order to protect its unique ecological values. This property contains the southern headwaters of Morrison Marsh and Boyle Creek, as well as an extensive network of additional wetland areas, rocky outcrops and upland forest. There are also three other nature reserves managed by the Islands Trust Fund on Denman (please see map below) and we invite you to share any information to help us better understand and manage these protected areas as well.

The management for the nature reserve focuses on protecting the natural values of the property. Development of any kind, including disturbance to native vegetation, soils, and water flow, is prohibited. An updated plan may support ongoing restoration, removing non-native invasive species and enhancing habitat for native plants and animals. Please consider filling out a questionnaire available on our website to assist us in gathering information: <http://www.islandstrustfund.bc.ca/survey.aspx>



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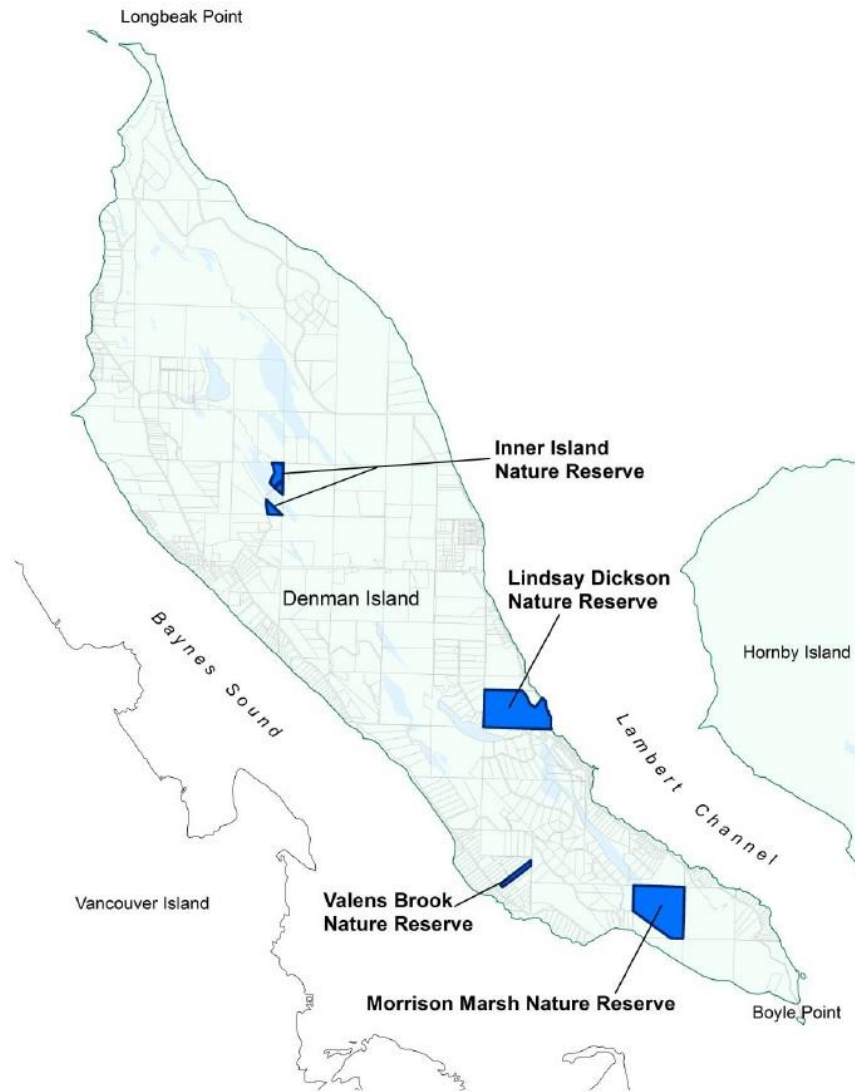


There will be an Open House on January 27, 2018 at 10 am at the Marcus Isbister Old School Centre (5901 Denman Road), with a walk on the Nature Reserve at 1:30pm. If you would like to have more information or to meet to discuss, please contact me at the email or number below.

Thank you for your consideration.

Yours sincerely,

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



Morrison Marsh Nature Reserve Questionnaire

Morrison Marsh Nature Reserve is a 52 hectare protected area located in the southern portion of Denman Island and adjacent to Boyle Point Provincial Park. It contains the southern headwaters of Morrison Marsh and Boyle Creek, as well as an extensive network of additional wetland areas, rocky outcrops and upland forest.

The Islands Trust Fund received the land as a donation in 2005 and the first management plan for the Morrison Marsh Nature Reserve was written in 2007. The Islands Trust Fund's primary goal is to protect and nurture the sensitive ecosystems on this land. To do that, we revise our management plans approximately every 10 years to guide the management of the property. We are asking you to help us develop this plan. Please share your thoughts on the protection and long-term management of the Morrison Marsh Nature Reserve.

1. Where do you live?

- ☐ North Denman
- ☐ Mid Denman
- ☐ South Denman
- ☐ Off-island

2. Have you ever visited Morrison Marsh Nature Reserve? If so, how often?

- ☐ No, never
- ☐ Once
- ☐ A few times
- ☐ Once a year or less
- ☐ Once a month or more

3. If you have visited Morrison Marsh Nature Reserve, what did you do there?

- ☐ Hiking/walking
- ☐ Dog walking
- ☐ Wildlife viewing
- ☐ Other (please list)

4. Please list any wildlife and unique plant species you have seen at or near Morrison Marsh Nature Reserve?

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

- ☐ Protection of habitat for at-risk species
- ☐ Ecosystem services (e.g. clean water and air, erosion control, groundwater recharge, etc.)
- ☐ Recreational opportunities
- ☐ Education and research opportunities
- ☐ Tourism
- ☐ Aesthetic appeal
- ☐ Conservation for the sake of the intrinsic value of nature
- ☐ Other (please specify):

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

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

8. Please provide any other relevant information that will help us make the best management decisions for Morrison Marsh Nature Reserve.

9. Please share with us any history you know about this property (or south Denman Island) or any knowledge you have about unique cultural or other special features on the property.

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

Thank you for your time spent helping us plan the future of the Morrison Marsh Nature Reserve.



REQUEST FOR DECISION

To: Islands Trust Conservancy **For the Meeting of:** July 17, 2018
From: Nuala Murphy **Date Prepared:** June 29, 2018
SUBJECT: Request for Waiver - Andreas Vogt Nature Reserve Covenant, Salt Spring Island

RECOMMENDATION:

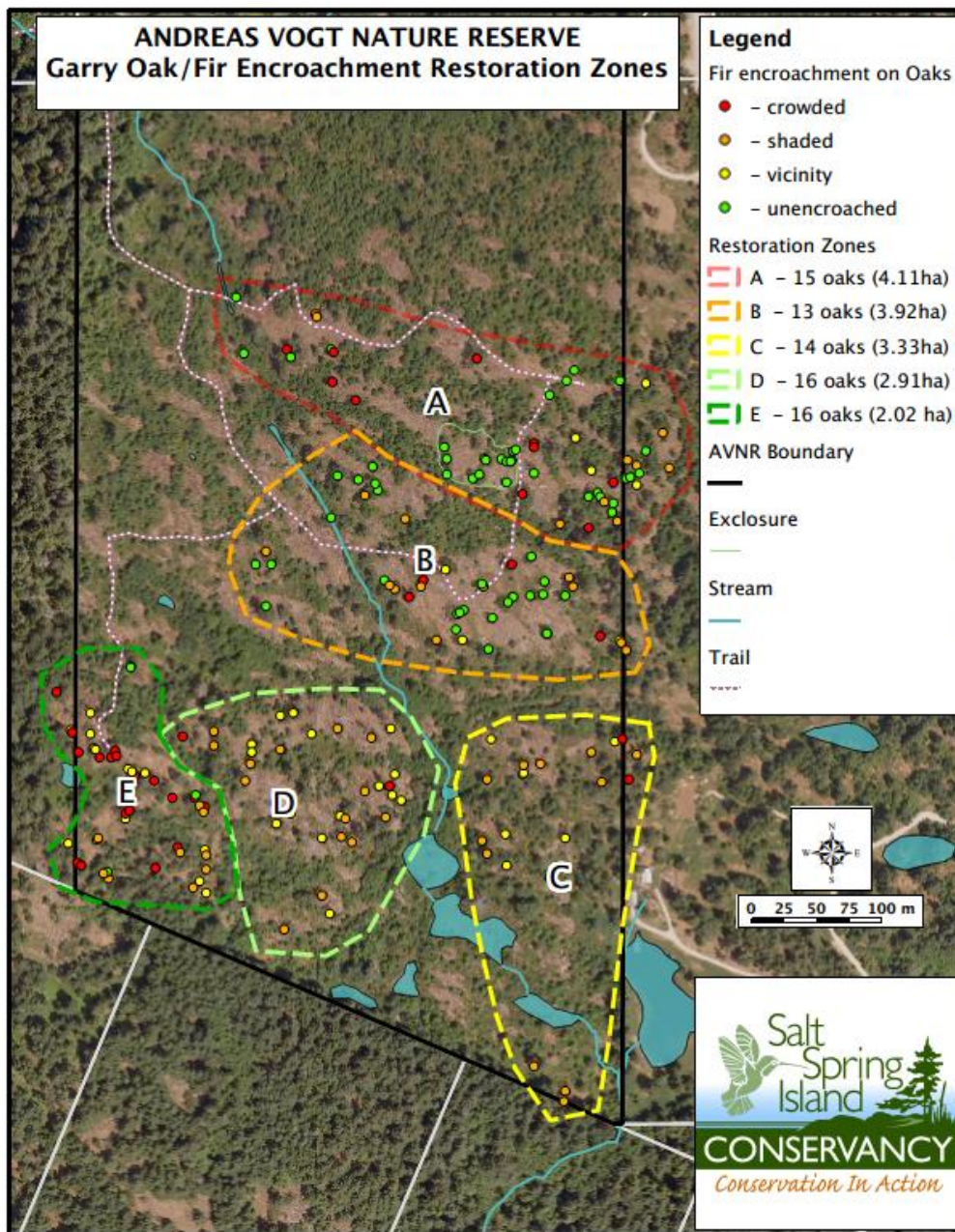
That the Islands Trust Conservancy approve the request from Salt Spring Island Conservancy to girdle Douglas-fir trees that are encroaching on the Garry Oak meadows in the Andreas Vogt Nature Reserve by providing a waiver to section 4.2 (a) (viii) of the covenant, valid for two years, until July 1, 2020.

- 1 **PURPOSE:** To allow for restoration of Garry Oak ecosystems in the Andreas Vogt Nature Reserve by providing a waiver to the conservation covenant to allow girdling of encroaching Douglas-fir trees.
- 2 **BACKGROUND:**

Andreas Vogt Nature Reserve is a 30 hectare protected area held and managed by the Salt Spring Island Conservancy. The Islands Trust Conservancy and TLC the Land Conservancy of BC co-hold a covenant over the land. The reserve contains about 12 hectares of shallow soil Garry Oak ecosystem that is in poor condition. There is little to no natural Garry oak recruitment, Douglas-fir is rapidly encroaching, deer browsing is high, invasive shrubs and forbs persist and the meadows are dominated by invasive agronomic grasses. The encroachment of Douglas-fir has occurred mostly due to fire suppression. The encroaching Douglas-fir shades out and competes with Garry oaks and other open meadow plant species for scarce nutrients and moisture, and will eventually eliminate the oaks and meadow plants from the site if not controlled.

Salt Spring Island Conservancy is proposing work from 2018-2020 to release up to 50 top priority Garry oak trees (the red, then orange dots on the map below) by girdling surrounding Douglas-fir trees. This would involve roughly one-two Douglas-fir trees per Garry oak tree. Girdling is cutting through the cambium around the entire tree circumference. It is an effective means of killing individual trees or excluding a particular tree species. Girdled trees lose their branches slowly (over a period of 5-10 years for small trees) and the branches deteriorate inward from the needles and twigs, leaving the larger wood for insect and bird habitat. It is important that this work is done carefully so it does not cause soil disturbance or inadvertently increase the spread of invasive plants. It is recommended that the area is monitored over the initial 2 year period of work and into the future to ensure there are no negative impacts.

The intent of the conservation covenant is to maintain the land in the 'natural state' but due to fire suppression there is a change from meadow to closed canopy forest. Ecological assessment of the property stated that the most significant attribute of the property are the presence of Garry oak and its related communities and action is needed if they are to be maintained.



As a covenant holder, the Island Trust Conservancy needs to grant permission to the Salt Spring Conservancy and provide a written waiver to allow the girdling of native Douglas-fir trees. The covenant restriction that would need to be waived is the following:

4.2 Without restricting the generality of section 4.1, the Owner must not:

(a) use or permit the use of the Land for an activity or use which:

...

(viii) causes or allows any flora indigenous to Salt Spring Island to be cut down, removed, defoliated or in any way tampered with;

...

TLC, The Land Conservancy of BC and Ecological Gifts Program have already provided written approval to Salt Spring Island Conservancy to move ahead with the girdling work.

3 IMPLICATIONS OF RECOMMENDATION

ORGANIZATIONAL: The Garry oak ecosystem present in this covenant area may require enhanced ecological monitoring and property management as was considered when the management plan was approved. A small amount of staff time will be required to issue waiver and update the monitor. This could be an interesting case study to add to our knowledge on the management of Douglas-fir encroachment.

FINANCIAL: All costs for the girdling will be covered by the Salt Spring Conservancy

POLICY: None

IMPLEMENTATION/COMMUNICATIONS: Staff will inform the Salt Spring Island Conservancy of the ITC's decision.

FIRST NATIONS: None

OTHER: None

4 **RELEVANT POLICY(S):** TFB 01005 Trust Fund Board Conservation Covenants Policy

5 **ATTACHMENT(S):** ITC_2018-06-12_AVNR-RequestForWaiver-GirdleFd

RESPONSE OPTIONS

Recommendation: As above

Alternative: That the Islands Trust Conservancy requests more information from the Salt Spring Island Conservancy.

Prepared By: Nuala Murphy, Property Management Specialist

Reviewed By/Date: Jennifer Eliason, Manager, Islands Trust Conservancy

Request for Waiver: to waive the restriction of the removal of native vegetation (specifically Douglas-fir) to allow for Garry oak ecosystem restoration and management on site at the Andreas Vogt Nature Reserve.



For: Islands Trust Fund
From: Salt Spring Island Conservancy
June 12, 2018



Andreas Vogt Nature Reserve proposal for girdling of encroaching Douglas-fir trees in Garry Oak habitat.

Background:

Garry Oak ecosystems are endangered in Canada with remaining habitat degraded by ingress of invasive plants and fir and herbivory by ungulates. The Andreas Vogt Nature Reserve (AVNR) is a 30ha reserve containing a shallow soil Garry Oak community. Heavy herbivory by deer prevents oak recruitment and, along with competition from invasive grasses and shrubs, has reduced frequency and vigor of native forbs and shrubs, which appears to have impacted pollinator populations. Fir encroachment is rampant because fire, which previously kept fir in check, has been removed from this ecosystem. Firs overtop the oaks, which eventually die. Proposed restoration activities requiring a waiver from covenant holders include girdling of Douglas-fir trees that are encroaching on Garry Oak trees. The Trust Fund Board and The Land Trust of BC co-hold the covenant at AVNR.

Introduction:

The Garry Oak ecosystem is one of the rarest in Canada containing over 100 species at risk. Located in southeastern Vancouver Island, Gulf Islands and some sites on the mainland, its range has shrunk by 95% since European colonization (Lea 2011). Primary causes for this decline are habitat loss from urbanization, agriculture, degradation of habitat (ingress of invasive plants, fire suppression and increased herbivory by ungulates) and fragmentation of remaining habitat (Eastman 2011). Deep soil Garry oak systems have been destroyed more than shallow soil systems, as the latter were less attractive for agriculture. Shallow soil systems, usually found on steep, dry slopes with infertile soils and exposed bedrock, still exist because edaphic conditions and microclimate have slowed incursions of fir and invading shrubs.

Andreas Vogt Nature Reserve:

The 30ha Andreas Vogt Nature Reserve (AVNR) is located in southern Salt Spring Island, B.C., near Fulford Harbour. It was donated to the Salt Spring Island Conservancy (SSIC) in 2002 stipulating that the land be managed in an environmentally sensitive and sustainable manner with limited public access. A conservation covenant, held by the Island Trust Fund Board and The Land Conservancy of British Columbia, protects natural features, vegetation and wildlife and prohibits residential development, logging and road building. The reserve is bordered by undeveloped land on the south and west and large private lots to the north and east. The AVNR supports 7 currently identified species at risk (SAR): Band-tailed Pigeon (SARA Schedule 1), Barn Swallow (COSEWIC), Common Nighthawk (SARA Schedule 1), Little Brown Myotis (SARA Schedule 1), Olive-sided Flycatcher (SARA Schedule 1), Peregrine Falcon (SARA Schedule 1), and Propertius Duskywing.

Discussion:

The AVNR contains about 12ha of shallow soil Garry Oak ecosystem that is in poor condition. There is little to no natural oak recruitment, Douglas-fir is rapidly encroaching, deer browsing is high, invasive shrubs and forbs persist and the meadows are dominated by invasive agronomic

grasses. While these problems occur in other Garry oak ecosystems in B.C., the challenges for restoration of shallow soil Garry Oak systems on the Gulf islands may differ. Deer foraging is probably much higher here, where major predators have been removed and hunting pressure is low. Architecture of the native shrub, Oceanspray, in AVNR indicates that deer density is high (>1 deer/ha) and herbivory is intense (Martin et al. 2010).

Because of fire suppression, encroachment by Douglas-fir is a problem at AVNR and at other shallow soil Garry oak sites. The clearcutting of fir in AVNR in 1986 initially opened up the meadows for oaks but later resulted in rapid recruitment of dense stands of young fir that are encroaching into meadows. Use of fire for restoration can be problematic in areas close to housing. Large-scale cutting may be socially unacceptable, alter light regimes and disturb soil, resulting in resurgence of invasive plants, and create a problem of removing the fir biomass (a fire hazard), particularly in areas with poor access. Polster (2010) proposed to mimic the effects of fire in Mt. Tzuhalem Ecological Reserve on Vancouver Island by girdling small to large fir and leaving the largest firs to create a density of 100 stems/ha.

Proposed Actions at AVNR:

For 2018-2020: Implement field work for restoration of Garry Oak ecosystems including the following:

1) Annually release up to 50 top prioritized Garry Oak trees that are facing the most extreme encroachment by Douglas-fir through girdling of fir trees. Monitor changes through establishment of photo point stations. Girdling Douglas-fir trees will enhance habitat for a number of Species at Risk and other wildlife such as increasing potential nesting, foraging and roosting sites for SAR such as Northern Pygmy-owl, Western Screech-owl, Townsend's Big-eared Bat, Little Brown Myotis and Olive-sided Flycatcher. It will also improve the open Garry Oak habitat that is important for ground-nesting species such as Common Nighthawk, as well as aerial insectivores including the Barn Swallow. It will improve habitat for Propertius Duskywing butterflies which require Garry oak trees for egg laying.

Considerations Regarding a Waiver for Girdling of Douglas-fir within AVNR:

The AVNR is covenanted by both The Land Conservancy of BC (TLC) and Islands Trust Fund. It is also an Ecological Gifts Program (EGP) parcel, and all three organizations would need to provide approval before moving ahead with the proposed girdling work to help restore the Garry Oak ecosystems within AVNR. All three have agreed in principle with the proposed work, and both TLC and EGP have provided written approval to move ahead with the girdling work.

The most recent approved management plan (Scott et.al. 2013) that accompanies the covenant discusses encroachment of Douglas-fir trees on Garry oaks:

Fir encroachment: Prior to the 1850s, wildfire was a natural occurrence in the Gulf Islands and along with First Nations intentional fire, was one of the major ecosystem modifiers of native vegetation. Today all naturally occurring and uncontrolled human fires are extinguished as soon as detected. This is a provincial policy which is outside of SSIC's control, impedes our ability to maintain the land in the "natural state" described in the

covenant and has resulted in a marked change in native vegetation from a forest with open meadows and fields composed of fire-adapted plants to a closed canopy forest dominated by Douglas-fir. The encroaching Douglas-fir shades out and competes with Garry Oaks and other open meadow plant species for scarce nutrients and moisture, and will eventually eliminate the oaks and meadow plants from the site if not controlled.

Waiving the restriction of the removal of native vegetation would be allowing for Garry oak ecosystem restoration and management on site.

The management plan also notes:

1. Fulfilling the Donors' Intent.

When the property was deeded to the Conservancy by Cordula Vogt and Oda E. Nowrath, they requested that the land be managed in an environmentally sensitive and sustainable manner with limited, controlled public access. The Conservancy meets the intent of the donors by limiting public access to the designated trail system and by minimizing adverse human impacts through careful consideration and planning of education and restoration projects.

2. Complying with the intent of the Conservation Covenant.

On April 26, 2006 the Conservancy granted a perpetual conservation covenant to the Islands Trust Fund Board and The Land Conservancy of British Columbia (TLC). The intent of the conservation covenant is outlined in Section 3 of the agreement, copied below.

3.1 The parties each agree that the intent of this Agreement is:

- (a) to prevent any subdivision of the Land by any means; and*
- (b) to protect, preserve and conserve the Land and the Amenities in a Natural State and in accordance with the intentions of the Andreas Vogt family;*
- (c) to restore the Land and Amenities as required to maintain the Land and the Amenities in a Natural State; and*
- (d) to prevent any occupation or use of the Land that will impair or interfere with the Natural State of the Land or the Amenities;*
- (e) to insure that the property is not used under any circumstances as collateral to obtain a lien or mortgage;*

The Conservancy fulfills the intent of the conservation covenant by maintaining the land in a single, undivided parcel. The Conservancy has conducted inventories and surveys of the land and its amenities and has taken measures to protect and conserve the important natural values of the site. The Conservancy has carefully conducted accepted restoration practices on the AVNR to maintain as far as possible the natural amenities of the site. Along

with these actions the Conservancy carefully considers any use proposed for the AVNR to make sure that any action taken on the AVNR will not impair or interfere with the natural state of the land. Finally, the Conservancy has not and does not intend to use the property as collateral for any loan or financing scheme.

3. Maintaining open Garry oak meadows, allowing some recruitment of young oaks and restoring native plant communities where possible

According to the 2002 Ecological Assessment of the AVNR conducted by Barstead;

The most significant attributes of this property are the presence of Garry oak and its related communities. The Garry oak/arbutus and Garry oak/oceanspray, which are provincially “red-listed” ecosystem communities as designated by the Conservation Data Centre, are both found on this property.

Restoration of Garry oak communities at AVNR to conditions present prior to arrival of Europeans will likely be impossible because of fire prevention and the increase in herbivory by black-tailed deer and now by rabbits. Thus, our goal is to try and maintain and possibly enlarge the Garry oak meadows to the size prior to logging, to allow some recruitment of young Garry oak trees, to remove invasive plants, to remove some of the browsing pressure by excluding deer and rabbits from some meadows and, within the exclosures, to attempt to restore some of the native wildflowers and grasses. Quantitative targets for these actions will need to be determined using research and management actions will be evaluated against social and economic factors.

The Conservancy has already undertaken several restoration initiatives in AVNR in order to maintain the Garry oak habitat, including:

- removing invasive plants throughout the reserve, primarily Scotch broom (and holly);
- surveying and mapping the encroachment of Douglas-fir trees into existing meadows;
- installing Western Bluebird and Western Screech-owl nest boxes and conducting annual monitoring;
- installing Sharp-tailed Snake boards and annually monitoring them;
- building a deer exclosure (Feb. 2012) to prevent overbrowsing;
- planting native wildflowers and forbs into the existing exclosure to increase diversity and pollinator habitat;
- Caging of over 50 Garry Oak seedlings to encourage recruitment and protect from browse.

The Salt Spring Island Conservancy, based on the above information, believes that the intent of the covenant and the donor’s wishes would not be contravened by girdling of prioritized Douglas-fir trees that are encroaching on the imperiled Garry Oak ecosystems within AVNR. The management plan for the site identifies the need to reduce Douglas-fir encroachment on Garry oaks. An updated management plan is in progress and is consistent with the previous documents regarding the issues discussed above. Waiving the covenant restriction of the

removal of native vegetation would allow for this aspect of the management plan to be carried out.

References:

Barstead, D. 2002. Ecological assessment for the 71.89-acre Sarah Way ecogift property. Unpublished report prepared for Salt Spring Island Conservancy. Sept 2002.

Eastman, D. 2011. Introduction. *In* Garry Oak Ecosystems Recovery Team Restoration Compendium. Edited by Garry Oak Ecosystems Recovery Team (GOERT), Victoria, Canada. Pp. 1-3-1-9.

Lea, T. 2011. Restoration Ecosystem Units and their Associated Plant Associations. *In* Garry Oak Ecosystems Recovery Team Restoration Compendium. Edited by Garry Oak Ecosystems Recovery Team (GOERT), Victoria, Canada. Pp. 2-3-2-23.

Martin, T.G., Arcese, P., and Nanda S. 2010. Browsing down our natural heritage: Deer impacts on vegetation structure and songbird populations across an island archipelago. *Biol. Cons.* 144: 459-469. doi:10.1016/j.biocon.2010.09.033.

Polster, D.F. 2010. Management of Forest Encroachment Mt. Tzuhalem Ecological Reserve. Unpublished report prepared for the BC Ministry of Environment, Parks and Protected Areas Mid-Vancouver Island Region. March 15, 2010.

Scott, G., Milburn, M., Hannon, S., Weeden, B. and Bendick, M. 2013. Andreas Vogt Nature Reserve Approved Management Plan, Salt Spring Island Conservancy. June 2013.



BRIEFING

To: Islands Trust Conservancy **For the Meeting of:** July 17, 2018
From: Jennifer Eliason **Date Prepared:** July 9, 2018
SUBJECT: Providing a Briefing to LTCs/BIM on the Regional Conservation Plan

PURPOSE: To review a draft briefing for LTCs/BIM and provide comment/revisions and further direction to staff on next steps.

BACKGROUND:

At its April 2018 meeting, the Trust Fund Board (now Islands Trust Conservancy) passed the following resolution:

That the Trust Fund Board direct staff to provide a briefing to all local trust committees and Bowen Island Municipality requesting that consideration be given to incorporating elements of the 2018-2027 Regional Conservation Plan (including associated data and mapping) into Official Community Plans.

Staff have worked with planning staff to develop the attached draft briefing, providing a table of options for LTCs/BIM to consider to address Goal 1 of the Policy Statement by utilizing and integrating the goals, data and mapping of the Regional Conservation Plan. Given that the current term ends this fall, the board may want to consider holding this briefing and directing staff to provide it to LTCs and BIM at an early meeting in the new term.

ATTACHMENT(S):

1. Briefing – Incorporating the Regional Conservation Plan into Land Use Planning

FOLLOW-UP: Staff will provide the briefing to LTCs and BIM either now, or early in the new term, as directed by the board.

Prepared By: Jennifer Eliason, Islands Trust Conservancy Manager

Reviewed By/Date: Clare Frater, Director, Trust Area Services/July 10, 2018



BRIEFING

To: Local Trust Committees and Bowen Island Municipality **For the Meeting of:** Select Date

From: Islands Trust Conservancy **Date Prepared:** July 17, 2018

SUBJECT: Incorporating the Regional Conservation Plan into Land Use Planning

PURPOSE: The Islands Trust Conservancy is providing all local trust committees and Bowen Island Municipality with a briefing to provide information on the ways the Islands Trust Conservancy's 2018-2027 Regional Conservation Plan and associated mapping and data can be incorporated into Official Community Plans, Land Use Bylaws and local planning initiatives and projects.

BACKGROUND:

In March, Trust Council endorsed the Islands Trust Fund's Regional Conservation Plan. At its April 2018 meeting, the Trust Fund Board (now Islands Trust Conservancy) passed the following resolution:

That the Trust Fund Board direct staff to provide a briefing to all local trust committees and Bowen Island Municipality requesting that consideration be given to incorporating elements of the 2018-2027 Regional Conservation Plan (including associated data and mapping) into Official Community Plans.

The Regional Conservation Plan contains significant information about regional conservation priorities that could be considered when making land use planning decisions. This information is informed by conservation area modelling, which uses multiple data sets regarding biodiversity priorities and threats to ecosystems. The information is available by local trust area/island municipality.

Why do we have a Regional Conservation Plan?

The rich diversity of life in the Islands Trust Area makes the region ecologically significant, not only locally, but globally. Most of the region is within the Coastal Douglas-fir zone, one of the rarest of British Columbia's 16 biogeoclimatic zones. The Douglas-fir ecosystems of this zone, including Garry oak and associated ecosystems, are globally rare – in the entire world they occur only on the east coast of southern Vancouver Island, the islands of the Georgia Basin, and a small area of the mainland. The Islands Trust Area is also home to several other sensitive and rare ecosystems and hundreds of rare terrestrial and marine plants and animals.

Despite its ecological significance, biodiversity in the Islands Trust Area is exposed to significant threats. With over 68% of the Islands Trust Area in private land ownership and over 3.3 million people living in the surrounding areas, the pressures to develop and change the natural landscape in the islands are substantial.

Because of the significance of the ecosystems found in the Islands Trust Area and the threats they are under, conservation planning is an important tool to ensure that the natural beauty that draws so many to the region is not lost. Since 2005, the work of the Islands Trust Conservancy has been guided by regional conservation plans. These plans have also, in some cases, supported the planning work of the Islands Trust.

What's in the Regional Conservation Plan?

The Regional Conservation Plan provides background on the ecosystems in the Islands Trust Area, evaluates their current status, identifies priorities and threats, and sets goals and objectives for the Islands Trust Conservancy for the next ten years. The goals identified in the 2018-2027 Regional Conservation Plan are:

1. Identify, investigate and communicate about important natural areas to generate action on conservation priorities
2. Strengthen relationships with First Nations to identify and collaborate on shared conservation goals
3. Continue to secure and manage Islands Trust Conservancy lands and conservation covenants to maximize ecological integrity
4. Continue to build internal and shared organizational strength and resilience to ensure long-term nature conservation in the Islands Trust Area

There are island profiles in Appendix II of the RCP with information specific to each local trust committee area and Bowen Island.

How can the Regional Conservation Plan support land use planning?

The Regional Conservation Plan can help trustees and planners identify opportunities and inform priorities for land use planning activities across the Islands Trust. During the 2018-2022 local government term, each Islands Trust LTC/IM will identify top priorities for land use planning activities and should ensure that existing Official Community Plans and Land Use Bylaws meet the goals of the Islands Trust Policy Statement and support the goals of the Regional Conservation Plan.

LTCs and BIM can use the following table to identify land use planning projects to initiate during the 2018-2022 term to advance the Islands Trust Policy Statement Goal: *to Foster preservation and protection of the Trust Area's ecosystems* and the directive policies:

Directive Policy	Available resources (Regional Conservation Plan, mapping, etc.):	What can LTCs/IM do with this information?
3.1 Ecosystems		
3.1.3 LTCs/IMs shall, in their OCPs and regulatory bylaws <i>address the identification and protection of the environmentally sensitive areas and significant natural sites, features and landforms in their planning area.</i>	The Regional Conservation Plan highlights the following as biodiversity priorities for the region: • Sensitive ecosystems • Healthy forests • Species and ecosystems at risk • Marine shorelines and nearshore areas • Islets and small islands • Size, corridors and connectivity to other protected areas	Development of maps; Official Community Plan (OCP) policy language and Land Use Bylaw (LUB) regulations that: • Identify and protect environmentally sensitive areas • Identify and protect significant natural sites/features/landforms • Support the development of protected area networks (or “greenways”) • Identify contiguous forest cover
3.1.4 LTCs/IMs shall, in their OCPs and regulatory bylaws <i>address the planning, establishment, and maintenance of a network of protected areas that preserve the representative ecosystems of their planning area and maintain their ecological integrity.</i>	Available information and data/mapping to support these directive policies: • updated Sensitive Ecosystem Mapping	Designate Development Permit Areas (DPAs) to protect environmentally sensitive areas and significant natural features

	- Species at Risk/Critical Habitat Mapping - Ecosystem Disturbance Mapping - Priority Lands for Conservation (regional scale)	Prioritize bylaw investigation and enforcement on matters negatively impacting ecosystem health
3.2 Forest Ecosystems		
3.2.2 LTCs/IMs shall, in their OCPs and regulatory bylaws: <i>address the protection of unfragmented forest ecosystems within their local planning areas from potentially adverse impacts of growth, development and land-use.</i>	Available information and data/mapping to support this directive policy: - Mapping of Forested Ecosystems, including forest type and age - Regional Conservation Plan: Biodiversity Priorities; Forest Ecosystem descriptions and statistics - RCP Island Profiles: Sensitive Ecosystems, Forest Ecosystems and Ecosystem Disturbance for each LTA/BIM	Designate DPAs to protect unfragmented forest ecosystems Reduce site coverage density in land use bylaws Negotiate covenants to protect contiguous forest as conditions of rezoning Integrate conservation subdivision principles into land use bylaw requirements for subdivision (lot clustering, density transfer, conservation planning) Prioritize bylaw investigation and enforcement on matters negatively impacting forest ecosystems Adopt Tree Protection Bylaws (for municipalities)
3.3 Freshwater and Wetland Ecosystems and Riparian Zones		
3.3.2 LTCs/IMs shall, in their OCPs and regulatory bylaws: <i>address means to prevent further loss or degradation of freshwater bodies or watercourses, wetlands and riparian zones and to protect aquatic wildlife.</i>	Available information and data/mapping to support this directive policy: - Mapping of Sensitive Ecosystems, including wetlands, freshwater and riparian - RCP: Island Profiles - Sensitive Ecosystems - Watershed mapping - Water courses mapping (TRIM) - Riparian Areas Regulation data/mapping in select areas	Designate DPA's to protect sensitive freshwater, wetland and riparian areas Implement the <i>Riparian Areas Regulation (RAR)</i> including protection of non RAR watercourses Develop LUB setbacks from water bodies Develop LUB landscape buffers along water bodies Implement freshwater planning tools and regulations available in the <i>Water Sustainability Act</i> Develop aquifer mapping and water budgets

		Designate DPAs for water conservation for all new construction/development Prioritize bylaw investigation and enforcement on matters negatively impacting freshwater, wetland and riparian ecosystems
3.4 Coastal and Marine Ecosystems		
3.4.4 LTCs/IMs shall, in their OCPs and regulatory bylaws: <i>address the protection of sensitive coastal areas.</i>	Available information and data/mapping to support these directive policies: • Eelgrass mapping • Forage fish habitat mapping (for some islands) • Species at Risk Critical Habitat Mapping – Southern Resident Orca • Shorezone mapping • New Sand Ecosystems Mapping • Dock mapping (point data)	Include mapping of marine ecosystems in OCPs and policies for regulation of development in sensitive coastal areas Designate DPAs to protect sensitive coastal areas and the intertidal zone Include DPA guidelines that address fragmentation of the coastline by subdivision Amend LUBs to create landscape buffers along the shoreline Increase LUB setbacks from the natural boundary of the sea based on the provincial 2100 sea level rise predictions Amend LUBs to limit development of private docks/structures in the marine zones Prioritize bylaw investigation and enforcement on matters negatively impacting coastal and marine ecosystems
3.4.5 LTCs/IMs shall, in their OCPs and regulatory bylaws: <i>address the planning for and regulation of development in coastal regions to protect natural coastal processes.</i>		

ATTACHMENT(S):

1. The 2018-2027 Regional Conservation Plan is available online [here](#).

FOLLOW-UP:

- Consider this briefing when establishing work program priorities
- Request planning advice on how to integrate conservation data and mapping resources when considering applications, projects, etc.
- Local trust committees/island municipalities wishing to create specific maps using conservation modeling (land prioritization based on multiple data sets) or ecosystem mapping should request assistance from ITC and GIS staff.

Prepared By: Jennifer Eliason, Islands Trust Conservancy Manager

Reviewed By/Date: Regional Planning Managers and Director of Local Planning Services/July 3, 2018
Clare Frater/July 9, 2018



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June 18, 2018

File No.: 0420-20

via email: MAH.minister@gov.bc.ca

The Honourable Selina Robinson
Minister of Municipal Affairs and Housing
Parliament Buildings
Victoria BC V8V 1X4

Dear Minister Robinson:

Re: Name change to Islands Trust Conservancy

Thank you for your letter of May 9, 2018, confirming that the amendments to the *Islands Trust Act* you introduced to the legislature have now passed. On behalf of the Islands Trust Council and the Islands Trust Conservancy, please accept our gratitude for prioritizing our request for this name change. We are so pleased to have your support for this long-standing request.

As you know, the name Islands Trust Conservancy much better reflects the work and mandate of this 28-year old conservation organization. With a new name, the Conservancy intends to refresh and expand its profile, attracting new support and building on partnerships to further its important conservation work in this ecologically-important region of the Province of British Columbia. We look forward to reporting the continued successes of the Islands Trust Conservancy to you.

With appreciation,

Peter Luckham
Chair, Islands Trust Council
pluckham@islandstrust.bc.ca

pc: Islands Trust Council
Islands Trust Conservancy Board
Islands Trust website



Public Acquisitions Update July 17, 2018

Property Name and Island	Date (yyyy/mm/dd)	Notes
PUBLICLY CONSIDERED PRIVATE LAND ACQUISITIONS		
Crystal Mountain (Galiano) 18.3 ha.	2017/11/21	ITF has previously considered a conservation covenant proposal and land transfer proposal for this property.
	2017/11/21	TFB-2017-031 It was MOVED and SECONDED, that the Trust Fund Board accept the updated Conservation Proposal from the Crystal Mountain Society, agreeing to accept transfer of approximately 18.3 hectares of Lot 9, District Lot 90, Galiano Island, Cowichan District, Plan 31200, (PID 000-851-035) and part of Lot A, District Lots 88 and 89, Galiano Island, Cowichan District, Plan VIP68079, (PID 024-351-041), subject to: 1. The release of the rent charge and related easements on the title of Lot A and any other charges determined, through legal review, to be problematic for the Trust Fund Board; 2. Establishing legal access for the Trust Fund Board to the most eastern part of Lot A; 3. Receipt of \$30,000 upon transfer of the land, with at least \$15,000 to be held in a pooled Nature Reserve Management Fund, and \$10,000 to \$15,000 to be put towards the development of a management plan and management activities for the nature reserve; 4. Staff reaching mutual agreement with the water license holders to limit the impact of accessing and maintaining the permitted water works; 5. Agreement with the Society that the portion of the proposed Emergency Access over the nature reserve would be used only in the case of emergency; 6. Written agreement with the Society about the use and maintenance of the pagoda; 7. Installation of boundary and corner pin markers at the time of survey at the expense of the applicant (locations to be determined in consultation with ITF staff); and 8. Final approval of the Trust Fund Board of the final survey plan, transfer agreement and all other associated agreements.
	2018/03/01	Contacted by CMS re: next steps, and confirmed importance of having preliminary survey completed, and ensuring proposed layout is registrable.
Valens Brook Nature Reserve addition (Hermanutz-Innes proposal) (Denman) 2.55 ha.	2014/09/18	It was MOVED and SECONDED, that the Trust Fund Board accept the conservation proposal submitted by Henning Nielsen on behalf of Luise Hermanutz and David Innes, to transfer approximately 2.545 hectares of Lot 17, Plan 6404, Section 6 Denman Island, Nanaimo District, PID 005-851-122 to the [ITC] to be protected as a nature reserve.
	2017/05/22	Landowners informed ITF that rezoning is complete and they wish to proceed with land donation.



Public Acquisitions Update July 17, 2018

	2017/06/07	Draft transfer agreement provided to landowners for review
	2017/07/18	It was MOVED and SECONDED that the Trust Fund Board direct a board member to sign a transfer agreement between the Trust Fund Board and the owners of Lot 17, Section 6, Denman Island, Nanaimo District, Plan 6404 PID 005-851-122 and authorize staff to move forward with the transfer of approximately 2.54 hectares of this property, using section 99 of the Land Titles Act.
	2017/09/05	Landowner working with surveyor, notary and credit union to prepare land for transfer.
	2017/09/27	Landowner submitted application to Ecological Gifts program (EGP).
	2018/02/26	Updates from appraiser submitted to EGP appraisal review panel(ARP) in response to queries.
	2018/03/14	EGP ARP was not satisfied with the response to the memo and requires additional information. Staff are working with EGP staff and the landholders to determine next steps.
	2018/05/01	ITC contracted new appraisal with new firm; working with appraiser and EGP to resolve issues.
	2018/06/18	New appraisal submitted to EGP for review.
Sandy Beach (Area E) (Keats) 3.3 ha.	2014/09/18	It was MOVED and SECONDED, that the Trust Fund Board approve the conservation proposal submitted by the Convention of Baptist Churches of British Columbia to transfer Area E (Sandy Beach), approximately 3.3 hectares of DL 696, Group 1 NWD, Keats Island (PID: 014-385-694) to the Trust Fund Board for protection as a nature reserve.
	2015/03/02	Consultant has indicated that the landowners would like a covenant registered on the land at the time of transfer. ITC has approached Gambier Island Conservancy (GIC) and Sunshine Coast Conservation Association (SCCA). GIC has declined, but SCCA is potentially interested. Landowner currently seeking confirmation from Islands Trust and SCRD that transfer will count as park allocation for future subdivision approval; MOTI has confirmed.
	2015/05/07	SCCA agrees to hold covenant; suggests TLC as a co-holder as they have worked together before.
	2015/08/18	Draft conservation covenant provided to ITC staff for review.
	2015/08/26	Edits to covenant provided to applicant and covenant holders for review.
	2015/12/15	Comments on covenant draft received from TLC.
	2015/01/12	Covenant revised with TLC edits and returned to TLC and SCCA for comment. TLC is happy with the draft. SCCA has sent the covenant for legal review, still awaiting SCCA comments.
	2016/02/10	SCCA comments received.
	2016/03/04	ITF responded to SCCA edits. SCCA reviewing with lawyer.
	2016/04/11	Requested that landowner contract development of baseline report for covenant. Transfer not likely to occur until spring 2017.



Public Acquisitions Update July 17, 2018

	2016/06/05	SCCA comments received for covenant.
	2016/10/05	Draft 3 covenant sent to covenant holders for review. TLC and SCCA have agreed to the draft. Awaiting update from applicant on baseline and timeline for transfer from applicant.
	2016/02/10	Draft Bylaws for DL 696 received.
	2017/03/02	Covenant sent for legal review.
	2017/04/13	Revised covenant draft sent to TLC and SCCA. Comments received from both agencies.
	2017/08/31	Edits made to covenant and reviewed by legal. Draft 5 sent to TLC and SCCA for review. TLC has no further comment; awaiting SCCA comment. Both TLC and SCCA have requested a site visit.
	2017/09/07	Draft baseline report received from the applicant.
	2017/10/24	Feedback on baseline report submitted to applicant and revisions requested.
	2018/03/13	Email from Island Planner indicates that the rezoning application will move to a community information meeting and public hearing for bylaw 143 on April 18, 2018. The Island Planner has requested that the applicant contact ITC staff regarding requirements for land transfer and covenant prior to April 18.
	2018/04/24	Notice received from GM Planner that GM LTC gave third reading to Proposed Bylaw No. 143 and that applicant is now finalizing plans to subdivide/transfer the Sandy Beach Nature Reserve. Staff have reminded the applicant that we require edits to the Baseline report (covenant) prior to proceeding.
	2018/05/28	Site visit with ITC staff, trustees & SCCA
	2018/06/14	Staff requested applicant provide legal access to Sandy Beach through private land from the proposed Sandy Beach Nature Reserve (to utilize existing trail).
Current Total ITC Acquisitions:		28



ISLANDS TRUST CONSERVANCY

PUBLIC COVENANTS UPDATE July 17, 2018

Property Name and Island	Date (yyyy/mm/dd)	Notes
NAPTEP COVENANTS		
<i>24 NAPTEP Covenants on title, 1 current application.</i>		
Swift Family Link Island NAPTEP Covenant Link Island ECOGIFT (Gabriola LTA) (19.3 ha)	2016/04/05	TFB-2016-011 It was MOVED and SECONDED that the Trust Fund Board approve Elizabeth Working Swift's proposal to covenant approximately 20 ha of the land described as "Section 25, Nanaimo District (Part of DeCourcy Group of Islands), Parcel Identifier 009-772-138" through the Natural Area Protection Tax Exemption Program (NAPTEP).
	2016/04/07	Request sent to the Nanaimo & Area Land Trust inquiring about their willingness to co-hold covenant.
	2016/04/15	ITF decision letter sent to landowner.
	2016/05/26	NAPTEP Briefing received by Gabriola LTC.
	2016/05/27	Site visit with landowner and co-covenant holder.
	2016/06/16	Trust Council approves NAPTEP application.
	2016/07/13	Draft Covenant and Phase 2 letter sent to applicant for review.
	2016/12/12	Revised covenant draft sent to the applicant for review.
	2017/01/06	Survey completed, residential area will be 2.15 ha. The family intend to apply to the Ecological Gifts Program.
	2017/01/25	NALT agrees to co-hold NAPTEP covenant with the ITF.
	2017/05/16	Legal review of covenant received.
	2017/06/21	Draft baseline report received and reviewed by ITF staff.
	2017/07/13	Revised covenant sent to landowner and NALT for review.
	2018/01/12	Landowner working with Ecological Gifts program coordinator to complete appraisal of covenant by end of March 2018.
	2018/02/28	NALT board agrees to covenant language in Link Island NAPTEP covenant draft
	2018/03/13	EcoGift Appraisal received. Landowner has 6 mos. to complete covenant donation under EcoGift Program.
	2018/03/14	Final ITF legal review completed. Awaiting final legal review from applicant.
	2018/04/19	Landowner has requested an extension to the NAPTEP Application (which expires in June) from Trust Council. Applicant hopes to register covenant in September 2018.
	2018/06/21	Trust Council approved extension of NAPTEP application.
REGULAR COVENANTS UPDATE		
<i>(51 regular covenants on title, 1 regular public covenants in progress, 3 in-camera covenants in progress.)</i>		



PUBLIC COVENANTS UPDATE July 17, 2018

Property Name and Island	Date (yyyy/mm/dd)	Notes
Brooks Point Covenant South Pender Island (1.17 ha, 6.02 ha if combined with surrounding covenants)	2014/03/23	It was MOVED and SECONDED, that the Trust Fund Board agrees to hold a covenant on the 2010 addition to Brooks Point Regional Park, South Pender Island, subject to agreement on the terms of the covenant and a satisfactory baseline report, and directs staff to continue working with CRD Parks and partners to determine the best way to covenant the three protected areas at Gowlland and Brooks Points.
	2014/04/08	Staff provide CRD staff with a template covenant for review.
	2014/04/15	Staff met with partners to discuss combining covenants for the Brooks Point and Gowlland Point properties.
	2014/05/22	Covenant Draft 1 sent to PICA, Friends of Brooks Point, HAT and CRD.
	2014/08/01	CRD response to Covenant Draft 1 received.
	2014/08/19	ITC/HAT/PICA express concerns to CRD with respect to Management Plan approval and other selected clauses.
	2014/08/20	Baseline Report completed.
	2014/08/22	CRD respond to ITC/HAT/PICA concerns.
	2014/09/17	ITF/HAT/PICA response re draft covenant sent to CRD.
	2014/10/08	Kate Emmings appointed to the Brooks Point Management Plan advisory group by the CRD.
	2014/10/16	ITF staff attended CRD Parks Open House for public review of the Brooks Point Management Plan update.
	2014/12/03	CRD submit revised covenant draft to ITC and HAT.
	2014/12/10	CRD Board approves revised Management Plan.
	2014/12/12	Covenant sent to legal counsel for review.
	2014/12/18	Covenant revisions and comments sent to CRD.
	2015/07/29	Met with the CRD to discuss the covenant. There are several unresolved clauses.
	2015/08/28	Met with PICA and HAT. Agreed that we were at an impasse and required more direction from PICA.
	2015/09/02	CRD returned a covenant draft for review, staff are concerned with several clauses, including the strength of restrictions and the enforcement mechanisms.
	2015/09/09	Staff provided a briefing to PICA requesting info about the type of covenant contemplated. Staff updated the CRD that a response to the covenant draft would be post-poned until further information is available from PICA.
	2015/09/24	Staff met with HAT, Friends of Brooks Point (Paul Petrie) and the CRD to discuss covenant concerns. CRD staff agreed to revise covenant and circulate.
	2015/10/28	Staff met with HAT and CRD staff to review revised covenant draft and CRD will do further revision and circulate.
	2015/12/18	CRD Staff provided revised covenant.



PUBLIC COVENANTS UPDATE

July 17, 2018

Property Name and Island	Date (yyyy/mm/dd)	Notes
	2016/01/25	ITF/HAT responded to CRD revisions.
	2016/07/15	CRD Staff provide a revised version of the covenant for further review.
	2016/08/16	HAT/ITF/CRD staff meet to discuss CRD edits. HAT/ITC agree to add definition regarding the permitted activities and will forward legal edits. CRD to re-approach NCC and TLC regarding process for discharge of prior covenants.
	2016/11/28	ITF/HAT forwarded the draft list of restricted and permitted uses for CRD review.
	2016/01/11	CRD response received, ITF/HAT to forward revised covenant draft for CRD review. Conversations ongoing regarding details.
	2017/09/07	Brooks Point covenant revised and reviewed by ITF legal and HAT.
	2017/09/21	Revised Brooks Point covenant sent to CRD Parks for review
	2018/06/14	Revised covenant received from the CRD, currently under review.
ITC NATURE RESERVES WITH COVENANTS OUTSTANDING		
<i>(22 Nature Reserves have covenants, 6 Nature Reserves are without covenants, 2 ITC Nature Reserve covenants in progress (1 is under negotiation)).</i>		
Sandy Beach Nature Reserve (Proposed) Keats Island (3.3 ha.)	2017/01/10	ITC staff are currently negotiating a conservation covenant concurrently with the Sandy Beach Conservation Proposal (see Public Acquisitions Updates).
Fairyslipper Forest Nature Reserve Thetis Island (16.6 ha)	2018/03/20	ThINC Board approves resolution to hold a covenant on Fairyslipper Forest.
	2018/03/21	CCLT Board approves resolution to hold a covenant on Fairyslipper Forest.
	2018/04/03	TFB approves negotiation of conservation covenant in favour of ThINC and CCLT.
	2018/04/06	First draft of ITFtemplate covenant sent to partners. Relocation of trail necessary before finalizing the baseline report and management plan.
Total	75 covenants registered	

Regional Conservation Plan (2018-2027) Progress Highlights for ITC Board - May 30 to July 17, 2018	
Goal 1. Identify, investigate and communicate about important natural areas to generate action on conservation priorities	
Completed (since January)	
Completed 2018 update of protected areas in the BC NGO Conservation Areas Database Met with landholders on Keats Island, Keats Conservation Group and Sunshine Coast Conservation Association (May 28, 2018) Reviewed WWF Forage Fish Modelling as an information source for Forage Fish Mapping Issued E-News with information about updated RCP Issued Heron newsletter with information about updated RCP and Salish View campaign	
Current	
Working with DFO to provide marine data for Coastal Resource Information Management System (Data sharing agreement in review with DFO) Working on RFP for continued Forage Fish Mapping Working with GaLTT and GB Planner to deliver a public presentation on GB Island ecosystems and conservation priorities Working with GIS Staff to update Species at Risk data in internal mapping system (TAPIS) Working with GIS Staff to update ecosystems mapping in internal mapping system (TAPIS) and on MapIT Issued E-News with information on the name change, Salish View campaign and board position	
Upcoming	
Staff to update Species at Risk Critical Habitat data upon finalization of Western Painted Turtle Recovery Plan Issue Forage Fish Mapping Contract Deliver GB public presentation re GB Island ecosystems and conservation priorities	
Goal 2. Strengthen relationships with First Nations to identify and collaborate on shared conservation goals	
Completed (since January)	
Revised Baseline Report and Management Plan Templates to better reference First Nation history, cultural significance and ecological knowledge Letter sent to newly elected Penelakut Tribe council requesting collaboration on naming and management planning for Moore Hill (Thetis) Letters sent to First Nations with information about the new RCP and available ITF resources. ITF offered to meet with First Nations at their request Language developed for covenants that further protect existing and potential archaeological sites	
Current	
Drafting a Conservation Proposal Assessment Procedure that contemplates archaeological sites and other First Nation interests Reviewing and updating language in ITC communications materials, incl. website, to better reference First Nation history, cultural significance and ecological knowledge	

Upcoming
Subject to response to letters about RCP, ITF staff will arrange meetings with First Nations Coordinate meeting with Halalt First Nation and Lyackson First Nation as follow up to RCP workshops Contract archaeological field reconnaissance for Moore Hill, establish contacts with Penelakut Tribe Produce a special 2-page newsletter with a story on the importance of language
Goal 3. Continue to secure and manage Trust Fund Board lands and conservation covenants to maximize ecological integrity
Completed (since January)
Awarded contract to revise management plans on the 3 nature reserves on Gambier Completed restoration event with tree planting and caging on Brigade Bay Bluffs and Long Bay Nature Reserves (Gambier). Completed Morrison Marsh (Denman) management plan; waiting for edits from conservation partners to finalize Approved Medicine Beach (North Pender) management plan Completed application to covenant land in the ALR Completed appraisal of Valens Brook land donation Sent NAPTEP mailout to high priority landowners and followed up with interested individuals Completed site visit with project partners to proposed Sandy Beach Nature Reserve (Keats Island) Evaluated conservation proposal for Dragonfly Commons (SSI) Notified Saturna Island Wetland Project of TFB's April 2019 grant award Updated Baseline Report and Management Plan Templates following review of other available templates
Current
Working to finalize Link Island NAPTEP Covenant and land transfers for Valens Brook Nature Reserve (addition) and Sandy Beach Nature Reserve Supporting campaign for Salish View (ongoing) Negotiating subdivision and transfer of Salish View (ongoing) Negotiating 2 conservation covenants on priority conservation lands (ongoing) Negotiating discharge of BIM covenants on Singing Woods Nature Reserve Negotiating covenant on Fairyslipper Forest Nature Reserve with ThINC and CCLT Determining next steps for working with the ALC/providing feedback to the ALC regarding covenants on ALR land Monitoring of all ITC properties and covenants underway
Upcoming
Researching an information storage tool (database) to manage property information Begin covenant negotiations for Salish View Covenant (to be completed in December 2018)
Goal 4. Continue to build internal and shared organizational strength and resilience to ensure long-term nature conservation in the Islands Trust Area

Completed (since Janaury)
Mailed out appeal letters for Salish View campaign to ~100 previous donors Assisted with LINC's funding proposal to Sitka Foundation for Salish View Provided letter of support for biologists seeking federal funding for further Species at Risk work on Lasqueti Island Provided letter for support Salt Spring Island Conservancy's application to federal Habitat Stewardship Program ITF cover story published in AQUA magazine Upgrading signage on all 3 Denman Island nature reserves with new logo and property signs Social media posts and information sharing on ITF Facebook and Twitter accounts (ongoing) Worked with the Coastal Douglas-fir and Associated Ecosystems Conservation Partnership (CDFCP) to develop resources for land use planners working in the CDF
Current
Working with LPS staff to create resources for Islands Trust planners and LTCs to assist them to protect island ecosystems in the CDFCP region Working with LPS staff to revise Sensitive Ecosystems Fact Sheets Working with IS department to improve technology use in the field Continuing to work with CDFCP to advance conservation of the CDF and associated ecosystems Drafting updated discussion paper on long term funding options Redesigning ITC covenant signs Working with designer and web provider to update ITC website with name change and refresh Working with ITC and IT staff to update all ITC communications materials with name change info Developing 2-page RCP profiles for each LTA (with infographics)
Upcoming
Develop business case to explore additional ITC staff Research client management database options Launch newly branded ITC website and social media sites Issue news release on name change and launch social media contest

Islands Trust Fund Budget Tracking 2018-2019

GL	Description	Budget	Revenue	Total		Remaining	% Remaining	Additional Committed Funds
				Available	Spent			
54500-210	Communications	\$ 13,000		\$ 13,000	\$ 1,866	\$ 11,134	86%	\$ 2,075
56000-210	Contingency	\$ 2,500		\$ 2,500	\$ -	\$ 2,500	100%	
61100-210	Board Honoraria	\$ 8,000		\$ 8,000	\$ 850	\$ 7,150	89%	
61200-210	Board Meeting Expense	\$ 10,000		\$ 10,000	\$ 2,467	\$ 7,533	75%	
61210-210	Board Training & Conferences	\$ 2,000		\$ 2,000	\$ -	\$ 2,000	100%	
61300-210	Property Management	\$ 65,000		\$ 65,000	\$ 18,841	\$ 46,159	71%	\$ 26,911
73001-210-8027	Property Management Plans	\$ 30,000		\$ 30,000	\$ -	\$ 30,000	100%	\$ 16,811
61500-210	Cons Planning / Land Securement	\$ 18,000		\$ 18,000	\$ 4,208	\$ 13,792	77%	\$ 1,800
63000-210	Legal	\$ 15,000		\$ 15,000	\$ 614	\$ 14,386	96%	\$ 1,600
61600-210	Ecosystem Mapping	\$ 15,000		\$ 15,000	\$ -	\$ 15,000	100%	\$ -
80300-210	Mobile Devices	\$ 1,800		\$ 1,800	\$ 483	\$ 1,317	73%	
81300-210	Training & Conferences	\$ 7,000		\$ 7,000	\$ 254	\$ 6,746	96%	
81305-210	Travel for Training	\$ 2,500		\$ 2,500	\$ 243	\$ 2,257	90%	
82300-210	Travel	\$ 4,000		\$ 4,000	\$ 935	\$ 3,065	77%	
		\$ 193,800	\$ -	\$ 193,800	\$ 30,760	\$ 163,040	84%	\$49,197
Restricted Funds		Opening Balance						
	Alton Maintenance Account	\$ 66,677	\$ 5,995	\$ 72,672	\$ -	\$ 72,672		\$ 425
	Ruby Alton Endowment Fund	\$ 136,404		\$ 136,404		\$ 136,404		
	Opportunity Fund	\$ 29,214	\$ 545	\$ 29,759	\$ 34	\$ 29,725		\$ -
	Covenant Mgmt and Defence Fund	\$ 107,976	\$ 15	\$ 107,991	\$ -	\$ 107,991		
	Lasqueti Island Acq Fund	\$ 34,114	\$ 3,454	\$ 37,568	\$ 58	\$ 37,510		
	Gambier Island Acq Fund	\$ 116,638		\$ 116,638		\$ 116,638		
	Morrison Waxler Legacy Fund	\$ 20,070	\$ 11	\$ 20,081	\$ -	\$ 20,081		
	Thetis Island Acq Fund	\$ 1,285	\$ 0	\$ 1,286	\$ -	\$ 1,286		
	McFadden Creek	\$ 23,439	\$13.66	\$ 23,453	\$ -	\$ 23,453		