



A NOTICE OF A BUSINESS MEETING OF **THE THETIS ISLAND LOCAL TRUST COMMITTEE**
to be held at 9:15 am on Wednesday, February 5, 2014 at Thetis Island Community Centre
(Forbes Hall Library) North Cove Road, Thetis Island, BC

AGENDA

		Page No.	*Approx. Time*
1.	CALL TO ORDER		9:15 am
2.	APPROVAL OF AGENDA		
3.	TOWN HALL SESSION (10 MINUTES)		
4.	MINUTES		
4.1	Local Trust Committee Meeting Minutes of November 20, 2013 - <i>for adoption - attached</i>	1	9:30 am
4.2	Section 26 Resolutions Without Meeting Log dated January 27, 2014 - <i>attached</i>	10	
4.3	Advisory Planning Commission Meeting Minutes - <i>none</i>		
4.4	Ruxton Island Advisory Planning Commission Draft Meeting Minutes dated December 13, 2013 – <i>attached</i>	11	
5.	BUSINESS ARISING FROM MINUTES		9:40 am
5.1	Follow-up Action List dated January 27, 2014- <i>attached</i>	17	
5.2	Eelgrass Mapping for Valdes Island and Cufra Inlet		
	5.2.1 Islands Trust Fund Briefing – Memorandum dated January 22, 2014 - <i>attached</i>	19	
	5.2.2 Final Report – Nearshore Eelgrass Inventory 2012-2013 - <i>attached</i>	22	
	5.2.3 Valdes Island and Cufra Inlet eelgrass mapping – Maps - <i>attached</i>	80	
5.3	Application for Community to Community (C2C) Funding (Union of BC Municipalities (UBCM) Program) – <i>for discussion</i>		
6.	DELEGATIONS – <i>none declared</i>		
7.	CORRESPONDENCE - <i>none</i> <i>Correspondence specific to an active development application and/or project will be received by the Thetis Island Local Trust Committee when that application and/or project is on the agenda for consideration.</i>		
8.	APPLICATIONS AND PERMITS - <i>none</i>		
9.	LOCAL TRUST COMMITTEE PROJECTS		10:30 am
9.1	Shoreline Protection		
	9.1.1 Staff Report dated January 13, 2014 regarding Project Charter and Green Shores Scenarios Workshop- <i>attached</i>	82	

9.2	Associated Islands Land Use Bylaw		
9.2.1	Staff Report dated January 23, 2014 - <i>attached</i>	105	
	BREAK		12:00 pm
10.	REPORTS		12:30 pm
10.1	Work Program Reports		
10.1.1	Top Priorities and Projects Report dated January 27, 2014- <i>attached</i>	159	
10.2	Applications Log		
10.2.1	Report dated January 27, 2014 - <i>attached</i>	162	
10.3	Trustee and Local Expenses		
10.3.1	Expenses posted to November, 2013 - <i>attached</i>	163	
10.3.2	Expenses posted to December, 2013 - <i>attached</i>	164	
10.3.3	Expenses posted to January , 2014 - <i>attached</i>	165	
10.4	Chair's Report		
10.5	Trustees' Report		
10.6	Advisory Planning Commission Report - <i>none</i>		
11.	NEW BUSINESS		1:00 pm
11.1	Salt Spring Island Trust Area Bylaw Referral Request for Response regarding Bylaw No. 472 - <i>attached</i>	166	
11.2	Salt Spring Island Trust Area Bylaw Referral Request for Response regarding Bylaw No. 474 - <i>attached</i>	168	
11.3	Salt Spring Island Trust Area Bylaw Referral Request for Response regarding Bylaw No. 475 - <i>attached</i>	170	
11.4	Galiano Island Trust Area Bylaw Referral Request for Response regarding Bylaw No. 244 (OCP) and 245 (LUB) - <i>attached</i>	172	
11.5	Model Housing Resolution from Federation of Canadian Municipalities (FCM) – <i>attached for discussion</i>	193	
12.	BYLAWS - <i>none</i>		
13.	ISLANDS TRUST WEBSITE		
13.1	Thetis Pages – <i>for discussion</i>		
14.	TOWN HALL DISCUSSION (10 MINUTES – TIME PERMITTING)		
15.	NEXT MEETING DATE		
	Wednesday, March 19, 2014 at 9:15 am at Thetis Island Community Centre (Forbes Hall Library) North Cove Road, Thetis Island, BC		
16.	ADJOURNMENT		1:45 pm

*Approximate time is provided for the convenience of the public only and is subject to change without notice.



Thetis Island Local Trust Committee Minutes of a Regular Meeting

Date of Meeting: Wednesday, November 20, 2013 – 9:15 am
Location: Thetis Island Community Centre, Forbes Hall Hunter Room
 292 North Cove Road, Thetis Island, BC

Members Present: Ken Hancock, Chair
 Peter Luckham, Local Trustee
 Sue French, Local Trustee

Staff Present: Aleksandra Brzozowski, Island Planner
 Jason Youmans, Planner 1
 Janice Young, Recorder

Media and Others Present: There were six (6) members of the public in attendance

1. CALL TO ORDER

Chair Hancock called the meeting to order at 9:32 am, welcomed those present, introduced himself and acknowledged Thetis Island's location within the traditional territory of the Coast Salish First Nations.

2. APPROVAL OF AGENDA

The following additions to the agenda were presented for consideration:

- 9.4.1 Staff Report dated November 19, 2013 (replaces Memorandum dated November, 2013)
- 9.4.1(i) Memorandum to Local Planning Committee dated October 25, 2013
- 9.4.1(ii) Stakeholder Matrix for Potential Green Shores Pilot Project
- 9.4.4 Letter dated November 13, 2013 from Peter Barr

By general consent the agenda was approved, as amended.

3. TOWN HALL

Carolyn Askew asked if there are Trust programs dedicated to the natural restoration of eelgrass.

Chair Hancock and Planner Brzozowski responded that some islands have volunteer working groups trained by Seachange Marine Conservation Society. Information is available at seachangesociety.com.

Trustee Luckham noted that the mapping of eelgrass for Thetis Island and its Associated Islands was a Trust project.

Bob Bingham referred to his letter to the Trustees, dated October 23, 2013 and his third point with questions regarding the drafted Marine Shorelands Development Permit Area (MSDPA) from 2011. A specific concern was the authority of the Local Trust Committee in the Development Permit Area process.

Chair Hancock responded that Trustees would still make the final decisions on any development permit applications, and then spoke to the procedural differences between a development permit and a development variance permit.

Peter Barr and **Ian Ralston** also spoke regarding concerns about the MSDPA.

Ernie Hunter thanked the Local Trust Committee for the extended Town Hall discussion.

4. MINUTES

4.1 Local Trust Committee Draft Minutes of September 25, 2013

The following amendments to the minutes were presented for consideration:

- Item 9.3.1, page 4, fourth line down add after “Staff”, the word “Trustees”.
- Item 9.3.1, page 4, line two, change “2103” to “2013”.

By general consent the Local Trust committee meeting minutes of September 25, 2013 were adopted as amended.

4.2 Section 26 Resolutions Without Meeting Log - None

4.3 Advisory Planning Commission Meeting – None

4.4 Ruxton Island Advisory Planning Commission Meeting - None

5. BUSINESS ARISING FROM MINUTES

5.1 Follow-up Action List Dated November 12, 2013

Planner Brzozowski presented the Follow-up Action List.

6. DELEGATIONS – None

- 7. **CORRESPONDENCE** – None
- 8. **APPLICATIONS AND PERMITS** – None
- 9. **LOCAL TRUST COMMITTEE PROJECTS**

- 9.1 **Dock Regulations Options for Ruxton Island**

- 9.1.1 Staff Report dated November 8, 2013

Planner Youmans presented options; discussion followed.

TH 040/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee establish a zone in the Land Use Bylaw around the perimeter of Ruxton Island within which docks are not a permitted use.

CARRIED

TH 041/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee include a policy in the Thetis Associated Islands Official Community Plan that the Local Trust Committee will support rezoning for community docks.

CARRIED

TH 042/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee refer this report to the Ruxton Island Advisory Planning Commission for comment.

CARRIED

- 9.2 **Associated Islands Land Use Bylaw**

- 9.2.1 Staff Report Dated October 29, 2103

- 9.2.2 Draft Land Use Bylaw

Presented by Planner Brzozowski; discussion followed; changes noted.

TH 043/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee direct Staff to amend the draft Associated Island Land Use Bylaw with changes as directed by the Local Trust Committee and post the revised draft Land Use Bylaw to the Thetis Local Trust Committee webpage.

CARRIED

TH 044/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee refer the revised Land Use Bylaw to the Ruxton Island Advisory Planning Commission for comment.

CARRIED

TH 045/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee refer the revised Land Use Bylaw to the Lyackson First Nation and Cowichan Valley Regional District.

CARRIED

9.3 Riparian Areas Regulations Project Update

9.3.1 Staff Report dated October 31, 2013

Staff Report presented by Planner Brzozowski; discussion followed.

TH 046/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee direct Staff to work with a Qualified Environmental Professional and the Meadow Valley Strata owner-developer, Mr. Ian Ralston, to conduct an assessment under the Riparian Areas Regulation for Ralston Creek streams.

CARRIED

TH 047/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee change the Activity column of Top Priority No. 2 to: "Ensure protection of freshwater ecosystems in the Ralston Creek watershed through review of current regulation and covenants, and possible bylaw amendment".

CARRIED

By general consent the meeting was recessed at 11:44 am and reconvened at 12:16 pm.

9.4 Shoreline Protection

9.4.1 Staff Report dated November 19, 2013

Staff Report presented by Planner Brzozowski; discussion followed.

9.4.1(i) Memorandum to Local Planning Committee dated October 25, 2013

9.4.1(ii) Stakeholder Matrix for potential Green Shores Pilot Project

- 9.4.2 Letter dated October 23, 2013 from Bob Bingham
- 9.4.3 Letter dated October 31 from Anne Barr
- 9.4.4 Letter dated November 13, 2013 from Peter Barr

Above items were received for information and discussion followed.

TH 048/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee move Priority #3 Shoreline Protection to Priority #2, and to have the following Activity Description: "Serving as the Pilot Local Trust Area for the Green Shores for homes draft credit rating system."

CARRIED

TH 049/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee suspend work on any further public education events, publications, or discussion of regulatory tools until work on the Green Shores Pilot is complete.

CARRIED

TH 050/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee identify its objectives for the Green Shores Pilot, as well as the resources it can commit to the project.

CARRIED

TH 051/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee review the Task 4 Work Plan once it is prepared in December with an aim to endorse it by Resolution Without Meeting before December 20, 2013.

CARRIED

Trustee Luckham wished to have it noted that the draft Marine Shorelands Development Permit Area guidelines as presented back in 2011 were never supported by him.

10. REPORTS

10.1 Work Program Reports

10.1.1 Top Priorities and Project Report Dated September 12, 2013

The Program Priorities and Projects report was presented and discussed.

TH 052/13

It was MOVED and SECONDED,

that a new item be added as follows: Pilkey Point/Marina Drive Slough: Support for habitat restoration.

CARRIED

10.2 Applications Log

10.2.1 Report Dated November 12, 2013

The Applications Log report was presented and discussed.

10.3 Trustee and Local Expenses

10.3.1 Expenses Posted to September 30, 2013

The expense report was presented and discussed.

10.3.2 Expenses Posted to October 30, 2013

The expense report was presented and discussed.

TH 053/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee allocate up to \$1,500 from the Special Projects budget to Work Program #3 Riparian Areas Regulation.

CARRIED

10.4 Chair's Report

Chair Hancock reported that he is preparing for the December Trust Council meeting in Victoria. Highlights include a half day session with the Regional District regarding Economic Sustainability on the islands.

10.5 Trustees' Reports

Trustee Luckham spoke regarding working toward meeting with Chief Thomas of the Lyackson First Nations.

10.6 Advisory Planning Commission Report - None

11. NEW BUSINESS

11.1 Briefing regarding Strategic Plan from Linda Adams, Chief Administrative Officer, dated October 3, 2013.

Discussion followed.

TH 054/13

It was MOVED and SECONDED,

that Strategic Plan Item 2.1.3 be amended to reflect the current status of Thetis Island and the Green Shores Project.

CARRIED

TH 055/13

It was MOVED and SECONDED,

that a new Strategy 5.3 be added to the Strategic Plan as follows – Improve Local Trust Committee relationship with First Nations; Assigned to the Local Trust Committee subject to grant funding; Community to community discussions are held.

CARRIED

11.2 Salt Spring Island Bylaw Referral Request for Response regarding Bylaw No. 470

Discussion followed.

11.3 Salt Spring Island Bylaw Referral Request for Response regarding Bylaw No. 471

Discussion followed.

TH 056/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee reports that its interests are unaffected by Bylaw Nos. 470 and 471.

CARRIED

Chair Hancock and Planning Staff left the meeting at 2:40; Trustee Luckham assumed the Chair.

11.4 Application for Community to Community (C2C) Funding (Union of BC Municipalities (UBCM) Program)

Discussion followed.

TH 057/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee apply to the Union of BC Municipalities for Community to Community funding for hosting a social event between Lyackson First Nation, Valdes property owners and other Thetis Island Trust area residents, and that this request be forwarded to the grants administrator.

CARRIED

11.5 Model Housing Resolution from Federation of Canadian Municipalities (FCM)

Received; discussion followed. To be revisited at the next meeting.

12. BYLAWS – None.

13. ISLANDS TRUST WEBSITE

Discussion followed.

TH 058/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee ask Staff to post all minutes from 2011, 2012 and 2013 to the Thetis Island website.

CARRIED

TH 059/13

It was MOVED and SECONDED,

that the Thetis Island Local Trust Committee ask Staff to post Staff Report 9.4.1 of the agenda to the website.

CARRIED

TH 060/13

It was MOVED and SECONDED,

that an update be added to the Staff Report from January, 2011 regarding Shoreline Development that the Local Trust Committee is no longer pursuing this draft bylaw.

CARRIED

14. TOWN HALL DISCUSSION – None

15. NEXT MEETING DATE

Wednesday, February 5, 2014 at 9:15 am at Thetis Island Community Centre (Forbes Hall) North Cove Road, Thetis Island, BC.

16. ADJOURNMENT

By general consent the meeting was adjourned by consensus at 2.58 pm.

Ken Hancock, Chair

Peter Luckham, Chair

CERTIFIED CORRECT:

Janice Young, Recorder



RWM From: May 29, 2013 To: January 27, 2014

Thetis Island

Resolution #	Action	Resolution Description	Resolution Date
2013-05	In Favour	That the Thetis Island Local Trust Committee endorse the covenant already registered with the Land Titles Office restricting development on lot 8, Thetis Island, Cowichan District, (known as Dayman island)(PID 007-818-459).	Dec 12, 2013



Ruxton Island Advisory Planning Commission Minutes of a Regular Meeting

Date of Meeting: Friday, December 13, 2013
Location: Meeting Room, Buzz Coffee House
 1681 Dufferin Crescent, Nanaimo, BC

Members Present: Roger Kimmerly, APC Chair
 Dennis Rutherford, APC Member
 Larry Ross, APC Member
 Mike Higgins, APC Member
 David Paterson, APC Member
 Gina Couchman, APC Member
 Dan Geisbrecht, APC Member

Staff Present: Aleksandra Brzozowski, Island Planner
 Jessie Sherk, Recorder

Media and Others Present: Peter Luckham, Local Trustee (Thetis Island)

1. CALL TO ORDER

Roger Kimmerly called the meeting to order at 11:04 am.

2. APPROVAL OF AGENDA

By general consent the agenda was approved.

3. MINUTES

3.1 Ruxton Advisory Planning Commission Minutes dated June 19, 2013

By general consent the minutes of June 19, 2013 were adopted.

4. APC REFERRAL #1: DRAFT LAND USE BYLAW

4.1 Referral Package regarding review of Draft Land Use Bylaw

It was decided to discuss # 5 first.

5. **APC REFERRAL #2: REGULATORY OPTIONS FOR RUXTON WATER ZONING**

5.1 **Referral Package regarding input on regulation options for Ruxton Island**

The Advisory Planning Commission members discussed the subject of community docks at great length. The possibilities of applying for a variance or rezoning was explained by Planner Brzozowski.

It was noted that the policy in the Official Community Plan supports a community dock but it does not support a private dock. Trustee Luckham stated that even if the policy in the Official Community Plan supports a community dock and did not support private docks, the opportunity to rezone would always be available to an applicant thru an OCP and LUB amendment.

Trustee Luckham noted that, in a situation where arguments brought to the LTC were not sufficiently relevant i.e. not pertinent to land use decisions regarding a dock rezoning, those arguments might not be sufficient justification for the LTC to turn down an application for rezoning.

Planner Brzozowski stated that the intention of changing the language in the Official Community Plan is to have a document that would give the local trust committee and staff clear direction and allow for flexibility in the future.

The members agreed that it is a great document and thanked Planner Brzozowski for her work.

The general opinion of the members is that the definition of Community Dock is good in the draft. In the case of shared docks/non-public community docks, it was noted that it would be good to remove any barriers for individuals to participate in a community dock and that there should be flexibility for more people to come in if there's interest, and exit if desired as well. Also discussed was:

- Not needing boat slips;
- Not limiting the road access; and
- Ruxton being geographically challenged for docks.

Trustee Luckham then explained the rezoning process to the members.

Roger Kimmerly summarized the issues that need to be addressed regarding docks:

- Access and potential access in the near future, physical access on the ground;
- Number of docks/incremental impact from continued rezoning;
- Limiting road access, minimizing any dock on public right-of-way; and
- Assigned slips and sizing may be an issue.

Also discussed was the potential of having a policy about maximum dock size, discourage overnight moorage, as well as minimizing the number of docks on the island.

RX 007/13

It was MOVED and SECONDED,

that the Ruxton Island Advisory Planning Commission supports the November 20, 2013 draft resolutions as outlined.

CARRIED

Dan Geisbrecht Opposed

RX 008/13

It was MOVED and SECONDED,

that the Ruxton Island Advisory Planning Commission suggest that community docks would be a small scale in nature and not intended for overnight use, maximizing accessibility to Ruxton Island residents.

CARRIED

4. APC REFERRAL #1: DRAFT LAND USE BYLAW

4.1 Referral Package regarding review of Draft Land Use Bylaw

Planner Brzozowski gave a short background regarding the 15m standard setback, stating that it is a new standard set by the Province. She said that research done in 2004 recommended that a new and more up to date standard should be created for the Georgia Strait and the new setback should be 15 metres. The intention is to anticipate the effects of climate change such as sea level rise and other hazards. Discussion ensued with the members. The concern from APC members was that if the new setback were to go through, most current primary buildings would become legally non-conforming.

Every member was given a chance to give a quick synoptic view on the 15 metre setback. The following points were noted:

- It would be a personal annoyance to homeowners who made a point to conform and would now become non-conforming;
- A lot of people have built within the 10 metres already;
- Erosion of the foreshore isn't as much of a concern on Ruxton Island as it is mostly sandstone and the waterfronts are steep, lots are high up, so sea level rise won't have as much of an affect; and
- Ruxton Island is a unique situation having small waterfront lots and currently no docks.

RX 009/13

It was MOVED and SECONDED,

that the Ruxton Island Advisory Planning Commission suggests maintaining the 10 metre setback.

CARRIED

There was an opportunity for members to discuss any other concerns they may have about the current setbacks. The general feel was that there are no issues.

Trustee Luckham noted that they should turn their minds towards marine environment protection as that is the intention behind setbacks. There have been negative impacts on the foreshore in the past.

By general consent the meeting was recessed at 12:30 pm and reconvened at 1:00 pm.

Planner Brzozowski started a discussion regarding some of the other structures and things other than docks that are currently on the foreshore of Ruxton Island. She asked the members how many of these are necessary and what it is that Ruxton Islanders care about. She stated that she wanted to recognize the need to access the island but at the same time be aware of the implications of putting in structures along the foreshore. The concern is not for aesthetic reasons but for the policies in the Islands Trust Policy Statement. Trustee Luckham added that they are looking at finding out what it is that Ruxton Islanders need, and how to avoid impacting the shoreline environment while not impeding public access.

Discussion ensued with the members noting the following:

- How can you put a limit to individuals "stuff";
- Aesthetics is an issue. However, you cannot control taste;
- Public access needs to be accommodated, they don't want people worrying that by walking around structures they are infringing on someone's private foreshore;
- These structures are happening on the foreshore because there are no private docks allowed;
- Accessibility is a huge issue;
- The cumulative things on the foreshore should be looked at, but based on what? Where is the line?;
- Below the high watermark should be a clear boundary;
- Large logs that are elevated to assist pulling up dinghies are a problem; a child can't get over them;
- The dinghies crowd at the public access; and
- Staircases are needed, and the proposed height suggested in the bylaw may be a challenge for homeowners.

Roger Kimmerly noted that he feels this is an enforcement problem rather than a rules problem and it is important not to forget the good will of the property owner. He feels you get more compliance with good will than you would with enforcement and that it would be a waste of time to put regulations in that are unenforceable.

Trustee Luckham noted that enforcement for structures and use below the high water mark is up to the Province.

Planner Brzozowski restated that the intention of keeping the natural shoreline is not for aesthetics, but for environmental aspects and public access.

Members and staff then discussed the following:

- The difference between platforms and decks and if platforms should be allowed;
- The proposed changes to building height restrictions;
 - o the intention is to lower the impact of accessory buildings and differentiate between primary and accessory buildings.
- Home occupations;
 - o B&B is not considered commercial;
 - o As long as a homeowner is on site then these rentals should be permitted; and
 - o “Service to client” should not be included in the wording as it leaves things too open and gives a “loop-hole”.
- Outhouses;
- Citing Exceptions;
 - o It was noted that Planner Brzozowski will look into this.
- Accessory Buildings;
- The definition of a float and swim floats, and if floats should be permitted;
 - o The general feel is that they should stay with the old bylaw where floats are not allowed but swim floats are.
- Height Restrictions on Wind Turbines;
 - o Planner Brzozowski will look into this and supply more information regarding the restrictions on wind turbines.

The Advisory Planning Commission members then went through the rest of the bylaw step by step to identify any other issues and made the following suggestions:

- The definition of “commercial accommodation” should be cleaned up;
- Adding the word “kiosks” into the definitions;
- That “platforms” should be small and useful for accessibility but not for large parties; and
- Under “Sign Regulations” some of the sizing and height might not be appropriate for Ruxton.

On behalf of himself, Sue French, and Ken Hancock, Trustee Luckham thanked the Advisory Planning Commission for all the work they have done.

RX 010/13

It was MOVED and SECONDED,

that the Ruxton Island Advisory Planning Commission encourage continued development of the Associated Islands Land Use Bylaw.

CARRIED

6. **Other Business** - None

7. **Adjournment**

By general consent the meeting was adjourned at 2:25 pm.

Roger Kimmerly,

CERTIFIED CORRECT:

Jessie Sherk, Recorder



Islands Trust

Follow Up Action Report w/ Target Date

Thetis Island Feb-08-2012

No.	Activity	Responsibility	Target Date	Status
1	Develop recommendations for a joint proactive enforcement strategy with the CVRD.	Miles Drew	Jun-30-2013	On Going

May-23-2012

No.	Activity	Responsibility	Target Date	Status
1	Report to LTC on use of neighbourhood mediation on Thetis.	Miles Drew	Jun-30-2013	On Going

Sep-25-2013

No.	Activity	Responsibility	Target Date	Status
1	Staff to investigate the Local Planning Committee's activity in regard to compilation of current regulations regarding Shoreline Protection and jurisdiction.	Aleksandra Brzozowski Kris Nichols	Nov-20-2013	On Going

Nov-05-2013

No.	Activity	Responsibility	Target Date	Status
1	send the revised Associated Islands Land Use Bylaw to the Lyackson First Nation and Cowichan Valley Regional District for early referral. Update: Meetings are being scheduled for February 2014.	Aleksandra Brzozowski	Feb-05-2014	On Going

Nov-20-2013

No.	Activity	Responsibility	Target Date	Status
1	Staff to amend the draft Associated Island Land Use Bylaw with changes as directed by the Local Trust Committee and post the revised draft Land Use Bylaw to the Thetis Local Trust Committee webpage.	Aleksandra Brzozowski	Dec-16-2013	Done

1	Thetis Island Local Trust Committee to review the Task 4 Work Plan once it is prepared in December with an aim to endorse it by Resolution without Meeting before December 20, 2013.	Aleksandra Brzozowski Sue French Ken Hancock Peter Luckham	Dec-20-2013	Done
1	Staff to make the following changes to the Thetis Island website: - post all minutes from 2011, 2012 and 2013 - post Staff Report 9.4.1 of the Nov 20 agenda - that an update be added to the Staff Report from January 2011 re: Shoreline Development that the Local Trust Committee is no longer pursuing this draft bylaw. Update: Webposting staff continues to work to establish a minutes archive for all LTCs.	Aleksandra Brzozowski	Feb-05-2014	On Going
1	Thetis Island Local Committee to identify objectives for the Green Shores for Homes Pilot, as well as the resources each can commit to the project.	Aleksandra Brzozowski Sue French Ken Hancock Peter Luckham	Feb-05-2014	Done
1	Staff to draft language: - establishing a zone in the Land Use Bylaw around the perimeter of Ruxton Island within which docks are not a permitted use. - including a policy in the Thetis Associated Islands Official Community Plan that the Local Trust Committee will support rezoning for community docks.	Aleksandra Brzozowski	Feb-05-2014	Done
1	Refer to the Ruxton Island Advisory Planning Commission for comment: - the revised draft Land Use Bylaw - the Nov 20 dock options staff report	Aleksandra Brzozowski	Feb-05-2014	Done
1	Staff to work with a Qualified Environmental Professional and the Meadow Valley Strata owner-developer, Mr. Ian Ralston, to conduct an assessment under the Riparian Areas Regulation for Ralston Creek streams.	Aleksandra Brzozowski	Mar-19-2014	On Going
1	Apply to the Union of BC Municipalities for Community to Community funding for hosting a social event between Lyackson First Nation, Valdes property owners and other Thetis Island Trust area residents.	Aleksandra Brzozowski Mike Richards	Mar-19-2014	On Going



Memorandum

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Date: January 22, 2014

To: Thetis Island Local Trust Committee

From: Kate Emmings, Ecosystem Protection Specialist, Islands Trust Fund

Re: Islands Trust/Islands Trust Fund Eelgrass Mapping

Eelgrass Mapping in the Thetis Island Local Trust Area

Eelgrass Mapping for the Thetis Island Local Trust Area was completed between 2012 and 2013 by SeaChange Marine Conservation Society under contract with the Islands Trust (see attached report). Thetis and its associated islands (except for Valdes) were surveyed in 2012 and Valdes Island and the Cufra Inlet were surveyed in 2013. The Cufra Inlet was not mapped in 2012 because of low tides during the survey.

Findings for the Thetis Island Local Trust Area indicate that approximately 26.6% % of the shoreline of Thetis Island has eelgrass presence and the Thetis Island Local Trust Area Associated Islands have eelgrass presence between 0% and 50.3%, depending on the island (see table below from the report).

Island	Eelgrass % Cover
Ruxton	11.6%
Pylades	0%
Bute	50.3%
Dunsmuir Islands (2)	34.7%
Hudson	30.9%
Reid	3.9%
Dayman & Scott Islands	39.6%
Valdes	12.7%

About Eelgrass

Eelgrass is a critical nearshore habitat for birds, mammals, invertebrates and commercial and non commercial fish. Eelgrass beds are also an important carbon sink. Contaminants, shading from docks and overwater

structures, increased sedimentation, marine traffic and development pressures from shoreline land use threaten eelgrass ecosystems and the species they support.

Report Recommendations

Most of Thetis's shoreline remains naturalized; however, there are some areas where boat use, mooring buoys, docks and shoreline modifications may be having detrimental effects on eelgrass habitats. The 2012-2013 Nearshore Eelgrass Inventory Report contains several recommendations. Some of the relevant recommendations for local trust committees are:

- Create setbacks from the shoreline in regulatory bylaws.
- Prevent construction of docks in eelgrass beds. Where dock construction cannot be avoided, ensure that docks are built to allow light to pass through to eelgrass beds below and that they are constructed from materials that have a minimum impact on water quality.
- Require removal of illegal shoreline modifications and habitat restoration where appropriate.
- Support education of the boating community and shoreline landowners regarding the importance of eelgrass beds and natural shorelines.
- Encourage the boating community not to locate mooring buoys in eelgrass beds and not to anchor in eelgrass beds. Where mooring buoys are located in eelgrass beds, encourage the use of line floats to keep chains and lines off of the sea floor where they can drag and scour the bottom, removing eelgrass habitat and killing species.
- Encourage dock owners to replace dock materials with light penetrable materials.

Next Steps

The Islands Trust Fund will place the eelgrass mapping and the associated report on its website at www.islandstrustfund.bc.ca and eelgrass mapping will be added to the MapIT public mapping site at <http://mapit.islandstrust.bc.ca> (links on Islands Trust and Islands Trust Fund websites). Local trust committees are encouraged to provide links to the mapping on their websites and consider actions within their local trust areas to include eelgrass protection in their official community plans and regulatory bylaws as per the Islands Trust Policy Statement, section 3.4.4 (see background below).

Attachment Report: 2012-2013 Nearshore Eelgrass Inventory
 Map 4a. Eelgrass Presence, Thetis Island Local Trust Area (excluding Valdes)
 Map 4b. Eelgrass Presence, Valdes Island

Background

The Islands Trust Policy Statement, section 3.4.4, states:

Local trust committees and island municipalities shall, in their official community plans and regulatory bylaws, address the protection of sensitive coastal areas.

The 2013 Audit of Biodiversity in B.C. (Office of the Auditor General of B.C., www.bcauditor.com/pubs/2013/report10/audit-biodiversity-bc-assessing-effectiveness-key-tools) highlighted the importance of collecting sufficient and reliable information on species distribution in order to make well-informed decisions about conserving biodiversity. With sensitive ecosystem mapping completed in the Islands Trust Area (2008-2010), the Bowen Island Municipality (BIM) and local trust committees have access to ecosystem data for terrestrial species. The Islands Trust and Islands Trust Fund are now working to acquire mapping of sensitive coastal areas to help island governments meet the requirements of the Islands Trust Policy Statement.

In 2012, the Islands Trust and Islands Trust Fund launched a project to map eelgrass as a partnership with the Seagrass Conservation Working Group and SeaChange Marine Conservation Society. The arrangement

between the partners results in shared funding of the program between the Islands Trust, the Trust Fund Board and the Seagrass Conservation Working Group (through its member group, SeaChange Marine Conservation Society).

Eelgrass mapping is intended to assist BIM, local trust committees and the Trust Fund Board in making science-based decisions about land use and conservation to preserve coastal ecosystems in the Islands Trust Area. Eelgrass mapping will serve as a baseline inventory to monitor the effects of conservation activities, such as Marine Protected Areas, as well as human impacts, such as potential increased tanker traffic, marine industrial activities (e.g. log dumping and booms) and foreshore use (e.g. wharves and docks). It will also enable marine conservation groups to identify areas ideal for eelgrass restoration.

In 2012, the Islands Trust Fund and Seagrass Conservation Working Group, with financial assistance from some local trust committees and outside funders, mapped eelgrass in the following areas:

- Gambier;
- Lasqueti;
- Mayne;
- North and South Pender; and
- Thetis and associated islands (except Valdes).

In 2013, the partnership mapped eelgrass in the following areas, with funding from the Islands Trust, Islands Trust Fund, Metro Vancouver, Comox Valley Regional District, Capital Regional District, Victoria Foundation, Greater Victoria Savings and Credit Union Legacy Foundation and the Pacific Salmon Foundation:

- Bowen Island Municipality;
- Denman Island;
- Gabriola and associated islands;
- Galiano and associated islands;
- Gambier associated islands;
- Hornby Island; and
- Valdes Island.

Resources for local trust committees

The following are some resources for local trust committees. Please see references in the attached report for a more complete list.

Hutton, K. E. and S. C. Samis. 2000. Guidelines to protect fish and fish habitat from treated wood used in aquatic environments in the Pacific Region. Can. Tech. Rep. Fish. Aquat. Sci. 2314: vi + 34 p. Available at <http://www.dfo-mpo.gc.ca/Library/245973.pdf> .

Fisheries and Oceans Canada. Projects Near Water. Available at <http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html> .

Province of BC. 2011 (amended August 2013). Land Use Operational Policy: Private Moorage. Available at http://www.for.gov.bc.ca/Land_Tenures/documents/policies/private_moorage.pdf .

EnviroVision, Herrera Environmental, and Aquatic Habitat Guidelines Program. October 2007 (revised June 2010). Protecting Nearshore Habitats and Functions in Puget Sound. Available at <http://wdfw.wa.gov/publications/00047/>.

2012 - 2013

Final Report Nearshore Eelgrass Inventory



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Appendix A	Mapping Methodology
Appendix B	Maps of Shoreline Units
Appendix C	Summary of Overwater Structures

SeaChange Marine Conservation Society acknowledges the Mayne Island Conservancy Society for the use of its software and computer for data management. Seachange would also like to acknowledge funding from the following sources, which has made this project possible: Islands Trust, Islands Trust Fund, the Capital Regional District, the Comox Valley Regional District, Metro Vancouver, the Greater Victoria Savings and Credit Union Legacy Foundation, Vancouver City Savings (Vancity), the Public Conservation Assistance Fund, Moonstone Enterprise, the Pacific Salmon Foundation and the Victoria Foundation.

Thank you.

1.0 Introduction

Land use developments within watersheds have led to a loss of natural estuarine and nearshore marine habitats in British Columbia - the receiving waters of land based activities. Agriculture, forestry, and dredging for commercial and residential development have all contributed to the loss (Durance, 2002). The pressure to modify natural marine features and habitat for the development of commercial facilities and residential units within coastal areas is intensifying. To prepare for the increase in populations on the BC coast and concurrent shoreline developments, it is necessary to identify and quantify nearshore habitats to protect and maintain these valuable nearshore environments.

This final report of the 2012 - 2013 nearshore inventory of native eelgrass, *Zostera marina* in selected islands is a summary of the rationale, methodology and findings conducted for the Islands Trust and Islands Trust Fund. The areas mapped during the summer and fall months of 2012 for eelgrass habitats were the Thetis Island Local Trust Area (excluding Valdes and the Cufra Inlet), Lasqueti Island, Gambier Island, North and South Pender Islands and Mayne Island.

The islands mapped in 2013 include the Bowen Island Municipality, Valdes Island and Cufra Inlet within the Thetis Island Local Trust Area, the Gambier Island Local Trust Area Associated Islands (excluding the islands off of the Sunshine Coast) and the local trust areas of: Denman, Hornby, Ballenas – Winchelsea (Executive Islands), Gabriola and Galiano.

The report serves also as background information for future eelgrass inventories and adds value to the Islands Trust Shoreline Mapping Project. The goal is to support sound decisions that will affect the natural ecological health of the marine nearshores within the Islands Trust Area. The Islands Trust and Islands Trust Fund have limited jurisdiction over marine areas; however, they can have an impact on long term development and protection of the shoreline. This report and the mapping information that forms its basis are designed to assist Islands Trust and Islands Trust Fund planners to make science-based decisions when planning for nearshore areas.

ShoreZone maps of coastal habitats within the Islands Trust Area were created over the past decade. ShoreZone is a mapping and classification system that produces an inventory of geomorphic and biological features of the intertidal and nearshore zones from low altitude aerial images of the coastal environment (Harper 2011). These maps provided the groundwork for identifying suitable physical components for eelgrass on the islands mapped during 2012-2013. The presence/absence of *Zostera marina* was determined according to the methodology of Cynthia Durance, R.P. Bio., Precision Identification (Appendix A). A more detailed description of the methods used can be found in Section 6.

2.0 Importance of Eelgrass

Seagrasses are rooted aquatic plants that grow in estuaries and along low wave energy shorelines throughout the world. They have important influences on biogeochemical cycling, sediment stability, and food web support (McGlathery et al. 2007; Orth et al., 2006). Seagrasses can form extensive meadows supporting high biodiversity. The global species diversity of seagrasses is low (~60 species). Across the globe, however, seagrass meadows cover about 177,000 square kilometers of coastal waters – larger than the combined area of the Maritime Provinces (Short et al, 2007). British Columbia has about 400 km² of saltmarsh and eelgrass habitats (Campbell 2010).

2.1 Biodiversity

The complex and intricate food webs of an eelgrass (*Zostera marina*) meadow provide food and shelter for numerous fish and invertebrates. Meadows also serve as a nursery habitat and as a refuge from predation for juvenile fishes (Orth et al., 1984; Bostrom and Bonsdorff 2000; Duarte 2000). The productivity of native seagrasses rivals the world's richest farmlands and tropical rainforests. From an unstructured muddy/sandy bottom grows a myriad pattern of leaves that supply nutrients to salmonids and other fish, shellfish, waterfowl and about 124 species of faunal invertebrates. The plants offer surface area for over 350 species of macroalgae and 91 species of epiphytic microalgae – the basis of the food web for juvenile salmon in marine waters (Phillips 1994). Often referred to as “salmon highways”, nearshore marine environments containing eelgrass beds (*Zostera marina*) are home to over 80% of commercially important fish and shellfish species, including all species of salmon, at some point in their life histories (Durance 2002).

2.2 Blue Carbon

Like terrestrial forests, eelgrass habitats capture and store large amounts of carbon but at much more efficient rates - up to ninety times the uptake provided by equivalent areas of forest. This “Blue Carbon” is stored in sediments where it is stable for thousands of years. In B.C., roughly 400 km² of salt marsh and seagrass meadows sequester as much carbon as B.C.'s portion of the boreal forest, and the equivalent of the emissions of some 200,000 passenger cars (Campbell 2010).

When eelgrass beds are restored, the rate of carbon sequestration appears to be rapid over the first few years and up to 40 years following restoration. The natural transport of eelgrass by currents and wave action to deeper waters in estuaries and the coastal ocean may further sequester more carbon (Thom 2011).

As ocean waters warm as a result of climate change (up to 5 C° during the spring), greater flowering as well as faster growth of eelgrass shoots has been observed. Both of these changes result in greater biomass. Like marshes, much of the eelgrass biomass is under the substrate, indicating that a warming environment may result in greater carbon accumulation rates (Thom 2011).

2.3 Ecosystem Services

Ecosystem services are the benefits provided by the land, air, water and subsurface materials of the earth (Molnar et al 2012). Eelgrass habitats within the lower reaches of the Salish Sea provide carbon sequestration and storage, habitat refugia and nursery and nutrient cycling benefits to an approximated natural capital cost of \$80,929 per hectare per year (Molnar et al., 2012). Within the Islands Trust Area, eelgrass habitats also provide revenue for commercial fisheries, recreational fishery, and revenue from tourism.

Protecting and conserving, and in some instances restoring these critical habitats is a recommendation of the Islands Trust Fund's Regional Conservation Plan. Mapping eelgrass is identified as a priority to meet the goal of conserving marine ecosystems and habitats. As well, accounting for these benefits in economic dollars and cents and factoring them into decision making policies would emphasize the economic, cultural and ecological values of nearshore habitats.

3.0 Eelgrass Habitat Characteristics

Eelgrass meadows are found in most of the world's coastal temperate regions except at extremely high latitudes. Physical and chemical factors affecting *Zostera marina* include temperature, light attenuation, elevation, substratum, wave action, salinity and pH. Worldwide, the plants survive under a wide range of water temperatures, from 0° to greater than 30°C. The optimum temperature for growth lies between 10° - 20° C in most areas (Phillips 1984). Eelgrass grows best within the Salish Sea in salinity ranges of 20 ppt - 32 ppt. Eelgrass can tolerate periods of freshwater inundation on a seasonal or daily basis (Durance 2002).

Of all the above factors, light availability and elevation may be the most crucial. Light availability seems to be the primary factor limiting depth distribution, density, and productivity of eelgrass meadows within their salinity and temperature ranges. When the Coal Port was expanded in 1982-1983 in Roberts Bank, both species of eelgrass (*Z. japonica* and *Z. marina*) expanded. The construction of causeways across a broad intertidal zone directed the turbid Fraser River water offshore, improving the light regime and initiating higher productivity in the eelgrass beds (Harrison and Dunn 1999).

3.1 Wildlife Corridors

Seagrasses are in decline throughout much of the world, with rates of loss accelerating from a median of 0.9% per year before 1940 to 7% per year since 1990 (Waycott et al., 2009). It has been estimated that 18% of coastal marine and nearshore wildlife habitat in the Salish Sea has been destroyed (British Columbia/Washington Marine Science Panel 1994). A large percentage of this decline is attributed to human impacts, including filling of shallow waters, dredging, and eutrophication (Short and Wyllie-Echeverria 1996).

Often referred to as “salmon highways”, nearshore marine environments containing *Z. marina* beds are home to more than 80% of commercially important fish and shellfish species, including all species of salmon, at some point in their life histories (Durance 2002). *Zostera marina* beds are highways for Chinook, Coho, Pink, Chum, and Sockeye salmonid stocks (Thompson 1994). Great Blue Herons have been observed to feed in eelgrass beds within 3 km of their nesting colonies. Other important bird species using these habitats include Brant geese, Rhinoceros Auklets, cormorants and Western Grebes.

E.O. Wilson proposed the importance of habitat corridors in the 1960s (MacArthur and Wilson 1967). Habitat reduction and fragmentation at a variety of spatial scales has been widely acknowledged as a primary cause of the decline of many species worldwide (Thompson 1994). Habitat fragmentation generally leads to smaller and more isolated animal populations. Smaller populations are more vulnerable to local extinction. To reduce the isolation of habitat fragments, many conservation biologists have recommended maintaining landscape "connectivity" - preserving habitat for movement of species between remaining fragments (BC/Washington Marine Science Panel 1994).

Many nearshore environments on the islands inventoried in 2012 and 2013 indicated continuous fringing eelgrass beds. These beds are the connectivity for salmon and other marine wildlife for shelter, food and refugia. Although they may be less biomass than continuous flat beds of eelgrass plants, they serve an important function and should be protected.

4.0 Impacts from Human Activities

The majority of the earth’s population now lives within 10% of land defined as “coastal”. One of the results of this increased pressure on coastal shorelines has been the destruction of approximately 215,000,000 acres of estuarine habitat worldwide (BC/Washington Marine Science Panel 1994). Seagrasses are in decline throughout much of the world, with rates of loss accelerating from a median of 0.9% per year before 1940 to 7% per year since 1990 (Waycott et al., 2009).

It has been estimated that 18% of coastal marine and nearshore wildlife habitat in the Salish Sea has been destroyed (British Columbia/Washington Marine Science Panel 1994). A large percentage of this decline is attributed to human impacts, including filling of shallow waters, dredging, and eutrophication (Short and Wyllie-Echeverria 1996). With the population of the Georgia Basin/Puget Sound forecasted to exceed nine million people by 2020, nearshore critical habitat loss is likely to increase.

The following is a description of some of the major impacts human coastal settlements have on eelgrass habitats and their functions.

4.1 Removal and Burial

Dredging and filling associated with the construction of harbors and ports have been the major cause of the decline in eelgrass beds (Levings and Thom 1994). The plants themselves are removed and then the physical, chemical and biological composition of the system is altered. Sediments raised by dredging can also bury plants growing nearby and alter eelgrass density by affecting water clarity. The reduction in plant density can further increase silt load because it reduces the capacity of eelgrass beds to trap sediments. It can also increase the erosion of bottom sediments because of the reduced root mass available to hold sediments together. The ultimate result is the reversal of the entire nutrient-flow mechanics of the ecosystem. Dredging activities include hydraulic clam harvesting, bay scallop raking, oyster harvesting and maintenance dredging of harbors. Filling in shallow wetland areas with the debris from wood processing (e.g. log dumps and log booms), sediment runoff from agricultural land and logging severely impact eelgrass habitats as well (Phillips 1984).

4.2 Pollution and Changes to Freshwater Input

Since estuaries are extremely vulnerable to changes in salinity and temperature, human activities affecting freshwater flows from streams heavily affect eelgrass meadows. Pristine watersheds surrounding estuaries provide steady supplies of fresh water and clean sediments to seagrass communities in the estuary. The opposite holds true as well: unhealthy watersheds increase the problems for seagrass distribution and productivity. Activities that cause increased nutrient loads in streams and rivers can result in overgrowth of algae that then die and deplete the oxygen from the bottom of poorly flushed bays. Chemical contaminants, such as fertilizers, pesticides and household hazardous wastes, runoff from streets and roads and runoff from industrial activities also add to the toxic composition of muddy bottoms of eelgrass meadows (BC /Washington Science Panel 1994).

Quiescent waters are more susceptible to chronic contamination than areas with high energy water flows (Harrison and Dunn 1999). In the Salish Sea, more than 540 sq. kilometers of intertidal gravel, sand and mud habitat are closed for shellfish harvesting because of bacterial

contamination. More than 730 sq. kilometers of shallow water habitat are unusable for crab and shrimp because of dioxin contamination from pulp mills. More than 32% of classified commercial shellfish growing areas in Puget Sound and Juan de Fuca Strait are either restricted or prohibited for harvesting due to water quality issues (Levings and Thom 1994). The same activities that impact shellfish, crab and shrimp harvesting also impact the health of eelgrass meadows.

Most toxic chemicals that accumulate in sediments in an inland sea such as the Salish Sea reside there for long periods of time unless they are physically removed. There is evidence that the roots of eelgrass take up a significant amount of heavy metals for long periods of time (e.g. lead, cadmium, zinc and chromium), thereby making up a large pool of heavy metals in coastal systems (Lyngby and Brix 1989). The consequences of toxic chemicals may have long term effects on eelgrass consumers, especially waterfowl and marine invertebrates.

4.3 Forestry Activities

Logging may cause scouring of stream channels and thereby increase sedimentation in estuaries, limiting the light available for photosynthesis. Bark chips from log booms smother eelgrass beds and form a blanket on the substrate, which leads to anaerobic sediment devoid of life (BC/Washington Marine Science Panel 1994).

4.4 Oil Spills

Oil spills pose serious threats to eelgrass communities growing in sheltered bays that are poorly flushed. These areas will tend to retain oil for long periods of time, becoming chronically contaminated. If spills happen in late summer or winter when leaf sloughing is at its peak, mats of drift blades will tend to catch and retain oil for later decomposition in the intertidal zone. Seed production and viability could be affected if a spill occurs in the spring (Beak Consultants 1975).

4.5 Shading by Overwater Structures

The apparent increase in demand for overwater structures in the Howe Sound Islands can have deleterious and cumulative impacts on the nearshore system. Shading, disruption of nearshore marine water movement, damage to the shore and subtidal habitat and operational pollution from boats can be some of the impacts (Van der Slagt et al., 2003).

4.6 Effects of Boating

Boat propeller cuts disturb eelgrass beds in shallow waters, both when boats are travelling through shallow areas and when they are approaching the shore to debark passengers, moor or anchor. The impacts from boating activities in eelgrass beds may be affecting waterfowl such as Black Brant, direct grazers on eelgrass. The Brant have been steadily decreasing in the Pacific Northwest since the 1940's (Phillips 1994).

Conserving eelgrass habitats enhances the amount of high quality rearing habitat as well as increases the ecological services for human communities, including erosion control, sediment settling and food production (shellfish and fish). With the population of the Georgia Basin/Puget Sound forecasted to exceed nine million people by 2020, nearshore critical habitat loss is likely to increase.

5.0 Eelgrass and Rising Sea Levels

Sea level rise and increased frequency and intensity of extreme weather are two expected and observed effects of climate change (IPCC, 2007, IPCC 2012). The Intergovernmental Panel on Climate Change warns that on small islands in particular, sea level rise is expected to exacerbate coastal hazards such as storm surges, floods and erosion (IPCC 2007).

Impacts of rising sea level on the coastline of the Salish Sea will be more complicated than the inundation of low-lying areas. The effects will differ significantly between different shoreline features. Inland movement of sea water (Titus and Strange 2008), as well as erosion and re-deposition of sediment will reshape the coastal landscape where there is room for the shoreline to shift and sufficient sediment is available (Mumford 2007). Increasing sea levels are expected to shift the zone in which sunlight is available to eelgrass beds. As a result, eelgrass beds are expected to shift inland unless barriers impede this shift (Titus and Strange 2008).

Eelgrass beds play a role in shoreline stability. Established eelgrass beds reduce currents, leading to increased sediment and organic detritus deposition (Durance 2002). Continuous dense eelgrass beds provide a buffer for incoming wave energy. The more the bed is fragmented by physical structures (e.g. boats, wharves, docks and overwater play structures), the less eelgrass beds function as an erosion buffer. Where shorelines are constrained by development or structures to prevent erosion (e.g. rip rap, sea walls), natural coastal features will be squeezed out and maintaining shoreline infrastructure and development will require increasingly expensive engineering measures (Mumford 2007). Pre-emptive planning for these changing conditions is necessary to protect settlement areas and shore features recognized for their natural and ecosystem services. This planning includes protection of natural buffers such as eelgrass beds. Preemptive planning for these changing conditions is necessary to protect settlement areas and shore features recognized for their natural and ecosystem services.

6.0 Mapping Methodology

Identifying and monitoring the distribution of native eelgrass habitats supplies much needed information for regional planning for conservation purposes. Maps and associated outreach activities also may lead to improvements in land use practices from increased knowledge and awareness about the habitat. Locating areas suitable for eelgrass restoration will lead to rehabilitation of eelgrass meadows as funding opportunities become available.

The eelgrass inventory for this project entailed determining the presence or absence of *Zostera marina* with an underwater towed camera and a boat, except in the Cufra Inlet (Thetis Island) where mapping was done by kayak without a towed camera due to shallow tides. GPS hand held units were used to record waypoints at approximately 10 m intervals in 2012. Accuracy of the GPS readings was on average +/- 2.4 metres. In 2013, a Trimble Pathfinder ProXR GPS was used, except in the Cufra Inlet where a handheld GPS unit was used. A detailed description of the methods used to map eelgrass habitats can be found in Appendix A.

The terms used to map eelgrass habitats are described below:

6.1 Distribution

The distribution of eelgrass within the bed is described for this inventory as either patchy or continuous. Patchy beds are those that contain isolated groups or patches of plants. Beds which are not patchy are classified as continuous; a bed that contains bare patches surrounded by eelgrass is classified as continuous. The boundary of a bed is determined by a shoot density of less than 1 shoot per square meter (Durance, 2002).

6.2 Form

There are two basic forms of eelgrass beds in the Pacific Northwest: fringing beds that occur as relatively narrow bands usually on gentle slopes, and more expansive beds that cover large areas such as tidal flats known as “flat” beds (Durance, 2002). Inter-annual variation within a bed is not well known, but appears to be less than ten percent (Dowty et al, 2005). Fringing beds are generally linear. Flat beds are areas of large eelgrass beds in embayments that extend deeper than fringing and more linear beds found along shorelines (Dowty et al. 2005). Distribution is often, but not solely, determined by aspect to dominant winds. Eelgrass distribution across a bathymetric gradient is limited at the upper boundary by the degree of exposure at low tide (desiccation) and by light limitations at the lower boundary.

6.3 Sediment Types

When possible, field observers rated the primary, secondary and tertiary occurrence of substrate types: sand, mud, pebble and cobble. A subtidal environment dominated by cobble might indicate a habitat more suitable for large kelps, which would shade any eelgrass shoots growing between the cobble during the summer months. A predominately sandy muddy bottom would support continuous eelgrass meadows in most cases, unless other factors are present, such as exposure to strong waves or the interruption of habitat by boat mooring buoys. In some cases substrate characteristics change with increasing depth (e.g. cobble to sandy or mud to cobble).

6.4 Percent of Cover

Percent cover was estimated in broad categories to increase accuracy of observation (<25%, 26-75%, >75%). The coverage of an eelgrass meadow reflects both the substrate and the flow of water through it. A calm environment with a sandy mud substrate generally supports a dense, continuous eelgrass bed with virtually 100% cover. The cover of eelgrass in areas subjected to strong currents is typically patchy. Areas with heterogeneous substrate (mixture of fine and coarse) also tend to be patchy (Durance 2002). The percent of cover data collected from this inventory is based on subjective approximations as observed through the lens of an underwater camera. The approximate percent of cover does give important information on the density and productivity of a bed.

6.5 Tidal Fluctuations

It was important to note whether the tide was running or slack at the time of the inventory. Eelgrass shoots will tend to bend towards the substrate during running tides; the accuracy of percent of cover is then very approximate.

6.6 Presence of Other Vegetation

Other types of algae were documented as broad or tuft. Broad algae, such as kelps, sea lettuce and *Sargassum muticum* can blanket the ocean floor and make it difficult to characterize substrate. They can also shade eelgrass in mixed substrates as they anchor to hard surfaces. Tuft algae, such as brown and red algae do not shade eelgrass but indicate presence of hard surfaces for attachment. The presence of kelps, predominately large brown kelps, was noted, as was the presence of other types of smaller algae and *Sargassum muticum*. *Sargassum* is an exotic species of algae that can overshadow eelgrass if the substrate is a mix of sand and cobble. The presence of *Sargassum* was noted especially off the shores of Thetis and North and South Pender Islands.

6.7 Visibility

Visibility was a subjective observation and was rated low, medium and high. The amount of visibility could impact in some instances the accuracy of the observations, namely characterization of substrate. For example, Gambier Island often had low visibility. This can be caused by winds, sediment flows from the lower reaches of watersheds, inputs from nearby streams and tidal/current movements. Low tide periods make for the best visibility.

7.0 Survey Limitations

The range of accuracy for all the islands surveyed in 2012 was within +/- 2.4 metres. Visibility at times was poor, due to tidal influences, sedimentation in the water column from stream outflows, summer plankton blooms and wind. During the last day of mapping Gambier Island in August,

2012 the wind was too high to continue the inventory. The survey team returned to complete the inventory in September 2012. During the 2013 survey of islands within Howe Sound, the winds were often a factor in scheduling the inventories. The average horizontal precision for the GPS unit used for the 2013 eelgrass inventory was 0.814 m.

Percent of cover of eelgrass shoots is difficult to assess accurately with an underwater camera but was deemed important to characterize. Areas of particular interest (e.g., impact of shoreline modifications, restoration potential) should be surveyed by SCUBA divers. Overall, this inventory is an indication of the presence or absence of eelgrass habitat and does not represent maps of the outer or shoreward edges of each bed, with the exception of Bowen, Passage and Bowyer Islands. Polygons were mapped for these islands where possible in 2013.

8.0 2012 Inventory Findings

Eelgrass inventories were conducted using ShoreZone inventory maps which include presence of eelgrass where available and the ShoreZone shoreline classification types (available for all islands) as a reference.

The Islands Trust eelgrass inventory is important, particularly on islands such as Gambier and Lasqueti, as the ShoreZone data was based on Orthophoto images alone. Valdes, Cufra Inlet (Thetis Island), Passage and Bowyer Islands were mapped in 2013, but are included here under the 2012 inventory, as they are within the Thetis Island and Gambier Island local trust areas which were surveyed in 2012.

8.1 Gambier Island Local Trust Area

Gambier Island was surveyed on August 21st-23rd and September 11th, 2012. This island has rugged shorelines, with steep slopes leading to the subtidal zone. Eelgrass habitat comprises approximately 8.3% of the island's linear subtidal shoreline. The majority of the eelgrass beds are fringing, the significance of which has been described earlier in this report as important to wildlife corridors.

Gambier Island has been highly impacted by historical log storage practices. Eight sites were identified as possible restoration areas starting with small eelgrass test plots (approximately 800 to 1000 shoots). Larger eelgrass restoration might occur if these test plots increase in shoot density and coverage and as funding opportunities arise. In some of these sites, backshore lands have been placed on the real estate market, which may impact future restoration efforts if docks and wharves are permitted as additions to upland development.

Boat mooring buoys and recreational equipment on the water over eelgrass beds as well as derelict log booming cables and booms were observed. There were numerous docks and wharves within eelgrass habitats. Several large shoreline modifications were also noted. These changes to

the shore can have long term impacts on nearshore environments, including wave scouring, shading and interruptions to sediment transport. With the presence of active and retired log leases, the island would greatly benefit from an eelgrass restoration strategy plan to increase value for both biological diversity and ecological services.

Bowyer Island was surveyed on October 11-12th, 2013 using the polygon mapping methodology. The west, north and east coasts of Bowyer Island are largely steep and rocky. The south shore is characterized by several coves, varying in substrate. Eelgrass was estimated to extend along 11.35% of the Bowyer Island shoreline, observed only in particular coves along the southern portion of the island. The area of polygons containing eelgrass was observed to total 3690 m² and the length of mapped line features was observed to total 70 m. In addition to continuous beds, 4 individual patches of eelgrass were recorded, noted on the map as points. Eelgrass around Bowyer Island was similar in appearance and percent cover to that surrounding Bowen Island, i.e. patchy and sparse. Percent cover within the polygons was less than 25%.

Docks were located in eelgrass depth in the bay on the central southern shore of Bowyer Island, within zone W2/W1a. Eelgrass beds in that bay were observed to extend as far as the docks. Several chains were located on the ocean floor in zone W2 on the southeast shore of the island, and a large dock is within or adjacent to the eelgrass bed.

Large schools of small fish were frequently observed while circumnavigating Bowyer Island, particularly on the west, north and east coasts. Also observed were large numbers of pile perch (*Rhacochilus vacca*) and rockfish. Harbour seals were observed in several locations.

Passage Island was surveyed on October 5th, 2103 using the polygon methodology. One of the most exposed islands of Howe Sound, this island is a good example of how people and eelgrass tend to occur within similar, sheltered environments. Most of the island is characterized by rocky cliffs, with a few beaches. Eelgrass was observed in sections of the east coast of the island, along 15.67% of the total shoreline of the island. The area of polygons containing eelgrass was observed to total 3718 m² and the length of mapped line features was observed to total 40 m. Percent cover within the polygons was less than 25%. Ropes were observed on the sea floor in eelgrass depth in an area of the southeast coast of the island in the presence of patchy eelgrass. In this area was also located a floating dock within eelgrass depth and approximately 12 moorings in the eastern part of the area, where the eelgrass was very sparse and patchy. A floating dock and mooring was located at the south end of the more northerly eelgrass polygon on the east coast of the island.

The islands west of Bowen Island were inventoried between August 4th - 6th, 2013. The linear shoreline extent of eelgrass habitat surrounding the associated islands within the Gambier Island Local Trust Area totals approximately 13.27%.

Most of **Keats Island** contains flat or fringing beds of continuous eelgrass habitat on sandy/mud substrates, especially on the north and west facing shores. Patchy eelgrass beds were observed on the southeast shores, most likely due to exposure to predominant winds.

A high preponderance of single eelgrass patches lie on the southern tip of Keats Island, which may be caused by exposure to southerly winds, but also to the multiple locations of docks, especially on the southwestern shore.

There is potential for eelgrass restoration on the northern end of the island at the eastern point of a log booming area if the log lease is retired in the future. This area has a rocky/cobble foreshore, forested backshore and water park with overwater floats. There are also many docks on the southwestern portion of the island, which may cause fragmentation of eelgrass beds. Where there were low rock/cobble substrates, no eelgrass was present.

Anthropogenic Impacts include the construction of docks, presence of moored boats in eelgrass beds, removal of native backshore vegetation and recreational use of the nearshore (water park overwater play structures).

Continuous flat eelgrass habitat was observed in the southeast and western shores of **Shelter Island** directly west of Keats Island. No eelgrass was found near **Home Island** south west of Keats Island. **Preston Island** south of Keats Island contains a small continuous eelgrass bed on the southeast shore. The backshore is forested. **Ragged Islets** contain mostly patchy eelgrass beds throughout most of the subtidal areas, except for the west facing side of the islets. Mooring buoys and docks were observed on the eastern shore and a float on the northern side of the islets. Most of the islets are forested and contain rocky substrate. The small islet to the northeast contains a fringing continuous eelgrass bed.

The majority of eelgrass surrounding **Pasley Island** south of Ragged Islets is flat and continuous in sandy/shell hash substrate. Vegetation along the foreshore has been cleared near many residences. Retaining walls, docks and mooring buoy chains interrupt eelgrass continuity along the south and southeastern facing shores. There is potential for eelgrass restoration on the southeastern facing shore almost at the midpoint of the island where there is a gap in an otherwise flat continuous eelgrass bed. On the northeastern shore of Pasley there is a dense eelgrass bed that could serve as a possible harvesting site for restoration of lost or damaged eelgrass habitat.

No eelgrass was noted off of **Worlcombe Island** southeast of Pasley Island.

Mickey Island northeast of Pasley Island is surrounded on its western, southern and northern shores by mostly fringing patchy beds of eelgrass in sandy/shell substrate. Eelgrass is mostly likely limited on the eastern shores by low rock/boulder substrates. The rocky shores are surrounded by natural forests. Minimal anthropogenic impacts were observed.

To the west lies **Hermit Island**. The majority of eelgrass habitat is flat and continuous in sandy/shell hash substrates. Most of the habitat is located on the east facing shoreline, though the foreshore is cobble or low rock. The majority of the backshore is forested. In some areas, dock construction interrupts eelgrass beds. Harlequin ducks were observed within an eelgrass area on the southwestern side of the island.

Little Popham Island south of Hermit Island has mostly continuous flat beds of eelgrass to the southwest and northeast next to rocky shores and forested backshores. It is very likely eelgrass is limited by the subtidal low rock/boulder substrate surrounding the remaining areas of the island. Most of the eelgrass around **Popham Island** lives on the northeastern portion of the island in sandy/shell substrate and consists mostly of continuous and flat beds along steep rocky shores.

Grace Island southwest of Gambier Island contains mostly fringing continuous eelgrass habitats in shell/sand substrates next to steep rocky foreshores and forested backshores. A large school of fish was observed. **Woolridge Island** to the northwest of Gambier Island contains mostly flat continuous beds of eelgrass on its north facing shores. The beds are very robust, with a possible harvesting site on the east shore if restoration is undertaken in this area. There is woody debris noted near a breakwater on the north western facing shore of the island.

The majority of eelgrass habitat surrounding **Anvil Island** northeast of Gambier Island lives on the southeastern shores and is characterized as fringing. Most of the island is classified as cliff or low rock/boulder which is limiting for eelgrass growth. The presence of numerous mooring buoys and retaining walls impact the habitat. One potential restoration site was identified on the eastern shore.

The islands near the Sunshine Coast within the Gambier Island Local Trust Area were not mapped in 2013 due to poor mapping conditions and scheduling limitations. There are plans to inventory them in 2014, subject to funding and capacity.

8.2 Lasqueti Island

Lasqueti was surveyed from July 17th to July 19th 2012. This island's shoreline is composed of substrate formed from shallow stony deposits over bedrock. Shallow sandy/muddy benches extend into the subtidal zones. Eelgrass comprises approximately 13.8% of the island's linear intertidal and subtidal shoreline. The majority of the eelgrass habitat is flat, dense and continuous. Most of the backshore lands were naturalized with little development.

Possible impacts that could be occurring would be from boat mooring buoys anchored within eelgrass habitats, grazing by Canada geese, historical damage from log booming practices, hardened shoreline modifications and site locations of some aquaculture enterprises. False Bay could benefit from more detailed eelgrass mapping, as the multiple mooring buoys might be impacting eelgrass habitats.

8.3 North Pender Island

North Pender was inventoried on July 3rd, 4th and 6th 2012. Eelgrass comprises approximately 11.6% of the island's linear intertidal and subtidal shoreline. The majority of the eelgrass beds are flat and continuous. The protected nature of North Pender results in a relatively high proportion of soft substrate in shallower areas.

Impacts include housing developments with accompanying tree and shrub clearings, rip rap and rock wall modifications, some of which were constructed below the high water line, direct raw sewage outfall at Port Washington which would directly affect the water quality for eelgrass productivity, the presence of Canada geese, direct grazers on eelgrass shoots during low tides, and mooring buoys within eelgrass beds. Port Browning might be an appropriate site for eelgrass restoration as the substrate is suitable and there is a small bed on the northeast side.

8.4 South Pender Island

South Pender was surveyed on July 6th 2012. Eelgrass comprises approximately 8.5% of the island's linear intertidal and subtidal shoreline. South Pender has more exposed shoreline therefore less eelgrass is to be expected. Roughly the same proportion of flat and fringing beds are present with slightly more than half of them being continuous.

8.5 Mayne Island

Mayne Island was surveyed from 2009-2012 using two methodologies on a variety of platforms including: 1) delineation and creation of polygons (with towed underwater camera, on foot, by kayak, by free diver), 2) linear presence/absence (by kayak). Data was converted to presence/absence line format for incorporation into the 2012 Islands Trust Eelgrass Inventory.

Mayne Island is mostly protected except on the Northeast side which is exposed to winds from the Strait of Georgia. Eelgrass comprises approximately 22% of the island's linear intertidal and subtidal shoreline. The Mayne Island associated islands, Georgeson Island and Curlew Island, contain 15.7% and 24.8% respectively.

Evidence from the Mayne Island Conservancy's eelgrass monitoring program and historical anecdotal evidence has shown loss in intertidal eelgrass in Miners Bay and two Southeast facing bays on the Southeast side of Mayne. Reasons for loss are unknown, but ongoing monitoring will indicate natural variability in these eelgrass beds. Potential impacts include grazing from Canada geese, anchoring, mooring buoys, trampling by kayakers and damage from boats and propellers. Winter heavy rain events could be introducing increased sediment loads into eelgrass beds, but this would need to be studied.

Gallagher Bay (on Navy Channel) and Conconi Reef Park are potential eelgrass restoration sites. They both have large bare areas adjacent to continuous eelgrass beds and have suitable substrate.

8.6 Thetis Island Local Trust Area

Thetis and its associated islands were surveyed July 31st through August 3rd, 2012, except for the inside of Cufra Inlet which was inaccessible because of low tides, and Valdes Island. The Cufra Inlet survey was completed in the summer of 2013. Valdes Island was surveyed July 29th, and 30th, 2013.

Approximately 26.6% of the linear subtidal shoreline on Thetis Island is composed of eelgrass habitat, 72% of which is continuous. Fringing continuous eelgrass beds were observed off the western shore of Thetis where the ShoreZone map indicates a preponderance of low rock and boulder (not a typical shoreline type for eelgrass). **North Cove** is also rich with an abundance of eelgrass, except where it is shaded by overwater structures.

Cufra Inlet contains dense (26-75% cover) flat continuous eelgrass beds. The inside of the inlet was surveyed during the summer of 2013 by local residents using kayaks and hand held GPS units but without the use of an underwater camera, as the water was shallow enough for eelgrass to be observed from the kayaks. Low tides in 2012 prevented an aluminum boat from approaching close to shore during the low tides occurring during the survey. The continuous bed begins on the western shore of Cufra Inlet as a narrow 1 m wide swath on the shoreward side and then widens out. An abundance of drifting sea lettuce (*Ulva* spp.) was observed within this area. Eelgrass became denser seaward in the muddy/shell hatch substrate. The substrate became sandier as the mappers traveled towards the mouth of the channel. Patches of sand dollars were noted as the inlet widens and the eelgrass extends towards the eastern shore. Diatoms were noted growing on the eelgrass blades. At the western edge of the mouth of the inlet eelgrass is patchy and sparse despite its ShoreZone classification of 'cliff'.

Clam Bay eelgrass was dense and continuous.

Telegraph Harbour on Thetis Island had a preponderance of algae (*Ulva* spp.), *Sargassum muticum* and filamentous algae growth. Visibility was poor. Upland and shoreline development (rip rap, retaining walls and cement ramps) with accompanying vegetation clearing most probably has led to higher sedimentation in the nearshore waters.

Understory kelps were observed at most sites, although no fish or crab species were present at the time of the survey in the majority of the survey area. Possible impacts from boat moorings within eelgrass beds (e.g. **Ruxton Island** had > 15 boats moored off shore in one small area), recreational overwater play structures, shoreline modifications and nutrient run-off could be impacting nearshore habitats. Where there was suitable substrate for eelgrass as indicated by the ShoreZone data, eelgrass was present, with the exception of the narrow channel between Thetis and Penelakut Islands. However a long-time resident remembers eelgrass presence there approximately 40-50 years ago. Islets and small islands are important refugia for wildlife and often are less impacted than the surrounding larger islands.

A short description of the smaller islands and islets associated with Thetis Island are described below.

Percentages of eelgrass for each associated islet are:

Island	Eelgrass % Cover
Ruxton	11.6%
Pylades	0%
Bute	50.3%
Dunsmuir Islands (2)	34.7%
Hudson	30.9%
Reid	3.9%
Dayman & Scott Islands	39.6%
Valdes	12.7%

Hudson Island west of Thetis is rich with continuous fringing beds of eelgrass (26-75% cover) on both its eastern and western subtidal areas. **Dayman Island** has just under approximately 25% coverage of patchy eelgrass habitat mostly on its eastern facing side. **Reid Island** to the east has dense patches of fringing eelgrass on its northeast facing shore.

Ruxton Island to the north of Thetis has flat, continuous (less than 25% cover) eelgrass beds within sheltered sites on the western facing area; an abundance of nudibranchs was observed on eelgrass blades. The eastern shore, with the exceptions of some sites with fringing patchy beds, is too deep for eelgrass growth.

Whaleboat Island to the east of Thetis had too steep a drop off to be suitable for shallow eelgrass habitats. **Tree Island** contained 100% cover of understory kelps, which is an indication of a dominance of cobble/pebble substrate. As well, the subtidal area is too deep for eelgrass production.

Bute Island off of Ladysmith Harbour contained dense continuous beds because it is surrounded by a shallow bay with sandy substrate. There is a potential eelgrass restoration site on the northeast side of **Dunsmuir Island**, as it is composed of clean sandy substrate in a protected site. The narrow channel between Dunsmuir Island and Ladysmith Harbour contains continuous dense flat eelgrass beds.

Valdes Island was surveyed between July 29th and 30th, 2013. Eelgrass covers 12.69 % of its linear subtidal shores. The majority of the habitat is flat and continuous, with most of the locations cited on the northeastern and southwestern shorelines. Although the majority of the shorelines

on the western portion of Valdes are ShoreZone classified as low rock/boulder or cliff, the presence of flat continuous beds with bare patches was noted on the north and south western shores. Three potential restoration sites were identified; one on the central western side of the island, the second site on the northern tip of the island containing a small degraded eelgrass bed adjacent to the BC Parks dock, and the third is located on the southwestern shore which might have been historically impacted by log storage. The substrate at this site is suitable for a transplant; however *Ulva* spp. is present, which might be an indication of a high level of nutrient inputs.

The location of mooring buoys in eelgrass habitats with fifty-one buoys observed within beds and the interruption of eelgrass continuity by the construction of docks are the major anthropogenic impacts affecting eelgrass habitats on Valdes. The majority of the shoreline is naturally vegetated.

9.0 2013 Inventory Findings

The islands mapped in 2013 for eelgrass (*Zostera marina*) within the Islands Trust Area Islands include:

- Denman Island Local Trust Area,
- Hornby Island Local Trust Area,
- Ballenas – Winchelsea (Executive Islands) Local Trust Area,
- Gabriola Island Local Trust Area,
- Galiano Island Local Trust Area,
- Valdes Island and Cufra Inlet in the Thetis Island Local Trust Area
- Bowen Island Municipality
- Gambier Island Local Trust Area Associated Islands in the Howe Sound
(i.e. excluding the islands off of the Sunshine Coast)

The characteristics and locations of eelgrass habitats for each island are described below in order of the beginning dates eelgrass inventories occurred. Note that Valdes and Cufra Inlet are described in Section 8 above as they are in the Thetis Island Local Trust Area. Similarly the Gambier Island Local Trust Area Associated islands are also described in Section 8 as they are in the Gambier Local Trust Area. Both Thetis and Gambier Islands were mapped in 2012.

9.1 Galiano Island Local Trust Area

Galiano and its associated islands were inventoried over seven days between June 26th and November 25th, 2013. Approximately 16.66 % of the linear subtidal shoreline of Galiano Island is eelgrass habitat.

ShoreZone maps indicate that most of the southwestern and northeastern shorelines of Galiano Island are not suitable substrates (coastal bluffs and low rock/boulder respectively), except where there are sheltered embayments. However there are notable exceptions over the north, south west, south and eastern areas of the entire island.

The eelgrass distribution on Galiano is 88% continuous; 12% patchy. The placement of mooring buoys (at least 14 were noted within eelgrass beds, especially on the southwestern shores of the island), private docks (at least 12) and log storage have damaging effects on the habitat's continuity and function as a wildlife corridor. The construction of retaining walls (rip rap, rock and wooden) and the removal of backshore vegetation (at least 10 sites were observed) are obstacles for eelgrass to flourish in certain sites.

Most of the backshore on Galiano Island remains naturalized, with notable exceptions where trees and understory vegetation surrounding residences are removed and where shores are modified with retaining walls. Exotic invasive plants include English ivy, St John's Wort and gorse. Heavy epiphytic algae growth on eelgrass blades were noted within **Montague Harbour**, a possible indication of a high level of non-point source pollution. Another site for pollution is the public dock in **Whaler Bay** where boats are worked upon. Best management practices are recommended for boat sewage disposal and using tarps for collection of boat paint chips at each location.

There is the potential for eelgrass restoration within Whaler Bay, as the channel in front of the public dock contains a narrow band of eelgrass that could be expanded shoreward if log leases were retired in the future. In November, bufflehead and Barrow's Goldeneye as well as schooling forage fish were observed. Patchy eelgrass beds were noted off the eastern shores of Galiano Island. This area is ShoreZone classified as low rock/boulder. Four mooring buoys were located with these beds.

The eelgrass habitats covering the associated islands of Galiano comprise approximately 19.98% of the islands' linear shorelines. **Parker Island** has extensive eelgrass on its northeastern shores (96% continuous). The construction of docks and the placement of mooring buoys within eelgrass beds, however, may be impacting the habitat. Most of the eelgrass surrounding **Gossip Island** lives on the island's east facing shores is continuous (95%); however docks (7 were noted within the eelgrass beds) interrupt their form and function. Mooring buoys (3 observed) are situated within the existing beds on the south-western facing shores also disrupt the connectivity of eelgrass habitats.

No eelgrass was observed on **Ballingall** and **Lion Islets**, **Wise**, **Charles**, **Sphinx** or **Julia Islands**.

9.2 Gabriola Island Local Trust Area

Gabriola Island and associated islands were surveyed between July 8th and 21st, 2013. Gabriola Island's linear shores are comprised of 24.8 % eelgrass, with 89% continuous distribution. Two potential eelgrass restoration sites were identified on this island. The first is on the southwestern shore facing **Mudge Island** near an active log booming site. When the log lease is retired at this site, a small eelgrass transplant (100-500 shoots) could indicate whether the area is suitable for a larger transplant. The second site is on the northeast tip of Gabriola Island where a small existing bed could be expanded.

Wildlife in some areas abound, including Canada geese, an abundance of fish species, Great Blue Herons (22 at the southern channel entrance between Gabriola and Mudge Islands), sand dollars and Bald Eagles. Beaches that have suitable substrate for sand lance and surf smelt spawning were also noted. Healthy eelgrass beds near the **Malaspina Galleries** in Gabriola Sands Provincial Park are not surrounded by mooring buoys and docks and are thriving in in 4-5 metres water depth, although the area also contains rocky substrates.

Possibly the biggest impacts to marine wildlife habitats on Gabriola and its associated islands are the locations of floats and mooring buoys (in one embayment on the northwestern shore of Gabriola, over 12 floats – moorings and/or crab traps – and 14 buoys were observed in a continuous eelgrass bed); construction of retaining walls (nine riprap or rock walls identified); and, the removal of native backshore vegetation (13 sites). Numerous moorings are located in an otherwise robust eelgrass bed in **Degnen Bay**.

The eelgrass coverage for the Gabriola associated islands' linear shorelines totals 19.98%. Near the eastern shore of **DeCourcey Island** south of a marine park there are many docks and boats. Poor water quality was noted, and there are no washroom facilities at this location. No marine life was observed growing on the seafloor. North of the marine park there is a potential restoration site facing a steep rock ramp foreshore and a steep grassy conifer backshore near a former log booming site.

Snake Island has the potential for eelgrass restoration on its southern tip where there is a protected area with suitable subtidal sandy mud substrate, although this location may be too close to active boating. Seal pups and oyster catchers were cited near a large mussel bed.

There was no eelgrass habitat observed on **Hudson Rocks**. Marine life there included seal pups hauled out, bird habitats, cormorants and oyster catchers. The shell hash substrate off of **Five Finger Island** was noted to be situated too deep for eelgrass growth.

Mudge Island also has a potential eelgrass restoration site on its southeastern shore. Kelps are mixed with sandy/muddy/shell substrate. Most of the backshores are naturally vegetated, with exceptions near residential developments where mooring buoys are situated within eelgrass

beds (4 observed). The eelgrass habitat observed on Mudge was a mix of patchy/ continuous and flat / fringing beds on the eastern shores of the island. One bed in particular, located mid- island on the eastern side extended 100 metres shoreward beyond the waypoint, but the water depth was too shallow to delineate the bed.

Eelgrass on Link Island is characterized as flat continuous beds on its eastern shores. On the south shore of Link Island there are multiple docks (4) and mooring buoys (6).

Continuous fringing beds lie next to the northwest shores of Breakwater Island. Near Saturnina Island there are fringing continuous beds of eelgrass habitat on the western and northern shores.

Bath Island has a wide rock ramp in front of a windblown forest with a patchy bed with two larger patches surrounded by kelp and *Sargassum muticum* on its northwestern shore, while on its western shore there was a flat continuous bed.

Eelgrass habitat on Tugboat Island is characterized as narrow beds tucked between shore and wharf floats on the eastern side of the island and between the Tugboat Island and Sear Island to the south, which has flat continuous beds on its western shores. Continuous flat beds lie at the entrance to a marina on Vance Island. A rock/boulder shoreline with a, private dwelling with floating dock and several moorings are near flat continuous eelgrass habitat on Acorn Island.

9.3 Denman Island Local Trust Area

Denman Island and its associated islands were inventoried on several boat expeditions between August 20th and September 15th, 2013. In the Denman Island Local Trust Area 33.24% of the linear shore contains eelgrass. In some areas, especially in eastern subtidal areas, patchy eelgrass was observed amongst broad leaf kelps and *Sargassum muticum*, where the substrate is classified as low rock/boulder. A potential restoration site is located on the southwest area of the island near Metcalf Bay and is close to a site that could be used for harvesting transplants. The substrate south of this site gradually changes to cobble and gravel. Most of the beds surrounding the island are fringing, most likely due to coarser substrate changes at depth.

Eelgrass habitat is situated on the north eastern shores, classified by ShoreZone as sand/cobble and where numerous overwater structures are located and associated with industrial aquaculture activities. The eelgrass here was predominately patchy; most likely there are more patchy beds both shoreward and seaward of the mapped area. This area is the second most patchy eelgrass habitat observed, second only to areas in Howe Sound.

The majority of the backshore is not heavily impacted by development; most of the residences had either forested or grassy areas between them, with a minimum of landscaping. Abundant species of birds including black legged kittiwakes, surf scoters, marbled murrelets, grebes, harlequin ducks, surf scoters, herring gulls, and other marine wildlife species such as hooded nudibranchs, sand dollars, sand lance juveniles and abundant schooling fish were observed.

Sandy Island north of Denman Island contains continuous (99%) eelgrass habitats although the southern shores are ShoreZone classified as sand/cobble and the northern areas are classified as altered. Sand dollars were observed on both eastern and western sides of the island. **Seal Islets** were surrounded by fringing continuous (81%) eelgrass habitats. Associated with these beds were observed marbled murrelets and rafts of harlequin ducks and surf scoters, kittiwakes, gulls and seals. The backshore consisted of flat shrub, herbaceous and grassy slopes. . No eelgrass habitat was observed near **Chrome Island** due to unsuitable rocky substrates.

9.4 Hornby Island Local Trust Area

Eelgrass beds on Hornby Island were mapped over several days between August 21st and September 12th, 2013. The linear shoreline of the Hornby Island Local Trust Area is composed 31.70 % of eelgrass habitat. Large areas on both the western and northeastern shores of Hornby have continuous (90%) flat beds, although the classification by ShoreZone of these shorelines is low rock/boulder. The small areas of eelgrass found in these otherwise rocky cobble areas are valuable as critical habitat and corridors for marine life.

Most of the backshore is naturalized, even where residential houses are situated. Suitable substrate for spawning sites for forage fish was identified on the north eastern shores. Three potential restoration sites were also noted; one near this area for potential forage fish spawning, the second within a sandy embayment on the eastern shore (if boat anchoring pressures were decreased), and the third near the Hornby Island ferry terminal on the western side of the island (eelgrass was noted just north of the terminal growing in pebbles). There is also an opportunity for a community clean-up of underwater debris near a breakwater and marina on the southern end of the island. On **Toby Island** dozens of seals were hauled out.

9.5 Ballenas – Winchelsea (Executive Islands) Local Trust Area

The islands within the Ballenas – Winchelsea Local Trust Area were surveyed for eelgrass habitat between November 21st and 23rd, 2013. The total linear shoreline coverage of the Local Trust Area is 1.4%.

Mistaken Island west of Parksville has two eelgrass sites, one fringing patchy bed and the second within a cove with a dock, both on the southwestern shore. A flat continuous bed lies between the channel separating the **Ballenas Islands**. A continuous bed also lives on the north shore of the south island, punctuated with rock substrate. A school of forage fish, possibly sand lance was observed at the time of the survey in the shallow subtidal zone.

A small flat continuous bed on the west facing shores of the **Ada Islands** also may serve as suitable habitat for forage fish, prey for ancient murrelets, of which one was cited by field staff (unconfirmed). A second eelgrass bed is situated on the western shore of the west Ada Islands. The substrate at this location is primarily sandy with a secondary substrate of bedrock with associated intermixing rockweed and detritus. A seal haul out with 61 seals was noted near this site.

A small flat continuous eelgrass bed is located on the northeastern side of **Southey Island**. No eelgrass habitats were observed on **Gerald, Yeo, Amelia, Ruth** or **Winchelsea Islands**.

9.6 Bowen Island Municipality

Bowen Island was surveyed between Aug 6th -11th and Oct 4th, 5th and 12th, 2013 using the polygon mapping methodology. The island is characterized by a mix of sandy bays and steep shorelines. Large homes are common, with docks constructed both in the bays and on the steep cliffs. Bays, which are areas in which eelgrass is expected to grow, were also the location of waterfront homes and associated docks (both land-based and floating), moorings and anchored boats.

Eelgrass was estimated to extend along 11.6% of the shoreline of Bowen Island. The area of mapped eelgrass polygons was observed to total 41,917 m² and the length of mapped line features was observed to total 958 meters. Percent cover was low, however, and in addition to continuous beds, 84 individual patches of eelgrass were recorded and noted on the map as points. Eelgrass was observed within bays and straight sections of coastline on the southwest, northwest, northeast tip, east (Mannion Bay and north) and southeast coasts.

Around much of the island eelgrass was characterized by frequent individual patches, with each patch often consisting of very few shoots. Patches on the west coast were observed in areas that, from the shoreline or ShoreZone analyses, would not have been predicted, as the plants occurred seemingly opportunistically in patches of soft substrate located amid boulders and other coarser substrate. Percent cover even in continuous beds was consistently far less than 25% and noticeably sparser than other islands within the Islands Trust areas also surveyed during the 2013 mapping season.

Docks in areas such as in **Tunstall Bay** were located in depths suitable for eelgrass growth. Distances between some points on the polygon mapped in Tunstall Bay are longer than 20 meters as the eelgrass field surveyors needed to navigate around swimmers, docks and moored boats. Large clusters of sunflower stars (*Pycnopodia helianthoides*) were observed in the bay on sandy bottoms that did not contain eelgrass. Docks and moorings were also located in eelgrass depth elsewhere on the west coast of Bowen Island (e.g. the relatively straight shoreline north of Bowen Bay, King Edward Bay, the shoreline north of King Edward Bay and Galbraith Bay).

In some sites such as **Galbraith Bay** and **Columbine Bay**, eelgrass was only observed on one side of the bay despite suitable sandy substrate on the other side. For example, the substrate on the north side of Galbraith Bay was bare sand. There were several moorings in that bay. Eelgrass in Columbine Bay was sparse and appeared unhealthy; individual clumps were surrounded by bare sand. One hypothesis for this is that eelgrass may be impacted by boat wakes in the area. Boats were moored throughout eelgrass depth in **Cates Bay**.

Multiple beds of continuous eelgrass were identified throughout **Mannion Bay** between zero and more than 5 meter depth relative to chart datum. These beds, however, were not as dense as would be predicted given the soft substrate and sheltered environment. In the northeast side of the bay bare sandy fringing beds are interrupted by the construction of docks.

Mannion Bay is heavily used for boat anchoring, mooring and docking within depths suitable for eelgrass growth. The construction of docks and floats and their associated chains are impediments for eelgrass productivity in this area. Multiple adjacent docks have been constructed within eelgrass depth. Ropes and chains from docks, moorings or anchors had dragged on the sea floor, apparent due to the patterns they had created in the sand. The motion of the chains due to waves and currents can damage or uproot eelgrass.

Eelgrass otherwise appeared healthy in Mannion Bay and there are opportunities to restore lost eelgrass habitat if boat anchoring were restricted to a defined area outside of the depth range for eelgrass growth, i.e. if they were limited to 6 m depth or deeper. Schools of fish were observed within the existing sparse eelgrass; therefore, restoring the eelgrass in the area would serve to enhance fish habitat. Although it was not included in the project deliverables, the research team had been requested to look for evidence of litter on the sea floor in this bay; however, only a few cans and the possible remnants of a shopping cart were observed. Some of the moorings and anchored boats appeared derelict. Many crabs were observed on the south side of the bay, but were not identified to species.

No eelgrass was observed in **Snug Cove** including the head of the cove, near Crippen Park beach. Possible reasons include dredging, ferry wakes, eutrophication and boat traffic associated with the marina, and pollution of the substrate due to chipped wood debris. No flora was observed on the sea floor except for encrusting algae. There are restoration opportunities for the nearshore environment by Crippen Park beach if the historical and present impacts from the marina and former log booming site are addressed.

The inner portion of the eastern cove of **Konishi Bay** on the south coast of the island appeared suitable for eelgrass due to the sandy substrate and sheltered cove with a sandy beach. The substrate was bare sand, however. Eelgrass was observed in deeper locations of that bay. Removal of native plants and retaining wall constructions were noted around residences. In another eelgrass location in the southern portion of Seymour Bay/Seymour Landing where an adjacent coastal lot was for sale, coastal vegetation had been cleared and there is already evidence of slope failure both at the top and foot of the slope, despite installation of riprap. Water flow had also been channeled in the area, which could intensify water and sediment flow into the nearshore environment. Slope failure is a possible threat to eelgrass through smothering by eroding sediments. Shoreline hardening also increases wave energy and wave deflection, which can scour shorelines (Lamont 2013).

The area around **Cape Roger Curtis** has been of concern to local residents due to the construction of large docks and potential for damage to submerged habitats. Eelgrass was not observed around the exposed cape, as the observed substrate was steep and rocky. Kelp was observed in the area, however. Chains from the new construction were observed on the ocean floor. Kelp beds are a major feature along the rocky parts of the Bowen Island shoreline. Several schools of small or juvenile fish were also observed around the island.

10.0 Threats to Eelgrass Habitats

The impacts from human activities have been described previously (Section 4.0). Other field observations are described below.

There seems to be an increase in the abundance and distribution range of the invasive seaweed, *Sargassum muticum* within the Islands Trust Area, although there is at present no research to substantiate this. Although the plant settles and grows on cobble, surrounding eelgrass in sandy/muddy sediment can be shaded out by its overarching canopy. The presence of *Zostera japonica* was noted on Lasqueti and Thetis Islands and other areas within the Islands Trust. This non-native species of eelgrass is not known to compete with *Z. marina*, though it can be found mixed with the native eelgrass in the lower reaches of the intertidal zone.

Though there is some disagreement about the causes of epiphytic algae growth on eelgrass blades, it was noted within Telegraph Harbour on Thetis Island and Montague Harbour on Galiano Island. This could be an indication of excessive nutrients, causing an abundance of algae growth on the blades and blocking light, nutrients and gas exchange (Mumford 2007).

Canada geese are infamous for their grazing on eelgrass shoots. They were noted in large numbers on Lasqueti, Gabriola, and North Pender and South Pender Islands. Overgrazing of shallow eelgrass beds might be a growing concern as the birds are increasing in range and numbers.

As winter storms intensify, there might be an increase in burial of eelgrass shoots by sand over wash. Monitoring eelgrass habitats over time in selected locations vulnerable to storm events might shed light on the effects of climate changes upon the nearshore environment.

Eelgrass Restoration

11.0 Opportunities for Eelgrass Restoration

Thirteen areas in 2012 and nineteen in 2013 were identified as potential sites for eelgrass restoration as indicated in the legends on the maps produced by this project. When funding is available, these sites can be further investigated. The history of eelgrass transplants and their success in British Columbia to date is described below.

11.1 History of Eelgrass Restoration

In the Pacific Northwest, the history of success for *Zostera marina* transplanting projects was dismal prior to 1985. Initially transplant techniques were developed and successful on the Atlantic coast. However, these techniques were not well suited to the Pacific north coast environment and eelgrass. Many of the early transplants were conducted without a thorough understanding of eelgrass physiology and ecology; the donor stock was not always well suited to the area where they were transplanted, and the biophysical conditions of the transplant site were not always appropriate for the species (Durance 2001).

Since 1985, knowledge and experience from adaptive management practices have resulted in a higher success rate for focused mitigation and enhancement projects along the Pacific coast (Thom, Borde, Williams, Southard, Blanto and Woodruff 2001). Factors that led to a higher success rate include the correct selection of physical attributes for the restoration area, including elevation, substrate composition and light and current regime. The selection of the most suitable ecotype or genotype increased the likelihood for success and rate of production. The criteria for success included shoot density and area re-vegetated (Durance 2001).

11.2 Criteria for Successful Restoration

In British Columbia, the criterion for transplant success is based upon the mean shoot density being equal or greater than the area of adjacent natural beds and the area coverage. Projects are thus considered successful if the habitat that was created provided habitat equal in eelgrass productivity (shoot density) to that which it was designed to replace (Durance 2001).

Site selection with the appropriate biophysical characteristics (salinity, sediment type, current velocity, light/depth, temperature, and pH), using suitable plant donor stock (ecotype), using an appropriate transplanting technique and handling the donor plants with care are necessary for successful transplants. Several restoration transplants have occurred in Squamish, the Sunshine Coast, Campbell River, Cowichan Bay and Saanich Inlet. Most of the locations have been impacted by historical log storage practices. The majority of these transplants are considered successful based on monitoring of shoot densities and area coverage post-transplant. They were completed under the supervision of a scientific advisor with community volunteer support and a Workers Compensation Board (WCB) certified team, with funds collected by environmental conservation groups.

12.0 Recommendations

Globally, eelgrass has been used as an indicator of water quality (Neckles 1994). Often, a bed will decrease or increase in width and length dependent on light availability. The lower depth distribution of eelgrass is related to overall water clarity. Water quality, including water clarity, is affected by land practices and water uses. If, for example, a large scale development occurs on shore near an eelgrass bed, the bed may decrease in size because the water quality in the nearshore is consistently compromised by the increased pollution load, known as non-point source pollution, frequently delivered by the storm water system. When the amount of light reaching the

plants is limited by shading from increased sediment or plankton blooms associated with increased nutrients from land, eelgrass meadows adapt to the poor light availability through dieback, decreases in density or width and migration to shallower depths.

The Islands Trust Area is home to more than 25,000 people and is located between the highly populated centres of Vancouver, Victoria and Nanaimo. However, only approximately 12.5 % of the marine environment has some type of protection. Most of this protection is in Rockfish Conservation Areas, with Provincial and Federal Marine Protected Areas accounting for only 1.53% (Islands Trust Fund Regional Conservation Plan 2011-2015). Sound decisions by local trustees and an educated public are necessary to protect the functions of the nearshore for all who benefit from their healthy ecology.

A set of recommendations is listed below to contribute to the conservation work of the Islands Trust and Islands Trust Fund.

12.1 Education

1. Educate boaters and coastal residents about the presence and importance of eelgrass beds.
2. Encourage shoreline landowners to replace light-impenetrable docks with materials that allow light penetration.
3. Encourage signage at boat ramps reminding boaters to avoid eelgrass beds in shallow water.
4. Build public awareness about the importance of reducing nutrient inputs in marine riparian areas; encourage protection and restoration of wetlands and the construction of retention ponds to filter land based pollutants; and encourage reduction in the use of fertilizers, pesticides and herbicides.
5. Develop a long term public outreach nearshore marine education strategy that includes new shoreline property owners.

12.2 Regulatory and Enforcement

1. Limit dock development, particularly in established and potential eelgrass areas (i.e. areas where substrate is suitable for eelgrass growth).
2. Encourage creation of “No anchoring/mooring” zones in suitable eelgrass areas (based on substrate, depth and observed presence of eelgrass); encourage movement of moorings to areas that are too deep for eelgrass.
3. Limit shoreline development; maintain a coastal riparian zone that will enable inland shift of eelgrass beds as sea levels rise.

4. Create and implement appropriate setbacks for built structures from the nearshore.
5. Limit or reduce overwater structures; increase shared community docks and wharves when possible.
6. Require removal of illegal shoreline modifications; require restoration or removal of aged derelict structures where possible.

12.3 Opportunities for collaboration with other agencies

1. Encourage and undertake as resources allow regularly scheduled monitoring of sensitive or vulnerable shorelines; make monitoring results readily accessible to all.
2. Where boat traffic must go through an eelgrass bed, encourage establishment of marked boat channels so that the least damage is done to the habitat.
3. Create protected marine zones and encourage planned siting for mooring buoys for recreational boats around eelgrass beds.
4. Promote management strategies to mitigate conflicting uses in eelgrass habitat, such as oyster and clam harvesting, boating and anchoring in meadows and near-shore development requiring dredging.
5. Promote restoration of natural hydrology when opportunities arise.
6. Promote restoration of eelgrass habitats where possible.

13.0 Conclusion

Changes from increased human population, more frequent and intense storms and changes in sea levels and pH of the oceans emphasize the need to monitor eelgrass habitat and protect it with sound science-based policies and regulations.

Eelgrass meadows function as natural marine sanctuaries, as indicators of nearshore ecological health, and as sequesters of atmospheric carbon. As well, these valuable habitats are important sources of nutrients for local and off-shore marine and nearshore systems. The conservation, protection, monitoring and restoration of native eelgrasses within the Islands Trust Area is and will continue to be a long term smart investment in the social, cultural and biological vitality of the islands.

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Appendix A

Mapping Methodology

2012 - 2013

2012 Methodology for *Zostera marina* Presence and Absence Mapping With a Towed Underwater Camera

The following methodology for eelgrass mapping (*Zostera marina*) was used to determine the location (presence/absence) of eelgrass habitats for Thetis, North and South Pender, Mayne, Lasqueti and Gambier Islands in 2012 under contract with the Islands Trust Fund.

The methodology reported here is an addendum to “Methods for Mapping and Monitoring Eelgrass Habitat in British Columbia” (“Methods”) authored by Precision Identification Biological Consultants and peer reviewed by experts in the field. This addendum was created by the Seagrass Conservation Working Group with input and review by Precision Identification.

The purpose of presence and absence mapping methodology is to determine the linear extent of eelgrass along the coastline. This is achieved by deploying an underwater camera that is towed by a boat and recording the geographic location of eelgrass beds using a hand held GPS. The resulting representation of eelgrass beds are lines.

General habitat characteristics outlined in Methods are also recorded: Form (flat/fringing), Distribution (continuous/patchy), Percent Cover (<25%, 26-75%, >75%), and Substrate type (sand/mud/pebble/cobble/boulder). The state of the tide was recorded as “slack” or “running” in order to indicate the level of confidence in the percent cover estimate. A slack tide yields a higher level of confidence than a running tide, which causes the eelgrass lay across the ocean floor.

Eelgrass ShoreZone bioband mapping and marine charts were used to determine potential locations of eelgrass beds. The majority of the eelgrass beds in the Southern Salish Sea include habitat between 1 and 3 m chart datum. This depth contour was followed and eelgrass presence within this depth range was recorded. If eelgrass was not found in this depth range where bathymetry and substrate characteristics were suitable for eelgrass growth, a perpendicular transect was followed ranging from +1m to -6m which is the typical range of eelgrass in the Salish Sea.

GPS waypoints and the following parameters were recorded at roughly 10m intervals: depth, eelgrass presence, form, distribution, substrate, percent cover, tide state, presence of broad or tuft algae, visibility.

Where marine charts indicated suitable conditions (a shallow bathymetric relief) for eelgrass but eelgrass was not present, waypoints and substrate type were recorded at 20m intervals. Where marine charts indicated unsuitable conditions for eelgrass (steep bathymetric relief), only waypoints were recorded to indicate mapping coverage.

2013 Methodology for *Zostera marina* Presence Mapping with a Towed Underwater Camera

For the 2013 contract, the following methodology for eelgrass mapping (*Zostera marina*) was used to determine the location (presence) of eelgrass habitats for the Gabriola Island Local Trust Area, the Galiano Island Local Trust Area, Valdes Island, Ballenas – Winchelsea (Executive Islands) Local Trust Area, Cufra Inlet (Thetis Island) and the Gambier Associated Islands found within Howe Sound (excluding the Thormanbys and other islands off of the Sunshine Coast).

The methodology reported here is an addendum to “Methods for Mapping and Monitoring Eelgrass Habitat in British Columbia” (“Methods”) authored by Precision Identification Biological Consultants and peer reviewed by experts in the field. This addendum was created by the Seagrass Conservation Working Group with input and review by Precision Identification. For 2013 mapping Islands Trust Global Positioning System Specifications (Schedule G to the Islands Trust contract) were adopted except for Cufra Inlet on Thetis Island where a hand held GPS was used to be consistent with 2012 mapping. Average accuracy was 0.814m and was the combined result of the built-in accuracy of the GPS unit, lag time between sighting eelgrass and the unit gathering enough satellite data to create a waypoint, in combination with boat drift.

Linear Mapping

With the exception of the islands in Metro Vancouver, the Islands Trust eelgrass mapping was done using a linear method to determine presence of eelgrass along the shoreline. This linear eelgrass mapping is achieved by towing an underwater camera using a boat, except for the mapping done in Cufra Inlet in 2013, where the water was shallow enough to observe eelgrass from kayaks, and by concurrently recording the geographic location of eelgrass beds using a GPS. The resulting representations of eelgrass beds are lines and points (where the eelgrass patch was less than 3m in length).

Polygon Mapping

With financial assistance from Metro Vancouver, eelgrass beds on Bowen, Bowyer and Passage Islands were mapped using polygons to show their full extent. In addition to the linear mapping described above, underwater camera transects were conducted perpendicular to shore to map shoreward and seaward edges. In some areas, fringing eelgrass and eelgrass patches were too small to map as polygons. In these locations lines and points were used respectively to show eelgrass presence. Fringing eelgrass bands $\leq 5\text{m}$ wide were mapped as lines and patches less than 10m^2 were mapped as points. Mapping of polygons according to standard methodology was limited due to safe boat operation in wind, current and tidal movements, as well as navigation around boats and swimmers.

For all the islands, general habitat characteristics outlined in Methods are also recorded: Form (flat/fringing), Distribution (continuous/patchy), Percent Cover (<25%, 26-75%, >75%), and Substrate type (sand/mud/pebble/cobble). The state of the tide was recorded as “slack” or “running” in order to indicate the level of confidence in the percent cover estimate. A slack tide

yields a higher level of confidence than a running tide, which causes the eelgrass to lie across the ocean floor.

ShoreZone eelgrass bioband mapping and marine charts were used to determine potential locations of eelgrass beds. The majority of the eelgrass beds in the Southern Salish Sea are found between 1 and 3m chart datum. This depth contour was followed and eelgrass presence within this depth range was recorded. If eelgrass was not found in this depth range where bathymetry and substrate characteristics were suitable for eelgrass growth, a perpendicular transect was followed ranging from +1m to -6m which is the typical range of eelgrass in the Salish Sea.

GPS waypoints and the following parameters were recorded at roughly 10m intervals with intervals no longer than 20m: depth, eelgrass presence, form, distribution, substrate, percent cover, tide state, presence of broad or tuft algae, visibility.

The following section was removed from the methodology for 2013:

Where marine charts indicated suitable conditions (a shallow bathymetric relief) for eelgrass but eelgrass was not present, waypoints and substrate type were recorded at 20 metre intervals. Where marine charts indicated unsuitable conditions for eelgrass (steep bathymetric relief), only waypoints were recorded to indicate mapping coverage.

Appendix B

Maps of Shoreline Units

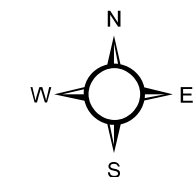
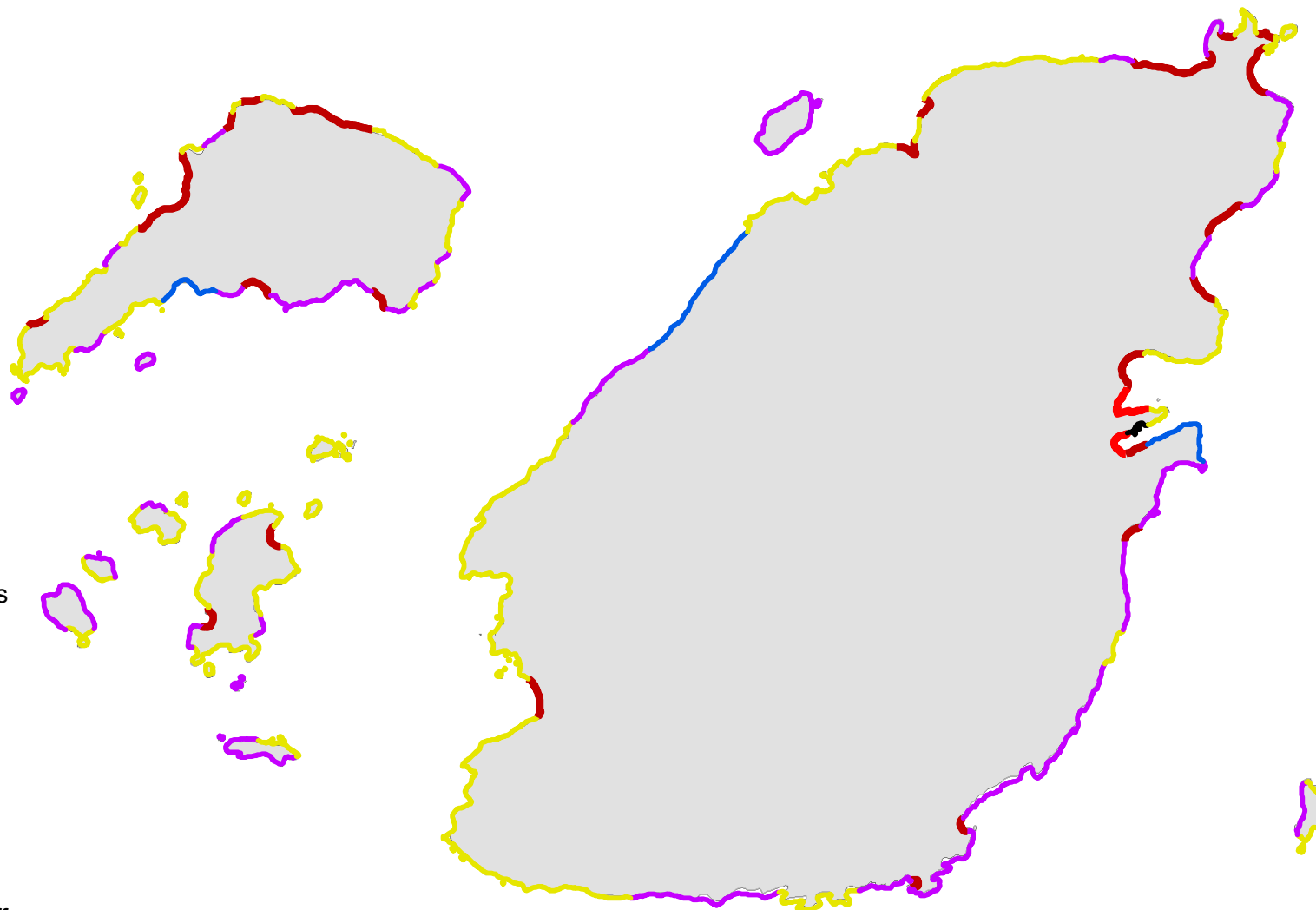
Shoreline Units & Zostera Bioband Units -- Bowen Island --

Produced By: Galiano Conservancy Association

Data Source: Provincial Shorezone Database

Map Date: June 2013

Projection: UTM Zone 10 NAD83



 Zostera Bioband Units

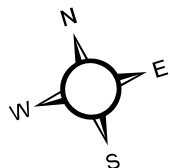
SHORELINE_UNITS

-  Estuary
-  Sand / Cobble
-  Low Rock / Boulder
-  Altered
-  Cliff
-  Coastal Banks or Bluffs

1:70,000

Shoreline Units & Zostera Bioband Units -- Denman Island --

Produced By: Galiano Conservancy Association
Data Source: Provincial Shorezone Database
Map Date: June 2013
Projection: UTM Zone 10 NAD83



 Zostera Bioband Units

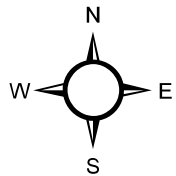
SHORELINE_UNITS

-  Estuary
-  Sand / Cobble
-  Low Rock / Boulder
-  Altered
-  Cliff
-  Coastal Banks or Bluffs

1:70,000

Shoreline Units & Zostera Bioband Units -- Executive Islands --

Produced By: Galiano Conservancy Association
Data Source: Provincial Shorezone Database
Map Date: June 2013
Projection: UTM Zone 10 NAD83



 Zostera Bioband Units

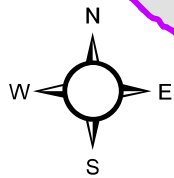
SHORELINE_UNITS

-  Estuary
-  Sand / Cobble
-  Low Rock / Boulder
-  Altered
-  Cliff
-  Coastal Banks or Bluffs

1:46,362

Shoreline Units & Zostera Bioband Units -- Gabriola Island --

Produced By: Galiano Conservancy Association
Data Source: Provincial Shorezone Database
Map Date: June 2012
Projection: UTM Zone 10 NAD83



 Zostera Bioband Units

SHORELINE_UNITS

-  Estuary
-  Sand / Cobble
-  Low Rock / Boulder
-  Altered
-  Cliff
-  Coastal Banks or Bluffs

1:57,500

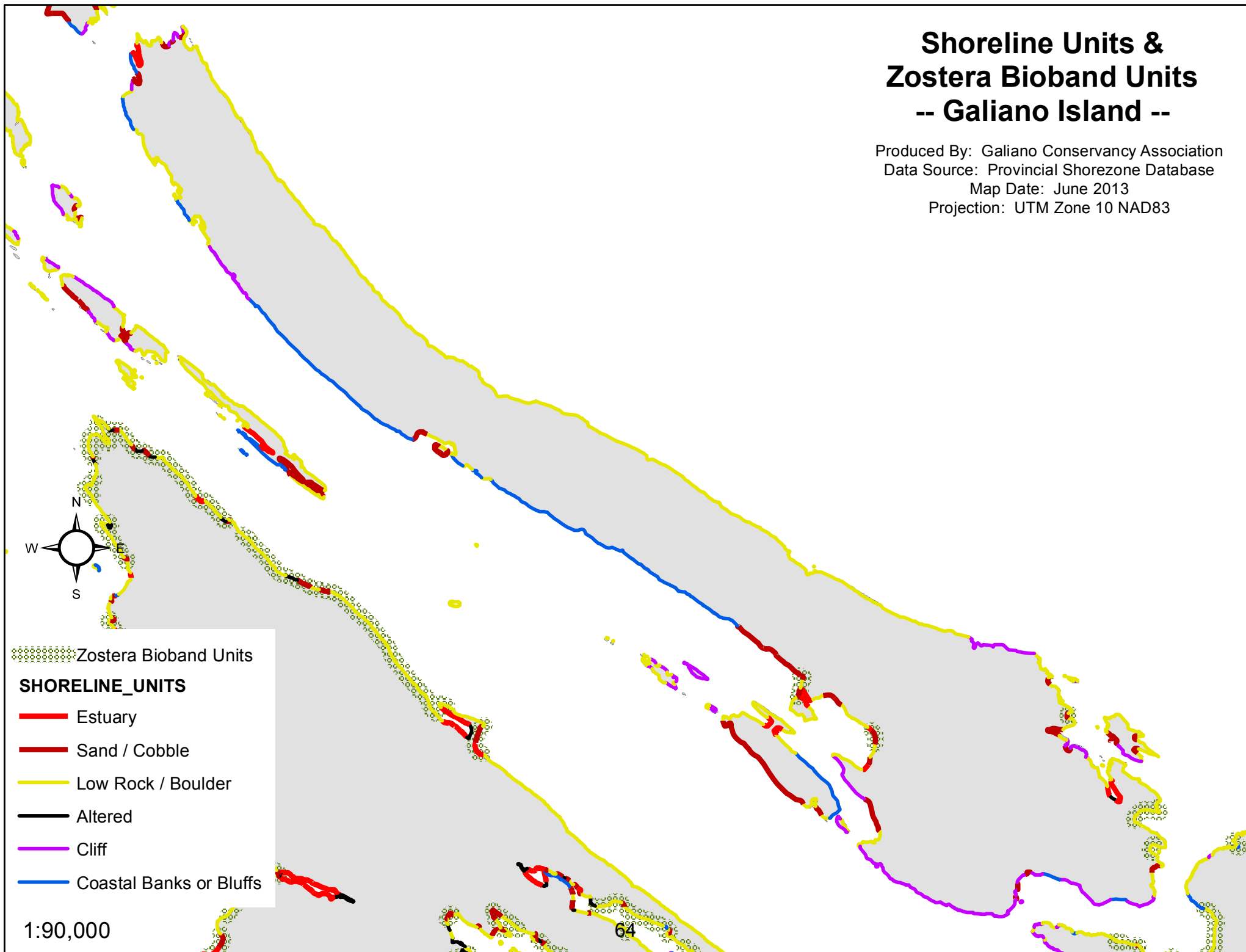
Shoreline Units & Zostera Bioband Units -- Galiano Island --

Produced By: Galiano Conservancy Association

Data Source: Provincial Shorezone Database

Map Date: June 2013

Projection: UTM Zone 10 NAD83



Shoreline Units

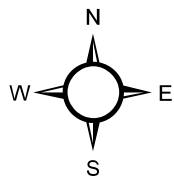
-- Gambier Island --

Produced By: Galiano Conservancy Association

Data Source: Provincial Shorezone Database

Map Date: June 2012

Projection: UTM Zone 10 NAD83

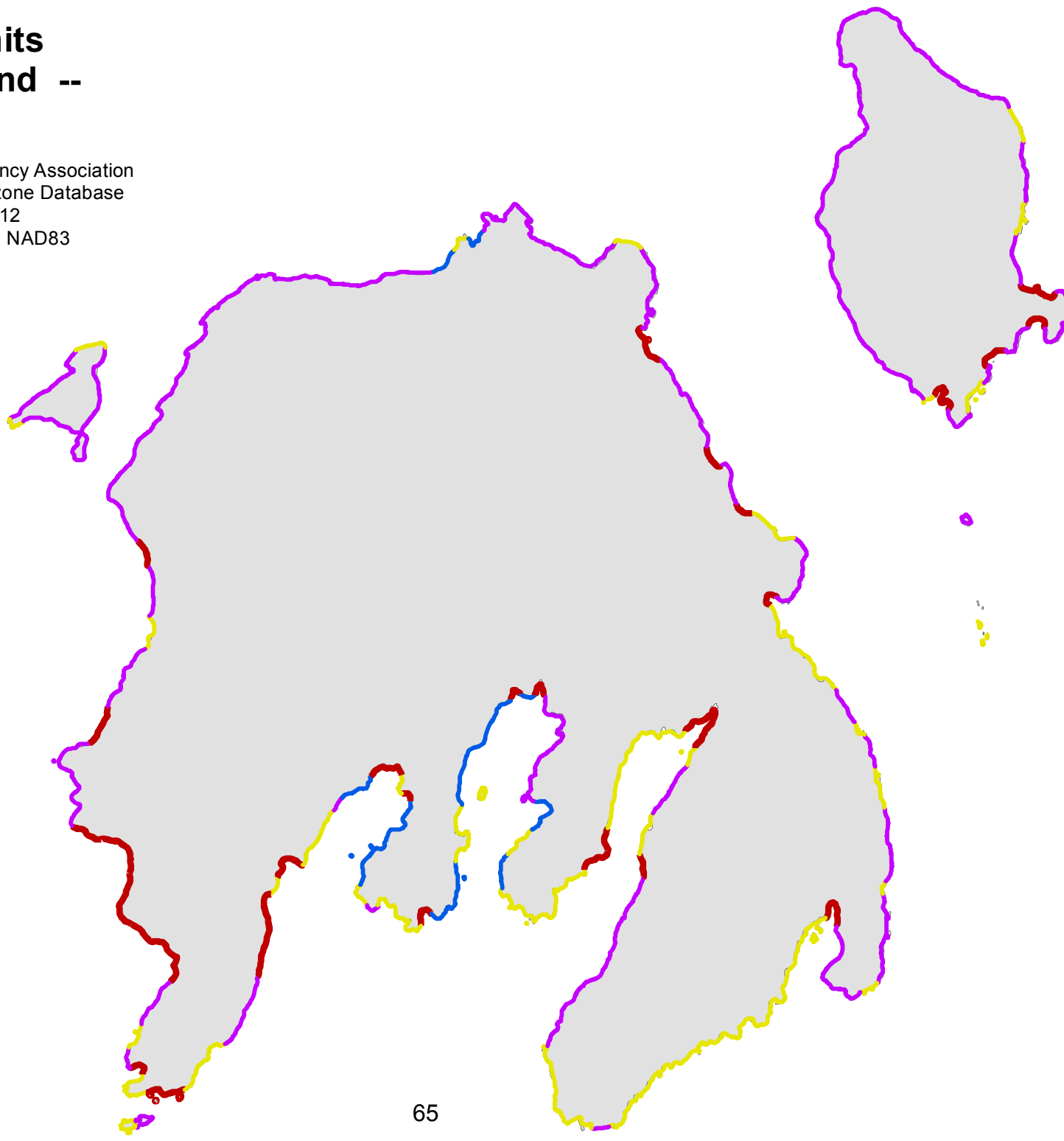


SHORELINE_UNITS

- Estuary
- Sand / Cobble
- Low Rock / Boulder
- Altered
- Cliff
- Coastal Banks or Bluffs

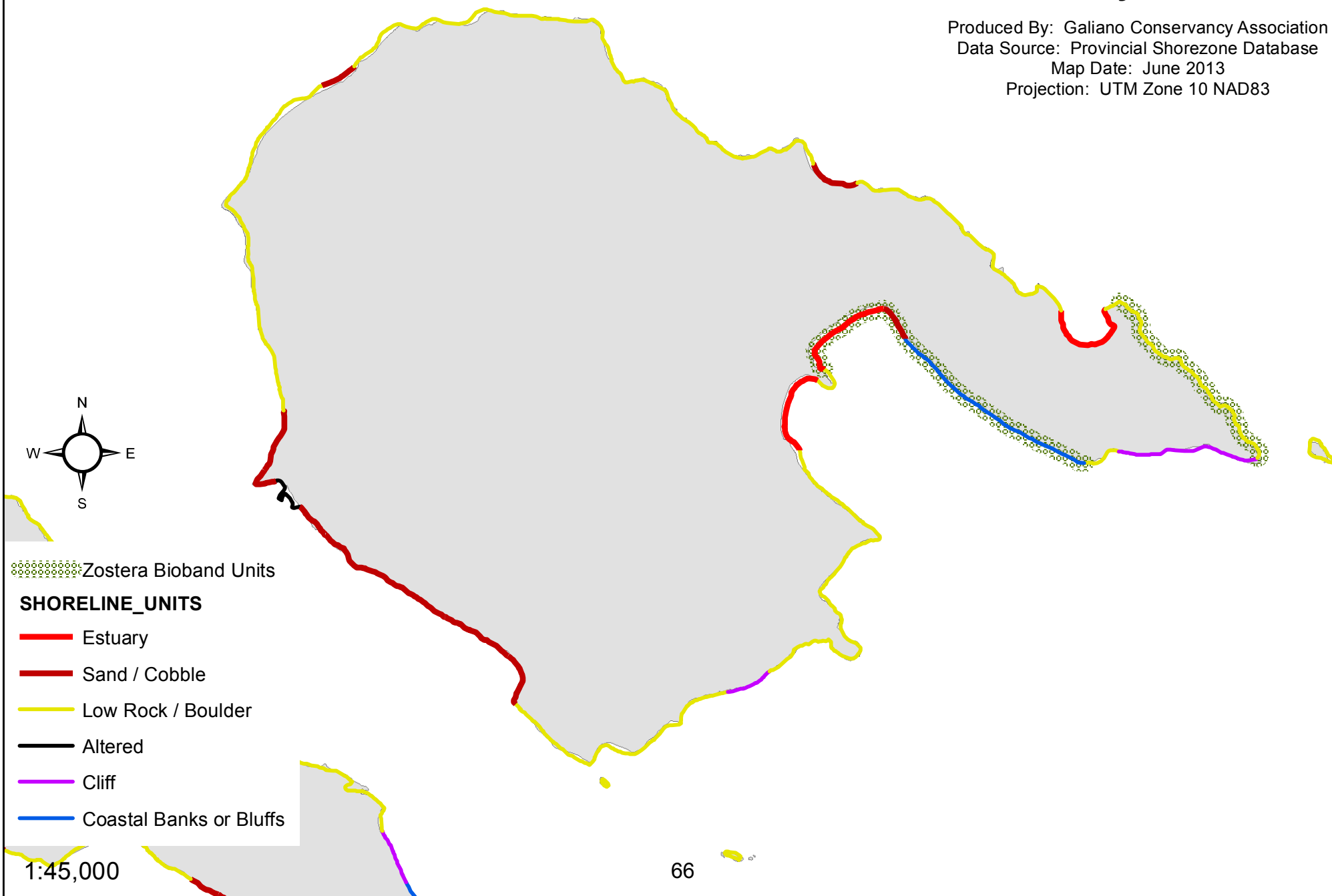
1:70,000

65



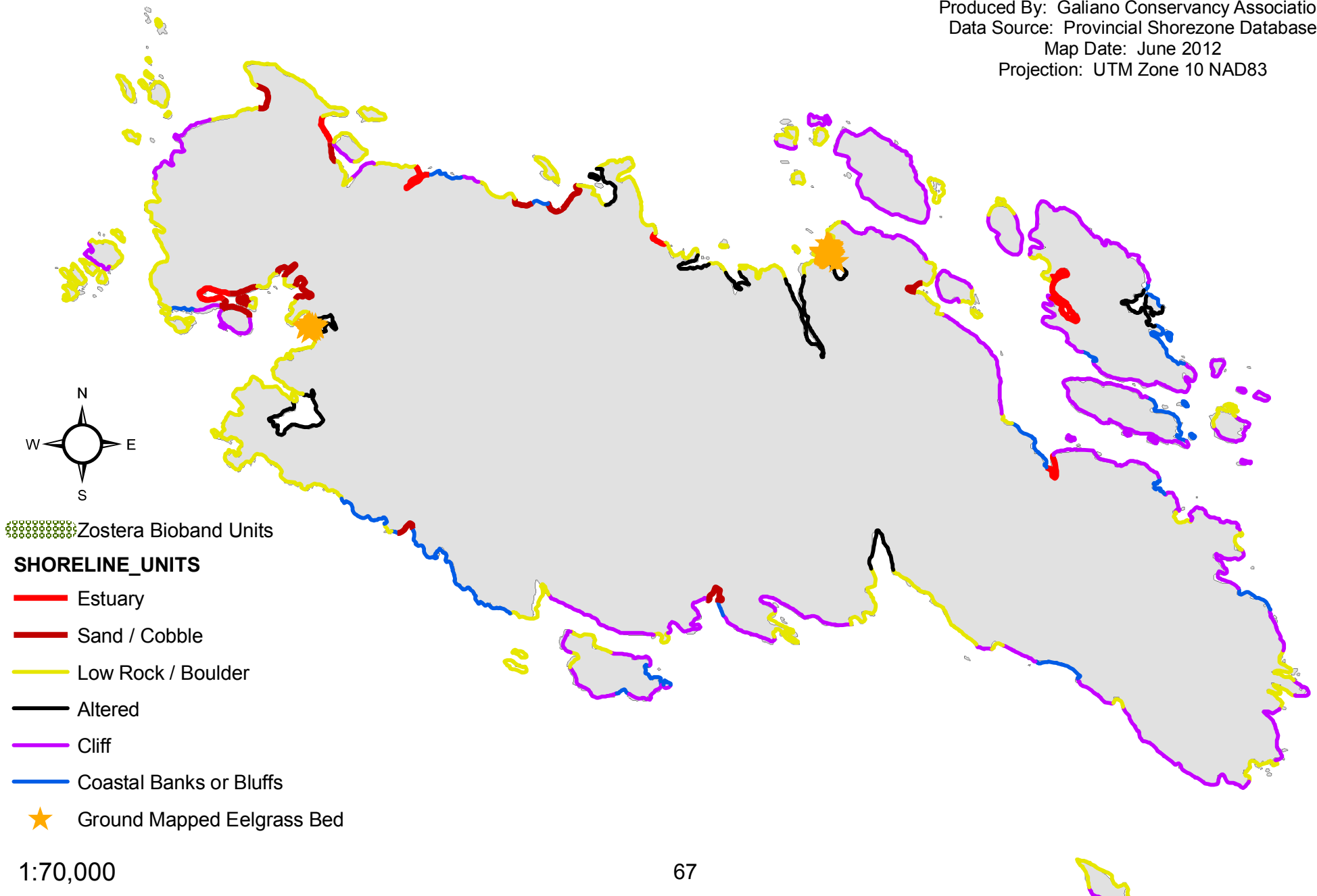
Shoreline Units & Zostera Bioband Units -- Hornby Island --

Produced By: Galiano Conservancy Association
Data Source: Provincial Shorezone Database
Map Date: June 2013
Projection: UTM Zone 10 NAD83



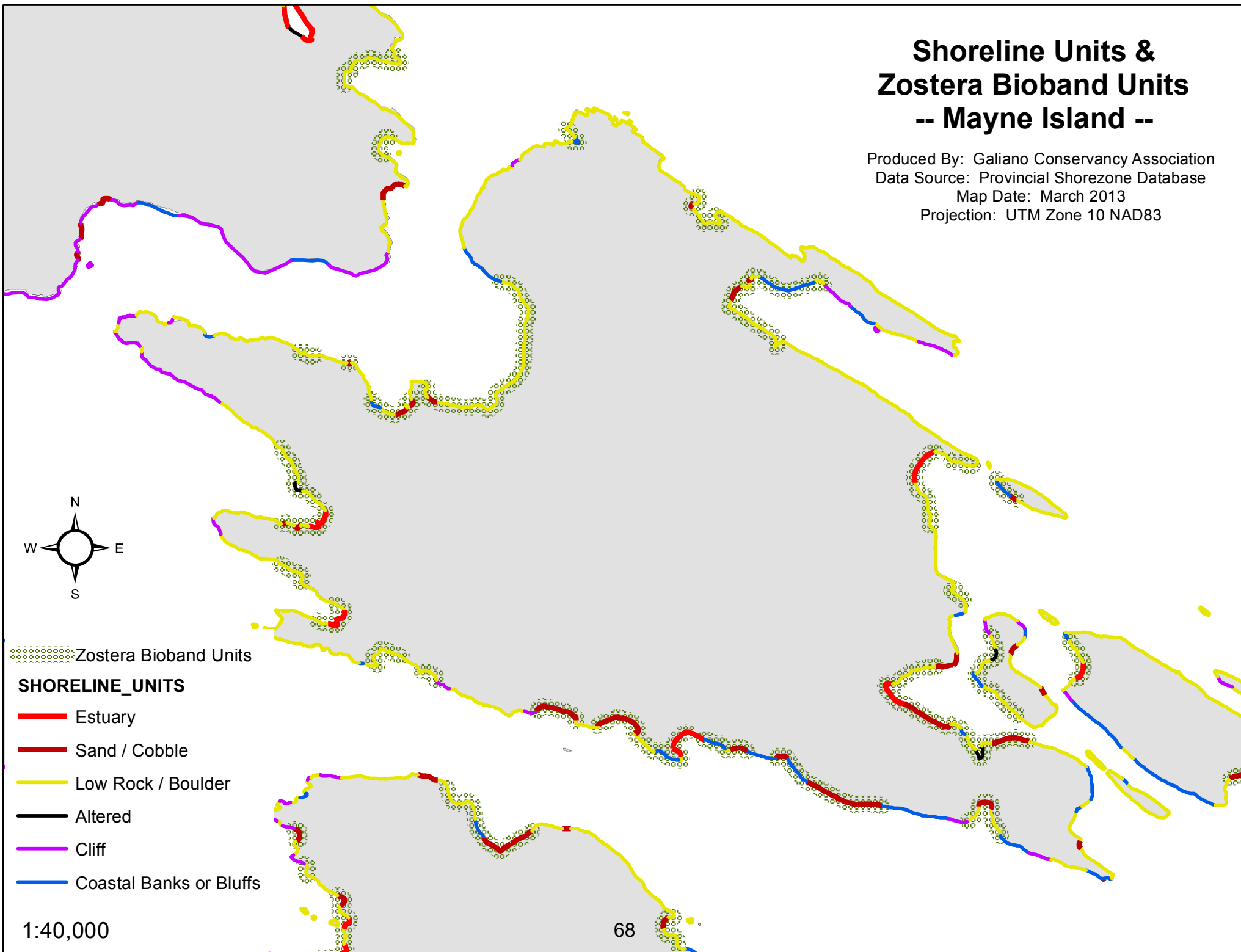
Shoreline Units & Zostera Bioband Units -- Lasqueti Island --

Produced By: Galiano Conservancy Association
Data Source: Provincial Shorezone Database
Map Date: June 2012
Projection: UTM Zone 10 NAD83

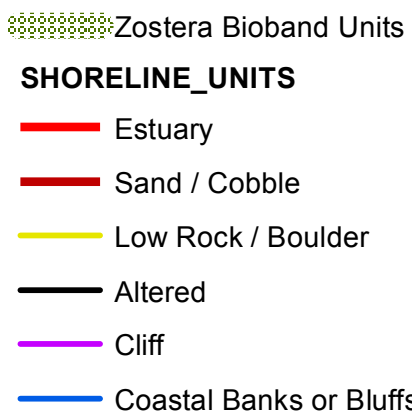


Shoreline Units & Zostera Bioband Units -- Mayne Island --

Produced By: Galiano Conservancy Association
Data Source: Provincial Shorezone Database
Map Date: March 2013
Projection: UTM Zone 10 NAD83

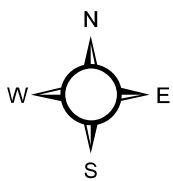


Produced By: Galiano Conservancy Association
Data Source: Provincial Shorezone Database
Map Date: June 2012
Projection: UTM Zone 10 NAD83



Shoreline Units & Zostera Bioband Units -- Thetis Island Trust Area --

Produced By: Galiano Conservancy Association
Data Source: Provincial Shorezone Database
Map Date: June 2012
Projection: UTM Zone 10 NAD83



 Zostera Bioband Units

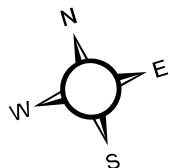
SHORELINE_UNITS

-  Estuary
-  Sand / Cobble
-  Low Rock / Boulder
-  Altered
-  Cliff
-  Coastal Banks or Bluffs

1:55,000

Shoreline Units & Zostera Bioband Units -- Valdez Island --

Produced By: Galiano Conservancy Association
Data Source: Provincial Shorezone Database
Map Date: June 2013
Projection: UTM Zone 10 NAD83



 Zostera Bioband Units

SHORELINE_UNITS

-  Estuary
-  Sand / Cobble
-  Low Rock / Boulder
-  Altered
-  Cliff
-  Coastal Banks or Bluffs

1:61,321

Appendix C

Summary of Overwater Structures

The Impacts of Overwater Structures on the Marine Nearshore Environment



The following information was taken from two sources. A Green Shores document summarizes possible effects of docks.¹ A White Paper published in 2001² for the Washington State Transportation Commission in Puget Sound is more detailed. The page numbers at the end of paragraphs indicate the page on which the information was found in the original document.

Information collated by Nikki Wright, Executive Director

SeaChange Marine Conservation Society

¹ Province of British Columbia. *Coastal Shore Stewardship: A Guide for Planners, Builders and Developers on Canada's Pacific Coast*. www.greenshores.ca

² Nightingale, B. & Simenstad, C.A. (2001) *Overwater Structures: Marine Issues White Paper Research Project T 1803, Task 35*. Prepared for Washington State Transportation Commission and in cooperation with U.S. Department of Transportation, Federal Highway Administration. 108 pages.

Summary of Possible Effects of Docks

Coastal Shore Stewardship: A Guide for Planners, Builders and Developers on Canada's Pacific Coast Province of British Columbia (Available on the Green Shores Web site: www.greenshores.ca)

What Can Happen (p. 65)

The installation of docks can affect the coastal biophysical environment in a variety of ways:

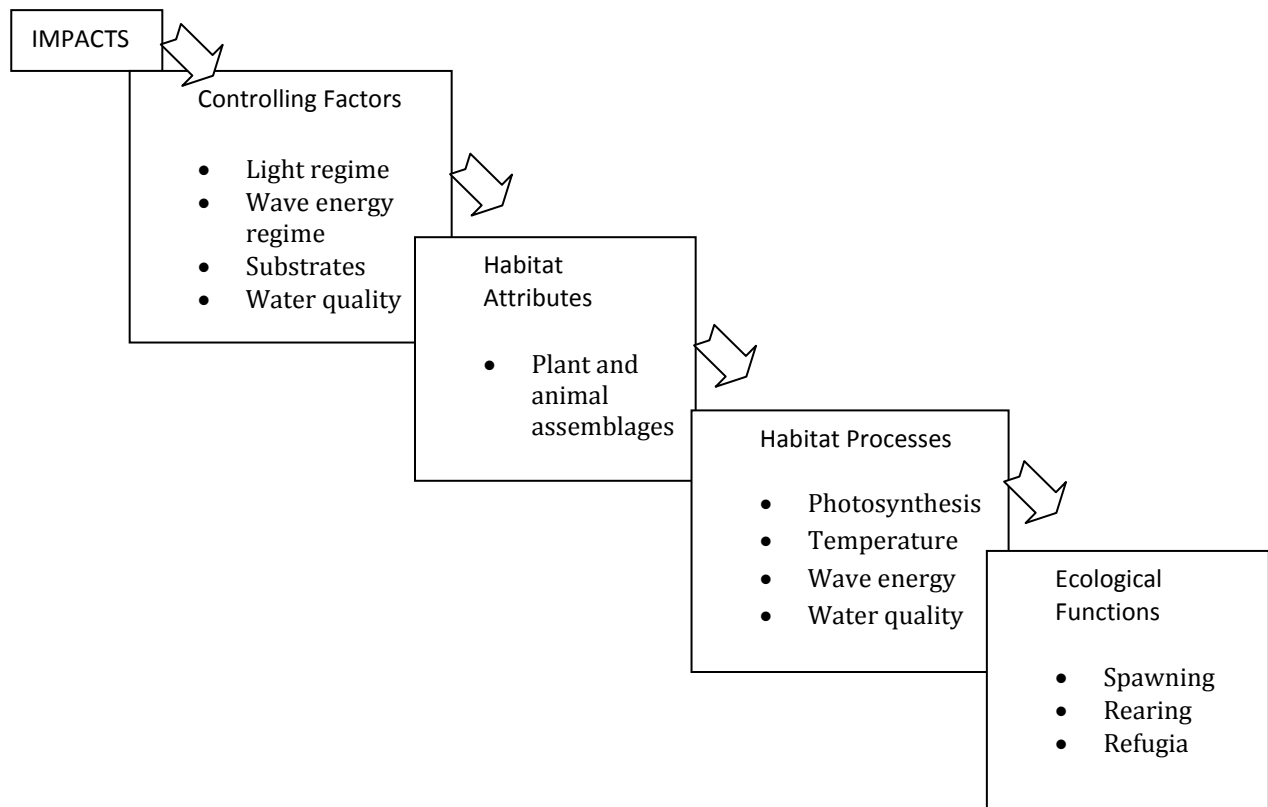
- Shading: Shading caused by the dock can affect the vigor of intertidal and subtidal plant communities, such as marsh plants, eelgrass and kelp beds. These impacts may be chronic (reduced productivity) or acute (wiping out plant communities, leaving the area barren).
 - Disruption of shore drift patterns: This can result in updrift beach formation and downdrift shoreline erosion.
 - Shore damage: Removal of shore plants and disturbance of soils where docks are attached to land can increase erosion and sedimentation of the intertidal and adjacent subtidal areas.
 - Bottom habitat: Installation of footings, pilings and other structures permanently alienates benthic habitat. Dredging to create sufficient depth next to the dock can also disrupt or destroy bottom habitat.
 - Operational pollution: poor refueling and dock maintenance practices, bilge releases and accidental spills from boats and docks can release contaminants into the nearby waters.
- (p. 65)

Overview of Ecological and Habitat Issues

From: Overwater Structures: Marine Issues White Paper Research Project T 1803, Task 35.

Estuarine and shallow marine nearshore habitats provide passage for fish and fish larvae, ocean water and human transportation, as well as areas for settlement of marine shellfish and other marine life. These sites are important sources of prey resource production, refugia, and spawning areas for Pacific salmon, groundfish, and forage fish, such as herring, sand lance and surf smelt. Overwater constructed structures can pose alterations to key factors that control prey production and spawning. Light, wave energy and substrate regimes determine the habitat characteristics that support these critical functions (p. 1).

Overwater structures are typically located in intertidal areas from above the area submerged by the mean higher high tides and out to 15 meters below the area exposed by the mean lower low tide. The primary physical processes controlling habitat attributes (i.e. plant and animal assemblages) and functions are depth (elevation) substrate type, wave energy, and light and water quality. These are the most important factors influencing the development and distribution of nearshore habitats (p. 33).



Conceptual model used by authors to define overwater structure impacts to nearshore habitat (p. 33).

Overwater structures and associated activities can impact the ecological functions of habitat through the alteration of habitat controlling factors (light regime, wave energy regime, and

substrate and water quality). These alterations can, in turn, interfere with habitat processes supporting the key ecological functions of spawning, rearing and refugia. Whether any of these impacts occur and to what degree they occur at any one site depend upon the nature of site-specific habitat controlling factors and the type, characteristic, and use patterns of a given overwater structure located at a specific site (p. 34).

In addition to impacts associated with overwater constructed structures, activities associated with docks can also pose risks to the quality and quantity of habitat through prop scour, groundings, contaminant introduction to the marine environment and structural interferences with shallow nearshore habitats with the placement of ramps and haul-outs in nearshore areas.

Habitat Impact Mechanisms (p. 34)

Habitat Controlling Factors	Overwater Structures & Activities	Habitat Impact Mechanisms	Habitat Impacts
Light Regime	• Docks • Floats • Pilings • Moored vessels	• Reduced light levels	• Limited plant growth & recruitment • Altered animal behavior and assemblages
Wave Energy Regime	• Floats • Breakwaters • Prop wash • Marina	• Altered wave patterns	• Altered plant and animal assemblages • Altered substrate type • Altered sediment transport & distribution
Substrate	• Prop & anchor scour • Pilings, breakwaters & floats	• Altered substrate characteristics	• Altered sediment transport & distribution • Altered substrate type • Altered plant & animal assemblages
Water Quality	• Discharges • Boat & upland run-off	• Increased exotics, toxics, nutrients and bacterial introductions	• Altered plant & animal assemblages • Limited growth & recruitment • Exotic species replacement of natives

Overwater Structure Effects on Light Regime

Effects on Underwater Vegetation

Without proper precautions, docks, piers, and pilings can cast shade upon the underwater water environment thereby limiting light availability for plant photosynthesis. Distributions of invertebrates, fishes, and plants have been found to be severely limited in under-dock environments when compared to adjacent vegetated habitat in the Pacific Northwest not shaded by overwater structures (p. 38).

Each dock defines a shade footprint specific to its structural specifications. Dock height, width, construction materials, and the dock's orientation to the arc of the sun are primary factors in determining the shade footprint that a given dock casts over the submerged substrates. Researchers found underwater light availability and eelgrass bed quality under docks to be primarily dependent upon dock height, followed in importance by dock width and dock orientation to the arc of the sun. Light is the most important variable affecting canopy structure (i.e. shoot density and height) and eelgrass bed quality. To the degree that a shade footprint limits plant photosynthesis, it decreases the extent and quality of habitat that support a wide variety of fish and shellfish populations. Construction of even partially shading types of structures, floating or on pilings, could be expected to largely eliminate existing eelgrass and other macroflora with little chance for replacement plant growth (p. 39).

Effects on Fish

Overwater structures can create sharp underwater light contrasts by casting shade in ambient daylight conditions. They can also produce sharp underwater light contrasts by casting artificial light in ambient nighttime conditions. Changes to ambient underwater light environments pose a risk of altering fish migration behavior and increasing mortality risks. Findings have demonstrated that fish responses to piers are ambiguous with some individuals passing under the dock, some pausing and going around the dock, schools breaking up upon encountering docks, and some pausing and eventually going under the dock (p. 43).

Light is considered to be the primary factor limiting the survival and distribution of eelgrass. Given the strong association of important fish prey resources with eelgrass, limitations in the extent of eelgrass pose a potential risk of reduced prey resources. Prey resource limitations likely impact migration patterns and the survival of many juvenile fish species. For smaller fish less than 50 mm in length, residence times along particular shorelines are thought to be a function of prey abundance. Research in the Hood Canal demonstrated that outmigrating juvenile chum fry (30-45 mm) feed extensively upon small, densely distributed harpacticoid copepods selecting for the largest copepods available. As the fish grew in size, their diet content became composed more of larger epibenthos and pelagic crustaceans. Consistent with other studies, the highest densities of harpacticoid copepods occurred in magnitudes 4-5 times higher in eelgrass stands than in sand

habitat without eelgrass. Similarly, the largest abundance of first post-larval stage crabs of 0+ age are found in eelgrass beds (p. 45).

Impacts on Wave Energy

Wave energy and water transport alterations imposed by docks, bulkheads, breakwaters, ramps and associated activities alter the size, distribution, and abundance of substrate and detrital materials required to maintain the nearshore detrital-based food web. Alteration of sediment transport patterns can present potential barriers to the natural processes that build spits and beaches and provide substrates required for plant propagation, fish and shellfish settlement and rearing, and forage fish spawning. Although the specific characteristics of the factors at play vary with the geology of each region or subsystem, changing the type and distribution of sediment will likely alter key plant and animal assemblages. Wave and current interactions in shallow water (i.e. depths <1.0m) are particularly important to intertidal flora and fauna (p. 48).

Dock pilings have also been found to alter adjacent substrates with increased shell hash deposition from piling communities and changes to substrate bathymetry. Similarly, dock uses and construction activities are known to limit underwater light and redistribute sediments through prop scouring, vessel shading, and pile driving. These changes in substrate type can change the nature of the flora and fauna native to a given site. In the case of pilings, native dominant communities typically associated with sand, gravel, mud, sand, and seagrass substrates are replaced by those communities associated with shell hash substrates (p. 49).

Cumulative Effects

Given the apparent increasing demand for overwater structures, structural design to allow maximum light transmission and to mitigate energy and substrate changes is required to protect the ecosystems marine fishes rely upon. Given what is known concerning overwater structure impacts in marine and estuarine ecosystems, we conclude that multiple placements of overwater structures in marine waters can pose substantive risks of significant changes to the immediate and surrounding marine and estuarine ecosystems. These risks require the assessment of existing cumulative light limitation effects and wave energy and substrate effects to the shoreline environment. These risks require assessment at the drift cell before considering the addition of new structures (p. 91).

MAP 4a: Eelgrass Presence Thetis Island Local Trust Area, excluding Valdes Island

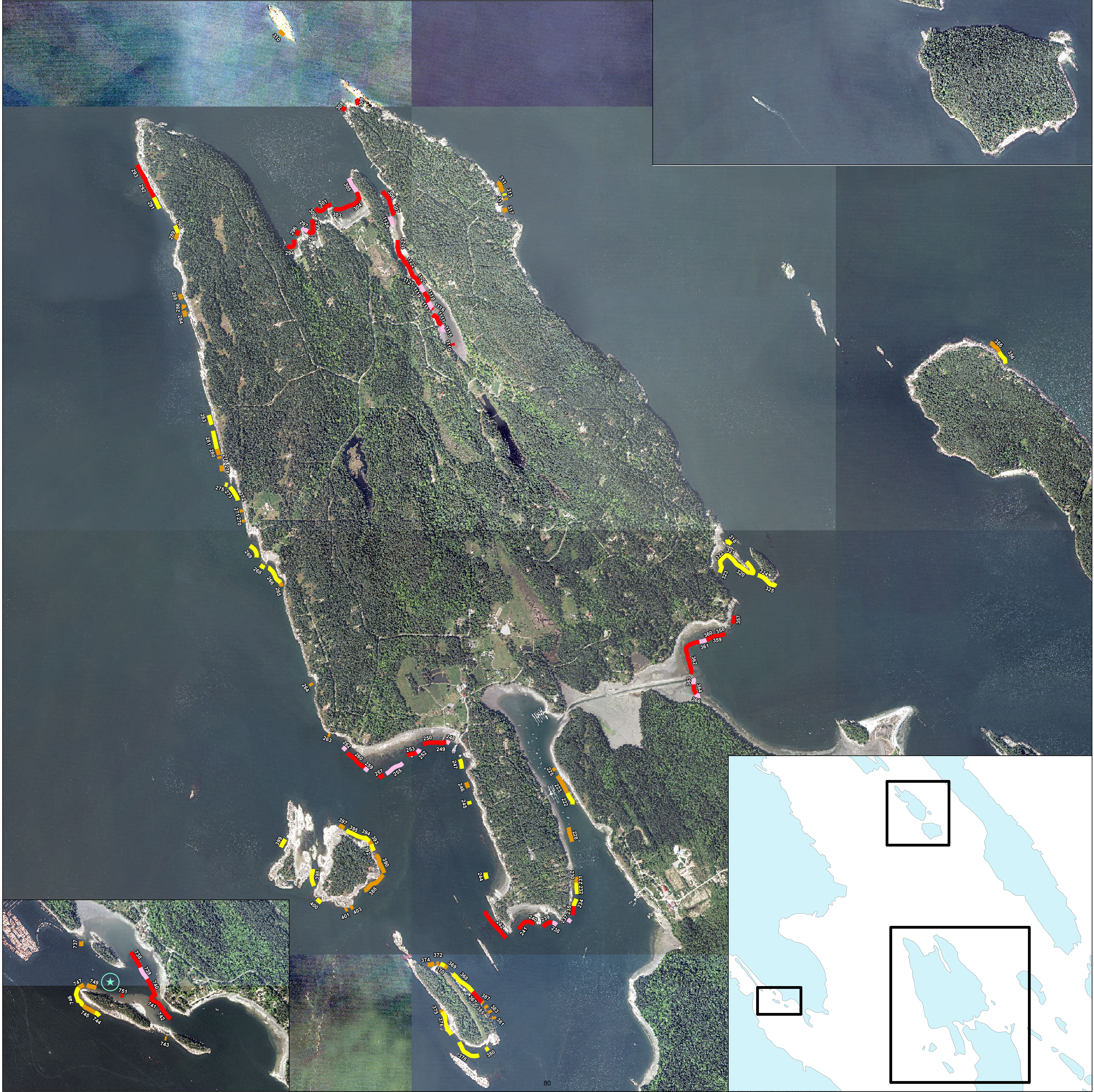
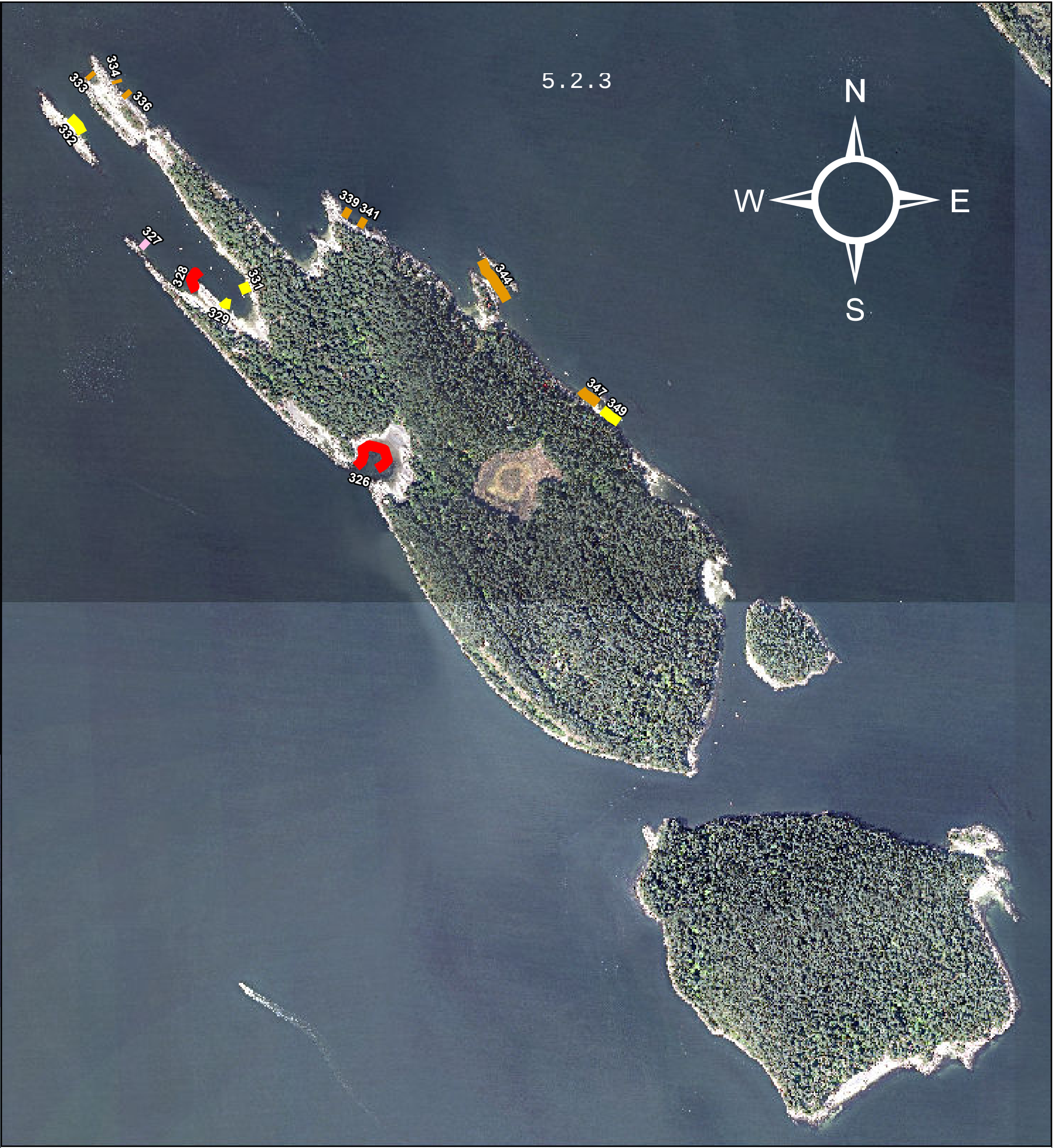
-  Potential Restoration Site
-  Eelgrass Present: Flat, Continuous
-  Eelgrass Present: Flat, Patchy
-  Eelgrass Present: Fringing, Continuous
-  Eelgrass Present: Fringing, Patchy

Eelgrass inventory was completed by SeaChange Marine Conservation Society under contract by the Islands Trust and the Islands Trust Fund. The inventory was conducted in July 2012 using towed underwater camera and Garmin GPS, with the exception of Cufra Inlet, which was completed in 2013 by community volunteers.

0 500 1,000 Meters

Map Produced by: Galiano Conservancy Association
Map Date: December 12, 2013 Orthophoto Date: 2011
Map Scale: 1 : 11,000 Inset Maps Scale: 1 : 10,000
Reference Map Scale: 1 : 70,000
Map Projection: UTM Zone 10, NAD83

Each line segment is labeled with its unique ID number. This number corresponds with the ID column in the associated data table.



MAP 4b: Eelgrass Presence Valdes Island

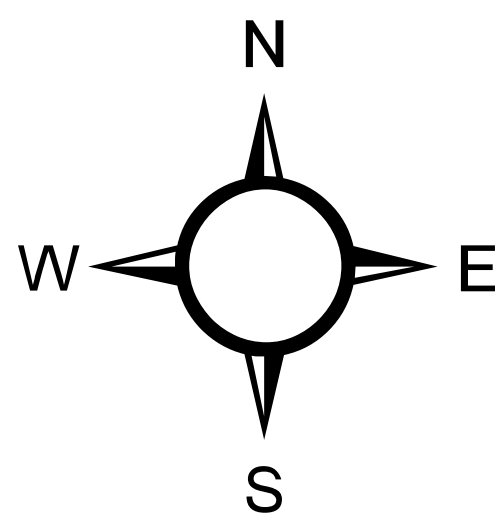
- Eelgrass Bed: Flat, Continuous
- Eelgrass Bed: Flat, Patchy
- Eelgrass Bed: Fringing, Continuous
- Eelgrass Bed: Fringing, Patchy
- Eelgrass Patch: < 10m2
- Potential Site for Restoration

The eelgrass inventory was completed by SeaChange Marine Conservation Society under contract by Islands Trust Fund and the Islands Trust. The inventory was conducted from July to November, 2013 using a towed underwater camera and Trimble Pathfinder Pro XR GPS.



Produced by: Galiano Conservancy Assoc.
Map Date: December 12th, 2013
Orthophoto Date: 2011 Scale: 1 : 15,000
Map Projection: UTM Zone 10N, NAD83

Each line segment is labeled with its unique ID number. This number corresponds with the ID column in the associated data table.





STAFF REPORT

Date: January 13, 2014

File No. TH 6500 – 20
Shoreline Protection

To: Thetis Island Local Trust Committee
For meeting of February 5, 2014

From: Aleksandra Brzozowski
Island Planner

**Re: Shoreline Protection Priority Work Program –
Project Charter for Green Shores Pilot &
Work Plan for Green Shores Scenarios Workshop Activity**

PURPOSE:

The purpose of this staff report is to introduce two project management documents regarding the Shoreline Protection project which is currently second on the Top Priorities List after the Associated Islands OCP and LUB Creation. The focus of the Shoreline Protection project is piloting the Green Shores for Homes credit rating system in the Thetis Island Local Trust Area.

The first document is the draft of the Project Charter which will set out scope, deliverables, and timeline. The second document is the work plan for the first activity in the project schedule: the Green Shores Scenarios Workshop.

BACKGROUND:

Please see the staff report presented at the November 20, 2013 LTC meeting for a comprehensive summary of the Shoreline Protection work completed to date by the Thetis Local Trust Committee (LTC) and planning staff. In addition, a staff report outlining LTC key values and messages on shoreline protection was presented at the July 24, 2013 LTC meeting.

Throughout 2013, the Thetis LTC expressed interest in actively participating in the piloting of the draft Green Shores for Homes Credit Rating system. On November 7, 2013, the Local Planning Committee (LPC) designated Thetis LTC as the project lead for piloting the next phase of the Green Shores for Homes program. The LPC will provide support to the LTC for work on potential incentives and implementation options, as the Green Shores for Homes program remains a priority item on their work program as well.

THETIS LTC PARTICIPATION IN CURRENT GREEN SHORES WORK:

Between 2010 – 2013, the Local Planning Committee undertook a funded work program on shoreline mapping as well as supporting the Green Shores for Homes program emerging in Washington State. Three major activities were completed, and a final task (typically noted as

Task 4) was to involve communities throughout the Islands Trust in consultations about possible incentives for the Green Shores for Homes credit rating system. The timing has thus far been unsuitable for such conversations; the funds remain to complete the task and the funder has agreed to support a different but relevant activity that could be completed by May 31, 2014. Considering that Thetis Local Trust Area will be the local planning area taking on the pilot project, the Local Planning Committee has offered leadership of this funded opportunity to the Thetis Local Trust Area.

THETIS GREEN SHORES PILOT PROJECT CHARTER

Staff has drafted Project Charter for the Green Shores Pilot on Thetis (Attachment 1). It lays out objectives for the project, sets the scope, and establishes deliverables and milestones. The Project Charter is meant to serve as an overarching document to guide project scope and budget, and manage expectations.

Staff has incorporated input given from the Trustees as well as community input from the Stewarding our Shores Survey conducted following the Speakers Night on August 8, 2013.

THETIS GREEN SHORES SCENARIOS WORKSHOP

Thetis trustees have provided staff with desired outcomes and staff has worked with the other project stakeholders to outline a feasible activity that will serve as the final task of the Green Shores work to date while also serving as a transition to the future work of the Thetis LTC.

Staff proposes that a Green Shores Scenarios Workshop be held on Thetis Island, where Thetis residents, shoreline professionals, those involved in the industry, and local government staff will work together to explore using the Green Shores approach on two to four real-life scenarios. Attached to this staff report (Attachment 2) is the draft work plan for the Green Shores Scenarios Workshop.

STATUS ON THE GREEN SHORES FOR HOMES CREDIT RATING SYSTEM:

The Green Shores for Homes (GSH) Credit Rating System is a project led by a trans-national steering committee consisting of consulting professionals, academics, and local government staff from Washington and British Columbia. The Director of Local Planning Services has previously participated as the Islands Trust representative on this committee; the Island Planner assigned to Thetis now also participates as an Islands Trust liaison on this committee.

At present, the draft credit rating system has been revised and the GSH steering committee is now exploring the ease with which applicants can submit proof of the credit requirements. This assessment is set to be done by March 2014 and followed up with any necessary modifications to the submission requirements. In the meantime, a small number of projects in the San Juan and King Counties are currently being chosen to pilot the draft credit rating system. These pilot projects are scheduled to begin in May 2014.

Steering committee partners in San Juan County are also currently assessing incentives suitable to their context. One incentive they are looking into is the logistics involved in offering technical assistance; planning staff will follow up on the results of this work as it may well have relevance for the Islands Trust context.

Should the Thetis LTC wish to actively use the draft rating system as part of its pilot project, it will be necessary to continue to work within the steering committee's schedule. The largest

complication of this choice would be that if the credit rating system revision process took significantly longer than expected, Thetis' project schedule would need to be revised as well.

THE "GREEN SHORES FOR HOMES – BC PILOT" PROGRAM:

The Stewardship Centre for BC (one of the funders for the Greening our Shores workshop and a member of the GSH steering committee) has recently applied for funding to undertake a multi-community adaptation of the Washington State draft Green Shores for Homes credit rating system. Communities to be involved are Qualicum Beach, Powell River, West Vancouver, and Penticton. The Stewardship Centre expects to hear back early this year whether the funding proposal is successful.

The Stewardship Centre has invited the Thetis LTC to join this larger project. As a contributing member to the GSH-BC Pilot project, Thetis LTC is asked to contribute approximately \$10,000 over two years; this contribution would be a mix of in-kind as well as financial contribution. Attached to this staff report is the Stewardship Centre's invitation to join the GSH-BC Pilot and the project proposal (Attachment 3). The following key aspects have been identified by planning staff as items of particular interest to the LTC:

- a) **Technical expertise:** The technical experts who have committed to the GSHBC project proposal have been identified by Trustees as fairly necessary for the Thetis pilot project. Accessing them through this project may be more efficient than contracting them separately.
- b) **Limited Staff Resources:** A concern brought up in November 2013 is the staff resources required to oversee a Thetis pilot project and its evaluation. However, the contribution required to join this project may involve a significant number of in-kind planner hours.
- c) **Timing:** The scheduled start date for this project is set to begin this spring and run two years. If there is interest from a Thetis property owner to participate as a pilot, joining this program could be beneficial to maintain momentum on the Green Shores pilot while the new 2014-2017 Thetis LTC establishes its work program. On the other hand, joining would require the 2014-2017 LTC to commit staff time to this project until 2016.
- d) **Consultants vs. In-House:** The Stewardship Centre intends to have external consultants conduct the community consultation in Summer 2014 and on-site assistance with the pilots. This may not be the best option for Thetis Island, considering travel costs and the level of in-house consultation on the topic so far. The Stewardship Centre has indicated that it would be open to the majority of this work being conducted in-house on Thetis Island.

STAFF COMMENTS:

The Green Shores Scenario Workshop as currently envisioned will achieve a number of the objectives that the LTC has noted as Next Steps for this priority project: engaging contractors and builders, accessing professional expertise for Thetis specific situations, collaboration with government agencies, discussing the applicability of incentives, and providing waterfront property owners with practical information about shoreline practices. The workshop is being proposed for May to allow for sufficient planning time, and with the aim to engage as Thetis property owners who only live on Thetis Island in the summer months.

At this LTC meeting, Staff seeks direction from the LTC on the following matters:

- A decision on the shoreline scenarios (ie situations) the LTC most wishes to address
- A decision on an optimal workshop date in May, with 1-2 optional dates

Following this meeting, Staff identifies the following next steps:

- Trustees to recruit property owners to offer to serve as real-life scenarios for the purpose of the workshop (note this is not recruiting properties for a pilot as of yet)
- Staff to source out technical staff to attend as key participants in the workshop

Looking beyond the Scenarios Workshop, the LTC must envision their desired outcomes for the program beyond the workshop event.

Regarding funds required for this budget, \$3000 has been requested as work program budget for the 2014/15 fiscal year. Staff suggests that this be spent on expert assistance to help with the credit rating system submission requirements if a property owner agrees to participate as a pilot.

In regards to the Stewardship Centre's invitation to join the larger Green Shores for Homes – BC Pilot program (GSH-BC), Staff identifies the following as possible response options:

- a) Opt to not join the GSH-BC Pilot, while maintaining contact about the progress of the two separate projects. Both the Islands Trust and the Stewardship Centre participate in the Green Shores steering committee, which could serve as an avenue for informal information-sharing;
- b) Approach the Stewardship Centre about becoming an Information Collaborator in the GSH-BC Pilot and share information between the projects on a formal basis; however, no funding would be provided to the project from the Thetis LTC and no services would be provided to the Thetis LTC;
- c) Postpone a formal response until the LTC assesses the practical interest of property owners in participating in a pilot project following the Scenarios Workshop in May. If there is interest and the scope and timing fits with the GSH-BC Pilot, the Stewardship Centre would be approached about signing late onto the GSH-BC Pilot;
- d) Join the GSH-BC Pilot program, with the expectation that there will be a Thetis Green Shores project in 2015-2016.

It is Staff's opinion that the two projects could likely coordinate with each other without Thetis formally joining the larger project.

RECOMMENDATIONS:

Staff recommends:

- That the Thetis Island Local Trust Committee review the draft project charter and provide staff with feedback ;
- That the Thetis Island Local Trust Committee review the draft work plan for the Green Shores Scenarios Workshop and provide staff with feedback;
- That the Thetis Island Local Trust Committee endorse the work plan upon amendment in order to provide direction to planning staff;

- That the Thetis Island Local Trust Committee invite the Stewardship Centre and all the partners engaged in the GSH-BC Pilot project to the Scenarios Workshop;
 - That the Thetis Island Local Trust Committee request to postpone a decision on joining the Green Shores for Homes – BC Pilot project until after the Scenarios Workshop in May 2014.
-

Prepared and Submitted by:

Aleksandra Bryozewski

January 27, 2014

Island Planner

Date

Concurred in by:

Courtney Simpson

January 27, 2014

Date

Attachments:

1. Draft Project Charter v1 – Thetis LTA Shoreline Protection
2. Draft Work Plan – Green Shores Scenarios Workshop
3. Green Shores for Homes – BC Pilot project information and invitation letter from the Stewardship Centre for British Columbia (SCBC).

Thetis LTA Shoreline Protection Project Charter — draft v1

Date: January 27, 2014

Purpose This project aims to pilot the Green Shores for homes draft credit rating system.

Background Shoreline protection has been a priority project of the THLTC work program throughout the 2011-2014 term, first as a project to introduce proactive shoreline regulation, and since April 2013 as a project to engage waterfront property owners in shoreline stewardship. In November 2013, the LTC committed to serving as a pilot area for the emerging Green Shores for Homes program and credit rating system.

Objectives

- Demonstrate the value of approaches to planning and design that recognizes ecological features and functions of coastal ecosystems.
- Broaden community support for softer approaches to landscaping and development on waterfront property shorelines.
- Provide property owners with practical information about shoreline practices.
- Engage local contractors and builders in the Green Shores approach.
- Test the Greenshores approach and rating system on a small scale.
- Collaboration between local govt, residents, technical experts & local industry.
- Collaboration with other government agencies on shoreline concerns.

Scope & Deliverables

- One Green Shores Scenarios Workshop inviting residents, property owners, builders, contractors, other agencies
- Recruit 1-2 Thetis property owners to participate in pilot of draft credit rating system
- Share results of Scenarios Workshop through expansion of *Caring for My Shoreline* webpages and *Green Shores* webpages.
- Evaluation of the implementation aspects of the GSH credit rating system.

Workplan Overview

Deliverable/Milestone	Date
3-4 properties recruited as Workshop Scenarios	March 19, 2014
Green Shores Scenarios Workshop on Thetis Island	May 2014
1-2 Thetis properties recruited for pilot (or demo) projects	Summer 2014
Website updated with info from Workshop & Workshop Report	Summer — Fall 2014
Evaluation of the draft Green Shores for Homes credit rating system on Thetis Island —staff report to Thetis LTC	Spring 2015
Reporting on evaluation to residents, LPC & Green Shores Steering Committee	Fall 2015

RPM Approval:

Courtney Simpson

Date: January 27, 2014

LTC Endorsement:

Resolution #:

Date:

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Project Team

Aleksandra Brzozowski	Project Manager
Thetis LTC	Property owner recruitment
Technical consultants	For pilots and workshop

Budget

Budget Source: REF Fund (\$9000); Work Program 2014/2015(\$3000)

Item	Cost
Green Shores Scenarios Workshop	\$8,000
Contract with consultants—technical support for pilot	\$3,000
Total	\$11,000



Green Shores for Homes Program

Scenarios Workshop (Task 4) Work Plan

Creation Date: December 3, 2013

Last Updated: Monday, January 27, 2014

Version: 1.0

	Name	Endorsement Date
Project Sponsors	Courtney Simpson	27/01/2014
Project Manager	Aleksandra Brzozowski (Island Planner)	27/01/2014
Committees	Thetis Island LTC	

Purpose

This work plan outlines the fourth and final task in Phase 1 of the Islands Trust's Green Shores for Homes program. Task 4 will focus on a Scenarios Workshop that will explore the practical application of Green Shores of Homes practices.

The aim of the Scenarios Workshop is to engage the local building industry around Green Shores approaches to development while at the same time continuing to engage waterfront property owners in the Islands Trust Area, in particular Thetis Island homeowners where interest has been expressed towards the Green Shores approach and a possible credit rating system. The Scenarios Workshop will also serve as an opportunity to establish collaborative relationships with other jurisdictions on the topic of shoreline protection and discuss the Green Shores for Homes program on a practical level.

Background

Earlier tasks in Phase 1 of the Islands Trust's Green Shores for Homes program comprised a comprehensive assessment of shorelines in the Islands Trust Area, collaboration with U.S. partners on the development of a Green Shores for Homes credit rating system, and an educational outreach program. The remaining task of this phase was initially proposed to engage partner jurisdictions, homeowners, and building professionals in a series of discussions Trust-wide on potential localized incentives to promote successful implementation of a credit rating system; however, the assessment criteria and their accompanying costs have not yet been ascertained. Feedback from the public outreach workshops also recommended that future Green Shores activities focus on geographically specific areas instead of regionally, as originally proposed.

Significant interest and commitment has been expressed by one Local Trust Area, Thetis Island, to explore implementation possibilities for Green Shores for Homes by serving as a pilot project area. In the 2014-2015 year, furthering Green Shores for Homes work in the Thetis Area is a top work program priority. In November 2013, the Local Planning Committee (LPC) designated Thetis LTC as the project lead for piloting the next phase of the Green Shores for Homes program. The LPC will provide support to

the LTC for work on potential incentives and implementation options, as the Green Shores for Homes program remains a priority item on their work program as well.

The program funder has agreed to consider a proposal for a different but relevant activity that could be completed by May 31, 2014. Staff has worked with the project stakeholders to outline a feasible activity that will serve as Task 4 – a Scenarios Workshop. The desired outcome is that residents, shoreline professionals, those involved in the industry, and local government staff will work together to explore using the Green Shores approach on two to four scenarios.

Objectives

- Continue work on Green Shores Credit Rating System, exploring practical implementation.
- Continue developing community support for Green Shores approaches.
- Contractor appreciation and engagement.
- Collaborate with local governments (Islands Trust and Regional Districts) and property owners to motivate all parties to preserve and protect the foreshore/nearshore ecosystem.

Desired outcomes

- Increased capacity to improve the integrity of marine shoreline systems
- Collaboration with regional districts and agencies to identify possibilities to facilitate Green Shores approaches to shoreline landscaping and development
- Collaboration with US partners to build on lessons learned from their work
- Communicate with US partners regarding further steps
- Identification of industry stakeholders interested to participate in a Green Shores pilot project
- Identification of homeowners interested to participate in a Green Shores pilot project

While the focus is shifting to a pilot approach for the final phase, educational resources and project information will continue to be promoted Trust-Wide and be reported on to Trust Council and its committees. The long term intent remains for a Green Shores for Homes approach to be assessed for its broader applicability throughout the Trust Area. Using the pilot approach will allow other local trust committees and the broader public to see a tangible, on the ground application of the approach that can be more readily adapted and accepted in the Trust Area context. More importantly, the pilot will allow the Islands Trust to test the credits and incentives once they are developed.

Proposed Activity

The activity proposed is a workshop discussing practical scenarios based upon real-life shoreline situations. Between two and four scenarios will be workshopped using the Green Shores approach, and then presented at the end of the workshop.

Each scenario will be presented in plenary – the basics of the site, the shoreline, what is there, and the ideas in mind for what the property owner may wish to do/protect on the property, pictures, plans, etc. The audience will then break out into working groups, one for each scenario, and work on a Green Shores approach to that scenario. Each group will have a designated expert at the table and facilitators will endeavour to have an equal cross-section of contractors, realtors, developers, Regional District planning staff, etc seated at the appropriate tables for their knowledge set.

Using the Green Shores for Homes draft credit rating system as a resource guide (along with the cumulative knowledge at the table) each group will identify Green Shores approved options for their scenario. The groups report back in a plenary; afterwards, a general discussion can be had about possible incentives, as well as how useful each group would find the credit rating system for their scenario.

Following the event and its at-the-time outcomes, Staff will follow up to prepare a final “scenarios compilation” report to be presented to the LTC/LPC. The document will be shared with the general interested public, in particular the property owners interested in pursuing a Green Shores approach in the future.

Scope

In Scope	Out of Scope
- One workshop - Small geographic scope of focus (Thetis) - Information sharing and reporting back - Recruitment for future demonstration projects	- Trust-wide engagement - Regulatory options - Following up on workshop options with capital expenditures funding

Deliverables and Milestones

Deliverable / Milestone	Target Completion Date
General advertisement in the March 1 Thetis Quarterly	February 1, 2014
Work Plan presented to Thetis LTC and endorsed	February 5, 2014
Revised funding proposal to Real Estate Foundation of BC	February 2014
Invitations to speakers and special guests	February 2014
Recruitment of Property Owners interested in supplying scenarios	February/March 2014
Revised GSH Credit Rating System Guide and assessment criteria	March 2014
Draft Event Plan to Thetis LTC for Thetis Workshop	March 19, 2014
Invitations to targeted participants	March/April 2014
Development of Scenarios	March/April 2014
Outreach and Promotion of Scenarios Workshops	April 2014
Scenarios Workshop	May 2014
Information Sharing on Islands Trust website	Summer 2014
Case Studies Report presented to Thetis LTC and LPC	July 24 / August 7, 2014

Stakeholders

Stakeholder	Represented by	Interests, expectations, concerns
<i>Gulf Island Residents</i>	<i>Waterfront property owners, and general public</i>	• Will be the parties undertaking the work • Concerned about shoreline development practices balancing property owner needs • Perhaps interested in incentives? Financial? Other?
<i>Islands Trust</i>	<i>Local Trust Committee, Local Planning Committee</i>	• Interested to test Green Shores approaches as a way to achieve Islands Trust policies • Hope to facilitate shoreline stewardship
<i>Foreshore development professionals</i>	<i>Local developers, contractors, excavators, landscapers</i>	• Interested in work best practices being done elsewhere • Concerned that the discussion be practical more so than just theoretical (discussion of cost implications, etc)
<i>Agencies supportive of Green Shores</i>	<i>Stewardship Centre of BC, Sea Grant,</i>	• Wishes to pursue pilot projects in 2014 and would likely wish to follow the discussion on incentives.
<i>Other jurisdictions</i>	<i>Cowichan Valley Regional District; Capital Regional District; Department of Fisheries and Oceans; Ministry of Forests, Lands, Nation Resource Operations</i>	• Will have policies and procedures that may influence, and be impacted by, the Green Shores approach • Have potential resources to commit to furthering the Green Shores approach (incentives, policy changes, memoranda of understanding,
<i>Stewardship Associations</i>	<i>Land Trusts, Conservation Societies, etc</i>	• Protect sensitive shoreline ecosystems • May wish to assist homeowners with implementation; may need support to do so.
<i>Professional Associations</i>	<i>AIBC, PIBC, APEG BC,</i>	• Would be interested in best practices on the subject

STAKEHOLDER CONSULTATION

Goals of communications for this project include engaging waterfront property owners, the Cowichan Valley Regional District, the local industry, and other jurisdictional bodies. Active engagement from all is needed to foster a wide understanding of Green Shores approaches and build synergy for implementation of such approaches.

Building momentum on this project will require that the results of the workshop receive follow up attention from stakeholders and follow up consultation will be needed post-event.

Expectations will need to be clear that none of the scenarios discussed will be funded by the Thetis LTC or Local Planning Committee to serve as a pilot project.

Project Team Resources

Name	Project Role	Area	Duration	Time
<i>Aleksandra Brzozowski</i>	<i>Project Manager (securing expert participants, preparing scenarios and workshop materials, reporting to LTC, day of assistance, consolidating scenarios for report)</i>	<i>LPS – Thetis Planner</i>	<i>All</i>	<i>15 days (100 hours)</i>
<i>Kris Nichols</i>	<i>Planning support (Assisting with scenarios and workshop prep, assist with consolidating scenarios for report)</i>	<i>LPC – Victoria</i>	<i>All</i>	<i>3-4 days (25 hours)</i>
<i>Penny Hawley</i>	<i>Website updates, Meeting bookings and travel arrangements – Thetis workshop</i>	<i>LPS – Northern</i>	<i>All</i>	<i>2-3 days</i>
<i>Planning Staff (Other planner, Summer Student Planner)</i>	<i>Assist with workshop materials preparation, attend workshops</i>	<i>LPS - Northern</i>	<i>Time of event</i>	<i>2 days (12 hours)</i>
<i>David Marlor</i>	<i>Project Support (networking, sourcing experts, attending day of for event)</i>	<i>LPS – Director</i>	<i>All</i>	<i>2 days</i>
<i>Mike Richards (Grants Manager)</i>	<i>Funding reporting</i>	<i>TAS – Northern</i>	<i>Start & end of Task 4 project</i>	<i>2 days</i>
<i>Brian Emmett and Harriett Rueggenberg</i>	<i>Liaisons with US-BC Green Shores Technical Committee (credit rating system materials for workshop, attend events)</i>	<i>Consulting Experts</i>	<i>All</i>	<i>2-3 days</i>
<i>Technical Experts</i>	<i>Professional input to prepare scenarios and materials, Shortly before event, day of, participants in workshop</i>	<i>Contract</i>	<i>Prior to event, day of</i>	<i>2 days</i>
<i>Facilitator</i>	<i>Facilitates workshop, allowing staff & trustees to participate</i>	<i>Contract</i>	<i>Shortly before event, day of</i>	<i>1-2 days</i>
<i>Graphic Notetakers (students?)</i>	<i>Assist with capturing ideas from groups graphically to help present ideas</i>	<i>Contract</i>	<i>Shortly before event, day of</i>	<i>1-2 days</i>
<i>Sue French & Peter Luckham</i>	<i>Promotion of event and recruitment of pilot properties</i>	<i>Local Trustees</i>	<i>All</i>	<i>3 days (20 hours)</i>

Project Governance

Role	Responsibility
Project Champion - David Marlor	Strategic matters at Executive Committee/Local Planning Committee level
Project Sponsor - Courtney Simpson	Ensures adequate project resources from the Northern Office
Project Manager – Aleksandra Brzozowski	All project management of the project, lead/ direct all project work
Project Team Members	Carry out assigned project tasks
Local Trust Committee	Monitor that Thetis workshop and follow up falls in line with broader Project Charter, assist with communication

Project Budget

Item	Details	Estimated Costs
Communications	• Mail outs • Article in Thetis Quarterly (for March 1) • Direct invitations	\$500
Event Logistics	• Venue rental • Refreshments • Workshop materials • Facilitator Fee	\$2,000
“Expert” Fees and Travel Costs	• Professional Input for preparation • Speaker Fees • Travel Costs to Thetis Island	\$5,000
Documentation of Events	• Videographer, graphic facilitator, or graphic minute-takers • Printing of Green Shores Scenarios document	\$1,500
Totals		\$8,000

Critical Success Factors

- Event is attended by a good cross-section of stakeholders
- Project is properly managed and coordinated
- Project is adequately resourced
- Project completes on time
- Funders are recognized in articles and print materials and at workshops

Links and Dependencies

- Any new project added to the top priorities list does not move ahead of this project.

Risk Assessment

Risk Description	Prob-ability	Impact	Risk Response Strategy
<i>Budget is not approved by funders</i>	L	H	Project will not occur. Thetis-specific meeting will be folded into the Thetis Pilot Project.
<i>Unable to secure desirable speakers for workshops.</i>	M	M-H	Prioritize work load to ensure resources are available early for necessary recruiting and networking.
<i>Low public engagement</i>	M	M	Ensure invitations are early and monitored. Focus on external agencies (CVRD, etc) and networking in the building industry.
<i>Low agency engagement (CVRD, Province)</i>	M	M	Targeted invitations and follow up; networking
<i>Grants Manager position is terminated in March</i>	L	M	Report funding will be added to Planner's workload



RE: Green Shores for Homes – BC Pilot

Thetis Island Trust Committee
Northern Office, Islands Trust
700 North Road
Gabriola, BC V0R 1X3
Attn: Aleksandra Brzozowski

January 27, 2014

Dear Committee Members,

Please accept this letter of introduction to your committee regarding our Green Shores for Homes – BC Pilot project.

Stewardship Centre for British Columbia Society (SCBC) is a registered not-for-profit organization (#S: 50468) based in British Columbia. Our vision is that all British Columbians understand, enjoy, and sustain healthy ecosystems through stewardship action. Created in 1994, SCBC is an organization dedicated to creating new knowledge and tools based on sound science. As a registered non-profit, we provide technical guidance to audiences including land owners and land use managers, conservation organizations, government planners and policy makers, consulting professionals, and others involved in environmental decision making. Our programs and projects focus on establishing effective land use management that protects ecosystems and encourages ecosystem resilience.

SCBC is currently inviting selected shoreline communities to participate in our GS for Homes – BC Pilot project. Green Shores for Homes proposes a way for communities and homeowners to address their most pressing shore issues, i.e., climate change, and ecological and water quality related impacts from homebuilding on or near the shore. Green Shores is a voluntary, incentive-based program that will help communities restore natural shorelines and enjoy the many environmental, recreational, scenic, and shoreline-protection benefits they bring. The Green Shores program can help to:

- **Preserve and restore physical processes** - the natural actions of water and sediment that maintain healthy shorelines. “Immobilizing” bulkheads and rock embankments can disrupt these.
- **Preserve and enhance shoreline habitats**, including both plant and animal communities, and biodiversity.
- **Prevent or reduce pollution** of the aquatic environment.
- **Reduce cumulative impacts**, the small individual effects that add up to large impacts on shoreline environments.

Specifically, the Green Shores for Communities –BC Pilot Project will work with up to four shoreline communities to:

- Complete a community consultation process to determine the most effective implementation model for Green Shores in BC shoreline communities;
- Develop Green Shores tools and resources (incentives, education and awareness materials as identified) for pilot communities
- Partner with pilot communities to implement Green Shores in their community.

We would like to invite Thetis Island to join us as a pilot community for the Green Shores for Homes -BC Pilot. Currently, other pilot communities include the District of West Vancouver and Powell River Regional District. We are asking each pilot community to contribute 10K towards project costs (over two fiscal years) to help leverage funding from the Real Estate Foundation and the Sitka Foundation.

As a pilot community, you will receive:

- A community consultation to help determine the best way to move GSH ahead in your community
- Access to Green Shores for Homes materials for customizing for your community
- Benefits of working with an established network of Green Shores professionals to assist your community
- Participation in an Advisory Committee with other Pilot communities to share resources to minimize “re-inventing the wheel” and maximize volunteer and staff capacity.

Please don't hesitate to contact me with any questions. We look forward to working together with you on Green Shores for Homes!

Sincerely,



DG Blair, M.Sc.
Executive Director, Stewardship Centre for BC

PROJECT INFORMATION FOR GREEN SHORES FOR HOMES – BC PILOT
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1. Project title: Green Shores for Homes – BC-Pilot

2. Amount applied for: 35,000

Total project budget: 187,110

3. Start date: January 15, 2014

End date: June 30, 2016

4. Identify which of the Foundation's mandate areas applies to your project. You may put an X beside more than one.

- ☒ Public Education
☒ Professional Education
☒ Research
☐ Law and Policy Analysis/Law Reform

5. What is the specific project for which funding is requested?

The aim of the project is to create a way for communities and homeowners to address their most pressing shore issues like climate change and ecological/water quality related impacts from homebuilding on or near the shore. The Green Shores for Homes –BC (GSH) Pilot proposes to design and test an adaptive implementation model for Green Shores design standards and practices. Specifically, we will compile and compare data generated from past and current Green Shores projects; adapt the Washington State draft *Green Shores for Homes Credit and Ratings Guide* for freshwater and marine shoreline homeowners in BC; convene specialist advisory groups to provide technical advice; conduct research to determine the most effective implementation models for Green Shores and complete a pilot implementation of Green Shores for Homes in three BC communities.

6. If this project is a component of a larger project, please provide a brief overview of the larger project.

The Green Shores (GS) program was initiated by SCBC in 2006 to promote sustainable use of coastal ecosystems through planning and design that recognizes ecological features and functions. GS provides design and certification standards for shore development including marine and lakeshore areas. Its educational component promotes healthy shore environments that provide goods and services of significant environmental, economic and social value to communities.

Since 2010, SCBC has had three GS projects underway. Thanks to funding from REF, *Green Shores Coastal Development Rating System Demonstration and Training Project* is currently completing three GS pilot certifications (municipal park; commercial- residential; and institutional projects), as well as training and outreach activities. These activities will be completed by November 30, 2013. SCBC's second GS project, the *Greening Shorelines, Enhancing Resilience: An evaluation of the effectiveness of Green Shores approaches to coastal shoreline development Project*, aims to advance shore protection policy and practices in BC (and Canada) by evaluating soft-shore armouring measures within the context of climate change, flood protection and sea level rise policies and guidelines. The project is funded by Natural Resources Canada and supported by a multi-agency Advisory Committee. Completion date is scheduled for March 31, 2014. Thirdly, since 2010, SCBC has been participating as a partner with Washington State Sea Grant, BC's Islands Trust, and the City of Seattle to assist development of the

Green Shores for Homes project in Washington State. This project is funded by the United States' Environmental Protection Agency to the City of Seattle. The outcomes from all these projects will inform the design, implementation, and evaluation of further GS initiatives in BC, Canada, and beyond.

The Green Shores for Homes – BC Pilot project was identified as a priority project as an outcome from our current Green Shores projects' Advisory Committees' work. These committees have representatives from local and provincial government, the private sector, private landowners and stewardship and conservation organizations.

7. Geographic Impact The specific geographic impact of our project will be in the proposed three communities where GSH is piloted (Qualicum Beach, Penticton and Powell River area). Information generated from these test cases will guide a future provincial-wide implementation of GS.

8. Implementation Plan

What is the opportunity for GSH -BC pilot project?

- Create a significant increase in capacity in the ability of local governments, homeowners and shoreline professionals to utilize Green Shores to meet upcoming climate change related challenges and reduce the impacts of shore developments especially for water quality and habitat values
- Build on the existing Green Shores initiatives to lead to broad scale implementation for both residential and larger shoreline projects in communities across BC.

The GSH project will incorporate lessons learned from SCBC's Green Shores projects, and test a revised version –for both freshwater and marine shoreline properties and habitats –in three BC communities to design a stand-alone program that could be delivered across BC, and possibly beyond. To achieve this, we are proposing the following work plan:

Objectives	Activities	Timeframes	Deliverables
1. Conduct and compile background research from past and current GS projects	Compile existing information from Green Shores and research other operational models	Jan – May 2014	Research report
2. Convene GSH Advisory committee to assist with planning, delivery and future implementation	Advisory Committee established and meets regularly	Jan. 2014 – June 2015	At least 6 Advisory Committee meetings
3. Prepare communications plan	Research; preparation of a comprehensive communications plan, and plan implementation	Jan. 2014- June 2015	Communications Plan Communications Media
4. Gather community feedback from the 3 pilot communities	Focus groups and community consultation to identify needed incentives, tools, partnerships, and implementation mechanisms	March- Sept 2014	Focus group and community consultation reports from 3 pilot communities

Objectives	Activities	Timeframes	Deliverables
5. Create GS pilot logic model to articulate the project's rationale, and strategically plan its objectives, priorities and outcomes	Identify Green Shores rationale, resources, activities, outputs, and outcomes	March – June 2014	"Road Map" ¹ or Logic Model for Green Shores
6. Adapt/Develop needed tools and resources needed by pilot communities	Complete writing/editing of guides, incentives and other tools	March–Dec 2014	Updated Green Shores for Homes- BC Guide Updated CDRS ² template Other tools as ID'd
7. Pilot the GSH approach in 3 BC communities to refine models of implementation for future application	Work with local/regional governments & staff to implement GS: (Pro-D to professionals; community outreach to homeowners and community organizations; Support all through effective multi-media outreach effort)	Sept 2014- Dec 2015	Pilot methodology guide
8. Evaluate the GSH pilot project for continued learning and future application	Conduct an evaluation to assess pilot implementation and success in meeting targets, objectives and goal	May 2016	Pilot Evaluation report
9. Prepare GSH project for future implementation at larger geographic scales	Use evaluation results to refine the GSH road map (logic model)	June 2016	Revised GSH implementation road map (logic model) for a stand-alone program that can be replicated across BC
10. Share project methodology and results with shoreline communities	Effective Project Monitoring and Reporting on Project Outcomes	June 2016	Final Report

(a) Describe the organization's *specific capacity* to carry out the project activities and deliverables.

SCBC has a history of completing numerous projects with significant success and has been integral to successfully stewarding the Green Shores program through its developmental stage. The SCBC board of directors has representatives from the federal, provincial, and local governments who work in stewardship initiatives; national, provincial and regional stewardship non-profit organizations and business organizations—all providing valuable input to our projects and initiatives. In addition, the SCBC

¹ This strategy will create a "road map" (also called a logic model) that clearly articulates Green Shores: 1) Program activities and how they fit together: what activities are needed to meet community and property owners' needs—especially considering current market conditions? How do we share the Green Shores story and facilitate Green Shores as a community driven initiative? How can we effectively use our existing tools, incentives, and mechanisms to deliver Green Shores across diverse jurisdictions and in communities all across BC? What are the gaps in tools and resources? 2) Program management, administration, and SCBC's role: How can the program continue to grow into the future? What is needed to make the program self-sustaining and market driven? How does Green Shores for Homes—BC fit within the broader Green Shores program and other programs within the Salish Sea to limit redundancy?

² Coastal Development Rating System

has a Finance Manager and an Executive Director and hires additional contractors on a project-by-project basis. With REF's support, SCBC will have the financial, personnel, and in-kind resources to successfully carry out the project as described.

SCBC will act as the administrative lead in this project. SCBC's Executive Director, DG Blair, working with the SCBC Green Shores Technical Working Group³ and the Green Shores Evaluation Advisory Committee⁴ will oversee the project, providing technical expertise, collaborative partnerships and guidance. Our Executive Director, DG Blair, has a M.Sc. with over 20 years experience in stewardship and environmental project management and will support the program through project oversight, administration and reporting, outreach and professional development training, communications and evaluation. Technical specialists, working with the SCBC, will be contracted to assist with research, community consultation, the development of the Green Shores "road map" and evaluation for this project.

(b) How has the need for this project been established?

What is the problem? People love to live in places where water and land meet. Freshwater and marine shorelines provide work, recreation, living space, and wonderful views. People are not the only ones drawn to shorelines. Due to their diverse resources and habitats, shorelines are biologically rich and productive places for wildlife and other species. Unfortunately, many of the natural features that make shorelines so attractive to people, are often the casualty of human activities.

With climate change adaptation making headlines across the country, people need tools and resources to adapt. This is a reality for over 30% of the municipal governments in BC and over two-thirds the population of the province who live in communities directly affected. Inland, climate change is expected to shift the timing and magnitude of western Canada's freshwater stream flows over time. Warmer winter temperatures will likely result in more winter precipitation in the form of rain, resulting in increased flows during winter and increased storm and erosion events – all impacting shoreline homeowners, their communities and impacting sensitive shoreline habitat.

To date, the Green Shores program in BC has focused on larger-scale projects and not on individual property owners. There are tens of thousands individual shoreline properties that together have an enormous impact on the shorelines across BC. This creates a huge opportunity for Green Shores to drive effective change to conserve and protect habitat while adapting to changing shoreline conditions.

The need for this project has been established by a variety of sources:

- A growing awareness of the need for sustainable land use design has spawned a number of ratings systems over the past decade (Sustainable Sites Initiatives, LEED Canada for Homes, Whistler Green, Built Green, Salmon Safe, etc). However, the Green Shore's CDRS is the first and only system to address shore development land use and design issues – communities, shoreline

³ The SCBC Green Shores Technical Working Group (TWG) is comprised of a group of coastal professionals formed in 2004 through work associated with the publication and outreach for the Stewardship Series Coastal Stewardship Guide. The aim of the TWG was to develop a Coastal Development Rating System and associated components, based on the voluntary, professionally-led LEED™ certification program model. The TWG has contributed professionally, creatively and with great personal commitment to the ideals of Green Shores and the development of Green Shores program.

⁴ The committee consists of representatives from: Climate Change Adaptation Secretariat BC Ministry of Environment; BC Flood Protection Program, Emergency Mgmt. BC; District of West Vancouver; Town of Qualicum Beach; West Vancouver Shoreline Preservation Society; Restoration of Natural Systems Program, University of Victoria; Sea Grant Program University of Washington

professionals and developers have all expressed interest in expanded use of this innovative system;

- The results of these type of Green Shores practices can be significant at the local level. For example, studies indicate that the likelihood and magnitude of coastal losses may be reduced by intact habitat, especially when those habitats fringe vulnerable communities and infrastructure.⁵
- Current project advisory committees have indicated that implementation of a Green Shores program will help assist homeowners and communities with shoreline conservation and protection and climate change adaptation as evidenced through an active Linked-In group; a growing Green Shores newsletter list; and people registered for 2013 Green Shores workshops.

(c) How do you ensure this type of project or program does not already exist in your community and will not duplicate existing efforts and resources?

The Green Shores for Homes program is unique initiative which will provide models for other jurisdictions within the Salish Sea and elsewhere to protect shoreline ecological function from impacts of growth. There are no other shoreline development credit and ratings projects, like Green Shores, that provide the resources and training that are proposed in this application. The project partners are closely connected to provincial and federal initiatives for shoreline development and climate change adaptation and have been working together on this initiative since 2005.

As well, with support for our current application, we plan to work collaboratively with the Fraser Basin Council and the Salmon Safe program to develop effective implementation for Salmon Safe (focused on upland/watershed protection) and Green Shores for Homes (shorelines) with communities across BC.

C - EFFECTIVENESS CRITERIA

1. Leadership & Innovation

SCBC has always provided leadership in developing high quality cutting edge resources to the stewardship sector. In this case, this innovative project provides a solution for stewardship of coastal and freshwater shoreline development. We hope to continue to broaden the impact of the larger Green Shores program through the development of this GSH project and by providing outreach and promotion activities to more audiences and organizations across the province. We recognize and thank the Real Estate Foundation for their early and continued support of Green Shores. Over the years, due to changing market conditions, the need for GS has shifted from a certification only program (like LEEDS) to emphasize community implementation via a variety of tools. Our vision is to make Green Shores common practice in both marine and freshwater ecosystems throughout BC – using leading edge solutions like the CDRS, adapted to current market realities.

2. Partnership & Collaboration

1. Organization: Environment Canada

Tel. (604) 350-1926

Contact: Danielle Prevost

Email: Danielle.Prevost@ec.gc.ca

Description of involvement: The Canadian Wildlife Service of Environment Canada will provide a critical role in providing in-kind support, editorial comment, coordination, promotion and bringing partners together regarding the Green Shores project.

⁵ Coastal habitats shield people and property from sea-level rise and storms; Arkema, Katie et al *Nature Climate Change* (2013)

2. Organization: Archipelago Marine Research Ltd

Tel. (250) 383-4535

Contact: Brian Emmett

Email: BrianE@archipelago.ca

Description of involvement:

Brian Emmett is a founding member and senior partner of Archipelago Marine Research Ltd. With more than 35 years experience in coastal marine and fisheries biology, Brian has contributed extensively to the development of new and innovative survey, sampling, and monitoring methods for coastal marine resources. Brian is a founding member of the Green Shores Technical Working Group and will contribute to the technical training and CDRS assessment activities.

3. Organization: BC Ministry of Environment

Tel. 250.952.5065/ 250.952.4854

Contact: Thomas White/Tim Preece

Email: Thomas.white@gov.bc.ca Tim.preece@gov.bc.ca

Description of involvement:

The BC Ministry of Environment BC Climate Change Adaptation Advisor and the Flood Protection Program will support the project with their contribution of in-kind support, editorial comment, coordination, promotion and linking this project with current Ministry initiatives.

4. Organization: Washington Sea Grant

Tel: 206.685.8286

Contact: Nicole Faghin

Email: faghin@uw.edu

Description of involvement:

Green Shores for Homes US and BC partners are currently developing a pilot Green Shores for Homes guide for the Islands Trust and Washington State communities. They will share lessons learned from this project, a draft homeowner Green Shores credit and rating guide and other in-kind support.

5. Organization: Fraser Basin Council

Tel: 604-488-5365

Contact: Marion Town

Email: mtown@fraserbasin.bc.ca

Description of involvement:

The Fraser Basin Council is currently working with the Stewardship Centre for BC to engage land owners and managers in adopting best land management practices that will advance healthier watersheds and more sustainable ecosystems within British Columbia. Through SCBC's *Green Shores* Program and FBC's *Salmon Safe Communities* Program we are coordinating a more effective outreach and education program that engages communities throughout BC.

Organization(s): BC Lake Stewardship Society; Local Governments: (Powell River; West Vancouver; Qualicum Beach

Contact: Kristi Carter kristi@bclss.org Laura Roddan laura.rodan@powellriverrd.bc.ca Sandra Bicego sbicego@westvancouver.ca; Deborah Carlson deborah_carlson@wcel.org

Description of involvement: These organizations will be involved as partners to connect with the local community. Both Powell River and West Vancouver have indicated interest to be Pilot GS communities and the SCBC and BCLSS will work together in the South Okanagan to promote and coordinate engagement in shoreline stewardship in that region for the third Pilot community. The SCBC will work with West Coast Environmental Law in the Metro Vancouver region.

3. Sustainability and Longevity

The project will lead to more effective on-the-ground solutions for shoreline land use issues. This will help local governments, non-government organizations, consultants and local communities maintain ecological integrity and ecosystem resilience of shoreline ecosystems through more effective land use decision-making. The program will be promoted widely through our existing network and new

partnerships with organizations and individuals involved in shoreline development. As a result, communities across BC will be more knowledgeable and effective in their stewardship efforts, leading to better land use decisions, habitat conservation and ecosystem resilience. One of the lasting legacies will be that the broader GS approach will benefit from this GSH project through the application of lessons learned from projects focused on non-residential developments in coastal and shoreline areas, and from the general raising of professional, community and public awareness of the GS approach.

4. Scalability and Potential to Replicate The outcomes of this project can be replicated/scaled for communities throughout BC and potentially throughout Canada. We will be taking the lessons learned from GS to date; testing a GS implementation model with the intent of designing a stand-alone program that could be delivered across BC or beyond. The results should be able to be replicated broadly.

D – PROJECT PROMOTION & FOUNDATION RECOGNITION

1. How will the project be promoted?

SCBC will promote the project through in-house and project partner newsletters, website links and personal communications – including REF. Professional, local government and development community networks will also provide opportunities for spreading the word about the project. A communications and promotion plan tailored to the information and outreach needs of the project will be developed and implemented. SCBC will contact REF for guidance re: contacting relevant REF-funded organizations and land use networks.

2. List ways in which the Foundation will be recognized for its support of the project.

The REF will be recognized on the SCBC website, on the Green Shores website and all promotional materials and all project activities (including workshops, training materials, case studies, and media).

E - OUTCOMES

1. If your project is successful, what do you think the impact will be?

Our overall goal is to make GSH and the broader Green Shores approaches common practice for shoreline development in both marine and freshwater ecosystems throughout BC. We recognize this is an ambitious goal. For this specific project, success means that we develop and test drive a “road map” for broad implementation of GSH for homeowners and communities. It also means that we have the tools and resources in place for a successful program launch after this pilot phase.

2. What are the key project deliverables/outcomes?

The project will:

- Conduct and compile background research from past and current GS projects by May 2014
- Convene GSH Advisory committee to assist with planning, delivery and future implementation by June 2015
- Prepare a communications plan and implement same by May 2014 (plan) by June 2015 (implement)
- Gather community feedback from the 3 pilot communities by Sept. 2014
- Create GS pilot logic model to articulate the project’s rationale, and strategically plan its objectives, priorities and outcomes by June 2014
- Adapt/Develop needed tools and resources needed by pilot communities by Dec. 2014
- Pilot the GSH approach in 3 BC communities to refine models of implementation for future application by Dec 2015

- Evaluate the GSH pilot project for continued learning and future application by May 2016
- Prepare GSH project for future implementation at larger geographic scales by June 2016
- Share project methodology and results with shoreline communities by June 2016

3. How will the outcomes and learning be shared with the broader community?

The GSH project outcomes and findings will be available to all audiences through the GS website at www.greenshores.ca. This will also raise awareness of the overall GS approach and other projects applying it. Public and professional awareness of the site will be increased through outreach and promotion about the project including the use of promotional material, e-newsletters, workshops and seminars (see work plan). Broad public awareness will be achieved through news releases and outreach events and www.stewardshipcentrebc.ca

STAFF REPORT

Date: January 23, 2014

File No.: TH-6500-20

To: Thetis Island Local Trust Committee
For meeting of February 5, 2014

From: Aleksandra Brzozowski, Island Planner

CC: Courtney Simpson, Regional Planning Manager

Re: **Thetis Associated Islands Official Community Plan and Land Use Bylaw – Draft Changes and Project Update**

THE PROPOSAL:

This project was initiated by the Thetis Island Local Trust Committee (LTC) to create an official community plan and land use bylaw for Ruxton, Whaleboat, Pylades, Tree, Reid, Hudson, Scott, Dayman, Dunsmuir and Bute Islands.

This report presents revisions made to the first draft of the Thetis Associated Islands Land Use Bylaw (AILUB) based upon comment from the Ruxton Advisory Planning Commission (APC), as well as input from the LTC on November 29, 2013. It also presents changes to the water policies in the Associated Islands Official Community Plan (AIOCP). It is Staff's hope that these revisions be endorsed by the LTC prior to community consultation in February.

BACKGROUND:

A preliminary report at the April 18, 2012 LTC meeting provided background information. A second report at the May 23, 2012 meeting presented a Terms of Reference for the project, a draft survey on communication and engagement methods, and draft communication materials. A staff report at the November 21, 2012 LTC meeting presented draft project goals, and a staff report at the April 17, 2013 LTC meeting presented revised project goals based on community feedback.

The first draft of the AIOCP was presented at the June 5, 2013 meeting, was referred to the Ruxton APC for comment, and was communicated to the public for comment. The first draft of the AILUB was presented at the November 20, 2013 meeting and was referred to the Ruxton APC for comment.

SITE CONTEXT:

Please refer to the Community Profile, September 2012 for site context information.

CURRENT PLANNING STATUS OF SUBJECT LANDS:

Please refer to the staff report presented at the November 21, 2012 LTC meeting for this information.

SUMMARY OF LAND USE BYLAW REVISIONS:

The attached worksheet (*Attachment 1*) has been prepared to aid in tracking changes to the draft AILUB. Each revision is identified by page number, section number(s), text from the previous draft, proposed text changes, and staff comments.

The second draft of the AILUB (*Attachment 2*) is attached to this staff report for LTC review and comment.

The attached maps (*Attachment 3*) are a draft of the zoning map schedules to be included at the end of the Land Use Bylaw. Please note that the water zones for all the Associated Islands have been set at 150m. Staff seeks feedback on this recommendation.

SUMMARY OF OFFICIAL COMMUNITY PLAN REVISIONS:

Following resolutions from the LTC on November 29, 2013, and input given by the Ruxton APC on December 13, 2013, changes have also been made to AIOCP in respect to dock policies for Ruxton Island. The attached worksheet (*Attachment 4*) summarizes the changes made from Draft Version 1.3 to Version 1.4.

STAFF COMMENTS:

The first draft of the AILUB lacked any regulation for the W3 (Ruxton) water zone, the W5 (Marine Aquaculture) water zone, and the Yacht Club Outstation (YCO) zoning for the eastern Dunsmuir Island (Ovens Island). Version 1.2 of the AILUB draft contains draft regulation for these zones, as well as some noted revisions and additions.

Regarding wind turbines, research suggests that a simple height restriction is not the best method to regulate wind turbines. Options include regulation about decibels or turbine tower design. The suggested revised regulation is a setback related to the height of the wind turbine. This revised regulation is intended to address visual, safety, noise, and height concerns without noting a straight numerical restriction.

It is anticipated that nuanced regulation modifications concerning home occupations and visitor accommodation may occur following community consultation.

Lastly, Staff notes that recent legal advice suggests that the most expedient manner to regulate shoreline activities is to implement a Development Permit Area. This is in part due to the fact that the Province must be referred and fundamentally agree to the development guidelines in advance, and in part due to the fact that shoreline development permitting would not require the potential double permitting (one for water, one for land) for variance or rezoning applications.

NEXT STEPS:

Staff continues with the following steps in the Community Plan project:

1. Early referral to CVRD and Lyackson Nation;
2. Legal review of both plans;
3. Consultation with property owners and residents on the draft LUB; and
4. Finalizing schedule maps.

Staff has revised the Target Dates in the Project Terms of Reference (*Attachment 5*) to reflect the necessary time spent on the deliberation on dock policies for Ruxton Island, staff resources in early spring, and the continued iterative work to be conducted before First Reading. Although these tasks place the project behind the original schedule, we are still on track to have the bylaws adopted before the election in November, 2014.

RECOMMENDATIONS:

1. THAT the LTC provide staff with any revisions to the draft Thetis Associated Islands OCP and LUB dated January 2014.
2. THAT the LTC endorse draft Thetis Associated Islands OCP and LUB dated January 2014.

Prepared and Submitted by:

Aleksandra Brzozowski
Aleksandra Brzozowski
Island Planner

January 27, 2014
Date

Concurred in by:

Courtney Simpson
Courtney Simpson
Regional Planning Manager

January 28, 2014
Date

Attachments:

1. Thetis Associated Islands Land Use Bylaw Revisions Worksheet
2. Revised draft of Thetis Associated Islands Land Use Bylaw, dated January 2014
3. Sample of Draft Land Use Schedule Maps
4. Thetis Associated Islands Official Community Plan Revisions Worksheet
5. Revised AIOCP/LUB Work Plan Target Dates (excerpt from Project Terms of Reference)



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THETIS ASSOCIATED ISLANDS DRAFT LUB REVISION TRACKER

JANUARY 2014

<i>Jan 2014 (Ver 1.2) pg. #</i>	<i>SECTION</i>	<i>PREVIOUS TEXT</i>	<i>RECOMMENDED REVISIONS</i>	<i>STAFF COMMENTS</i>
4	1.1	NEW	“aquaculture” means the growing and cultivation of aquatic plants or animals for commercial purposes, in any water environment, or in human-made containers of water, and includes the growing and cultivation of shellfish on, in or under the foreshore or in the water.	Staff recommended addition.
4	1.1	NEW	“accessory guest cottage” means a single family residential dwelling regulated as to use, size and other conditions so as to attribute criteria that insure it is a secondary and associated use and structure to the principal dwelling on a lot.	To serve as a definition for the cottages allowed by resolution on Dayman Island; from the Keats Island LUB.
7	1.1	“natural boundary” means the visible high water mark of any lake, river, stream or other body of water where the presence and action of water are so common and usual, and so long continued in all ordinary years, as to mark upon the soil or rock of the bed of the body of water a character distinct from that of its banks, in vegetation, as well as in the nature of the soil itself.	“natural boundary” means the visible high water mark of any ocean , lake, river, stream or other body of water where the presence and action of water are so common and usual, and so long continued in all ordinary years, as to mark upon the soil or rock of the bed of the body of water a character distinct from that of its banks, in vegetation, as well as in the nature of the soil itself.	Trustee recommended addition



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THETIS ASSOCIATED ISLANDS DRAFT OCP REVISION TRACKER

JANUARY 2014

Jan 2014 (Ver 1.2) pg. #	SECTION	PREVIOUS TEXT	RECOMMENDED REVISIONS	STAFF COMMENTS
7	1.1	NEW	“Ocean geothermal loop” means a renewable geoexchange system (geothermal heat exchange) utilizing the natural occurring temperature of the ocean for the purpose of heating and cooling that: a. is a closed-loop system using only freshwater as the circulating heat transfer fluid, b. meets or exceeds the Canadian CSA design standards CAN/CSA-448-02, as amended from time to time, and c. is designed and installed by a Registered System Designer accredited by the Canadian Geoexchange Coalition, or the International Ground Source Heat Pump Association. <i>Information Note: Installation of marine geothermal loops are also required to obtain the necessary permits or approvals from provincial and federal agencies.</i>	Trustee recommended addition
7	1.1	NEW	“platform” means a small flat surface raised from the ground, abutting the shoreline to serve for the loading and offloading of materials and supplies.	Ruxton APC suggested addition.
9	1.1	NEW	“yacht club outstation” means the use of land or adjacent marine area or both for the temporary moorage or temporary communal moorage of yacht club member vessels or guest vessels or both and for the private recreational use of marine and shore-based facilities by club members and guests.	Trustee recommended addition
13	3.2	Geothermal heating systems for the purposes...	Ocean geothermal loop exchange systems for the purposes...	Trustee recommended revision



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THETIS ASSOCIATED ISLANDS DRAFT OCP REVISION TRACKER

JANUARY 2014

Jan 2014 (Ver 1.2) pg. #	SECTION	PREVIOUS TEXT	RECOMMENDED REVISIONS	STAFF COMMENTS
14	3.3(3)(a)	No building or structure except a fence, utility shed, boathouse, or stairs and boat ramps with an average maximum elevated floor height of 0.3 metres (0.9 feet), may be constructed, reconstructed, moved, extended or located: within 15 metres of the <i>natural boundary</i> of the sea	No building or structure except a fence, utility shed, boathouse, platform at a maximum of __ square metres , or stairs and boat ramps may be constructed, reconstructed, moved, extended or located: within 15 metres of, and 1.5 metres above , the <i>natural boundary</i> of the sea	Changes based on feedback. The stairs height restriction has been removed; the limit on platform size will be addressed following community input
15	3.3 (5)	NEW	Wind turbines must be set away from all property lines, roads, and the natural boundary of the sea at a distance 1.25 times the height of the wind turbine.	Staff recommended revision; open to discussion.
15	3.4 (2)	Despite any height regulation in Part 5, the height of wind turbines shall not exceed 15 metres (50 feet).	REMOVE	Staff suggested deletion
throughout	3.0 – 5.13	15 metres (25 feet)	15 metres (49.2 feet)	Typographical correction
16	3.6 (1)(d)	service to a client,	personal services,	Ruxton APC suggested change to avoid vagueness
16	3.6 (5)	No noise resulting from any home occupation may be heard at a lot line or the natural boundary of the sea.	No noticeable noise resulting from any home occupation may be heard at a lot line or the natural boundary of the sea.	Trustees recommended change; to be reviewed by Bylaw Enforcement
19	5.1 (4)(b)	15 metres (25 feet) from the natural boundary of the sea.	15 metres (49.2 feet) from and 1.5 metres (4.9 feet) above the natural boundary of the sea.	Staff recommended revision



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THETIS ASSOCIATED ISLANDS DRAFT OCP REVISION TRACKER

JANUARY 2014

Jan 2014 (Ver 1.2) pg. #	SECTION	PREVIOUS TEXT	RECOMMENDED REVISIONS	STAFF COMMENTS
19, 21, 22, 23,	5.1 (6); 5.2 (6); 5.3 (6); 5.4 (6)	The maximum height for any accessory building or structure in the R1/R2/R3/R4 zone is 5.2 metres (17 feet).	The maximum height for any accessory building or structure in the R1/R2/R3/R4 zone is 6 metres (20 feet) .	Staff recommended revision based on community feedback
23	Table 5.3	NEW	1. Despite Subsections 5.3(1) and 5.3(2), two cottages are also permitted with an aggregate area of 74.32 square metres (800 square feet), exclusive to up to 30.66 square metres (330 square feet) of loft area not including stairs providing access to the loft.	This site-specific regulation reflects the conditions of the covenant that the owners of Dayman Island currently hold regarding the development on their unzoned property.
30	5.10	NEW	PERMITTED USES: (1) The following uses are permitted in the W3 zone subject to the regulations set out in this section and the general regulations, and all other uses are prohibited: (a) Mooring buoys, for the purpose of mooring a private vessel accessory to the residential use of an upland lot; and, (b) Marine navigational aids. PERMITTED STRUCTURES: (2) Permitted structures are limited to apparatuses to assist in the unloading and loading of people and materials from boats.	Trustee recommendation to not allow docks in Ruxton zoning. Permitted Structures and Conditions of use regulations aim to address the issue of current ramp-like structures on the shoreline



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THETIS ASSOCIATED ISLANDS DRAFT OCP REVISION TRACKER

JANUARY 2014

Jan 2014 (Ver 1.2) pg. #	SECTION	PREVIOUS TEXT	RECOMMENDED REVISIONS	STAFF COMMENTS
			CONDITIONS OF USE: 3) The following conditions of use are required in the W3 zone: (a) Permitted structures must allow unfettered public access along the shoreline. (b) Derelict or abandoned apparatuses or other debris are prohibited and must be duly removed.	
32	5.12	NEW	Permitted Uses (1) The following uses are permitted in the W5 zone, subject to the regulations set out in this section and the general regulations, and all other uses are prohibited: (a) Marine navigational aids; (b) Sub-tidal and beach aquaculture; Permitted Structures (2) Buoys delineating aquaculture tenure boundaries. <i>Information Note: Marine aquaculture tenures must adhere to the guidelines set by the Department of Fisheries and Oceans.</i>	
33	5.13 (1)	NEW	(c) boat moorage to buoys associated with yacht club outstation use of adjacent upland parcel; (d) Passive recreation	Trustee recommended addition
33-34	5.13 (2 -6)	NEW	(2) No more than one yacht club outstation use is permitted within an area zoned Yacht Club Outstation.	Currently, there are no buildings in this area; however,



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JANUARY 2014

Jan 2014 (Ver 1.2) pg. #	SECTION	PREVIOUS TEXT	RECOMMENDED REVISIONS	STAFF COMMENTS
			(3) Buildings in the upland area of the Yacht Club Outstation Zone are limited to the following yacht club outstation facilities: (a) one dwelling unit per parcel which may be included in a club house (b) one yacht club outstation facility per parcel (4) Structures in the upland area of the Yacht Club Outstation Zone are limited to: (a) Stairs and ramps associated with yacht club outstation use of adjacent upland parcel; (5) Structures in the marine area of the Yacht Club Outstation Zone are limited to: (a) Mooring buoys, floats, docks, wharves, ramps, and walkways providing marine access to a yacht club outstation. (b) Storage sheds. (6) The use permitted in 5.13(1) does not include and dock constructed with foam floatation devices that are not completely encapsulated.	previous zoning allows up to two dwelling units, and/or marina buildings, non-commercial recreational buildings, public utility buildings, private campgrounds, and resorts, up to 35% lot coverage.
35	6.2 (2)	The maximum size for any sign is 1.2 square metres (13 square feet).	The maximum size for any sign is 1 square metre (10.76 square feet) .	Trustee suggested change.



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THETIS ASSOCIATED ISLANDS LAND USE BYLAW No. __, 2014

Consolidation as of: ____, 200__

Note: Marginal notes in italics are explanatory and are not intended to form part of the Bylaw

Draft 1.2 for Comment: Jan 2014

This draft has been prepared by Islands Trust staff based on the Islands Trust LUB template, draft OCP policies, project terms of reference, and community input received to date.

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PART 1 INTERPRETATION

1.1 Definitions

Comments

"accessory" in relation to a use, building or structure means incidental, secondary and exclusively devoted to a principal use, building or structure expressly permitted by this Bylaw on the same lot and within the same zone, or, if the accessory use, building or structure is located on the common property in a bare land strata plan, on a strata lot in that strata plan.

Standard Islands Trust bylaw definition

"accessory guest cottage" means means a single family residential dwelling regulated as to use, size and other conditions so as to attribute criteria that insure it is a secondary and associated use and structure to the principal dwelling on a lot.

From the Keats Island LUB; to serve as a definition for the cottages allowed by resolution on Dayman Island.

"Approving Officer" means the Approving Officer for the Thetis Associated Islands Area appointed pursuant to the *Land Title Act*.

Standard Islands Trust bylaw definition

"aquaculture" means the growing and cultivation of aquatic plants or animals for commercial purposes, in any water environment, or in human-made containers of water, and includes the growing and cultivation of shellfish on, in or under the foreshore or in the water. □

Standard Islands Trust bylaw definition

"boathouse" means a building or structure that is located on a waterfront residential lot, and that is used to house a small boat and equipment or items associated with sports, moorage and boating activities.

GM Associated Islands LUB

"breakwater" means a protective structure, bottom-founded or floating, and extending below the foreshore, designed to provide protection for a harbour, anchorage, docks, a shoreline or the adjacent upland from wave action by influencing the movement of water and/or deposition of materials.

NP Associated Islands LUB

"building" means a roofed structure used or intended to be used for supporting or sheltering any use or occupancy, and includes a mobile home.

Standard Islands Trust bylaw definition. (GM Assoc Islands and B-W draft LUB).

"commercial" means occupied with or engaged in an activity or enterprise for the purposes of generating personal, professional, or business income for an individual, proprietorship, partnership, or corporation, and not including activities and enterprises engaged in by non-profit organizations, government agencies, public service utilities, or public services.

Standard Islands Trust bylaw definition

"commercial visitor accommodation" means a home occupation comprising the provision of temporary overnight sleeping accommodation and meals to paying guests for a period not to exceed fourteen days.

Modification of GM Associated Islands LUB (extended to 14 days), similar to Bed & Breakfast in Thetis LUB

"community dock" means non-commercial boat mooring facilities which are owned, operated, and administered cooperatively by individuals, a non-commercial organization, or by a strata corporation, for the provision of boat moorage spaces to Bylaw Area residents, lot owners, and invitees, and for

GM Associated Islands LUB

REQUIRES DISCUSSION

Comments

which user fees may be charged.

“community hall” means a public assembly building used for recreational, social, charitable, educational, entertainment and cultural activities, open to the public and owned or operated by a non-profit group, Regional District, non-commercial organization, or a strata corporation for the benefit of the community generally.

GM Associated Islands LUB

“dock” means a marine-based structure, or set of structures, generally consisting of a pier or wharf, and may include a ramp, float, and supporting structures, which is used for the non-commercial mooring of vessels in association with the permitted use of the adjacent upland.

NP Associated Islands LUB (modified).

“dwelling” means a building used for residential purposes by a single household, containing sleeping and living areas plus a single set of facilities for food preparation and eating, and includes a mobile home and a park model recreational vehicle.

Standard Islands Trust bylaw definition

“fence” means a structure used as a barrier to separate, prevent escape or intrusion or mark a boundary and may include a gate, screen or freestanding wall.

Standard Islands Trust bylaw definition

“float” means a floating non-roofed structure that is used as a landing or moorage place for marine transport and which is free to rise and fall with sea level change and, for all conditions of tidal change, does not rest on the sea floor.

NP Associated Islands LUB

“floor area” means the sum of the horizontal areas of all storeys in a building, measured to the outer surface of the exterior walls, exclusive of any floor area occupied by a cistern used for the collection of rainwater for domestic use or fire protection, and exclusive of any space where a floor and a ceiling are less than 1.5 metres (5 feet) apart, and includes the floor area of balconies, decks, porches and similar projections fully enclosed by siding, glazing, screening or other materials. For certainty if a balcony, deck, porch or similar projection is not fully enclosed then the floor of such projections is excluded from any calculation of floor area.

Standard Islands Trust bylaw definition, with provision of wording confirming that fully enclosed decks (etc.) are considered floor area.

“frontage” means the length of that lot boundary which abuts a highway, other than a lane or a walkway, or an access route in a bare land strata plan.

Standard Islands Trust bylaw definition

“height” means the vertical distance between the highest point of a building or structure and the average natural grade, being the average undisturbed elevation of the ground at the perimeter of the building or structure calculated by averaging the elevations at the midpoints of all the exterior walls. In the case of structures on the surface of water, average natural grade shall be the natural boundary for a building or structure fixed to the bed of the water and the watermark of any floating building or structure.

Standard Islands Trust bylaw definition, reference to buildings on the surface of the water removed as bylaw draft does not contemplate buildings on docks. Structures on surface of water still addressed.

“highway” includes a street, road, lane, bridge, viaduct and any other way

Standard Islands Trust bylaw

open to the use of the public, but does not include a private right-of-way on private property.	<u>Comments</u> definition, from Highways Act.
"home occupation" means a commercial use that is accessory to a permitted principal residential use on the same lot.	Standard Islands Trust bylaw definition.
"horticulture" means the use of land for the purpose of growing fruits, vegetables, plants or flowers.	Standard Islands Trust bylaw definition
"island" means land surrounded by water, and includes islets and rocks exposed above the natural boundary of the sea.	Standard Islands Trust bylaw definition
"landscape screen" means a visual barrier consisting of natural vegetation, trees, shrubs, fencing or a combination of those elements, broken only by necessary access ways for pedestrians and vehicles and serving to screen land uses from abutting land and highways.	Standard Islands Trust bylaw definition.
"local trust committee" means the Thetis Island Local Trust Committee.	
"lot" means any parcel, block or other area in which land is held or into which it is subdivided whether under the <i>Land Title Act</i> or the <i>Strata Property Act</i> .	Standard Islands Trust bylaw definition.
"lot coverage" means the total horizontal area at grade of those portions of a lot that are covered by buildings and structures, exclusive of decks not exceeding 1.2 metres in height at any point, measured to the outermost perimeter of a building or structure, divided by the area of the lot, and expressed as a percentage.	Standard Islands Trust bylaw definition, modified to exclude ground level decks. Some definitions expand lot coverage to the drip line
"lot line" means the boundary of a lot as shown on a plan of survey registered with the BC Land Titles Office or is the boundary of a lot as is otherwise described as authorized by the <i>Land Title Act</i> .	Standard Islands Trust bylaw definition modified to address methods of lot line definition other than a survey.
"side lot line" means a lot line that is not a front or rear lot line and that is common to the lot and another property.	Standard Islands Trust bylaw definition
"front lot line" means the lot line that is common to the lot and an abutting highway or access route in a bare land strata plan, and where there are two or more such lot lines the shortest (other than corner cuts) is deemed the front lot line;	Standard Islands Trust bylaw definition. On an island community with no highway all lot lines are interior side lot lines.
"rear lot line" means the lot line that is opposite the front lot line in the case of a lot having four sides, and where the rear portion of a lot is bounded by intersecting side lot lines the point of intersection is deemed the rear lot line;	Standard Islands Trust bylaw definition.
"moorage" means the tying or securing of a vessel to a fixed structure, float, dock, pier, or mooring buoy.	Standard Islands Trust bylaw definition. Added float, dock, and pier for certainty.

Comments

"natural boundary" means the visible high water mark of any ocean, lake, river, stream or other body of water where the presence and action of water are so common and usual, and so long continued in all ordinary years, as to mark upon the soil or rock of the bed of the body of water a character distinct from that of its banks, in vegetation, as well as in the nature of the soil itself.

Standard Islands Trust bylaw definition, consistent with definition in the Land Act.

"natural watercourse" means a naturally formed place that perennially or periodically contains surface water, including a lake, river, creek, spring, ravine, wetland, salt water marsh, and bog, but does not include a constructed ditch, or surface drain, or the sea.

Standard Islands Trust bylaw definition

"Ocean geothermal loop" means a renewable geoexchange system (geothermal heat exchange) utilizing the natural occurring temperature of the ocean for the purpose of heating and cooling that:

Definition from North Pender LUB.

- a. is a closed-loop system using only freshwater as the circulating heat transfer fluid,
- b. meets or exceeds the Canadian CSA design standards CAN/CSA-448-02, as amended from time to time, and
- c. is designed and installed by a Registered System Designer accredited by the Canadian Geoexchange Coalition, or the International Ground Source Heat Pump Association.

Information Note: Installation of marine geothermal loops are also required to obtain the necessary permits or approvals from provincial and federal agencies.

"panhandle lot" means a lot that fronts on a highway, or where there is no highway, that gains access at the natural boundary of the sea by means of a strip of land, known as the access strip, that is narrower than the main portion of the lot.

Standard Islands Trust bylaw definition amended using Thetis LUB to address islands without highways.

"park" means any land dedicated as park under the *Park Act*, the *Land Title Act* or the *Local Government Act*, which is open to the general population and reserved for outdoor recreational, scenic, or nature conservation purposes, and may include undesignated Crown islets within the planning area covered by this Bylaw.

GM Associated Islands LUB

"pier" means a fixed structure constructed over the foreshore and the water and that abuts the shoreline, is generally perpendicular to the shoreline, and is used to provide access to a float or as a landing or moorage place for marine transport or for recreational purposes.

Standard Islands Trust bylaw definition

"platform" means a small flat surface raised from the ground, abutting the shoreline to serve for the loading and offloading of materials and supplies.

Added to accommodate water-access only properties.

"principal" in relation to a use, building or structure means the main or primary use, building or structure, as the case may be, conducted or constructed on a lot.

Standard Islands Trust bylaw definition

Comments

“residential” means used for the domicile and home life of a person or persons, and for this purpose, does not include the commercial rental of a dwelling unit for a period of less than one month.

GM Associated Islands LUB

"setback" means the horizontal distance that a building or structure must be sited from a specified lot line, building or feature.

Standard Islands Trust bylaw definition

"sign" means any device or medium, including its supporting structure visible from the sea, any highway or lot other than the one on which it is located and which is used to attract attention for advertising, information or identification purposes.

Standard Islands Trust bylaw definition

"sleeping cabin" means an accessory building, which is not a dwelling unit, does not contain facilities for food preparation or eating, and is used for the temporary sleeping accommodation of non-paying guests of the occupants of a dwelling on the same lot.

Intended to replace the terms "recreational cottage" and "guest cottage" in existing regulations to establish better clarity.

"stream" includes a natural watercourse or source of water supply, whether usually containing water or not, and a lake, river, creek, spring, ravine, swamp and gulch.

from Water Act.

"structure" means a construction or portion thereof of any kind that is fixed to, supported by or sunk into land or water, but excludes landscaping, septic fields, septic tanks, absorption fields and related appurtenances below ground and concrete and asphalt paving or similar surfacing of the land.

Standard Islands Trust bylaw definition

"swimfloat" means a floating non-roofed structure that is used as a platform for diving or respite from swimming and which is free to rise and fall with sea level change and, for all conditions of tidal change, does not rest on the sea floor and is not to be used as a landing or moorage place for marine transport.

GM Associated Islands LUB

"upland lot" means any parcel, block or other land area adjacent to or inland of the natural boundary of the sea.

GM Associated Islands LUB

"use" means the purpose or activity for which land, buildings or structures are designed, arranged or intended, or for which land, buildings or structures are occupied or maintained.

Standard Islands Trust bylaw definition with added reference of structures for certainty.

"utility" means broadcast transmission, electrical, telecommunications, sewer or water services and facilities (excluding private radio or television towers) and includes navigation aids.

GM Associated Islands LUB and standard Islands Trust bylaw definition modified to exclude reference to 'licensed by government.'

"utility shed" means an accessory building with a floor area of 10 square metres (108 sq. ft.) or less containing only equipment for pumping, processing, or storing of water or sewage, electrical generating equipment, or communication service equipment.

Standard Islands Trust bylaw definition of 'pumphouse' modified to limit floor area and include other electrical and communications equipment.

"watercourse" means any natural or man-made depression with well-defined

There are a few definitions used in provincial legislation for

banks and a bed 0.6 metres (2.0 feet) or more below the surrounding land serving to give direction to a current of water at least six months of the year or having a drainage area of two square kilometres or more.

Comments

"stream" or "watercourse" depending upon the purpose of the legislation. A definition in a LUB must address multiple objectives.

"wetland" means land that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions supports, vegetation typically adapted for life in saturated soil conditions, including marshes, bogs, fens, estuaries, and similar areas that are not part of the active floodplain of a stream.

Standard Islands Trust bylaw definition modified in accordance with Riparian Area Regulations

"wharf" means a structure, usually consisting of a pier, ramp(s), and float(s), which is connected to an upland lot by a ramp or walkway

Standard Islands Trust bylaw definition

"wind turbine" means a wind energy conversion system consisting of a turbine, a turbine tower, and associated equipment, machinery, structures and buildings, which has a nameplate rated capacity of not more than 50kW, and which provides power for use on-site only (grid connected or off-grid).

GM Associated Islands Bylaw

"zone" means a zone established by Part 5 of this Bylaw.

Standard Islands Trust bylaw definition

"yacht club outstation" means the use of land or adjacent marine area or both for the temporary moorage or temporary communal moorage of yacht club member vessels or guest vessels or both and for the private recreational use of marine and shore-based facilities by club members and guests. □

Gambier Island LUB definition

1.2 Referencing

- (1) In the system used for referencing provisions, the single digit number indicates parts, the two digit number sections, the parenthetical numbers subsections, the lower case letters articles and the roman numerals clauses:

Standard Islands Trust bylaw organization

Part:	1
Section:	1.1
Subsection:	1.1(1)
Article:	1.1(1)(a)
Clause	1.1(1)(a)(i)

1.3 Units of Measure

- (1) Metric dimensions are used in this Bylaw. Imperial equivalents, where shown in parentheses are approximate, are provided for convenience only, and do not form part of this Bylaw.

1.4 Enacting Clauses

Comments

- (1) Where a paragraph or sentence or column in a table in this Bylaw is preceded or labelled by the words “Information Note”, the contents of the paragraph or sentence or column are provided only to assist in understanding of the bylaw and do not form a part of it.

Information Note:

The *Interpretation Act*, being a Provincial Statute defines a number of commonly used terms (e.g. how to measure “time”) and is applicable in the interpretation of this bylaw.

PART 2 ADMINISTRATION

2.1 Application

- (1) This Bylaw shall apply to that part of the Thetis Island Local Trust Area as shown on Schedule _ referred to as the Associated Islands Area. Encompassed in this area of application are the entire land area of all islands, islets, reefs, rocks, and the seabed, and also all surface waters and air spaces.

2.2 Conformity

- (1) No person may use or occupy or permit any land, water surface, building or structure to be used or occupied, or subdivide any land, except as permitted by this Bylaw.
- (2) No person may construct, reconstruct, place, alter, extend or maintain any building, structure or sign except as permitted by this Bylaw.
- (3) Nothing contained in this Bylaw relieves any person from the responsibility to comply with other legislation applicable to their use of land, buildings or structures.

INFO NOTE: Strata Agreements or Building Schemes (eg. Hudson Island) may contain restrictions in addition to those noted in this bylaw and are to be honoured. In instances of discrepancy, the more restrictive of the two regulations applies, as per the precautionary principle.

- (4) Any existing lot that is less than the minimum lot area specified in the applicable zone for the creation of new lots by subdivision may be used for any use permitted in that zone unless otherwise specified in this Bylaw.
- (5) No lot or area may be subdivided, no building, structure or land may be used, and no building or structure may be sited in a manner which renders any existing use, building or structure illegal or non-conforming.

2.3 Inspection

- (1) The Islands Trust Bylaw Enforcement Officer or any other person designated by the Islands Trust to administer this Bylaw is authorized to enter, at any reasonable time and after having given prior notification to the occupier, upon any property that is subject to regulation under this Bylaw, for the purpose of determining whether the regulations are being observed.

2.4 Violation

- (1) Any person who does any act or thing or permits any act or thing to be done in contravention of the provisions of this Bylaw, or who neglects to do or refrains from doing any act or thing which is required to be done by any of the provisions of this Bylaw is deemed to have committed an offence under this Bylaw.

2.5 Penalty

- (1) Any person who commits an offence against this Bylaw is liable, upon summary conviction, to a fine and penalty, pursuant to the *Offence Act*, not exceeding \$2,000 and the costs of prosecution. Each day during which an offence against this Bylaw is continued is deemed to constitute a new and separate offence.

2.6 Covenants

- (1) Where under this Bylaw an owner of land is required or authorized to grant a covenant restricting subdivision or development, the covenant must be granted to the Local Trust Committee pursuant to Section 219 of the *Land Title Act* delivered in registerable form satisfactory to the Local Trust Committee prior to the granting of the approval or authorization in respect of which the covenant is required. The covenant must indemnify the Local Trust Committee in respect of any fees or expenses it may incur as a result of a breach of the covenant by the covenantor.

This would apply to the form of any future s.219 covenants granted to the LTC as a condition of a rezoning or subdivision. Note" LPC is reviewing the management of conservation covenants and may require costs for monitoring of such covenants to be paid by the applicant as well.

2.7 Owner's Cost

- (1) If any provision of this Bylaw requires a report, study, covenant, plan or similar item to be prepared, unless otherwise stated, the owner shall pay all costs.

2.8 Enforcement of Siting Regulations

- (1) Every applicant for a development permit or a development variance permit must provide a plan signed by a B.C. Land Surveyor showing the location on the lot of all existing and proposed buildings and structures in relation to lot and zone boundaries, watercourses, and the sea, and in relation to other buildings on the lot, unless the Local Trust Committee determines that the provision of such a plan is not reasonably necessary to establish whether the proposed buildings and structures comply with the siting requirements of this or any other Bylaw.

PART 3 GENERAL REGULATIONS

3.1 Permitted in All Zones

The following uses, buildings and structures are permitted in any zone, except where noted, and all buildings and structures are subject to siting and size regulations established elsewhere in this bylaw:

These are uses, buildings or structures that would be permitted outright in all zones without being explicitly permitted in the zone regulations.

- (1) Conservation areas, including ecological reserves and areas under conservation covenants.
- (2) Water supply facilities, for an individual dwelling or as a community service, in any land zone for the purposes of supplying potable or grey water on an individual island, including cisterns, reservoirs, lines, treatment facilities, catchment and storage facilities and pumping and intake structures.
- (3) Utilities for the distribution of service within the Associated Islands Area in any zone and above-ground lines in any land zone.
- (4) Solar collectors and wind turbines in any land zone for the purposes of supplying power to the lot on which the structure is located.
- (5) Ocean geothermal loop exchange systems for the purposes of supplying energy to the lot on which the structure is located or supplying energy to a lot adjacent to the foreshore.
- (6) Air and marine navigational aids.
- (7) Fences in any land zone, subject to regulations established in Section 3.7 and Part 5.
- (8) Hiking and bicycle trails.
- (9) Signs, subject to regulations established in Part 6.
- (10) Utility sheds.
- (11) Sewage disposal facilities for which a sewage disposal permit has been issued under the *Health Act*.
- (12) Horticulture.

Many of these uses and structures would be considered accessory to a permitted principal use, however allowing them outright would permit them to be constructed prior to a principal use being commenced.

Equestrian use and ATV/jeep trails are not included due to ecological impacts of such use on trail areas. Discussion suggested re need for allowing either use outright.

3.2 Prohibited in All Zones

For certainty, the following uses, buildings and structures are prohibited in any zone, except where expressly permitted in Part 5:

All uses are prohibited unless specifically permitted in 3.1 or Part 5. This section is for certainty only. Could we take it out?

- | | | |
|-----|--|--|
| (1) | The disposal of any waste matter on land or in marine areas, except such waste matter as may lawfully be discharged pursuant to a permit under the Sewage Disposal Regulation of the <i>Waste Management Act</i> . | <i>Standard to Islands Trust Land Use Bylaws.</i> |
| (2) | The disposal or storage of hazardous or toxic waste. | <i>Standard to Islands Trust Land Use Bylaws.</i> |
| (3) | Breakwaters. | <i>Requires discussion.</i> |
| (4) | The use of a vessel anchored, moored, or secured as a permanent residence. | <i>Standard to Islands Trust Land Use Bylaws.</i> |
| (5) | Finfish aquaculture in any water zone. | <i>Islands Trust policy statement</i> |
| (6) | Bridges, causeways, tunnels, or water utility lines connecting any island to another island or to the mainland. | <i>Islands Trust policy statement</i> |
| (7) | Wind turbines in any water zone, and wind turbines intended to provide power to an island other than the island on which the structures are located. | <i>Limited to same island rather than the same lot</i> |

3.3 Siting and Setback Regulations

- | | | |
|-----|--|--|
| (1) | All siting measurements must be made on a horizontal plane from the natural boundary, lot line or other feature specified in this Bylaw to the nearest portion of the building or structure in question. | <i>Standard to Islands Trust Land Use Bylaws</i> |
| (2) | No building or structure except a fence, utility line, navigational aid, at-grade steps, driveway or path, or utility shed, may be constructed, reconstructed, moved, extended or located within the setback areas established in the regulations in Part 5 of this Bylaw. | <i>Standard to Islands Trust Land Use Bylaws, with inclusion of at-grade steps.</i> |
| (3) | No building or structure except a fence, utility shed, boathouse, platform at a maximum of ___ square metres, or stairs and boat ramps may be constructed, reconstructed, moved, extended or located: | <i>Platform permission requires size regulation.</i> |
| (a) | within 15 metres of, and 1.5 metres above, the <i>natural boundary</i> of the sea; or | <i>Standard watercourse setback and setback from the sea based on Guidelines for Management of Coastal Flood Hazard Land Use (January 2011).</i> |
| (b) | within 30 metres of the <i>natural boundary</i> of any other natural watercourse or source of water supply. | <i>Ruxton Bylaw currently has 15m setback, while Hudson Island has a 3m setback. Unzoned areas have no setback.</i> |
| | Septic fields, septic tanks, absorption fields and related appurtenances below ground, concrete and asphalt paving or similar surfacing of the land, and retaining structures are considered structures for the purposes of this subsection. | <i>30 metres for watercourses subject to the provincial Riparian Area Regulation.</i> |
| | Ocean loop geoexchange systems are not considered a structure | |

for the purposes of this subsection.

- (4) Steps, eaves gutters, cornices, sills, chimneys, retaining walls, balconies, decks and sunshades or similar features may project into a required setback area, except a setback from the natural boundary of the sea, a natural watercourse or a wetland, provided they do not project more than 1.0 metre (3 feet) into the required setback area.
- 5) Wind turbines must be set away from all property lines, roads, and the natural boundary of the sea at a distance 1.25 times the height of the wind turbine.

Standard to Islands Trust Land Use Bylaws.

Based on best practices research across Canada.

3.4 Height Regulations

- (1) The height regulations for buildings and structures specified in Part 5 of this Bylaw do not apply to radio, telecommunications and television antennas and towers, chimneys, flag poles, lightning poles, fire and hose towers, utility poles, attic vents, and solar collectors..
- (2) Despite any height regulation in Part 5, the height of wind turbines shall not exceed 15 metres (50 feet).

Standard to Islands Trust Land Use Bylaws.

For discussion. Initial proposal to prevent high intrusive turbine

3.5 Accessory Uses, Buildings and Structures

- (1) A building or structure accessory to a dwelling may not be used as a residence but may be used as a sleeping cabin.
- (2) The following accessory buildings or structures may be constructed or placed on a lot prior to the construction of a principal building or the commencement of a principal use on the same lot:
 - (a) a boathouse,
 - (b) a utility shed, and
 - (c) one accessory building for the purposes of storage of building materials and personal effects.
 - (d) steps and structures accessory to and supporting a permitted dock.
- (3) Any accessory building or structure, other than those cited in subsection 3.5(2), may only be constructed or placed on a lot prior to the construction of a principal building, or the commencement of a principal use, on the same lot provided that a valid building permit has been issued for any principal building on the same lot, and subject to the issuance and maintenance of

GM Associated Islands LUB

This provision would allow certain accessory structures on a lot prior to commencing construction of principal dwelling.

Also allow rec vehicle outright?

This establishes that only those accessory structures explicitly permitted prior to construction of a principal dwelling.

a building permit for a principal dwelling on the same lot.

- (4) Unless a building or structure, excluding an attached deck and patio, is structurally attached to a principal building by a structure having walls, a roof, and a floor, it is for the purposes of this Bylaw, deemed not to be part of the principal building, but is deemed to be an accessory building or structure.

This is intended to prevent the construction of over-height accessory buildings by connecting the accessory building to a principal building with tenuous connections.

3.6 Home Occupation Regulations

- (1) Permitted accessory home occupations, unless otherwise prohibited in this bylaw, include any of the following:

Standard Islands Trust Land Use Bylaws provisions for home occupations.

- (a) home craft,
- (b) repairing of goods,
- (c) professional practice,
- (d) personal services,
- (e) creation of a product,

Home occupation must be incidental to residential use.

- (f) commercial visitor accommodation, subject to the following additional regulations:

OCP permits temporary overnight accommodation in policy 4.2.3. These draft conditions are starting points for discussion.

- (i) a commercial visitor accommodation must be conducted solely within a principal dwelling;
- (ii) not more than 2 bedrooms may be used to accommodate guests; and
- (iii) not more than 4 guests may be accommodated at any one time.

- (2) Home occupations must be conducted entirely within a dwelling or a permitted accessory building on a lot where there is a permitted principal residential use.

- (3) The owner or at least one employee of a home occupation must reside on the property.

- (4) No storage of materials, commodities or finished products is permitted in connection with the operation of a home occupation other than within a permitted building.

- (5) No noticeable noise resulting from any home occupation may be heard at a lot line or the natural boundary of the sea.

To be reviewed by Bylaw Enforcement.

3.7 Fences

- (1) The height of fences shall not exceed 2 metres (6.6 feet) within any required setback, subject to regulations established in Part 5.
- (2) The provision of protective netting or wire to control animal nuisances, or a landscape screen, is exempt from the provisions of Subsection 3.7(1).

Standard to Islands Trust Land Use Bylaws,

Allows a higher fence to protect water supply areas, gardens etc from animals if needed. Standard to Islands Trust Land Use Bylaws

3.8 Derelict Vehicles

- (1) Except where permitted by the regulations in Part 5, no land shall be used for the storage of unusable, disassembled, detached, stripped, non-functional or abandoned vehicles, including but not limited to ATVs, golf carts, tractors, campers, trailers, vessels, or parts, which are not completely enclosed in a permitted permanent building.-

Standard to Islands Trust Land Use Bylaws. Modified to suit the non-automobile nature of the Associated Islands.

3.9 Use of Common Property

- (1) Land comprising the common property in a strata plan is not a lot for the purposes of the density regulations but, where the strata lots and common property are in the same zone, the common property may be used for permitted uses accessory to principal uses located on strata lots in the same strata plan.

Standard to Islands Trust Land Use Bylaws

PART 4 ESTABLISHMENT OF ZONES

4.1 Division into Zones

- (1) The Bylaw Area is divided into the following zones, the geographic boundaries of which are as shown on the Zoning Maps designated as Schedule “___” that forms part of this Bylaw and the regulations for which are set out in Part 5.

<u>Zone Classification</u>	<u>Zoning Code</u>	<i>Providing Regulation for:</i>
Residential Zones		
Residential 1	R-1	<i>Ruxton Island and Hudson Island</i>
Residential 2	R-2	<i>Islands with lots <4ha (Reid, Scott, Bute, Dunsmuir)</i>
Residential 3	R-3	<i>Unzoned Islands with larger lots (Dayman, Pylades)</i>
Residential 4 (CD Zone)	R-4	<i>South Reid Estates</i>
Institutional Zones		
Park	P	<i>Regional Parks, Provincial Parks & Ecological Reserves</i>
Private Conservation	G	<i>Private conservation and Hudson Wilderness Area</i>
Community Service Zones		
Community Services	S-1	<i>Community Services on Ruxton, etc Airstrip on Hudson a site-specific sub-zoning</i>
Water Zones		
Water Foreshore 1	W-1	<i>Private and communal moorage</i>
Water Foreshore 2	W-2	<i>Water zone allowing for communal docks</i>
Water “Ruxton” 3	W-3	<i>Ruxton specific zone?</i>
Water Protection 4	W-4	<i>Marine Parks and protected areas</i>
Yacht Club Outstation	YCO	<i>Seattle Yacht Club Outstation</i>

4.2 Zone Boundaries

- (1) Where zone boundaries on Schedule “___” coincide with lot lines, the zone boundaries are the lot lines.
- (2) Where a zone boundary is shown on Schedule “___” as following any highway, right-of-way or stream, the centre line of such highway, right-of-way, or stream is the zone boundary.
- (3) Where land based and water based zone boundaries shown on Schedule “___” coincide, the zone boundary shall be the surveyed lot line as shown on the most recent plan registered in the Land Title Office, and where there is no such plan the natural boundary of the sea is the zone boundary.
- (4) Where a zone boundary shown on Schedule “___” does not follow a legally defined line and no dimensions are shown by which the boundary could otherwise be located, the location of the boundary must be determined by scaling from Schedule “___” and in that case the zone boundary is the midpoint of the line delineating the zone boundary.

PART 5 ZONES

5.1 Residential One – (R1)

Information Note: The purpose of the Residential One (Small Lot) Zone is to provide for the regulation of the development of residential areas on Ruxton and Hudson Island.

Permitted Uses

Comments

- (1) The following uses are permitted in the R1 zone, subject to the regulations set out in this Section and the general regulations, and all other uses are prohibited:

- (a) Residential;
- (b) Accessory uses, buildings and structures, including home occupations, but excluding commercial visitor accommodation.

Only permitted principal use.

Does not allow for commercial visitor accommodation, as per community input and Building Scheme.

Density

- (2) The maximum density in the R1 zone is one (1) dwelling per lot.
- (3) The maximum lot coverage in the R1 zone is 25 percent.

There is currently no lot coverage. 25% is common for areas with lots of this size, and lot coverage would include accessory structures as well as the principal dwelling. No limit placed on number of accessory buildings.

Siting and Size

- (4) The minimum setback for any building or structure in the R1 zone is:
 - (a) 5 metres (16.4 feet) from any lot line;
 - (b) 15 metres (49.2 feet) from and 1.5 metres (4.9 feet) above the natural boundary of the sea.
- (5) The maximum height for any dwelling in the R1 zone is 9 m (29.5 ft).
- (6) The maximum height for any accessory building or structure in the R1 zone is 6 metres (20 feet).

Current setback in Ruxton Bylaw.

Currently, Hudson has a 3m setback and Ruxton has 10m.

Currently, the Ruxton Bylaw restricts height of any building to 8m. Differentiating between principal and accessory buildings seems reasonable.

9m is a typical dwelling height for small lot areas.

Currently, the Ruxton Bylaw restricts height of any building to 8m. Differentiating between principal and accessory buildings seems reasonable. 6m is a common height restriction for accessory

buildings. Originally 5.2m, brought up based on community feedback. Warrants continued feedback from the community.

Subdivision Lot Area Requirements

(7) No lot in the R1 zone may be subdivided.

Retains current regulations.

(8) The minimum lot size in the R1 zone is 1ha (2.4 acres).

Provides direction for lot consolidation.

Table 5.1		
Site-Specific Zone	Location Description	Site Specific Regulations
R1(a)	LOTS 1-10, Thetis Island (known as Hudson Island), Cowichan District, Plan 25398	1. The minimum setback for any building or structure in the R1(a) zone is 15.25m from the exterior and interior lot lines. 2. Despite Subsections 5.1(3) and 5.1(8), one single family dwelling and one accessory building are permitted in the R1(a) zone, with the accessory building having a floor area of maximum 47 square metres.

5.2 Residential Two – (R2)

Information Note: The purpose of the Residential Two Zone is to provide for the regulation of the development of residential areas on Scott, Reid, Bute, and Dunsmuir Islands.

Permitted Uses

Comments

- (1) The following uses are permitted in the R2 zone, subject to the regulations set out in this Section and the general regulations, and all other uses are prohibited:

(a) Residential;

Only permitted principal use.

(b) Accessory uses, buildings and structures, including home occupations.

Does allow for commercial visitor accommodation as a possible home occupation.

Density

- (2) The maximum density in the R2 zone is one (1) dwelling per lot.

- (3) The maximum lot coverage in the R2 zone is 25 percent.

There is currently no lot coverage. 25% is common for areas with lots of this size, and lot coverage would include accessory structures as well as the principal dwelling.

Currently, a recreational cottage is restricted to <37m². This provision would remove this stipulation.

Siting and Size

- (4) The minimum setback for any building or structure in the R1 zone is:

(a) 5 metres (16.4 feet) from any lot line;

There are currently no setbacks specified.

(b) 15 metres (49.2 feet) from and 1.5 metres (4.9 feet) above the natural boundary of the sea.

There are currently no setbacks specified for Reid or Scott; 15m setback for Bute and Dunsmuir.

- (5) The maximum height for any dwelling in the R2 zone is 9 m (29.5 ft).

There are no height restrictions for currently unzoned islands.

9m is the height restriction for Bute and Dunsmuir.

- (6) The maximum height for any accessory building or structure in the R2 zone is 6 metres (20 feet).

Currently, there are no height restrictions for accessory buildings.

6m is a common height restriction for accessory buildings. Originally 5.2m, brought up based on community feedback.

Subdivision Lot Area Requirements

- (7) No lot in the R2 zone may be subdivided.

These lots would all be < 2 ha.

- (8) The minimum lot size in the R2 zone is 1ha (2.4 acres).

5.3 Residential Three – (R3)

Information Note: The purpose of the Residential Three Zone is to provide for the regulation of the development of residential areas on Dayman and Pylades Island.

Permitted Uses

Comments

- (1) The following uses are permitted in the R3 zone, subject to the regulations set out in this Section and the general regulations, and all other uses are prohibited:

- (a) Residential;
- (b) Accessory uses, buildings and structures, including home occupations.

Only permitted principal use.

Does allow for commercial visitor accommodation as a possible home occupation.

Current unzoned property regulations allow a recreational cottage in addition to a dwelling. This provision would remove this allowance, but would allow accessory sleeping cabins.

Density

- (2) The maximum number of dwellings is 1 (one) dwelling for lots less than 4.0 hectares (10 acres) and 2 (two) dwellings for lots larger than 4.0 hectares (10 acres).
- (3) The maximum lot coverage in the R3 zone is 20 percent.

Allows for multiple dwellings on large lots without requiring subdivision. Dayman has one large lot and Pylades has three, two of which are >24 ha.

There is currently no lot coverage. 20% is common for areas with lots of this size, and lot coverage would include accessory structures as well as the principal dwelling.

Currently, a recreational cottage is restricted to <37m². This provision would remove this stipulation.

Siting and Size

- (4) The minimum setback for any building or structure in the R3 zone is:
 - (a) 5 metres (16.4 feet) from any lot line;
 - (b) 15 metres (49.2 feet) from and 1.5 metres (4.9 feet) above the natural boundary of the sea.
- (5) The maximum height for any dwelling in the R2 zone is 9 m (29.5 ft).
- (6) The maximum height for any accessory building or structure in the R2 zone is 6 metres (20 feet).

There are currently no setbacks specified.

There are currently no setbacks specified.

Currently, there are no height restrictions.

9m is a typical dwelling height for small lot areas.

Currently, there are no height restrictions.

6m is a common height restriction for accessory buildings. Originally 5.2m, brought up based on

community feedback.

Subdivision Lot Area Requirements

- (7) The average lot size in the R3 zone is 4 hectares (10 acres).
- (8) The minimum lot size in the R3 zone is 1ha (2.4 acres).

Standard lot size for subdivision.

Would permit lot clustering of any future subdivision.

Table 5.3		
Site-Specific Zone	Location Description	Site Specific Regulations
R3(a)	LOT 8, Thetis Island (known as Dayman Island), Cowichan District	1. Despite Subsections 5.3(1) and 5.3(2), two accessory guest cottages are also permitted with an aggregate area of 74.32 square metres (800 square feet), exclusive to up to 30.66 square metres (330 square feet) of loft area not including stairs providing access to the loft.

This site-specific regulation reflects the conditions of the covenant that the owners of Dayman Island currently hold regarding the development on their unzoned property.

5.4 Residential Four – (R4)

Information Note: The purpose of the Residential Four Zone is to provide for the regulation of South Reid Estates on Reid Island.

Permitted Uses

Comments

- (1) The following uses are permitted in the R4 zone, subject to the regulations set out in this Section and the general regulations, and all other uses are prohibited:

- (a) Residential;
- (b) Accessory uses, buildings and structures, including home occupations but excluding commercial visitor accommodation.

Only permitted principal use.

Does not allow for commercial visitor accommodation as a possible home occupation, based on the already high density allowed.

Density

- (2) The maximum density is 26 cottages on the property.
- (3) The maximum lot coverage in the R4 zone is 25 percent.

There is currently no lot coverage.

Lot coverage would include accessory structures as well as the principal dwelling.

Siting and Size

- (4) The minimum setback for any building or structure in the R4 zone is:

- (a) 5 metres (16.4 feet) from any lot line;
- (b) 15 metres (49.2 feet) from and 1.5 metres (4.9 feet) above the natural boundary of the sea.

There are currently no setbacks specified.

There are currently no setbacks specified.

- (5) The maximum height for any dwelling in the R4 zone is 9 m (29.5 ft).

Currently, there are no height restrictions.

9m is a typical dwelling height for small lot areas.

- (6) The maximum height for any accessory building or structure in the R4 zone is 6 metres (20 feet).

Currently, there are no height restrictions.

6m is a common height restriction for accessory buildings. Originally 5.2m, brought up based on community feedback.

- (7) The maximum size of a dwelling in the R4 zone is 81.75m² (880 sq ft) .

Reflects LTC resolution passed in 1984.

Subdivision Lot Area Requirements

- (8) Subdivision is not permitted in the R4 zone.

5.5 Community Services (CS)

Information Note: The purpose of the Community Services Zone is to provide for the regulation of the development of local community services.

Permitted Uses

- (1) The following uses are permitted in the CS zone, subject to the regulations set out in this section and the general regulations, and all other uses are prohibited:
- (a) Community hall and shelter;
 - (b) Emergency services facilities;
 - (c) Equipment storage.

Density

- (2) The combined coverage of all buildings and structures in the CS zone shall not exceed 25 percent of the zoned area.
- (3) The number of halls in the S1 zone shall not exceed one per lot. *Is this needed?*

Siting and Size

- (4) The minimum setback for any building or structure in the CS zone shall be 4.5 metres (15 feet) from any lot line. *Starting setback for discussion.*
- (5) The maximum height for any building or structure in the CS zone shall be 9 metres (29.5 feet).

Table 5.4		
Site-Specific Zone	Location Description	Site Specific Regulations
CS(a)	LOT 11, Thetis Island (known as Hudson Island), Cowichan District, Plan 25398	1. In addition to uses permitted in the CS zone, an airstrip and private road are permitted.

This site specific zone honours the existing permitted uses (airstrip, private road, and wilderness area) on Lot 11 of Hudson Island.

5.6 Park (P)

Information Note: The purpose of the Park Zone is to provide for the regulation of the development of regional district or provincially owned park lands.

Permitted Uses

- (1) The following uses are permitted in the P zone, subject to the regulations set out in this Section and the general regulations, and all other uses are prohibited:

- (a) Provincial and Regional Parks and Ecological Reserves;
- (b) Passive outdoor recreation including walking, hiking, and nature interpretation; and
- (c) Cemetery on Lot 4, District Lot 35, Reid Island, Cowichan District, Plan 12807.

Recognizes cemetery on Reid Island.

Permitted Buildings and Structures

- (2) The following structures are permitted in the P zone, subject to the regulations set out in this section and the general regulations, and all other structures are prohibited:

- (a) Structures accessory to a permitted natural area protection, conservation or interpretation use (such as stairs, boardwalks, fences, kiosks);
- (b) Outhouses; and,
- (c) Informational signs, subject to Part 6.

An early referral to CVRD Parks is recommended to know what infrastructure is desired as part of their planning.

Siting and Size

- (3) The minimum setback for any building in the P zone is 7.6 metres (25 feet) from any lot line.

Starting setback for discussion.

5.7 Private Conservation (G)

Information Note: The purpose of the Private Conservation Zone is to provide for the regulation of lands reserved for privately managed conservation of local flora and fauna.

Permitted Uses

- (1) The following uses are permitted in the G zone, subject to the regulations set out in this section and the general regulations, and all other uses are prohibited:
 - (a) Protection and maintenance of natural features and habitat; and
 - (b) Conservation.

Permitted Structures

- (2) The following structures are permitted in the G zone, subject to the regulations set out in this section and the general regulations, and all other structures are prohibited:
 - (a) Fences;
 - (b) Stairs, boardwalks; and
 - (c) Informational signs, subject to Part 6.

Siting and Size

- (3) The minimum setback for any structure in the G zone is 4.5 metres (15 feet) from any lot line.

Starting setback for discussion.

5.8 Marine General (W1)

Information Note: The purpose of the Marine General (W1) Zone is to provide for the regulation of development, including common dock facilities, in marine areas adjacent to residential islands. Intended to serve as the water zoning for Reid, Dayman, Scott, and Pylades Islands.

The W1 zone, and the other water-based zones, includes the surface of the water, up to the natural boundary of the sea.

Permitted Uses

- (1) The following uses and structures are permitted in the W1 zone subject to the regulations set out in this section and the general regulations, and all other uses are prohibited:
 - (a) Mooring buoys, for the purpose of mooring a private vessel accessory to the residential use of an upland lot;
 - (b) Docks accessory to the residential use of an adjacent upland lot; and,
 - (c) Community docks; and,
 - (d) Marine navigational aids.

This zone is intended to regulate the use of the water around the islands and to regulate the siting and size of private docks.

Density

- (2) The maximum number of docks that may be constructed adjacent and accessory to any upland lot in the W1 zone shall be one unless additional docks are permitted by site-specific regulation.

Siting and Size

- (3) The maximum area of any accessory dock in the W1 zone, excluding ramps and walkways, shall not exceed 37 m² (400 ft²).

Floats are often 400 sq ft.

Conditions of Use

- (4) The use permitted in 5.8(1) does not include and dock constructed with foam floatation devices that are not completely encapsulated.
- (5) No building, other than one storage building not exceeding 10 m² and 4 metres in height, in the W1 zone may be constructed or erected on any float or wharf.
- (6) Derelict or abandoned floats, ramps or walkways are prohibited and must be duly removed.

One storage shed per dock

5.9 Marine Service (W2)

Information Note: The purpose of the Marine Service Zone is to provide for the regulation of common dock facilities in marine areas adjacent to residential islands. Intended to serve as the water zoning for Hudson Island.

Permitted Uses

- (1) The following uses are permitted in the W2 zone subject to the regulations set out in this section and the general regulations, and all other uses are prohibited:
- This zone is intended to accommodate community docks in pre-designated locations*
- (a) Mooring buoys, for the purpose of mooring a private vessel accessory to the residential use of an upland lot; and,
 - (b) Community docks and wharves; and,
 - (c) Marine navigational aids.

Density

- (2) One community dock or wharf may be constructed in each W2-zoned location.
- Discuss whether size limits should be imposed for community docks if private docks are not permitted as policy encourages community docks.*

Conditions of Use

- (3) The use permitted in 5.9(1) does not include and dock constructed with foam floatation devices that are not completely encapsulated.
- (4) No building, other than one storage building not exceeding 10 m² and 4 metres in height in the W2 zone may be constructed or erected on any dock.
- One storage shed per dock*
- (5) Derelict or abandoned floats, ramps or walkways are prohibited and must be duly removed.

5.10 Marine Ruxton (W3)

Information Note: The purpose of the Marine Ruxton Zone is to provide for the regulation of development in marine areas around Ruxton Island.

Permitted Uses

- (1) The following uses are permitted in the W3 zone subject to the regulations set out in this section and the general regulations, and all other uses are prohibited:

- (a) Mooring buoys, for the purpose of mooring a private vessel accessory to the residential use of an upland lot; and,
- (b) Marine navigational aids,

Any development of docks would require a rezoning on Ruxton.

Permitted Structures

- (2) Permitted structures are limited apparatuses to assist in the offloading and loading of people and materials from boats.

Addresses the objects and structures presently along the shore on Ruxton.

Conditions of Use

- (3) (a) Permitted structures must allow unfettered public access along the shoreline.
- (b) Derelict or abandoned apparatuses or other debris are prohibited and must be duly removed.

Conditions of Use regulations aim to regulate the current use of ramp-like structures on the shoreline

5.11 Marine Protection (W4)

Information Note: The purpose of the Marine Protection Zone is to provide for the regulation of development in marine areas outside of areas zoned for docks and moorage.

Permitted Uses

- (1) The following uses are permitted in the W4 zone, subject to the regulations set out in this section and the general regulations, and all other uses are prohibited:
 - (a) Marine navigational aids;
 - (b) Mooring buoys for the purpose of mooring a private vessel accessory to the residential use of an upland lot;
 - (c) Signs subject to Section 6;
 - (d) Ecological reserve; and
 - (e) Research and educational activities related to the marine environment, including nature interpretation.

Permitted Structures

- (2) No permanent building or structure of any kind, other than a navigational aid or mooring buoy, may be erected, constructed or placed.

5.12 Marine Aquaculture (W5)

Information Note: The purpose of the Marine Aquaculture Zone is to provide for the regulation of aquaculture activities in areas around Bute Island and Dunsmuir Islands.

Permitted Uses

- (1) The following uses are permitted in the W5 zone, subject to the regulations set out in this section and the general regulations, and all other uses are prohibited:
 - (a) Marine navigational aids;
 - (b) Sub-tidal and beach aquaculture;

Permitted Structures

- (2) Buoys delineating aquaculture tenure boundaries.

Information Note: Marine aquaculture tenures must adhere to the guidelines set by the Department of Fisheries and Oceans.

5.13 Yacht Club Outstation (YCO) Zone

The purpose of the Yacht Club Outstation Zone is to provide regulations for yacht club outstations located on the upland and adjacent marine waters of Ovens Island (one of the Dunsmuir Islands) as outdoor recreational uses for yachters.

Permitted Uses

- (1) The following uses are permitted in the YCO zone, subject to the regulations set out in this section and general regulations, and all other uses are prohibited:
 - (a) Yacht Club Outstation use;
 - (b) boat moorage to buoys associated with yacht club outstation use of adjacent upland parcel;
 - (c) Passive recreation;
 - (d) Accessory Use.

Permitted Buildings, Structures and Density

- 2) No more than one yacht club outstation use is permitted within an area zoned Yacht Club Outstation.
- 3) Buildings in the upland area of the Yacht Club Outstation Zone are limited to the following yacht club outstation facilities:
 - (a) one dwelling unit per parcel which may be included in a club house
 - (b) one yacht club outstation facility per parcel
- 4) Structures in the upland area of the Yacht Club Outstation Zone are limited to:
 - (a) Stairs and ramps associated with yacht club outstation use of adjacent upland parcel;
- (5) Structures in the marine area of the Yacht Club Outstation Zone are limited to:
 - (a) Mooring buoys, floats, docks, wharves, ramps, and walkways providing marine access to a yacht club outstation.
 - (b) Storage sheds.

Currently, there are no buildings in this area; however, previous zoning allows up to two dwelling units, and/or marina buildings, non-commercial recreational buildings, public utility buildings, private campgrounds, and resorts, up to 35% lot coverage.

Conditions of Use

- (6) The use permitted in 5.13(1) does not include any dock constructed with foam floatation devices that are not completely encapsulated.

- (7) Derelict or abandoned floats, ramps or walkways are prohibited and must be duly removed.

Subdivision Lot Area Requirements

- (8) Subdivision is not permitted in the YCO zone.

PART 6 SIGN REGULATIONS

6.1 Permitted Signs

- (1) All types of address and home occupation signs, excepting animated, illuminated or flashing signs;
- (2) Directional, traffic control, safety, and navigational signs;
- (3) Signs of candidates for public office, who are recognized as candidates by the public agency in which they seek office, provided they are removed within 14 days of the date of election;
- (4) Signs pertaining to the lease, sale, name of owner or property; and,
- (5) Signs erected and maintained by a public agency.

6.2 Size and Height

- (1) The maximum height for any sign is 6 metres (20 feet).
- (2) The maximum size for any sign is 1 square metre (10.76 square feet).

6.3 Obsolete Signs

- (1) Any sign which has become obsolete because of the discontinuance of the business, service or activity which it advertises must be removed from the premises within thirty days after the sign becomes obsolete.

PART 7 PARKING REGULATIONS

7.1 Application

- (1) Parking regulations shall not apply to any island unless there is a highway right of way and one or more motor vehicles, as defined by the *Motor Vehicle Act* located on that island.
- (2) There shall be one parking space (per lots?) available for each motor vehicle on an island of at least 2.75 metres (9 feet) in width and 6.25 metres (21 feet) in length, exclusive of manoeuvring aisles or driveways, and have unobstructed vertical clearance of at least 2 metres (6.6 feet).
- (3) Each parking space shall be accessible to a highway via a driveway or manoeuvring aisle not less than 6 metres (20 feet) in width at the junction with the highway.

PART 8 SUBDIVISION REGULATIONS

8.1 Lot Area Calculations

- (1) Subdivisions shall comply with the minimum and average lot area regulations set out in Part 5. For the purposes of this bylaw, the average lot area is the sum of the areas of the proposed lots divided by the number of proposed lots.
- (2) If an owner of land being subdivided dedicates as parkland more than 5 percent of the land being subdivided, the area greater than 5 percent may, for the purpose of determining compliance with average lot area regulations set out in Part 5, be included in the total area of lots being created, and the park or parks are deemed not to be lots.
- (3) If a lot proposed to be subdivided is divided by a zone boundary, a separate calculation of the number of lots permitted shall be made for each portion, and no lot is to be created in respect of any fractional area resulting from such a calculation.

8.2 Exemptions from Average and Minimum Lot Area Requirements

The average and minimum lot areas specified in Part 5 – Zone Regulations do not apply to:

- (1) A lot being created to be used solely for the unattended equipment necessary for the operation of any of the following services and the owner grants a covenant restricting the use of the lot to that use:
 - (a) electrical and telecommunication utilities;
 - (b) community sewer or water system facilities;
 - (c) telephone receiving antenna;
 - (d) radio or television broadcasting antenna;
 - (e) telecommunication relay;
 - (f) automatic telephone exchange;
 - (g) air or marine navigation aid;
 - (h) electrical substation.
- (2) A lot being created to be used solely for natural open space or conservation purposes provided that a covenant is granted that restricts the use of the lot to that purpose.
- (3) A lot created is the result of the consolidation of two or more lots.
- (4) The adjustment of boundaries between lots provided that the area of any lot would not be increased to an extent that it could be subdivided into more lots than would be permitted under this Bylaw without the boundary adjustment, and the total number of lots after the boundary adjustment is no more than the total number of lots before the boundary adjustment.

8.3 Covenants Prohibiting Further Subdivision and Development

- (1) Where a subdivision is proposed that yields the maximum number of lots permitted by the applicable average lot area specified by this Bylaw, and one or more of the lots being created has an area equal to or greater than twice the applicable average lot

area, the owner must grant a restrictive covenant in respect of every such lot prohibiting further subdivision of the lot and prohibiting construction, erection, or occupancy on the lot of more than the applicable zone's permitted number or size of dwellings and accessory buildings.

- (2) If a subdivision is proposed that yields fewer than the maximum number of lots permitted by the applicable minimum and minimum average lot sizes specified by this bylaw, and:
- (a) one or more of the lots being created has an area equal to or greater than twice the applicable minimum average lot size; and
 - (b) one or more of the lots being created has an area less than the applicable minimum average lot size the applicant shall grant a restrictive covenant in respect of every lot prohibiting:
 - (i) the subdivision of the lot so as to create a greater total number of lots by subdivision and re-subdivision of the original lot than would have been created had the first subdivision created the maximum number of lots permitted by the applicable minimum and minimum average lot sizes specified by this Bylaw; and
 - (ii) the construction, erection, or occupancy on the lot of dwellings, guest houses and accessory buildings so as to create greater density of such development on the original lot than would have been created had the original lot been developed to the greatest density permitted by this Bylaw without subdivision.
- (3) If the approval of a bare land strata plan would create common property, the applicant must grant a restrictive covenant in respect of the common property prohibiting the further subdivision of the common property and the disposition of the common property separately from the strata lots.

8.4 Boundary Adjustment Subdivisions

- (1) A boundary adjustment subdivision that would result in the increase of the area of any lot to the point where the new lots created could be subdivided into more lots than would be permitted under this bylaw without the boundary adjustment is prohibited.
- (2) A boundary adjustment subdivision resulting in a lot lying in two or more zones is prohibited, except where the lots being subdivided are located in two or more zones.

8.5 Section 946 Subdivisions (Residence for a Relative)

- (1) No lot having an area less than 8 hectares (20 acres) may be subdivided pursuant to the *Local Government Act* to provide a residence for a relative of the owner.

8.6 Lot Frontage and Lot Shape

- (1) Pursuant to requirements of the *Local Government Act*, the frontage on a highway of any lot in a proposed subdivision shall be at least 10% of its perimeter, unless

exempted by the Local Trust Committee.

- (2) No lot in a proposed subdivision may have a lot depth greater than three times its lot width, excluding any panhandle access strip.
- (3) If a panhandle lot proposed to be created has sufficient area to be further subdivided under the provisions of this Bylaw, the minimum width of the access strip of land shall be 20 metres.
- (4) If a panhandle lot proposed to be created has insufficient area to be further subdivided, the minimum width of the access strip of land shall be 10 metres.

8.7 Split Zoned Lots

- (1) The creation of an additional lot lying within two or more zones is prohibited unless the subdivision consolidates lots or adjusts property lines.

8.8 Split or Hooked Lots

- (1) No lot which is divided into two or more portions by a highway or other lot may be created by subdivision, except where required to provide highway access within a water access subdivision.
- (2) Where a part of a parcel is separated from the main portion of the parcel by a road, watercourse, marine water or topographical feature, it may be consolidated with an adjacent parcel to which it may be more properly related without meeting other provisions of this Part, as long as the main portion of the parent parcel conforms to the provisions of this Part.

8.9 Water Access Subdivisions

- (1) Subdivisions that propose access by water only shall provide access by road dedication to a location suitable for the establishment of a neighbourhood dock for use by the owners and occupiers of the subdivision.

8.10 Highway Standards

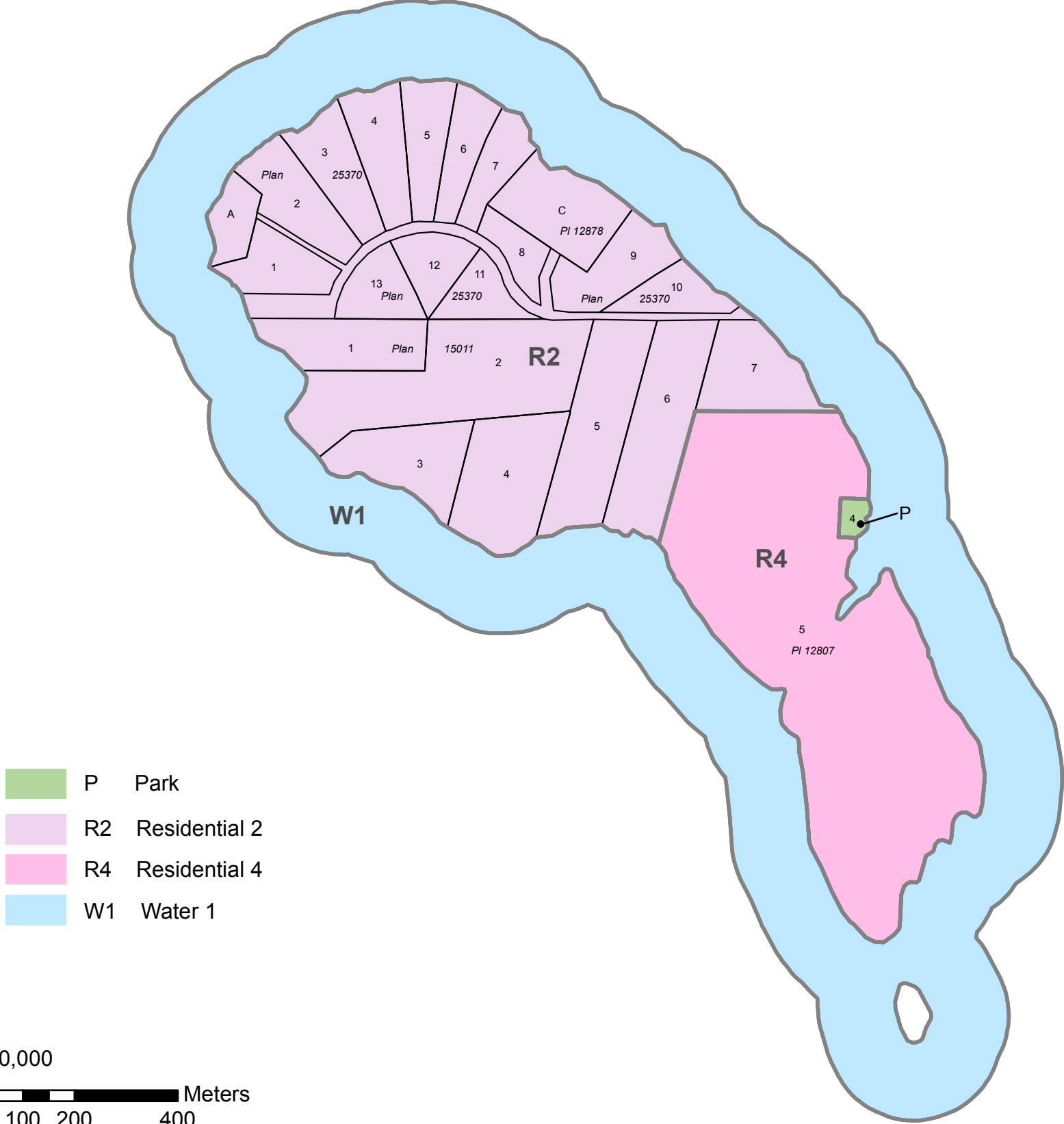
Information Note: For information on road standards see the Letter of Agreement between the Islands Trust and the Ministry of Transportation and Highways (now called Ministry of Transportation and Infrastructure), dated October 20, 1992 and amended July 18, 1996.

8.11 Water Supply

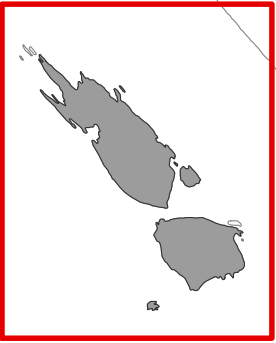
Information Note: For information on water quantity (volume) and quality (potability) requirements for proposed lots served by individual wells, contact the Provincial Approving Officer, Ministry of Transportation and Infrastructure, and for proposed lots served by a community water system contact the Island Health Authority. Drinking water systems that service more than one single family dwelling must comply with the Drinking Water Protection Act and Drinking Water Protection Regulation.

Map B

REID ISLAND
Zoning
DRAFT



See Map A



0 0.5 1 2 3 Kilometers

See Map B

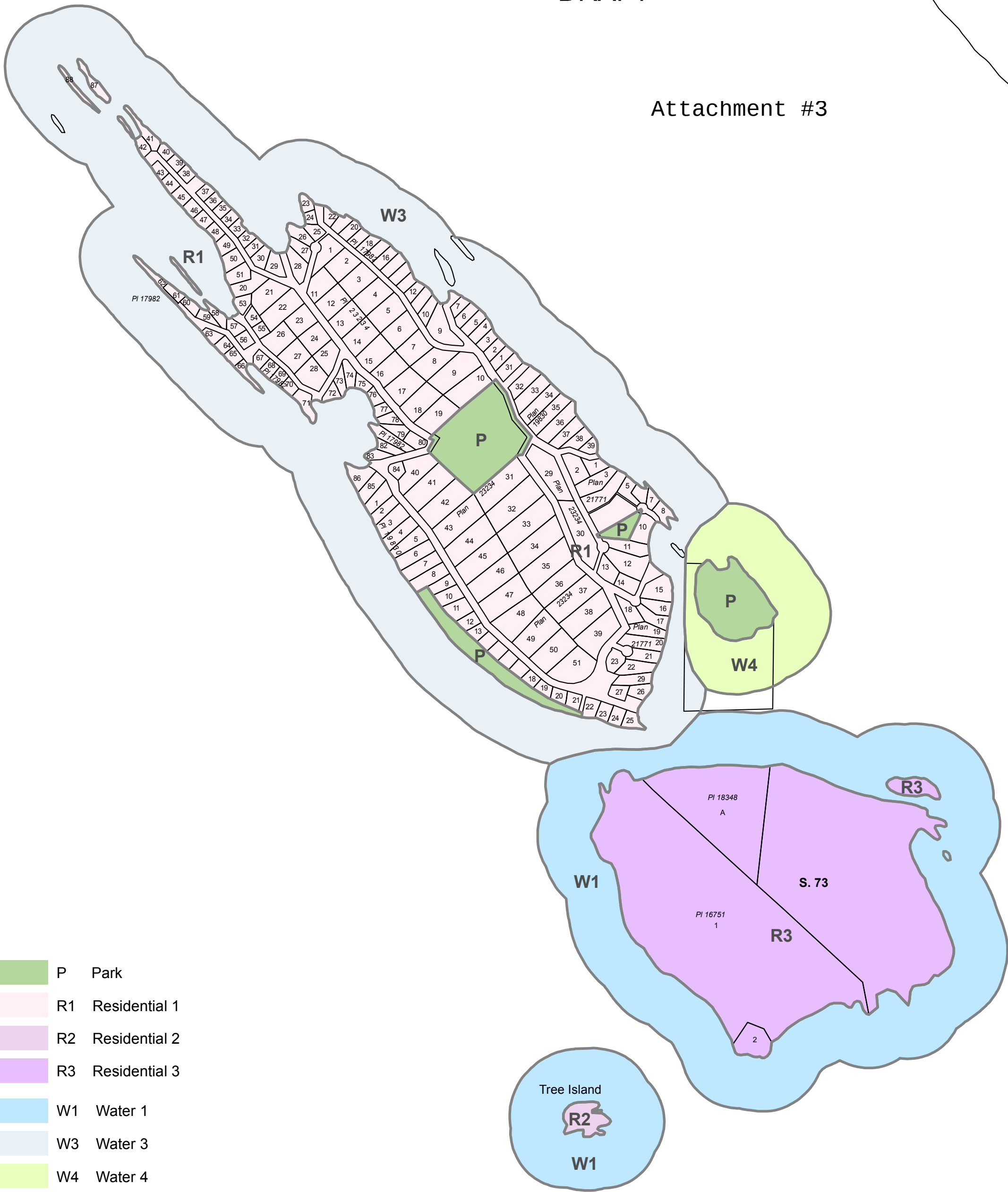


Map A

RUXTON, & PYLADES ISLANDS
Zoning
DRAFT

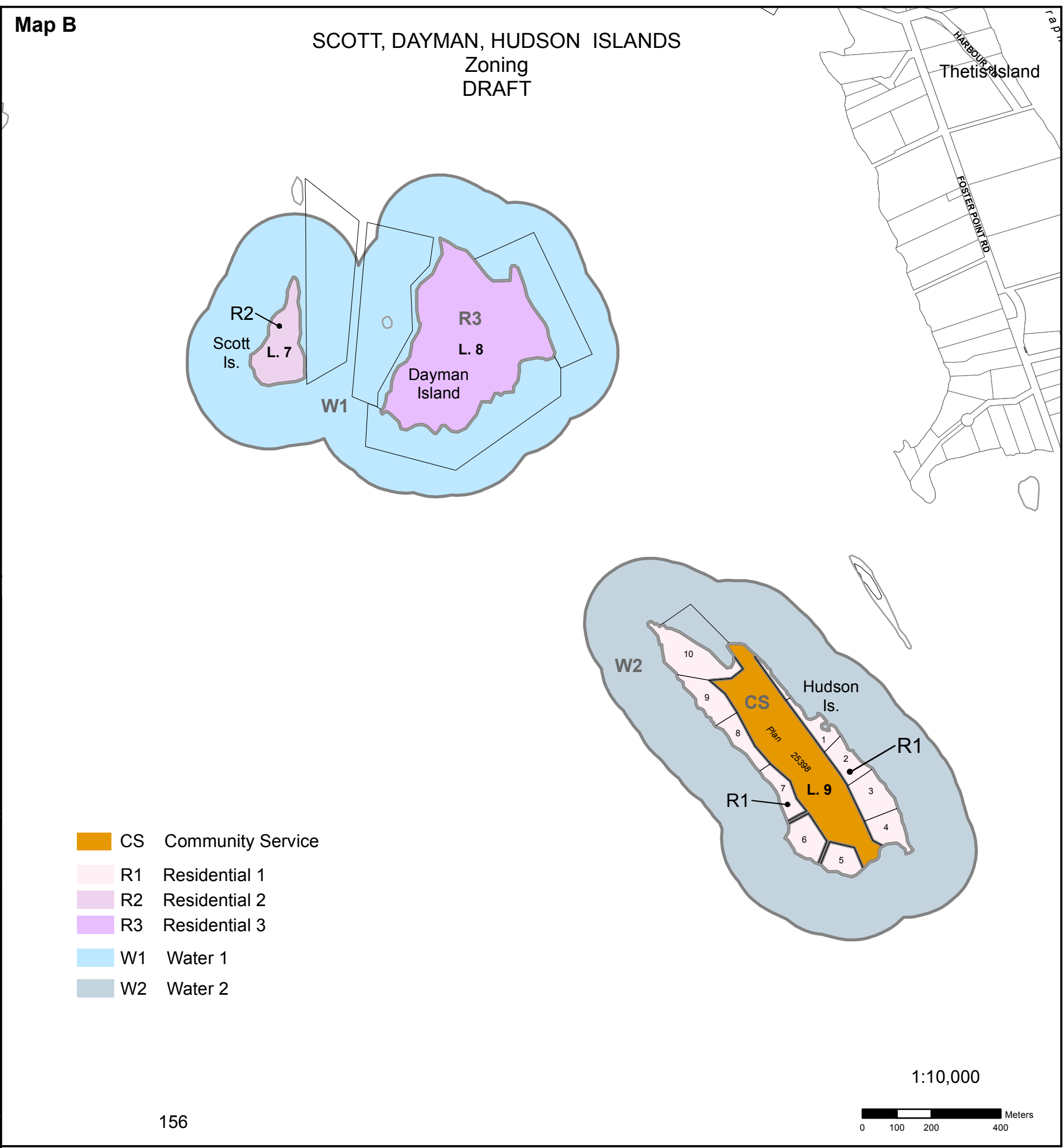
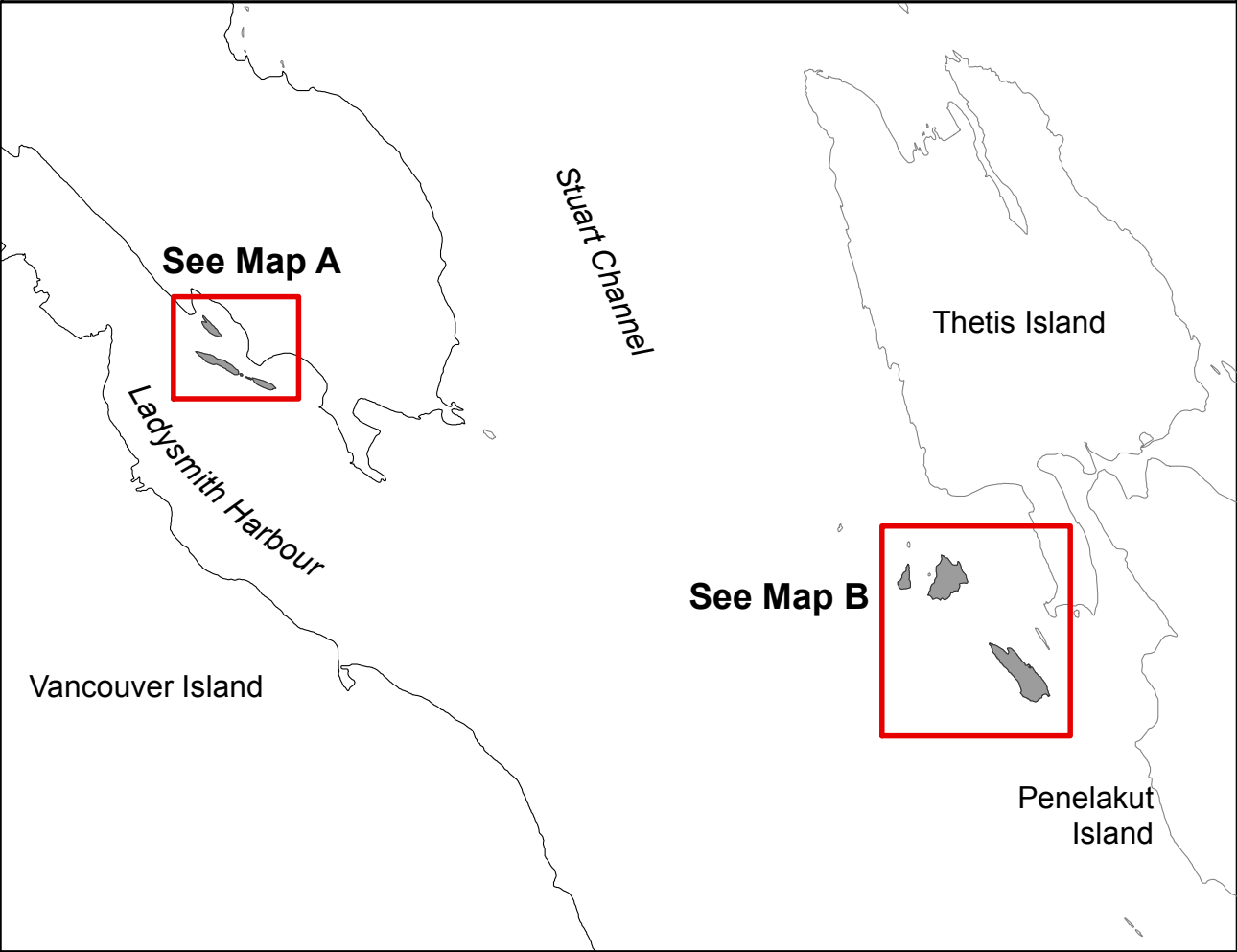
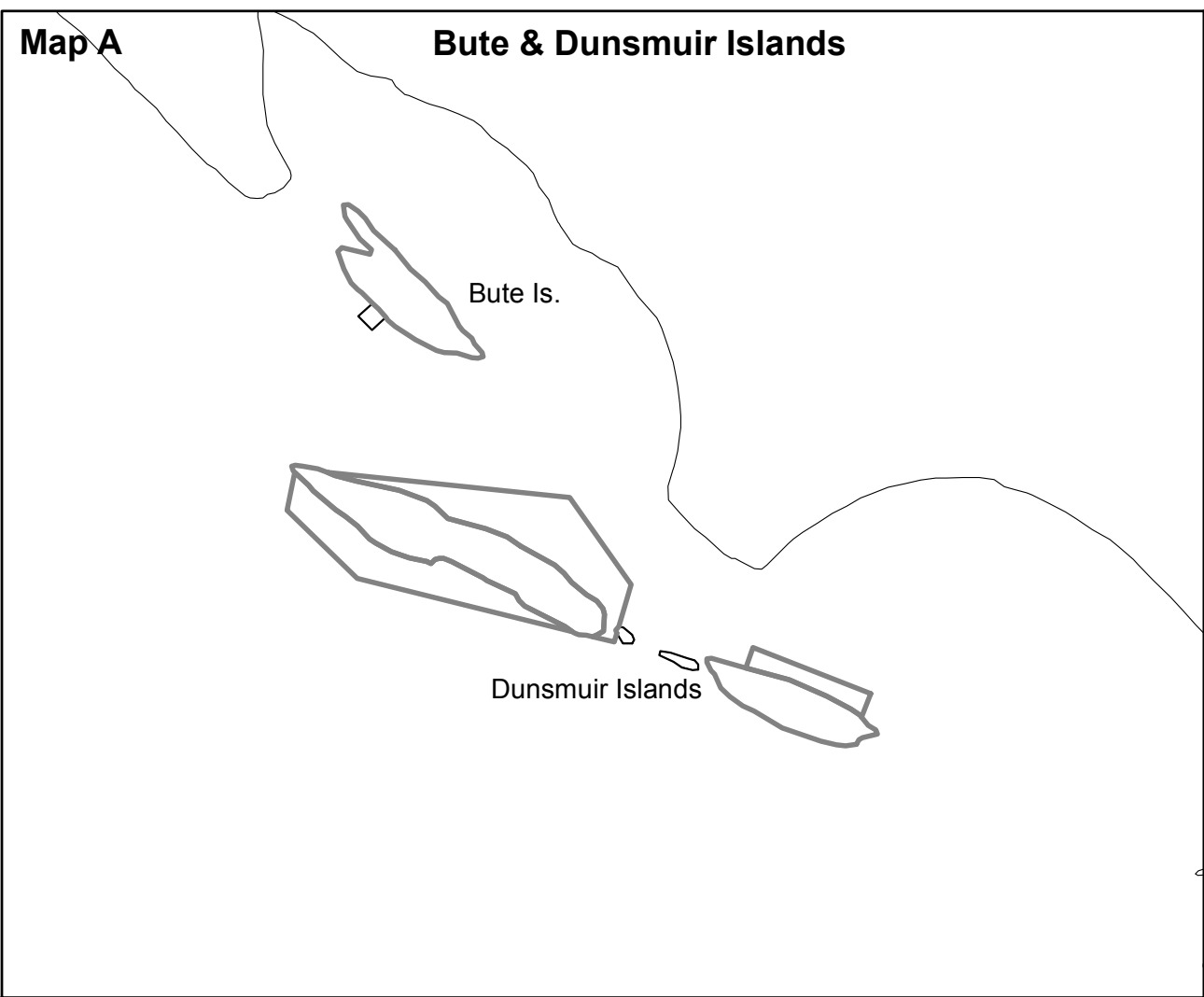


Attachment #3



- P Park
- R1 Residential 1
- R2 Residential 2
- R3 Residential 3
- W1 Water 1
- W3 Water 3
- W4 Water 4

1:10,000
0 100 200 400 Meters





Islands Trust

THETIS ASSOCIATED ISLANDS DRAFT OCP REVISION TRACKER

JANUARY 2014

<i>Jan 2014 (Ver 1.4) pg. #</i>	<i>SECTION</i>	<i>PREVIOUS TEXT</i>	<i>RECOMMENDED REVISIONS</i>	<i>STAFF COMMENTS</i>
9	5.2.5	Despite policy 5.2.4, individual private docks should be prohibited on Ruxton Island. □	Regarding Ruxton Island, the Local Trust Committee should support rezoning applications for community docks that are small-scale and not intended for overnight moorage, and which address the cumulative impacts of community docks on Ruxton Island.	This is a modification of the resolution from Trustees (TH-041/13) to additionally address concerns noted by Ruxton APC.
11	6.2.4	Local Trust Committee bylaw provisions may include in this designation lands that are protected by conservation covenant, park dedication, by donation to a conservancy organization or have been protected by other means.	Local Trust Committee bylaw provisions may include in this designation lands that are protected by conservation covenant, heritage designation , park dedication, by donation to a conservancy organization or have been protected by other means.	Reflects the provincially-designated heritage site on Reid Island.

ASSOCIATED ISLANDS OCP/LUB WORK PLAN TARGET DATES

The table below provides a project work plan with target dates and cost estimates.

Associated Island OCP/LUB Project Work Plan			
	Task	Target Date	Cost Est.
1.	Define the Scope		
1.1	Preliminary staff report	<i>April 18, 2012 (LTC mtg)</i>	
1.2	LTC to endorse project terms of reference	<i>May 23, 2012 (LTC mtg)</i>	
2.	Identify Goals		
2.1	Update Islands Trust website with project information	May 31, 2012	
2.2	Contact First Nations to begin engagement, with follow-up	May 31, 2012	
2.3	Mail-out to property owners including survey on preferred engagement method and community goals	May 31, 2012	\$200
2.4	Appoint Advisory Planning Commission	<i>August 1, 2012 (LTC mtg)</i>	
2.5	CIM to present results of survey and gather more info	August-September, 2012	\$750
2.6	Consult with CVRD – staff-to-staff meeting	October, 2012	
2.7	Staff report on first consultation with draft detailed list of project goals	<i>November 21, 2012 (LTC mtg)</i>	
2.8	APC meeting to create draft detailed list of project goals	October-November, 2012	\$1,000
2.9	LTC to endorse detailed list of project goals	<i>November 21, 2012 (LTC mtg)</i>	
2.10	Mail-out to update property owners on outcome of consultation and next steps	December, 2012	\$200
2.11	APC meeting to refine project goals	February-March, 2012	\$1,000
3.	Appraise the Facts		
3.1	Site visit to Islands	June, 2012	\$400
3.2	Staff report to identify information gaps	January, 2013	
3.3	Contract with professionals to fill gaps as necessary	February-June, 2013	\$8,000
3.4	Continued discussion with First Nations as necessary	ongoing	
3.5	Review results of any professional reports	June, 2013	
4.	Generate Options		
4.1	Draft 1 of OCP	June, 2013	
4.2	Staff report describing regulatory options, no draft of LUB	June, 2013	
4.3	APC Meeting to review draft of OCP	July, 2013	\$1,000
5.	Assess the Options		
5.1	Continued discussion with First Nations as necessary	ongoing	
5.2	In-person CIM	August-September, 2013	\$750
5.3	Electronic and mail consultation with property owners	Summer, 2013	\$400
5.4	Staff report on results of community consultation to assess the options	October, 2013	
6.	Decide on Options to Adopt		
6.1	Draft 1 of LUB	<i>November 20, 2013 (LTC mtg)</i>	
6.2	APC Meeting to review draft of LUB	December 13, 2013	\$1,000
6.3	Revised drafts of OCP and LUB	<i>February 5, 2014 (LTC mtg)</i>	
6.4	Legal review	February 2014	\$3,000
6.5	Community Consultation (online survey) on LUB draft	February 2014	
6.6	First reading	April, 2014	
6.7	Agency referral	April/May, 2014	
6.8	Public hearing	June/July, 2014	\$1,500
6.9	Referral to EC	July 2014	
6.10	Referral to Minister for OCP	August 2014	
6.11	Adoption of OCP and LUB	September, 2014	



Islands Trust

Top Priorities

Thetis Island

No.	Description	Activity	Received/Initiated	Responsibility	Target Date	Status
1	Associated Islands OCP and LUB Creation	Develop new OCP and LUB to replace Ruxton Island Zoning Bylaw, 1982, CVRD Bylaw 110, and to include other islands with no zoning. Scope does not include Valdes Island.	Sep-07-2011	Aleksandra Brzozowski	Nov-15-2014	On Going
2	Shoreline Protection	Serving as the Pilot Local Trust Area for the Green Shores for homes draft credit rating system.	Sep-07-2011	Aleksandra Brzozowski	Sep-01-2014	On Going
3	Riparian Areas Regulation Implementation	Ensure protection of freshwater ecosystems in the Ralston Creek watershed through review of current regulation and covenants, and possible bylaw amendment.	Sep-07-2011	Aleksandra Brzozowski	Nov-15-2014	On Going



Projects

Thetis Island

No.	Description	Activity	Received/Initiated	Status
1	Protocol Agreement or Memorandum of Understanding with Penelakut First Nation	Sent letter to newly elected Chief and Council to see if they are interested in continuing the work on a protocol that was started with former Cheif Lisa Shaver.	Feb-06-2009	On Going
1	Joint proactive enforcement with CVRD		Jul-28-2010	On Going
1	Revise Protocol Agreement with Lyackson First Nation	As of August, 2010 draft with Lyackson for review by their community.	Feb-06-2009	On Going
1	Development Approval Information Bylaw		May-25-2011	On Going
1	Potential LUB amendments:	- short-term vacation rentals of principle dwellings in the R-2 zone - rainwater storage requirements	Sep-07-2011	On Going
1	Sustainability Guidelines for Thetis Island	Discuss collaboration with Cowichan Valley Regional District Building Department, finalize draft, and make a plan for distribution. Update April 2013: brochures have been distributed; requires ongoing check-ins with CVRD that they have a sufficient supply of brochures.	Sep-07-2011	On Going
1	Housekeeping Amendmends to LUB	4.3(d) amend to say: In addition to s. 4.3(a), (b), and (c)...	May-24-2012	On Going
1	Housekeeping amendments to the OCP	- objectives and policies re sea level rise (was resolution to include in draft but did not make it in to adopted OCP)	Oct-03-2012	On Going
1	Island-wide watershed protection	TBD	Nov-21-2012	On Going
1	OCP/LUB amendments to potentially permit ocean loop geothermal exchange systems.		Apr-17-2013	On Going



Applications w/ Status - Thetis Island Status: Open

Applications

Subdivision

File Number	Applicant Name	Date Received	Purpose
TH-SUB-1998.1	TRAX DEVELOPMENT LTD C/O WRIGHT FOCUS ENGINEERING LTD Planner: Aleksandra Brzozowski	Sep-25-1998	Phased Strata Subdivision "Meadow Valley Properties" phased strata to create 21 strata lots from 4 parent parcels

Planning Status

Status Date: Nov-20-2013

Applicant pursuing a detailed assessment to address RAR issues on site.

Status Date: Jul-08-2011

PLA extended to June 8 2012

Status Date: Jun-23-2011

Indicated RAR requirement in response to request for PLA extension

Islands Trust
 LTC EXP SUMMARY REPORT F2014
 Invoices posted to Month ending November 2013

670 Thetis	Invoices posted to Month ending November 2013	Budget	Spent	Balance
65000-670	LTC "Trustee Expenses"	1,100.00	90.88	1,009.12
LTC Local				
65200-670	LTC - Local Exp - LTC Meeting Expenses	1,500.00	938.43	561.57
65210-670	LTC - Local Exp - APC Meeting Expenses	500.00	50.00	450.00
65220-670	LTC - Local Exp - Communications	500.00	0.00	500.00
65230-670	LTC - Local Exp - Special Projects	2,000.00	0.00	2,000.00
65240-670	LTC - Local Exp - Miscellaneous	250.00	0.00	250.00
TOTAL LTC Local Expense		<u>4,750.00</u>	<u>988.43</u>	<u>3,761.57</u>
Projects				
73001-670-2010	Thetis (Ruxton Island) Associated OCP/LUB	<u>11,700.00</u>	<u>7,387.88</u>	<u>4,312.12</u>
TOTAL Project Expenses		<u>11,700.00</u>	<u>7,387.88</u>	<u>4,312.12</u>

Islands Trust

LTC EXP SUMMARY REPORT F2014

Invoices posted to Month ending December 2013

670 Thetis	Invoices posted to Month ending December 2013	Budget	Spent	Balance
65000-670	LTC "Trustee Expenses"	1,100.00	90.88	1,009.12
LTC Local				
65200-670	LTC - Local Exp - LTC Meeting Expenses	1,500.00	1,141.45	358.55
65210-670	LTC - Local Exp - APC Meeting Expenses	500.00	50.00	450.00
65220-670	LTC - Local Exp - Communications	500.00	0.00	500.00
65230-670	LTC - Local Exp - Special Projects	2,000.00	0.00	2,000.00
65240-670	LTC - Local Exp - Miscellaneous	250.00	0.00	250.00
TOTAL LTC Local Expense		<u>4,750.00</u>	<u>1,191.45</u>	<u>3,558.55</u>
Projects				
73001-670-2010	Thetis (Ruxton Island) Associated OCP/LUB	<u>11,700.00</u>	<u>7,887.88</u>	<u>3,812.12</u>
TOTAL Project Expenses		<u>11,700.00</u>	<u>7,887.88</u>	<u>3,812.12</u>

Islands Trust

LTC EXP SUMMARY REPORT F2014

Invoices posted to Month ending January 2014

670 Thetis	Invoices posted to Month ending January 2014	Budget	Spent	Balance
65000-670	LTC "Trustee Expenses"	1,100.00	90.88	1,009.12
LTC Local				
65200-670	LTC - Local Exp - LTC Meeting Expenses	1,500.00	1,141.45	358.55
65210-670	LTC - Local Exp - APC Meeting Expenses	500.00	50.00	450.00
65220-670	LTC - Local Exp - Communications	500.00	0.00	500.00
65230-670	LTC - Local Exp - Special Projects	2,000.00	560.00	1,440.00
65240-670	LTC - Local Exp - Miscellaneous	250.00	0.00	250.00
TOTAL LTC Local Expense		<u>4,750.00</u>	<u>1,751.45</u>	<u>2,998.55</u>
Projects				
73001-670-2010	Thetis (Ruxton Island) Associated OCP/LUB	<u>11,700.00</u>	<u>8,133.92</u>	<u>3,566.08</u>
TOTAL Project Expenses		<u>11,700.00</u>	<u>8,133.92</u>	<u>3,566.08</u>



Islands Trust

BYLAW REFERRAL FORM

1-500 Lower Ganges Road
Salt Spring Island, BC BC V8K 2N8
Ph: (250) 537-9144
Fax: (250) 537-9116
ssiinfo@islandstrust.bc.ca
www.islandstrust.bc.ca

Island: Salt Spring Island Trust Area **Bylaw No.:** 472 **Date:** January 7, 2013

You are requested to comment on the attached Bylaw for potential effect on your agency's interests. We would appreciate your response within 30 days. If no response is received within that time, it will be assumed that your agency's interests are unaffected. For your information a Public Hearing to consider the Bylaw will be held in the near future.

APPLICANTS NAME / ADDRESS:

Ian MacAlpine

PURPOSE OF BYLAW:

To amend Land Use Bylaw No. 355 to rezone a portion of the waters fronting Lot 5, Sections 33 And 37, South Salt Spring Island, Cowichan District, Plan 1812 from Shoreline 6 – S6 to Shoreline 6(b) – S6(b) to permit a floating breakwater and dock with an oversize float associated with upland residential use.

GENERAL LOCATION:

1351 Mountain Road, South Salt Spring Island

LEGAL DESCRIPTION:

Lot 5, Sections 33 And 37, South Salt Spring Island, Cowichan District, Plan 1812

SIZE OF PROPERTY AFFECTED:

27.176 ha

ALR STATUS:

No

OFFICIAL COMMUNITY PLAN DESIGNATION:

Marine Other

OTHER INFORMATION:

See attached staff report and biologist assessment report.

Please fill out the Response Summary on the back of this form. If your agency's interests are "Unaffected", no further information is necessary. In all other cases, we would appreciate receiving additional information to substantiate your position and, if necessary, outline any conditions related to your position. Please note any legislation or official government policy which would affect our consideration of this Bylaw.

(Signature)

Name: Leah Hartley

Title: Regional Planning Manager

This referral has been sent to the following agencies:

Agencies

Fisheries and Oceans Canada
Coast Guard
Ministry of Environment
Ministry of Forests, Lands and Natural Resource Operations

First Nations

Hul'qumi'num Treaty Group
Malahat First Nation
Tseycum First Nation
Pauquachin First Nation
Tsartlip First Nation
Tsawout First Nation
Tsawwassen First Nation
Stzuminus First Nation
Lyackson First Nation
Lake Cowichan First Nation
Penelakut Tribe
Halalt First Nation
Cowichan Tribes

Regional Agencies

CRD Building Inspection
CRD Parks and Recreation Commission
SSI Fire-Rescue

Adjacent Local Trust Committees and Municipalities

Galiano Island Local Trust Committee
Mayne Island Local Trust Committee
North Pender Island Local Trust Committee
Thetis Island Local Trust Committee

**BYLAW REFERRAL FORM
RESPONSE SUMMARY**

- ☐ Approval Recommended for Reasons Outlined Below
- ☐ Approval Recommended Subject to Conditions Outlined Below
- ☐ Interests Unaffected by Bylaw
- ☐ Approval Not Recommended Due to Reason Outlined Below

Salt Spring Island Local Trust Area
(Island)

(Signature)

(Date)

472
(Bylaw Number)

(Title)

(Agency)

1-500 Lower Ganges Road
 Salt Spring Island, BC BC V8K 2N8
 Ph: (250) 537-9144
 Fax: (250) 537-9116
 ssiinfo@islandstrust.bc.ca
 www.islandstrust.bc.ca



Islands Trust

BYLAW REFERRAL FORM

Island: Salt Spring Island Local Trust Area **Bylaw:** 474 **Date:** January 9, 2014

You are requested to comment on the attached Bylaw for potential effect on your agency's interests. We would appreciate your response within 30 days. If no response is received within that time, it will be assumed that your agency's interests are unaffected. For your information a Public Hearing to consider the Bylaw will be held in early Spring.

APPLICANTS NAME / ADDRESS:

Dave McKerrell for Island Marine Construction Services Ltd.

PURPOSE OF BYLAW:

To amend Official Community Plan Bylaw No. 434 – Maps 1 and 16 - by changing the designation of the subject area from Marine Other (MO) to Shoreline Development (SD), and to add the subject area to Development Permit Area 1.

GENERAL LOCATION:

2850 Fulford-Ganges Road, Salt Spring Island.

LEGAL DESCRIPTION:

Lot 1, Section 15, Ranges 1 and 2, South Salt Spring Island, Cowichan District, Plan 12248.

SIZE OF PROPERTY AFFECTED:

0.897 hectares

ALR STATUS:

N/A

OFFICIAL COMMUNITY PLAN DESIGNATION:

Shoreline Development (SD) and Marine Other (MO)

OTHER INFORMATION:

Please see accompanying Staff Report, together with the registered plan and plan of existing water lots.

Please fill out the Response Summary on the back of this form. If your agency's interests are "*Unaffected*", no further information is necessary. In all other cases, we would appreciate receiving additional information to substantiate your position and, if necessary, outline any conditions related to your position. Please note any legislation or official government policy which would affect our consideration of this Bylaw.

(Signature)

Name: Justine Starke

Title: Island Planner

This referral has been sent to the following agencies:

Federal Agencies

Transport Canada

Regional Agencies

Vancouver Island Health Authority

Provincial Agencies

Ministry of Forests, Lands & Natural Resource Operations (Crown Lands Branch)

Local Trust Committees

Mayne Island
 Galiano Island
 North Pender Island
 Thetis Island

Non-Agency Referrals

Fulford Water System (CRD)
 SSI Harbour Authority
 SSI PARC (CRD)
 SSI Transportation Commission (CRD)

BYLAW REFERRAL FORM

RESPONSE SUMMARY

- ☐ Approval Recommended for Reasons Outlined Below
- ☐ Approval Recommended Subject to Conditions Outlined Below
- ☐ Interests Unaffected by Bylaw
- ☐ Approval Not Recommended Due to Reason Outlined Below

Salt Spring Island Local Trust Area
(Island)

(Signature)

(Date)

474
(Bylaw Number)

(Title)

(Agency)



Islands Trust

BYLAW REFERRAL FORM

Island: Salt Spring Island Local Trust Area **Bylaw:** 475 **Date:** January 9, 2014

You are requested to comment on the attached Bylaw for potential effect on your agency's interests. We would appreciate your response within 30 days. If no response is received within that time, it will be assumed that your agency's interests are unaffected. For your information a Public Hearing to consider the Bylaw will be held in early Spring.

APPLICANTS NAME / ADDRESS:

Dave McKerrell for Island Marine Construction Services Ltd.

PURPOSE OF BYLAW:

To amend Land Use Bylaw No. 355 by adding a new Zone Variation Shoreline 2(a) – S2(a) – and by rezoning the water area to the south of District Lot 426, adjacent to the subject property, from Shoreline 3 and Shoreline 6 to Shoreline S2(a) to permit temporary wharfage for transient boats.

GENERAL LOCATION:

2850 Fulford-Ganges Road, Salt Spring Island.

LEGAL DESCRIPTION:

Lot 1, Section 15, Ranges 1 and 2, South Salt Spring Island, Cowichan District, Plan 12248.

SIZE OF PROPERTY AFFECTED:

0.897 hectares

ALR STATUS:

N/A

OFFICIAL COMMUNITY PLAN DESIGNATION:

Shoreline Development (SD) and Marine Other (MO)

OTHER INFORMATION:

Please see accompanying Staff Report, together with the registered plan and plan of existing water lots.

Please fill out the Response Summary on the back of this form. If your agency's interests are "*Unaffected*", no further information is necessary. In all other cases, we would appreciate receiving additional information to substantiate your position and, if necessary, outline any conditions related to your position. Please note any legislation or official government policy which would affect our consideration of this Bylaw.

 (Signature)

Name: Justine Starke

Title: Island Planner

This referral has been sent to the following agencies:

Federal Agencies

Transport Canada

Regional Agencies

Vancouver Island Health Authority

Provincial Agencies

Ministry of Forests, Lands & Natural Resource Operations (Crown Lands Branch)

Local Trust Committees

Mayne Island
 Galiano Island
 North Pender Island
 Thetis Island

Non-Agency Referrals

Fulford Water System (CRD)
 SSI Harbour Authority
 SSI PARC (CRD)
 SSI Transportation Commission (CRD)

BYLAW REFERRAL FORM

RESPONSE SUMMARY

- ☐ Approval Recommended for Reasons Outlined Below
- ☐ Approval Recommended Subject to Conditions Outlined Below
- ☐ Interests Unaffected by Bylaw
- ☐ Approval Not Recommended Due to Reason Outlined Below

Salt Spring Island Local Trust Area

(Island)

(Signature)

(Date)

475

(Bylaw Number)

(Title)

(Agency)



Islands Trust

BYLAW REFERRAL FORM

200-1627 Fort Street
Victoria, BC V8R 1H8
Ph: (250) 405-5151
Fax: (250) 405-5155
information@islandstrust.bc.ca
www.islandstrust.bc.ca

Island: Galiano Island Trust Area **Bylaw Nos.:** 244 (OCP) and 245 (LUB) **Date:** December 17, 2013

You are requested to comment on the attached Bylaw for potential effect on your agency's interests. We would appreciate your response within 45 days. A longer than normal response time is indicated to provide for absences over the holidays. If no response is received within that time, it will be assumed that your agency's interests are unaffected.

APPLICANTS NAME / ADDRESS:

Landworks Consultants Inc. c/o Kelly Gesner #305-2940 Harriet Road, Victoria, BC V9A 1T3

PURPOSE OF BYLAW:

Bylaw 244 - Official Community Plan mapping amendment to re-designate a portion of District Lot 79 to Nature Protection (NP), Rural Residential (RR), and Forestry (F) as well as re-designate the abutting Marine (M) designated lands adjacent to the NP designated land as Marine Protection (MP).

Bylaw 245 - Land Use Bylaw mapping amendment to rezone District Lot 79, a Forest 1 (F1) zoned property, to Nature Protection (NP) and Rural Residential c) (RR(c)), and Forest 3 (F3) as well as rezone the abutting Marine (M) designated area as Marine Protection (MP). Section 5.4 of the Land Use Bylaw would be amended to create a new zone variant RR(c).

GENERAL LOCATION:

North Galiano Island

LEGAL DESCRIPTION:

District Lot 79, Galiano Island, Cowichan District

SIZE OF PROPERTY AFFECTED:

55.8 ha (138 acres)

ALR STATUS:

n/a

OFFICIAL COMMUNITY PLAN DESIGNATION:

F- Forestry & M- Marine

OTHER INFORMATION:

As a condition of the rezoning, the applicant will be transferring the land designated and zoned as NP to BC Parks, thus increasing the connection between Provincial Park holdings in the area. The Galiano Island Official Community Plan states that a Marine Protection zone shall be designated for marine areas fronting Nature Protection areas.

The RR(c) zoned land will have the potential for a 5 Lot subdivision, with the funds from the sale of Lot 5 transferred to the Galiano Island Housing Society for Community Housing purposes. The Galiano Island Official Community Plan states that a Marine Protection zone shall be designated for marine areas fronting Nature Protection areas.

Attached is the most recent copy of a staff report dated November 18, 2013 (Proposed Bylaws also attached).

Please note that additional background information on this application can be found on the Islands Trust website under <http://www.islandstrust.bc.ca/islands/local-trust-areas/galiano/current-applications.aspx> see rezoning application GL-RZ-2013.1 (Landworks).

Please fill out the Response Summary on the back of this form. If your agency's interests are "*Unaffected*", no further information is necessary. In all other cases, we would appreciate receiving additional information to substantiate your position and, if necessary, outline any conditions related to your position. Please note any legislation or official government policy which would affect our consideration of this Bylaw.

(Signature)

Name: Kris Nichols

Email: knichols@islandstrust.bc.ca
Title: Island Planner

PLEASE TURN OVER →

This referral has been sent to the following agencies:

Federal Agencies

N/A

Provincial Agencies

BC Parks
Ministry of Transportation and Infrastructure
Vancouver Island Health Authority

Non-Agency Referrals

Galiano Island Advisory Planning Commission
Galiano Island Parks and Recreation Commission
Islands Trust Fund

Regional Agencies

Capital Regional District – Building Inspection

Adjacent Local Trust Committees and Municipalities

Mayne Island Local Trust Committee
Salt Spring Island Local Trust Committee
Thetis Island Local Trust Committee

First Nations

Cowichan Tribes
Halalt First Nation
Lake Cowichan First Nation
Lyackson First Nation
Pauquachin First Nation
Penelakut Tribe
Semiahmoo First Nation
Stz'uminus First Nation
Tsartlip First Nation
Tsawout First Nation
Tsawwassen First Nation

BYLAW REFERRAL FORM RESPONSE SUMMARY

☐

Approval Recommended for Reasons Outlined Below

☐

Approval Recommended Subject to Conditions Outlined Below

☐

Interests Unaffected by Bylaw

☐

Approval Not Recommended Due to Reason Outlined Below

Galiano Island Trust Area

(Island)

244

(Bylaw Number)

(Signature)

(Title)

(Date)

(Agency)

BYLAW REFERRAL FORM RESPONSE SUMMARY

☐

Approval Recommended for Reasons Outlined Below

☐

Approval Recommended Subject to Conditions Outlined Below

☐

Interests Unaffected by Bylaw

☐

Approval Not Recommended Due to Reason Outlined Below

Galiano Island Trust Area

(Island)

245

(Bylaw Number)

(Signature)

(Title)

(Date)

(Agency)

STAFF REPORT

File No.: GL-RZ-2013.1

To: Galiano Island Local Trust Committee
For the November 18, 2013 Meeting

From: Kris Nichols
Island Planner

CC: Robert Kojima
Regional Planning Manager

Re: **Revised Proposal for Consideration - Official Community Plan and Land Use Bylaw Amendments – District Lot 79**

Owner: S-381 Holdings Ltd., Inc. No. 457721, Premier Sunrise Developments Ltd., Inc. No. 293442, Michelle Mary Ramaekers, Dionisio Ventures Ltd., Inc. No. 634236, Bowie and Anna Keefer

Applicant: Landworks Consultants Inc., Kelly Gesner

Location: District Lot 79 (Bodega Beach Drive), Galiano Island

BACKGROUND

A preliminary report on the development of District Lot (DL) 79 was received by the LTC at the July 2013 meeting. The intent of the July report was to provide background and a rationale for the application and to seek direction on the application prior to proceeding with the development of any bylaws. This report included the planning and site context consideration and analysis for this application. (See: http://www.islandstrust.bc.ca/media/222543/staff_report_-_july_2013.pdf) At that time, the application included DL 79 and DL 10. At that meeting the LTC expressed concerns over using both lots in the application.

At the September 9, 2013 LTC meeting the applicant came back with a revised proposal that did not include DL 10 which simplified the application. The revised proposal was consistent with the F3 OCP policy (i.e. minimum 20 hectares and permitting one accessory dwelling) and would meet the generally accepted 25-75 rural residential / nature protection split that has been used in the area for other rezonings. Staff stated that this was an improvement over the initial application proposal, is consistent with Forest policy (b) and with recent F1 rezonings and that the application should go forward to bylaw development. A question remained as to the form of the community benefit. The LTC passed the following resolution to draft the bylaws:

Resolution GL-LTC-97-13

It was Moved and Seconded that the Galiano Island Local Trust Committee directs staff to prepare draft bylaws for GL-RZ-2013.1(Landworks).

Revised Proposal:

Subsequent to the September LTC meeting staff met with the applicant to discuss the proposal in detail and to address some outstanding concerns. The applicant submitted a revised plan that included addressing the concerns of the LTC. It includes a dedicated access to the waterfront and an additional lot (Lot 5) for sale with the proceeds being donated to the Galiano Island Housing Society (GIHS) as part of the community benefit. See Attachment 1 and Figure1.

In addition, the applicant has agreed to proceed concurrently with obtaining preliminary layout approval (PLA) with the Ministry of Transportation and Infrastructure for the proposed subdivision so that there are no uncertainties which could delay the overall process. In addition, it would permit the community to understand what was to be achieved through the rezoning process with the ultimate layout of the subdivision. The proposed subdivision shown below ensures that the Rural Residential lots are clustered (See Attachment 1) and there would be dedicated access to the water.

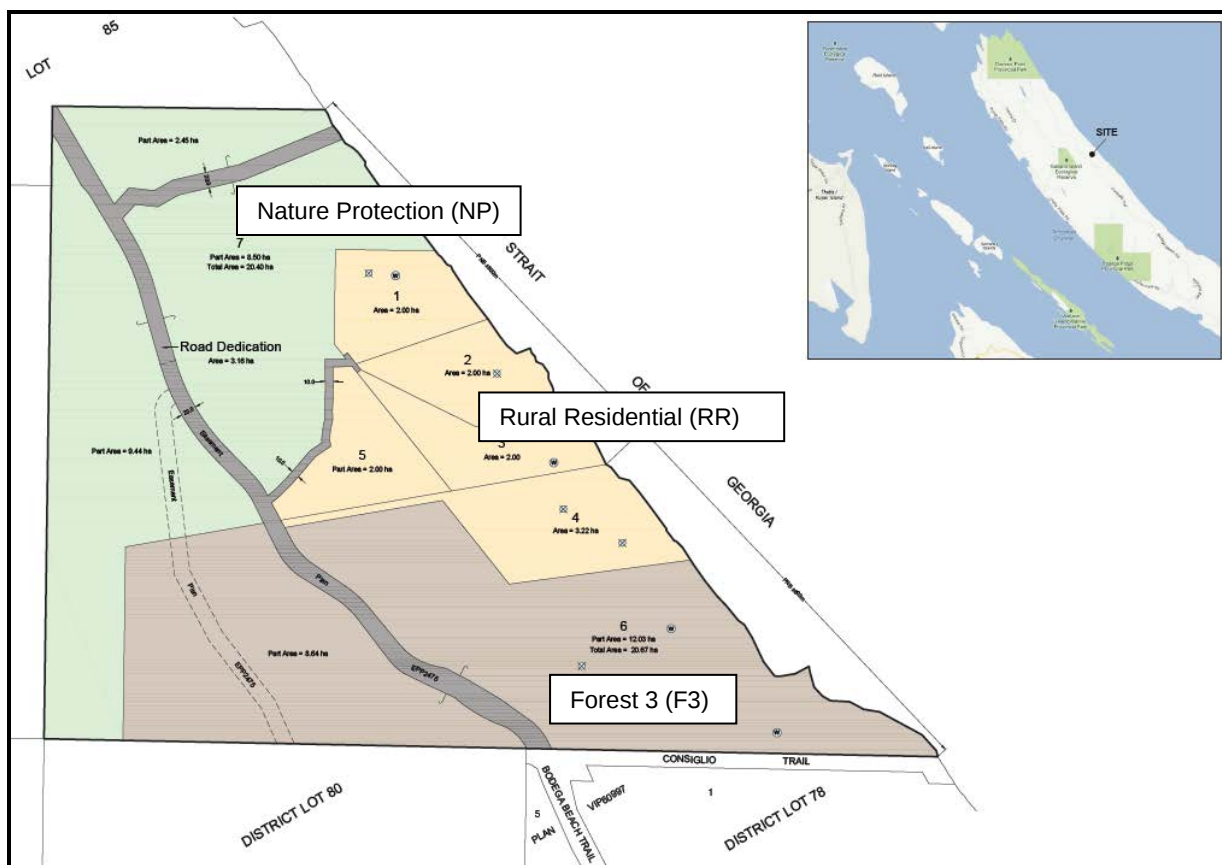


Figure 1 – Proposed Subdivision

Since the previous proposal, there is a slight change in the amount of parkland that is being proposed being now approximately 67% of the parkland/rural residential ratio. This is due to an additional rural residential lot (lot 5) being created for community housing benefit out of the proposed parkland and an increase in the size of lot 4.

This current proposal is consistent with the F3 OCP policy (i.e. minimum 20 hectares and permitting one accessory dwelling), and it will come close to meeting the generally accepted 25-75 rural residential / nature protection split that has been used in the area for other rezonings. The calculation should include the additional lot being calculated as part of the NP as a community benefit. In this latest draft proposal what is being proposed is:

- 21.76 ha zoned Forest 3 (F3) (including estimated road dedication)
- 22.8 ha zoned Nature Protection (NP) (including estimated road dedication)
- 11.22 ha zoned Rural Residential (RR) (includes the Community Benefit Lot 5)
- The split between NP and RR zoned areas would be 67% (22.8 hectares)/ 33% (11.22 ha). However, when the community housing lot is calculated as part of the NP as it is a community benefit the actual split is 73% (24.8 ha) / 27% (9.22 ha).

The proposal does meet the general intent of providing a substantial amount of parkland (73%) for community benefit. The additional lot 5 is also community benefit. It should also be pointed out that the F3 zoning is considered a benefit to the community in the context of OCP policy as it requires a covenant to ensure sustainable forest practices are maintained on the land. The applicants are currently working on a sustainable forestry covenant as required for the F3 portion of the proposal.

New Covenant Requirement

Rural Residential OCP policy 1.4 e) speaks to the registration of a section 219 covenant which restricts lay-out and area of the future contiguous lots in order to lessen the effects of future development on surrounding ecosystems and groundwater, as well as minimize the impacts of road development. The LTC may wish to consider requesting staff to work with the applicant on additional covenant provisions such as:

- Ensuring that no residential development occurs until lands are transferred to BC Parks.
- Ensuring that no gates will be placed on any easement/ SRW if the access(es) are not dedicated as proposed.
- Ensuring a siting plan identifying the location and area of the residential home plate, including driveways, on each lot in the proposed subdivision, sited in a manner that avoids sensitive ecosystems and hazardous lands, and minimizes extension of services. This could also become part of the rezoning bylaw as was done with the Dewinetz application.
- Establishing a F3 covenant for sustainable forestry.

Staff will require further direction from the LTC regarding this matter. Should this application proceed, additional information will be presented at a future meeting.

Community Housing Requirement

Subsection 1.6 of the Galiano OCP outlines the conditions under which the LTC may consider the siting of affordable housing, at a greater density than permitted within current zoning regulation. Policy b) within this subsection states the following:

“c) A portion of lands rezoned to permit a density increase under another policy in this plan, may, if the area is deemed suitable for the purpose by the Local Trust Committee, be rezoned to CH (Community Housing) to permit affordable housing, including housing for senior citizens or persons with special needs, and the land required to be simultaneously transferred to an incorporated non-profit society having as one of its objects the development and operation of affordable, seniors’ or special needs housing, or alternatively an option to purchase the land for nominal consideration may be granted to such a society.

As an alternative to permitting the community housing on the parcel being rezoned, the local trust committee may consider amending zoning on other lands to permit the affordable, seniors or special needs housing to be developed in a more appropriate location and the land being transferred to the incorporated non-profit society may be zoned to permit residential uses. Any proposed location for the affordable, seniors or special needs housing should be located within modified ecosystems, avoid potentially hazardous lands, demonstrate an adequate supply of potable water, and be in proximity and accessible to existing roads services and other amenities.”

Applicant Recommended Community Housing Option

The applicant has agreed to create an additional lot which would be sold and the proceeds transferred to the Galiano Island Housing Society (GIHS) in support of community housing on Galiano Island. The proposal has been accepted by GIHS; both parties will now have to work on a legal undertaking that will ensure those funds are transferred upon the sale of Lot 5. Once the legal undertaking is drafted, staff recommend that Islands Trust legal counsel review the document. The LTC may wish to direct staff to enter into cost recovery with the applicant for this review. Given that a similar agreement was drafted for the Dewinetz application (GL-RZ-2011.2) with GIHS it will be possible to utilize the previous model of agreement with amendments.

Staff are in support of the proposal for the donation of the proceeds from the sale of Lot 5 to the GIHS as a community benefit. The current location is not appropriate for the development of affordable seniors housing.

DRAFT BYLAWS

Draft Bylaws No. 244 and 245 are attached to this report for information and further consideration. Both bylaws reflect the discussion at the September 9, 2013 LTC meeting requesting a community housing benefit thereby creating an additional lot for sale.

The marine area abutting the waterfront properties has also been included in the rezoning in order to meet the provisions of OCP policy 7d) which states that where Nature Protection areas meet the high tide line, the water and foreshore shall be zoned for protection.

Proposed Bylaw Amendments:

The following bylaw amendments will be required:

Official Community Plan Amendments – Proposed Bylaw No. 244

- Designation from Forest (F) to Rural Residential (RR) for the creation of 5 lots.
- Designation from Forest (F) to Nature Protection (NP) for the creation of one lot to be transferred to BC Parks.
- Designation from Marine (M) to Marine Protection (MP) for the marine area abutting the waterfront property designated NP.

See Attachment 2 for proposed bylaw.

Land Use Bylaw Amendments – Proposed Bylaw No. 245

- Rezoning from Forest 1 (F1) to Rural Residential (RRc) for the creation of 5 lots.
- Rezoning from Forest 1 (F1) to Nature Protection (NP) for one lot to be transferred to BC Parks.
- Rezoning from Forest 1 (F1) to Forest 3 (F3) for the creation of one 20.67 ha lot.
- The marine area abutting the waterfront properties has also been included in the rezoning in order to meet the provisions of OCP policy 7d) which states that where Nature Protection areas meet the high tide line, the water and foreshore shall be zoned for protection. Rezoning to Marine Protection (MP) from Marine (M).

See Attachment 3 for proposed bylaw.

COMMUNITY CONSULTATION

No formal community consultation for this application has taken place at this time. A public hearing is part of any rezoning application, and staff are requesting direction to schedule a public hearing. A Community Information Meeting (CIM) often takes place before a public hearing in order to provide the public with an opportunity to ask questions regarding the application. The LTC may wish to consider scheduling a CIM in conjunction with a public hearing. There is a notification period prior to the public hearing during which time surrounding neighbours will be contacted and advertisements placed in a local newspaper. Further direction from the LTC will be required if any additional community consultation or special meetings above and beyond the standard process are desired.

STAFF COMMENTS:

Staff have reviewed the revised application and prepared the attached bylaws for consideration of the LTC.

Options for LTC Consideration:

Based upon the discussion above, the following options are presented to the LTC for consideration:

- Give first reading to Draft Bylaws Nos. 244 and 245 and direct staff to schedule a community information meeting and public hearing.

- Direct staff to revise the Draft Bylaws and present them at a subsequent meeting for further consideration.
- Direct staff to refer the Bylaws to the Advisory Planning Commission (GIAPC).
- Direct staff to work with the applicant on a Section 219 covenant and enter into cost recovery for legal work.
- Direct staff to enter into cost recovery for legal work pertaining to a review of the legal undertaking for transfer of funds from the sale of Lot 5 to the Galiano Island Housing Society.
- Direct staff to work with the applicant to obtain a required groundwater assessment as per OCP policy 2e).
- Proceed no further with this application.

This latest revision to the application is an improvement over the past proposals taking into consideration the concerns of the LTC (i.e. community benefit and dedicated water access) expressed at the last meeting. The proposal is consistent with Forest policy (b) and with recent F1 rezonings in the area. Staff support the proposal for the donation of the proceeds from the sale of Lot 5 to the GIHS as a community benefit. Therefore, staff are in support of the application and that it should be given first reading and proceed to public hearing.

RECOMMENDATIONS:

THAT proposed Bylaw No. 245 cited as “Galiano Island Official Community Plan Bylaw No. 108, 1995, Amendment No. 2, 2013” be given First Reading.

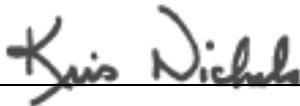
THAT proposed Bylaw No. 244, cited as “Galiano Island Land Use Bylaw No. 127, 1999, Amendment No. 3, 2013” be given First Reading.

THAT the Galiano Island Local Trust Committee directs staff to schedule a community information meeting and a Public Hearing.

THAT the Galiano Island Local Trust Committee direct staff to enter into a cost recovery agreement with the applicant for legal review of the legal undertaking pertaining to the transfer of funds from the sale of proposed Lot 5 to the Galiano Island Housing Society.

THAT the Galiano Island Local Trust Committee direct staff to work with the applicant to draft a Section 219 covenant and enter into a cost recovery agreement with the applicant for associated legal work.

Prepared and Submitted by:



November 5, 2013

Date

Concurred in by:



Regional Planning Manager

November 5, 2013

Date

The map illustrates the proposed road dedication area in the Strait of Georgia, showing seven numbered parcels (1-7) and a road dedication area. The map includes area calculations for each parcel and the road, and an inset map showing the location within the Strait of Georgia.

Parcel Data:

Parcel Number	Part Area (ha)	Total Area (ha)
1	2.00	2.00
2	2.00	2.00
3	2.00	2.00
4	3.22	3.22
5	2.00	2.00
6	11.00	20.07
7	6.50	20.40

Road Dedication Area: 5.16 ha

Other Areas:

- Part Area = 2.43 ha
- Part Area = 8.44 ha
- Part Area = 8.64 ha

Geographical Features:

- STRAIT OF GEORGIA
- CONSILIO TRAIL
- BODEGA BEACH TRAIL
- DISTRICT LOT 78
- DISTRICT LOT 80
- VIADUCT
- EMERSON
- EMERSON
- EMERSON

Inset Map:

The inset map shows the location of the site within the Strait of Georgia, highlighting the area of interest in green.

DRAFT**GALIANO ISLAND LOCAL TRUST COMMITTEE****BYLAW NO. 244**

**A BYLAW TO AMEND THE GALIANO ISLAND
OFFICIAL COMMUNITY PLAN BYLAW NO. 108, 1995**

WHEREAS the Galiano Island Local Trust Committee is the Local Trust Committee having jurisdiction on and in respect of the Galiano Island Local Trust Area, pursuant to the Islands Trust Act;

AND WHEREAS Section 29 of the *Islands Trust Act* gives the Galiano Island Local Trust Committee the same power and authority of a Regional District under Part 26, except sections 932 to 937 and 939, of the *Local Government Act*;

AND WHEREAS the Galiano Island Local Trust Committee wishes to amend the Galiano Island Official Community Plan Bylaw No. 108, 1995;

AND WHEREAS the Galiano Island Local Trust Committee has held a Public Hearing;

NOW THEREFORE the Galiano Island Local Trust Committee enacts in open meeting assembled as follows:

1. CITATION

This Bylaw may be cited for all purposes as “Galiano Island Official Community Plan Bylaw No. 108, 1995, Amendment No. 2, 2013”.

2. SCHEDULES

Galiano Island Official Community Plan No. 108, 1995 is amended as shown on Schedule 1, attached to and forming part of this bylaw.

3. SEVERABILITY

If any provision of this Bylaw is for any reason held to be invalid by a decision of any Court of competent jurisdiction, the invalid provision must be severed from the Bylaw and the decision that such provision is invalid must not affect the validity of the remaining provisions of the Bylaw.

READ A FIRST TIME this day of , 2013.

PUBLIC HEARING HELD this day of , 20.

READ A SECOND TIME this _____ day of _____, 20. _____

READ A THIRD TIME this _____ day of _____, 20. _____

APPROVED BY THE EXECUTIVE COMMITTEE OF THE ISLANDS TRUST this
day of , 20.

APPROVED BY THE MINISTER OF COMMUNITY, SPORT AND CULTURAL DEVELOPMENT this _____ day of _____, 20__.

ADOPTED this _____ day of _____, 20.

SECRETARY

CHAIRPERSON

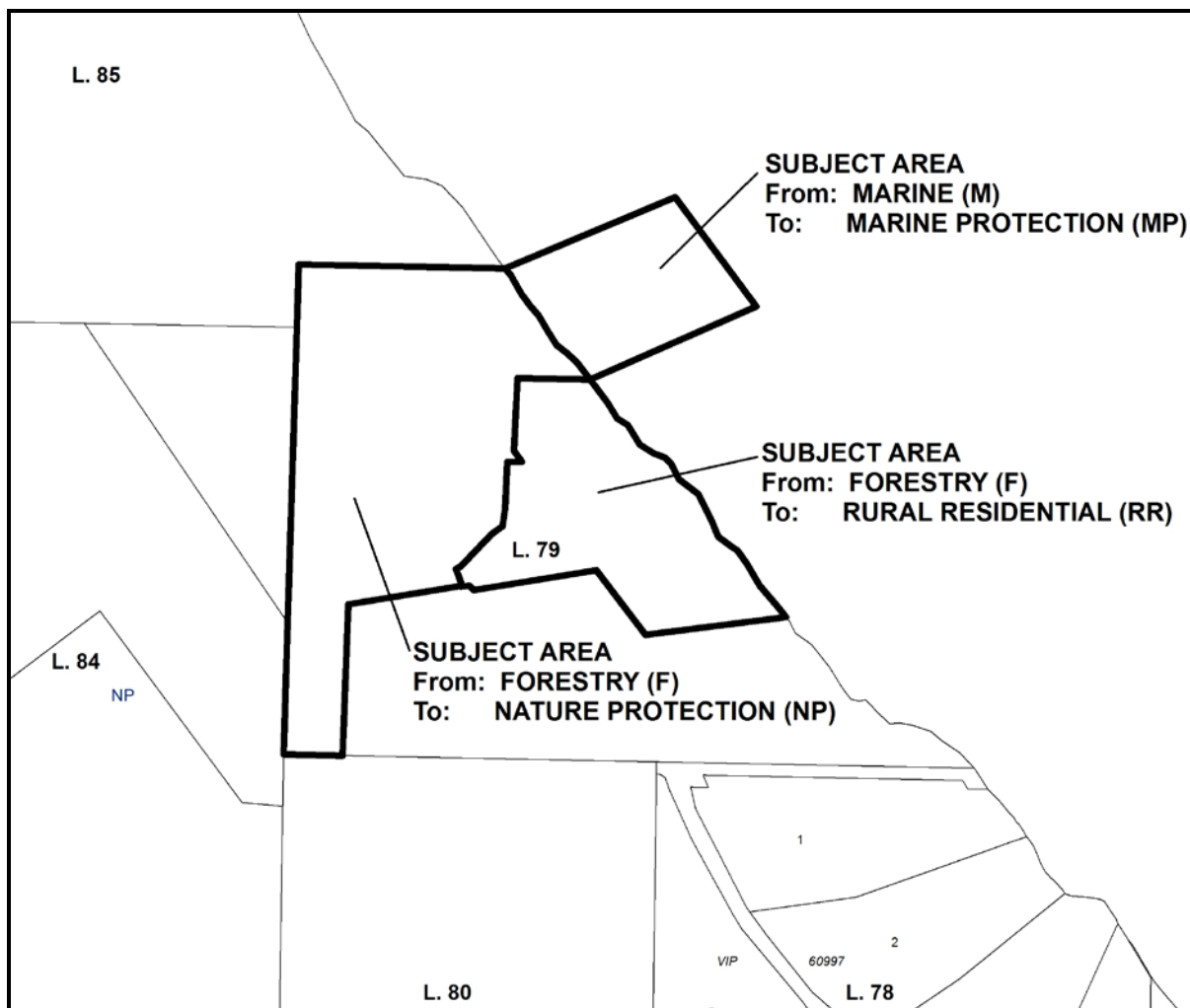
**GALIANO ISLAND LOCAL TRUST COMMITTEE
BYLAW No. 245
SCHEDULE 1**

1. Schedule A, Section II, 1.4 Rural Residential is amended by inserting the following as a new policy g:

"g) For the properties described as District Lot 79, Galiano Island, Cowichan District, zoning shall establish a minimum average parcel area of 55 hectares, with a minimum average subdivision parcel area as low as 2 hectares (5 acres) on the RR designated portion of the lands and 20 hectares (49 acres) on the F1 designated portion of the lands, applicable only if the landowner provides land to be transferred to the Crown as represented by the Province of British Columbia, the Trust Fund Board, the Capital Regional District or other transferees designated in the Land Use Bylaw amendment, to be used for conservation, ecosystem protection, public parkland, community forest, or trails. Approval of any such rezoning shall be subject to the following conditions:

- i) the area of land to be transferred shall represent at least 67% of the land subject to rezoning; and
- ii) the registration of a s. 219 covenant granted to the LTC which restricts the layout and area of the future lots to provide for the contiguous clustering of lots in a manner that protects the integrity of forest ecosystems, surface water and groundwater supplies and minimizes the impact of residential services such as roads."

2. Schedule B (Land Use Designation) is amended for the lands legally described District Lot 79 Galiano Island, Cowichan District as depicted in the map below.



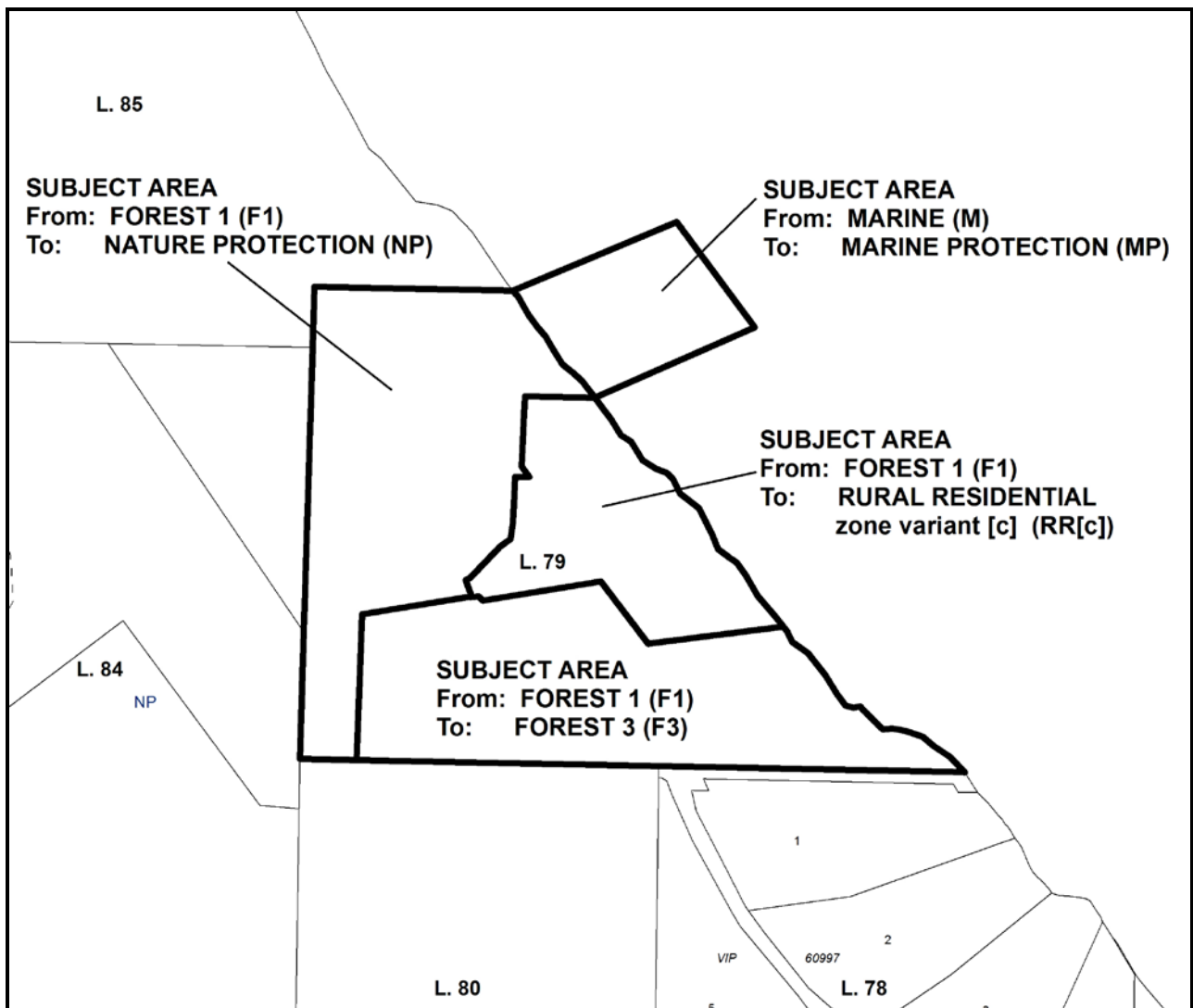
BYLAW NO. 245

A BYLAW TO AMEND GALIANO ISLAND LAND USE BYLAW NO. 127, 1999

The Galiano Island Local Trust Committee, being the Trust Committee having jurisdiction in respect of the Galiano Island Trust Committee Area under the *Islands Trust Act*, enacts as follows:

- A. Bylaw No. 127, cited as “Galiano Island Land Use Bylaw No. 127, 1999” is amended as follows:
 - 1. Section 5.4 (Rural Residential Zone – RR) is amended by inserting the following as a new 5.4.16:

“5.4.16 On the lands zoned RR(c), despite 5.4.8 and 5.4.9, the minimum average parcel area is 55 hectares, with a minimum average subdivision parcel area as low as 2 hectares (5 acres) for the RR zoned portions and 20 hectares (49 acres) for the F3 zoned portions applicable once the landowner provides land representing no less than 67% of the area of the land legally described District Lot 79, Galiano Island, Cowichan District, to be transferred to the Crown as represented by the Province of British Columbia or to the Trust Fund Board, for use for conservation, ecosystem protection, public parkland, community forest, or trails.”
 - 2. Schedule B (Zoning Map) is amended for the lands legally described District Lot 79, Galiano Island, Cowichan District, as depicted in the map below.



B. This bylaw may be cited for all purposes as the “Galiano Island Land Use Bylaw No. 127, 1999, Amendment No.3, 2013”.

READ A FIRST TIME THIS	DAY OF	2013
PUBLIC HEARING HELD THIS	DAY OF	201_
READ A SECOND TIME THIS	DAY OF	201_
READ A THIRD TIME THIS	DAY OF	201_
APPROVED BY THE EXECUTIVE COMMITTEE OF THE ISLANDS TRUST THIS	DAY OF	201_
ADOPTED THIS	DAY OF	201_

DEPUTY SECRETARY

CHAIRPERSON

GALIANO ISLAND LOCAL TRUST COMMITTEE

PROPOSED

BYLAW NO. 244

**A BYLAW TO AMEND THE GALIANO ISLAND
OFFICIAL COMMUNITY PLAN BYLAW NO. 108, 1995**

WHEREAS the Galiano Island Local Trust Committee is the Local Trust Committee having jurisdiction on and in respect of the Galiano Island Local Trust Area, pursuant to the Islands Trust Act;

AND WHEREAS Section 29 of the *Islands Trust Act* gives the Galiano Island Local Trust Committee the same power and authority of a Regional District under Part 26, except sections 932 to 937 and 939, of the *Local Government Act*;

AND WHEREAS the Galiano Island Local Trust Committee wishes to amend the Galiano Island Official Community Plan Bylaw No. 108, 1995;

AND WHEREAS the Galiano Island Local Trust Committee has held a Public Hearing;

NOW THEREFORE the Galiano Island Local Trust Committee enacts in open meeting assembled as follows:

1. CITATION

This Bylaw may be cited for all purposes as "Galiano Island Official Community Plan Bylaw No. 108, 1995, Amendment No. 2, 2013".

2. SCHEDULES

Galiano Island Official Community Plan No. 108, 1995 is amended as shown on Schedule 1, attached to and forming part of this bylaw.

3. SEVERABILITY

If any provision of this Bylaw is for any reason held to be invalid by a decision of any Court of competent jurisdiction, the invalid provision must be severed from the Bylaw and the decision that such provision is invalid must not affect the validity of the remaining provisions of the Bylaw.

READ A FIRST TIME this 18th day of November , 2013.

PUBLIC HEARING HELD this day of , 20.

READ A SECOND TIME this day of , 20.

READ A THIRD TIME this day of , 20.

APPROVED BY THE EXECUTIVE COMMITTEE OF THE ISLANDS TRUST this
day of , 20.

APPROVED BY THE MINISTER OF COMMUNITY, SPORT AND CULTURAL
DEVELOPMENT this day of , 20.

ADOPTED this day of , 20.

SECRETARY

CHAIRPERSON

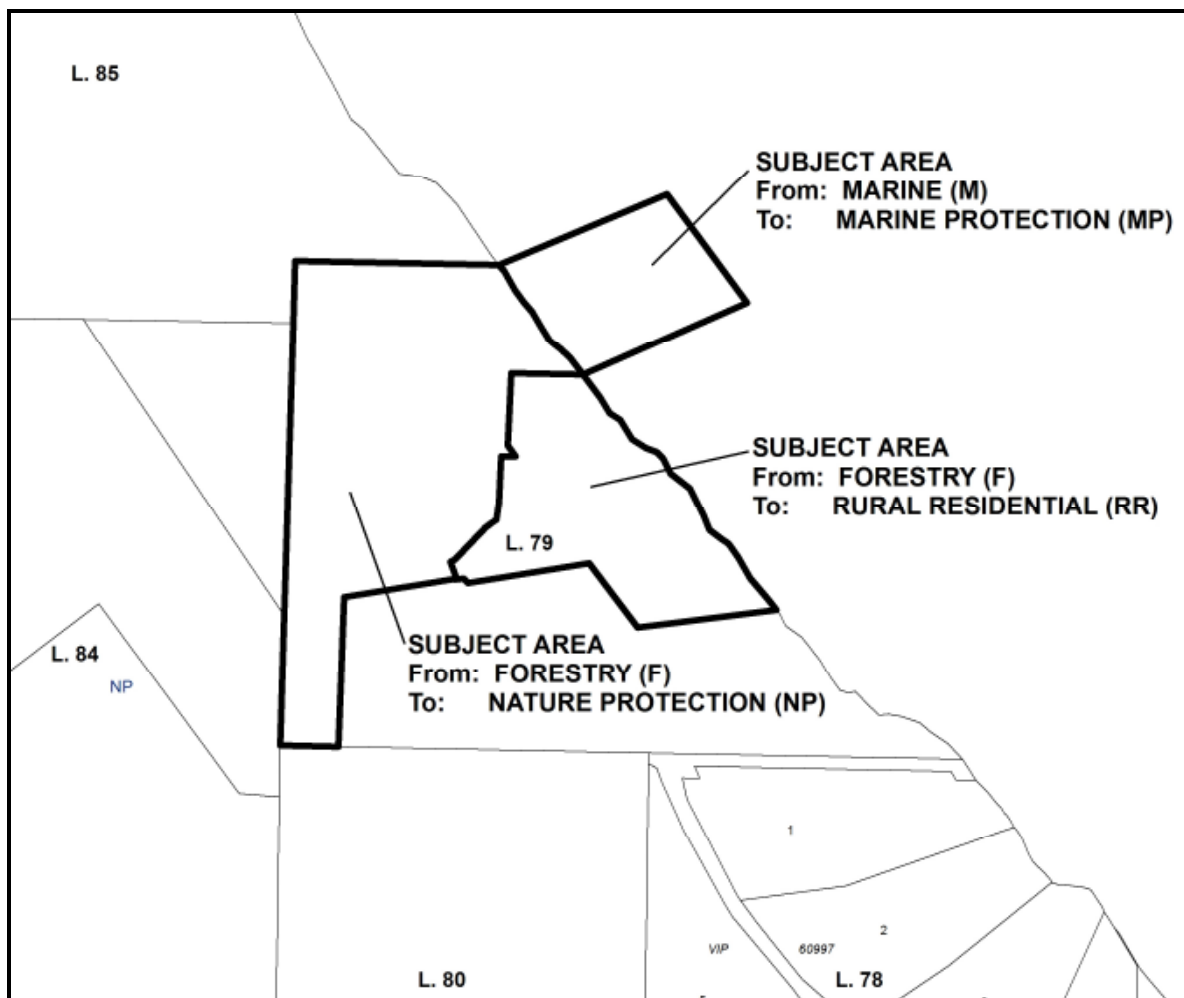
GALIANO ISLAND LOCAL TRUST COMMITTEE
BYLAW No. 245
SCHEDULE 1

1. Schedule A, Section II, 1.4 Rural Residential is amended by inserting the following as a new policy g:

“g) For the properties described as District Lot 79, Galiano Island, Cowichan District, zoning shall establish a minimum average parcel area of 55 hectares, with a minimum average subdivision parcel area as low as 2 hectares (5 acres) on the RR designated portion of the lands and 20 hectares (49 acres) on the F1 designated portion of the lands, applicable only if the landowner provides land to be transferred to the Crown as represented by the Province of British Columbia, the Trust Fund Board, the Capital Regional District or other transferees designated in the Land Use Bylaw amendment, to be used for conservation, ecosystem protection, public parkland, community forest, or trails. Approval of any such rezoning shall be subject to the following conditions:

- i) the area of land to be transferred shall represent at least 67% of the land subject to rezoning; and
- ii) the registration of a s. 219 covenant granted to the LTC which restricts the layout and area of the future lots to provide for the contiguous clustering of lots in a manner that protects the integrity of forest ecosystems, surface water and groundwater supplies and minimizes the impact of residential services such as roads.”

2. Schedule B (Land Use Designation) is amended for the lands legally described District Lot 79 Galiano Island, Cowichan District as depicted in the map below.



GALIANO ISLAND LOCAL TRUST COMMITTEE

PROPOSED

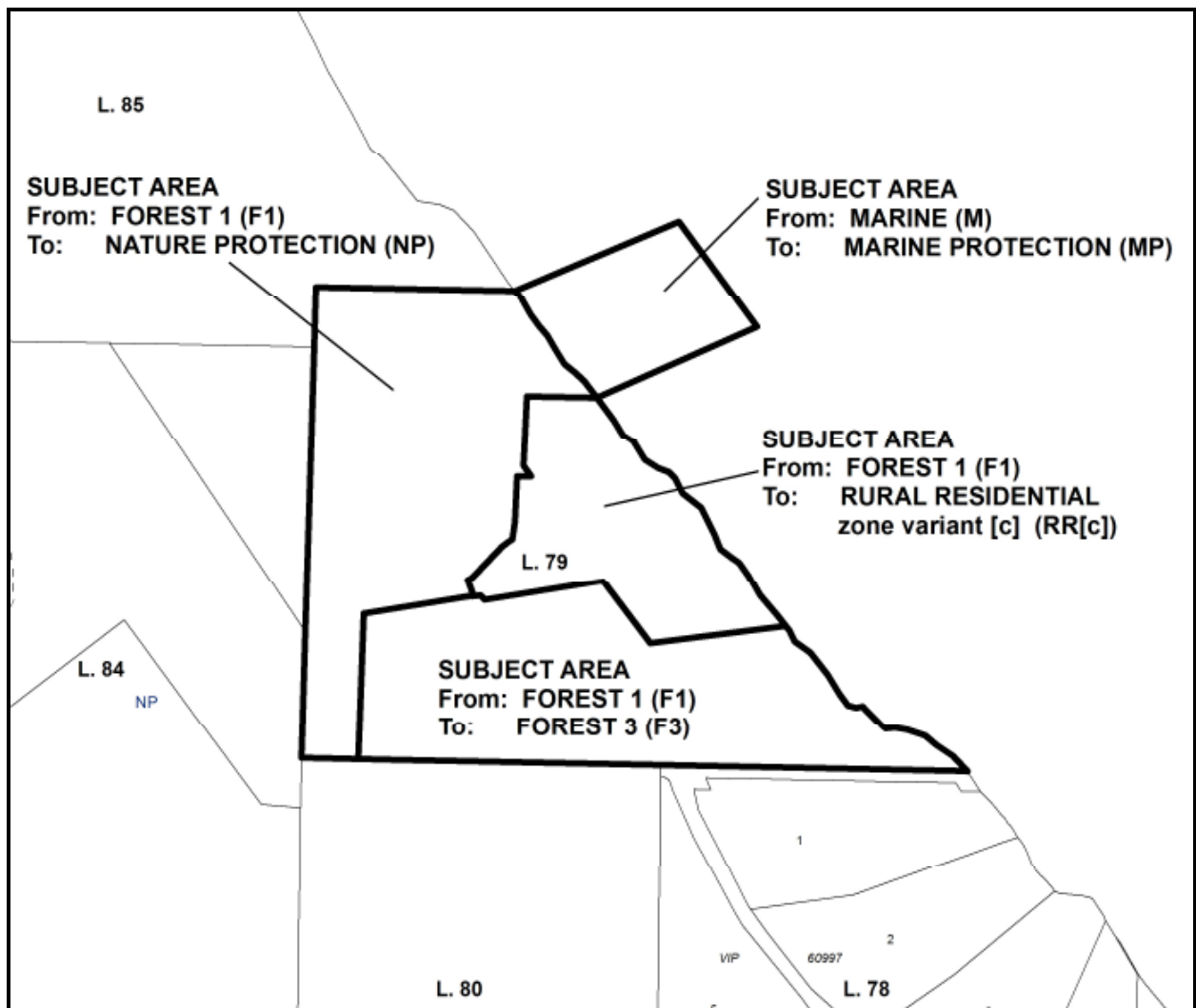
BYLAW NO. 245

A BYLAW TO AMEND GALIANO ISLAND LAND USE BYLAW NO. 127, 1999

The Galiano Island Local Trust Committee, being the Trust Committee having jurisdiction in respect of the Galiano Island Trust Committee Area under the *Islands Trust Act*, enacts as follows:

- A. Bylaw No. 127, cited as “Galiano Island Land Use Bylaw No. 127, 1999” is amended as follows:
1. Section 5.4 (Rural Residential Zone – RR) is amended by inserting the following as a new 5.4.16:

“5.4.16 On the lands zoned RR(c), despite 5.4.8 and 5.4.9, the minimum average parcel area is 55 hectares, with a minimum average subdivision parcel area as low as 2 hectares (5 acres) for the RR zoned portions and 20 hectares (49 acres) for the F3 zoned portions applicable once the landowner provides land representing no less than 67% of the area of the land legally described District Lot 79, Galiano Island, Cowichan District, to be transferred to the Crown as represented by the Province of British Columbia or to the Trust Fund Board, for use for conservation, ecosystem protection, public parkland, community forest, or trails.”
 2. Schedule B (Zoning Map) is amended for the lands legally described District Lot 79, Galiano Island, Cowichan District, as depicted in the map below.



- B. This bylaw may be cited for all purposes as the "Galiano Island Land Use Bylaw No. 127, 1999, Amendment No.3, 2013".

READ A FIRST TIME THIS	18 th	DAY OF	NOVEMBER	2013
PUBLIC HEARING HELD THIS		DAY OF		201_
READ A SECOND TIME THIS		DAY OF		201_
READ A THIRD TIME THIS		DAY OF		201_
APPROVED BY THE EXECUTIVE COMMITTEE OF THE ISLANDS TRUST THIS		DAY OF		201_
ADOPTED THIS		DAY OF		201_

DEPUTY SECRETARY

CHAIRPERSON

SAMPLE MODEL HOUSING RESOLUTION FOR SUPPORT FROM COUNCIL

Please customize as appropriate, particularly by providing examples of high-priority housing projects that require continued federal support.

RESOLUTION

Development of a New Long-Term Federal Plan to Fix Canada's Housing Crunch

WHEREAS, a stable and secure housing system that creates and maintains jobs and allows for a range of living options is essential to attracting new workers, meeting the needs of young families and supporting seniors and our most vulnerable citizens; and,

WHEREAS the high cost of housing is the most urgent financial issue facing Canadians with one in four people paying more than they can afford for housing, and mortgage debt held by Canadians now standing at just over \$1.1 trillion; and,

WHEREAS housing costs and, as the Bank of Canada notes, household debt, are undermining Canadians' personal financial security, while putting our national economy at risk; and,

WHEREAS those who cannot afford to purchase a home rely on the short supply of rental units, which is driving up rental costs and making it hard to house workers in regions experiencing strong economic activity; and,

WHEREAS an inadequate supply of subsidized housing for those in need is pushing some of the most vulnerable Canadians on to the street, while \$1.7 billion annually in federal investments in social housing have begun to expire; and,

WHEREAS coordinated action is required to prevent housing issues from being offloaded onto local governments and align the steps local governments have already taken with regard to federal/provincial/territorial programs and policies; and,

WHEREAS, the Federation of Canadian Municipalities (FCM) has launched a housing campaign, "Fixing Canada's Housing Crunch," calling on the federal government to increase housing options for Canadians and to work with all orders of government to develop a long-term plan for Canada's housing future; and,

WHEREAS FCM has asked its member municipalities to pass a council resolution supporting the campaign;

AND WHEREAS, our community has continuing housing needs, such as the XX and the XX, that can only be met through the kind of long-term planning and investment made possible by federal leadership;

THEREFORE BE IT RESOLVED that council endorses the FCM housing campaign and urges the minister of employment and social development to develop a long-term plan for housing that puts core investments on solid ground, increases predictability, protects Canadians from the planned expiry of \$1.7 billion in social housing agreements and ensures a healthy stock of affordable rental housing for Canadians.

BE IT FURTHER RESOLVED that a copy of this resolution be sent to the minister noted above, to the (provincial/territorial) minister of municipal affairs, to (Name of local MP), to the Federation of Canadian Municipalities and to the (Name provincial/Territorial association).