



Gambier Island Local Trust Committee Regular Meeting Agenda

Date: June 18, 2015
Time: 10:30 am
Location: Keats Camp - Pilot House
Keats Camp, Keats Island, BC

	Pages
1. CALL TO ORDER	10:30 AM - 10:35 AM
2. APPROVAL OF AGENDA	
3. TOWN HALL AND QUESTIONS	10:35 AM - 10:45 AM
4. COMMUNITY INFORMATION MEETING - none	
5. PUBLIC HEARING - none	
6. MINUTES	10:45 AM - 10:50 AM
6.1 Local Trust Committee Meeting Dated May 7, 2015 for adoption	4 - 12
6.2 Section 26 Resolutions-without-meeting - none	
6.3 Advisory Planning Commission Minutes	
7. BUSINESS ARISING FROM MINUTES	10:50 AM - 11:00 AM
7.1 Follow-up Action List Dated June 9, 2015	13 - 14
7.2 Annual Meeting with Sunshine Coast Regional District (SCRD)	
8. DELEGATIONS	
9. CORRESPONDENCE	11:00 AM - 11:05 AM
(Correspondence received concerning current applications or projects is posted to the LTC webpage)	
9.1 Trust Council Chair correspondence regarding Public Consultation on Upcoming BURNCO Environmental Assessment	15 - 16
9.2 Letter dated May 29, 2015 from Jack Crompton, Chair of Squamish-Lillooet Regional District Board of Directors regarding Cumulative Effect Assessment for Howe Sound	17 - 18

10.	APPLICATIONS AND REFERRALS	11:05 AM - 11:15 AM	
10.1	GM-RZ-2013.2 Sea Ranch - Covenants for Signature		
10.1.1	<u>Memorandum dated June 5, 2015</u>		19 - 34
11.	LOCAL TRUST COMMITTEE PROJECTS		
11.1	Riparian Areas Regulation Implementation	11:15 AM - 12:00 PM	
11.1.1	<u>Staff Report dated May 26, 2015</u>		35 - 177
	<u>BREAK</u>		
11.2	Gambier Official Community Plan Review	12:15 PM - 1:00 PM	
11.2.1	<u>Staff Report dated May 8, 2015</u>		178 - 187
11.3	Implementation for Official Community Plan Policies for Howe Sound - for discussion		
12.	REPORTS	1:00 PM - 1:15 PM	
12.1	Work Program Reports		
12.1.1	<u>Top Priorities Report Dated June 9, 2015</u>		188 - 188
12.1.2	<u>Projects List Report Dated June 9, 2015</u>		189 - 189
12.2	Applications Report Dated June 9, 2015		190 - 193
12.3	Trustee and Local Expense Report Dated May, 2015		194 - 194
12.4	Adopted Policies and Standing Resolutions		195 - 196
12.5	Local Trust Committee Webpage		
12.6	Chair's Report		
12.7	Trustee Reports		
12.8	Electoral Area Director's Report		
12.9	Trust Fund Board Report - May, 2015		197 - 197
13.	NEW BUSINESS	1:15 PM - 1:20 PM	
13.1	Heritage Designation for Merry Island Lighthouse		
13.1.1	<u>Memorandum dated June 8, 2015</u>		198 - 202
14.	UPCOMING MEETINGS		
14.1	Next Regular Meeting Scheduled for Thursday, August 6, 2015 at 10:30 am at Gambier Island Community Centre, Andy's Bay Road, Gambier Island, BC		
15.	TOWN HALL		

16. CLOSED MEETING - none

17. ADJOURNMENT

1:30 PM - 1:30 PM



Gambier Island Local Trust Committee Minutes of Regular Meeting

Date: May 7, 2015
Location: Gleneagles Community Centre
6262 Marine Drive, West Vancouver, BC

Members Present Susan Morrison, Chair
Kate-Louise Stamford, Local Trustee
Dan Rogers, Local Trustee

Staff Present Aleksandra Brzozowski, Island Planner (via teleconference)
Diane Corbett, Recorder

1. CALL TO ORDER

Chair Morrison called the meeting to order at 10:57 am. She acknowledged that the meeting was being held in the traditional territory of the Coast Salish First Nations. Trustees and staff in attendance were introduced.

2. APPROVAL OF AGENDA

The following additions to the agenda were presented for consideration:

- 14.4 Howe Sound Forum Request for Decision
- 7.4.1 Discussion of possibility of using Community to Community funding for meeting with Squamish Nation
- 13.3.1 Expense Report Updated March 2015

By general consent the agenda was approved as amended.

3. TOWN HALL AND QUESTIONS

None.

4. COMMUNITY INFORMATION MEETING

None.

5. PUBLIC HEARING

None.

6. MINUTES

6.1. Local Trust Committee Meeting Dated March 26, 2015

The following amendments to the minutes were presented for consideration:

- Page 3: delete last sentence in paragraph two;
- Page 3, paragraph 3, bullet 1 should read: "This is a perfect example of a type of property for the variance process";
- 11.3: add "between Trustee Stamford and the Planner" to end of paragraph 4;
- 13.3, line 2: delete "Lower Mainland".

By general consent the minutes were adopted as amended.

6.2. Section 26 Resolutions-without-meeting

None.

6.3. Advisory Planning Commission Minutes

None.

7. BUSINESS ARISING FROM MINUTES

7.1. Follow-up Action List Dated April 28, 2015

Received.

7.2. Howe Sound Science and Knowledge Workshop

7.2.1. Islands Trust Fund Briefing dated April 23, 2015

Received.

7.3. Protocol Meetings with Sunshine Coast Regional District (SCRD) and Metro Vancouver

Discussion ensued regarding a protocol meeting being organized for the Sunshine Coast at the end of June. Planner Brzozowski listed staff who would be in attendance in addition to elected officials. Trustees proposed topics for the agenda, including:

- Structure or outline of how the Islands Trust fits into the Regional District, where the overlay is to help to clarify our role and commitments. Show what is different, and how we work together.
- How the planning interface works, and bylaw enforcement.
- Park planning.
- Functions of all various departments for the islands in the LTA.
- Request that SCRD bring information on SCRD-Sechelt Indian Band protocol agreement regarding archaeological finds and how this is addressed in their permit process.

7.4. Meeting with Squamish Nation

7.4.1 Discussion of possibility of using Community to Community funding for meeting with Squamish Nation

Trustees shared ideas and considered with staff possibilities for meeting with the Squamish Nation and how such a meeting might be funded. The need of the parties to engage early and often regarding the Gambier Official Community Plan (OCP) process was seen by trustees as an important factor to address. Trustees also wanted clarity regarding options in terms of engagement with First Nations.

Trustee Stamford expressed interest in engaging in communications with the Squamish regarding opportunities for economic development on Gambier. She also hoped to learn more about the Squamish Nation's interest in the New Brighton dock.

Planner Brzozowski remarked that she would follow up before the June 10, 2015 deadline on a "Community to Community" funding application for a meeting with the Squamish Nation about the New Brighton area around the dock, and will follow up on other potential meeting opportunities as discussed.

8. DELEGATIONS

None.

9. CORRESPONDENCE

(Correspondence received concerning current applications or projects is posted to the LTC webpage)

None.

10. APPLICATIONS AND REFERRALS

None.

11. LOCAL TRUST COMMITTEE PROJECTS

11.1. Gambier Official Community Plan Review

11.1.1. Staff Report dated April 24, 2015

Planner Brzozowski reviewed the staff report of April 24, 2015 requesting Local Trust Committee direction regarding project management of the Gambier Island OCP Review project.

Discussion ensued on the options of doing a general OCP review process or breaking down the review project into a series of priority projects. Trustees agreed that the general OCP review process would be the desirable course.

GM-2015-020

It was MOVED and SECONDED,

that the Gambier Island Local Trust Committee engage in early and ongoing consultation with the Squamish and Tsleil-Waututh First Nations, the Sunshine Coast Regional District, and the Ministry of Forests, Land and Natural Resource Operations on topics of concern to the Official Community Plan.

CARRIED

GM-2015-021

It was MOVED and SECONDED,

that the Gambier Island Local Trust Committee request staff to draft a Project Charter and Communications Plan for a general review of the Gambier Official Community Plan.

CARRIED

GM-2015-022

It was MOVED and SECONDED,

that the Gambier Island Local Trust Committee direct staff to investigate and prepare an application for Community to Community funding to engage with the local First Nations regarding discussion of the Official Community Plan for Gambier Island.

CARRIED

Chair Morrison recessed the meeting at 12:08 pm.

Chair Morrison reconvened the meeting at 12:30 pm.

13. REPORTS

13.1. Work Program Reports

13.1.1. Top Priorities Report Dated April 28, 2015

13.1.2. Projects List Report Dated April 28, 2015

Planner Brzozowski reviewed the Top Priorities Report and the Projects List Report, both dated April 28, 2015.

Planner Brzozowski advised the LTC she had sent an email to the Environmental Assessment Office to withdraw from participation on the BURNCO Working Group at this time. SCRD planning staff had advised they would continue to consult Islands Trust for input as part of their process.

Trustee Stamford gave an update on the proposed Metro Vancouver incinerator; possibly more information would be released within the next few weeks on options for their incinerator locations.

Planner Brzozowski advised that the report and technical mapping work regarding the Riparian Areas Regulation (RAR) that was done for some watersheds on Gambier and all identified Keats, Anvil and Bowyer had been received and reviewed internally. Staff is working on a report with mapping information and analysis on next steps, including an implementation plan for RAR.

Communications related to RAR implementation were discussed. Trustees were invited to send any further comments on RAR communications to the Planner Brzozowski.

13.2. Applications Report Dated April 28, 2015

Received.

13.3. Trustee and Local Expense Reports

13.3.1 Trustee and Local Expense Report Dated March 2015

13.3.2 Trustee and Local Expense Report Updated March 2015

Received.

13.4. Adopted Policies and Standing Resolutions

Received.

13.5. Local Trust Committee Webpage

Staff was requested to post the following document to the Gambier Island webpage:

- Islands Trust Fund Briefing dated April 23, 2015 regarding Howe Sound Science and Knowledge Workshop, March 27, 2015.

13.6. Chair's Report

Chair Morrison commented on her experience at the recent Association of Vancouver Island and Coastal Communities (AVICC) convention in Courtenay, where there were common concerns of participants around environmental protection. She attended a First Nations workshop at the conference where she took a lot of notes. The strategic planning discussion will be on the agenda at Trust Council in June.

13.7. Trustee Reports

Some of events and issues that occurred since Trustee Rogers' last report near the end of March include:

- April 1 – Attended a forum in West Vancouver put on by Future of Howe Sound Society on LNG.
- April 8 – Participated in a conference call with SCRD Area F Director Ian Winn on the proposed budget and tax increases for Keats and Gambier
- April 8 – There was another in a series of discussions with Connect BC about trying to get high speed Internet to the Islands.
- April 13 – Attended a meeting in West Vancouver of the Probus Club to hear the Communications Director for the Western Canada Marine Response Corporation talk about oil spill response.
- April 25 – Attended a “Holly Pull” at Campfire Rock Cove on the south side of Keats Island.
- May 1 – Attended the Howe Sound Community Forum on Bowen Island.

Trustee Stamford reported on her activities since late March as follows:

- March 31 – Trust Fund Board Meeting
- April 28 – 2015 Islands Clean-up strategy meeting at SCRD office.
- May 1 – Attended the Howe Sound Community Forum on Bowen Island and did a presentation on the Islands Trust Fund's activities in the Howe Sound area.
- May 3 – Gambier Island Community Association meeting.
- As SCRD Alternate Director, is working with Director Winn and previous Director Lee Turnbull to review Grants in Aid. Letters to applicants should be out this week.
- April 8 – Reviewed Area F and Island taxation and functions with Director Winn, Trustee Rogers, K. McTaggart and J. Clegg.
- April 23 – Participated in the SCRD Board meeting in Director Winn's place.
- April 28 – Attended the Area F Advisory Planning Commission meeting.

13.8. Electoral Area Director's Report

Trustee Stamford reported that Director Ian Winn is working with the taxation and looking at taxation levels. He is focusing on the Hillside Industrial Park and working with First Nations. He also went to the AVICC conference.

13.9. Trust Fund Board Report – April 2015

Chair Morrison discussed the Trust Fund Board Report to Local Trust Committees and Bowen Island Municipality – April 2015.

14. NEW BUSINESS

14.1. Bylaw Enforcement Report to Trust Council, March 2015

Received.

Planner Brzozowski commented on challenges for bylaw enforcement in the Local Trust Area, and reviewed with the LTC all options for triggering bylaw enforcement. Discussion ensued.

Trustees plan to post the bylaw complaint phone number and website information locally.

14.2. Gambier Island Local Trust Committee Submission for 2014-2015 Annual Report

14.2.1. Request for Decision dated April 21, 2015

The Local Trustees forwarded to the Island Planner amended wording for the Gambier Island Local Trust Committee submission for the 2014-2015 Annual Report.

GM-2015-023

It was MOVED and SECONDED,

that the Gambier Island Local Trust Committee approves the attached text for inclusion in the 2014-2015 Annual Report for approval (as amended) by Trust Council and submission to the Minister of Community, Sport and Cultural Development.

CARRIED

14.3. Input to Strategic Plan

14.3.1. Request for Decision dated April 8, 2015

14.3.2. Email dated April 25, 2015 from Sara Steil

Trustees considered preliminary input for development of the Islands Trust Council Strategic Plan, intended to guide staff work programs and budget development for the 2014-2018 term. Discussion ensued.

GM-2015-024

It was MOVED and SECONDED,

that the Gambier Island Local Trust Committee recommend to Trust Council that the potential objectives and strategies in the Discussion Draft of the Strategic Plan for 2014-2018 be amended as follows:

- Add strategy: 2.4 To support the enhancement of biodiversity in Howe Sound.
- Add strategy under all objectives, except 6 & 10: To participate in the Howe Sound Forum.
- Add strategy: 2.5 To advocate for controls on marine pollutants.

CARRIED

14.4 Howe Sound Forum Request for Decision

Trustee Rogers reported that there was discussion at the Forum that communities should provide their data and technical people to work with FLNRO. He also noted that the presentation at the May 1 forum indicated the Cumulative Effects Assessment Framework, put forward as an alternative to a management plan, was neither accumulative nor an effects assessment, but basically a data gathering exercise.

GM-2015-025

It was MOVED and SECONDED,

that the Gambier Island Local Trust Committee request the Executive Committee to assign staff from both Islands Trust and Islands Trust Fund to participate and cooperate with the Ministry of Forests, Land and Natural Resource Operations Cumulative Effects Assessment Framework, and share information.

CARRIED

15. UPCOMING MEETINGS

- 15.1.** Next Regular Meeting Scheduled for Thursday, June 18, 2015 at 10:30 am at Keats Camp, Keats Island, BC.

16. TOWN HALL

None.

17. CLOSED MEETING

None.

18. ADJOURNMENT

By general consent the meeting was adjourned at 2:15 p.m.

Susan Morrison, Chair

Certified Correct:

Diane Corbett, Recorder

Follow Up Action Report w/ Target Date

Gambier Island Nov-29-2013

No.	Activity	Responsibility	Target Date	Status
1	Staff to provide Trustees with possible shoreline protection strategies for DL 696.	Aleksandra Brzozowski	Mar-20-2014	On Going

Mar-26-2015

No.	Activity	Responsibility	Target Date	Status
1	Staff to investigate the possibility of joining Bowen Island Municipality's Board of Variance.	Aleksandra Brzozowski Lisa Webster-Gibson	May-07-2015	On Going
1	Staff to update Project Charter documents for Foreshore Protection Project and RAR Project.	Aleksandra Brzozowski	May-07-2015	Done

May-07-2015

No.	Activity	Responsibility	Target Date	Status
1	Submit the amended annual report submission for the 2014-2015 Annual Report for approval by Trust Council and submission to the Minister of Community, Sport and Cultural Development.	Aleksandra Brzozowski	May-13-2015	Done
1	Recommend to Trust Council that the potential objectives and strategies in the Discussion Draft of the Strategic Plan for 2014-2018 be amended as follows: Add strategy: 2.4. To support the enhancement of biodiversity in Howe Sound. Add strategy (under all objectives, except 6 & 10): To participate in the Howe Sound Forum. Add strategy: 2.5 To advocate for controls on marine pollutants.	Aleksandra Brzozowski	May-22-2015	Done

1	Request Executive Committee to assign staff from both Islands Trust and Islands Trust Fund to participate and cooperate with the FLNRO Cumulative Effects Assessment Framework, and share information.	Aleksandra Brzozowski	Jun-18-2015	Done
1	Investigate and prepare an application for Community to Community funding to engage with the local First Nations regarding discussion of the OCP for Gambier Island.	Aleksandra Brzozowski	Jun-18-2015	Done



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May 26, 2015

File No.: 0420-20

Via e-mail: CitizenEngagement@gov.bc.ca

Environmental Assessment Office (EAO)
PO Box 9426 Stn Prov Govt
Victoria BC V8W 9V1

Dear Environmental Assessment Office reviewers:

Re: Improving public participation in environmental assessment

On behalf of the Islands Trust Council, I am writing to provide input to BC Environmental Assessment Office's (EAO) consultation on ways to improve the participation of the public in environmental assessment. I understand that the EAO's intention when seeking public input is to ensure that all potential environmental, social, heritage and health effects that might result from the proposed Project are identified for consideration as part of the assessment process.

In recent years, Islands Trust trustees and staff have engaged in environmental assessment processes relating to the proposed Raven Coal Mine Project, the proposed BURNCO Aggregate Mine Project and the proposed Woodfibre LNG Project. Drawing on their experiences, I've heard the following suggestions for improvement:

- Public comment periods should always be a minimum of 60 days, and these dates should be well-advertised at least 10 days in advance of the public comment period start date in traditional and non-traditional (e.g social media) ways.
- The EAO website should be improved so that it is easy to do keyword searches on public comments on applications. This would allow members of the public to see not only what the proponent has to say but also what others have to say in order that they might be properly informed on the spectrum of opinion and ideas.
- The EAO should support town hall style meetings to support democratic dialogue and to allow for question and answer periods to be heard by all participants, rather than just the "open house" format. I've heard that the current open house format results in the proponent's representatives surrounding and overwhelming individual members of the public. Town hall style meetings would allow citizens to hear each other's perspectives.
- Public information sessions/town hall meetings should be hosted as early as practical in the process and should be hosted in affected communities selected by the EAO. In the case of projects that involve marine shipping, affected coastal communities should have the same opportunities to learn and comment as communities close to the proposed facilities.
- There should be more training available to local government staff and elected officials to help them participate effectively in EAO working groups. Training could include examples of how other local governments have structured and funded their participation.

.../2

Preserving Island communities, culture and environment

Bowen Denman Hornby Gabriola Galiano Gambier Lasqueti Mayne North Pender Salt Spring Saturna South Pender Thetis

- Working group meeting minutes should be taken by EAO staff and posted promptly to the website.
- The EAO should formally advise local governments of new environmental assessment processes in their regions through correspondence or notices that can be placed on public meeting agendas. There should also be notices to advise of each public consultation opportunity as well as opportunities to participate on EAO working groups.
- The EAO should consider the principles and best practices within the Auditor General of British Columbia's 2008 report [Public Participation: Principles and Best Practices for British Columbia](#) as it reviews its public consultation and engagement methods.
- To address community concerns that members of the public do not have the same ability as the proponent to provide expert reports, the EAO should:
 - hire the expert consultants and charge the proponent for the consulting costs, and/or
 - provide funding to public interest intervenors to hire qualified experts to interpret and verify the proponent's information and ensure that there is a formal avenue for submission of public evidence.
- The EAO should ensure that projects within or adjacent to the Islands Trust Area boundary specifically acknowledge the Islands Trust's provincial mandate to preserve and protect the region.

The Islands Trust Policy Statement is a statutory document founded in extensive community consultation and approved in 1994 by the then Minister of Municipal Affairs. In the Islands Trust Policy Statement the Islands Trust Council holds that public participation should be part of the decision-making processes of all levels of government, and that economic opportunities should be compatible with the conservation of resources and protection of community character.

The Islands Trust Council is a federation of local government bodies representing 25,000 people living within the Islands Trust Area and about 10,000 non-resident property owners. The Islands Trust is responsible for preserving and protecting the unique environment and amenities of the Islands Trust Area through planning and regulating land use, development management, education, cooperation with other agencies, and land conservation. The area covers the islands and waters between the British Columbia mainland and southern Vancouver Island. It includes 13 major and more than 450 smaller islands covering 5200 square kilometres.

Thank you for your consideration.

Yours sincerely,



Peter Luckham
Chair, Islands Trust Council

cc: Islands Trust Council
Bowen Island Municipal Council
Lisa Gordon, Director, Trust Area Services
Islands Trust website



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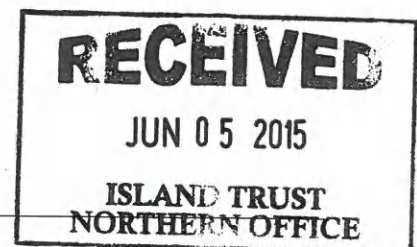
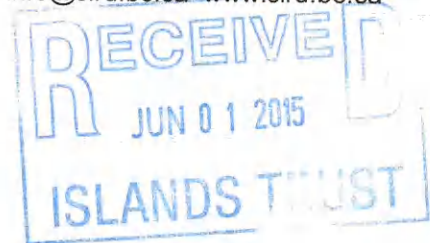
May 29, 2015

BY REGULAR MAIL AND EMAIL

Ruth Simons
Future of Howe Sound Society
Box 465
Lions Bay V0N 2E0

Dear Ms. Simons:

RE: Cumulative Effects Assessment for Howe Sound



At the March 18, 2015 meeting of the Squamish-Lillooet Regional District (SLRD) Board, the following was resolved:

THAT as a member of the Howe Sound Community Forum, Squamish-Lillooet Regional District accepts the Ministry of Forests, Lands and Natural Resource Operations' offer to conduct a Cumulative Effects Assessment (CEA) for Howe Sound, within the BC CEA Framework but tailored to the Howe Sound area, with assessment work commencing in early 2015.

The SLRD fully supports the Howe Sound Community Forum and its work towards achieving comprehensive land and marine planning for Howe Sound over 2014-2018.

We wish you success with seeking commitment from the federal ministers to allocate staff and resources to the CEA, and look forward to further engagement with the Future of Howe Sound Society on this important topic.

Sincerely,

Jack Crompton
Chair, Squamish-Lillooet Regional District Board of Directors

Cc: **BY EMAIL ONLY**
SLRD Board of Directors
BY REGULAR MAIL ONLY
Members of the Howe Sound Community Forum:
Chiefs and Council, Squamish First Nation

cont'd

Mayor Rowe, Town of Gibsons
Chair Nohr, Sunshine Coast Regional District
Chair Morrison, Gambier Island Local Trust Committee
Mayor Buhr, Village of Lions Bay
Mayor Heinzman, District of Squamish
Mayor Wilhelm-Morden, Resort Municipality of Whistler
Mayor Skeels, Bowen Island Municipality
Chair Moore, Metro Vancouver
Mayor Richman, Village of Pemberton
Mayor Smith, District of West Vancouver
John Weston – MP for West Vancouver-Sunshine Coast-Sea to Sky Country
Nicholas Simons – MLA for Powell River-Sunshine Coast
Jordan Sturdy – MLA for West Vancouver-Sea-to-Sky
Steve Thomson, Minister of Forests, Lands and Natural Resource Operations



Memorandum

Date: June 5, 2015 File Number: GM-RZ-2013.2

To: Gambier Island Local Trust Committee

From: Aleksandra Brzozowski, Island Planner

Re: Finalization of co-tenancy agreement for Sea Ranch (Strata Plan VR 793, Gambier Island)

Please find attached for signature by the Gambier Island Local Trust Committee the final copies of the statutory right of way covenant and co-tenancy agreement for the 3.8 hectare public park on the Sea Ranch property on Gambier Island.

The covenant and co-tenancy agreement are requirements of the rezoning granted to the Sea Ranch strata in September 2014 (adopted bylaw attached). Background information on the 2013 Sea Ranch rezoning application can be found on the Gambier Applications webpage.

Attachments: Memorandum dated September 8, 2014 from Sonja Zupanec, Island Planner
Amendment Bylaw No. 126, adopted September 10, 2014
Covenant and Co-tenancy agreement for Common Property Strata Plan VR 793 - *for signature*



Memorandum

Date: September 8, 2014 File Number: GM-RZ-2013.2

To: Gambier Island Local Trust Committee

From: Sonja Zupanec, Island Planner

Re: Final Reading and Adoption of Proposed Bylaw No. 126

The Local Trust Committee (LTC) may now consider final reading and adoption of Proposed Bylaw 126. A copy of the draft statutory right of way (SRW) and a co-tenancy agreement for the 3.8 hectare public park is being reviewed by the Sunshine Coast Regional District (SCRD) and will be finalized by Trust planning staff for applicant, SCRD and LTC signatures at a future date. No changes to the SRW have been made since the LTC reviewed a draft in March 2014.

The applicant has applied to the Agricultural Land Commission (ALC) for non-farm use approval for a portion of the proposed Bert's Bluff trail. Approval has not yet been granted and is pending. As this pending approval is for a SRW for a trail that is separate from the 3.8 hectare parkland (which is the focus of the rezoning application) there is no reason to postpone or delay adoption of the proposed bylaw and final reading can be considered at this time.

ec Courtney Simpson
Regional Planning Manager

Gambier Island Local Trust Committee

BYLAW NO. 126

A BYLAW TO AMEND THE GAMBIER ISLAND LAND USE BYLAW, NO.86, 2004

The Gambier Island Local Trust Committee, being the Trust Committee having jurisdiction in respect of the Gambier Island Local Trust Area under *the Islands Trust Act*, enacts as follows:

1. Bylaw No. 86, cited as “Gambier Island Land Use Bylaw, 2004” is amended as shown on Schedule 1, attached to and forming part of this bylaw.
2. This bylaw may be cited as “Gambier Island Land Use Bylaw 86, 2004, Amendment No. 1, 2014”

READ A FIRST TIME THIS	10 th	DAY OF	April	, 2014
PUBLIC HEARING HELD THIS	10 th	DAY OF	July	, 2014
READ A SECOND TIME THIS	10 th	DAY OF	July	, 2014
READ A THIRD TIME THIS	10 th	DAY OF	July	, 2014
APPROVED BY THE EXECUTIVE COMMITTEE OF THE ISLANDS TRUST				
THIS	29 th	DAY OF	July	, 2014
ADOPTED THIS	25 th	DAY OF	September	, 2014

SECRETARY

CHAIRPERSON

Gambier Island Local Trust Committee

Bylaw No. 126

Schedule 1

1. Schedule "A" (Land Use Bylaw Text) of Gambier Island Land Use Bylaw No. 86 cited as "Gambier Island Land Use Bylaw, 2004", is amended as follows:

- a) Delete subsection 5.22(2) Area 1 "Permitted Buildings, Structures and Density Area 1" and replace with:

"(2) Despite regulation 3.14, one single family dwelling unit and one associated secondary dwelling and accessory buildings and structures are permitted on each of Strata Lots 1 to 33, District Lots 1258, 1653 and 3201, Strata Plan VR793."

- b) Delete subsection 5.22(3) "Permitted Buildings, Structure and Density Area 1", and replace with:

"(3) Despite 5.22(2) two single family dwelling units and accessory buildings and structures are permitted on each of Strata Lots 1 to 33, District Lots 1258, 1653 and 3201, Strata Plan VR793 and no associated secondary dwelling is permitted, subject to the provision of the following amenities before issuance of the first building permit in respect of a Strata Lot following the adoption of this Bylaw:"

- c) Delete article 5.22(3)(a) and replace with:

"(a) granting and registration of a statutory right of way substantially in the form annexed to this Bylaw as Schedule E in favour of the Sunshine Coast Regional District and the Gambier Island Local Trust Committee for use by the public as parkland that portion of the common property of Strata Plan VR793 being 3.8 hectares located generally as shown and noted on Schedule D-1 to this Bylaw, and"

- d) Delete subsection 5.22(4) "Permitted Buildings, Structures and Density Area 1" and replace with:

"Despite 5.22 (3) one single family dwelling unit and accessory buildings and structures are permitted on each Strata Lot created by subdivision of any or all of Strata Lots 1 to 33 District Lots 1258, 1653 and 3201 Strata Plan VR 793 or by a new strata plan which creates 66 Strata Lots as permitted by regulations 5.22(20), and no associated secondary dwelling is permitted, subject to the provision of the following amenities at the earlier of the time of issuance of the first building permit in respect of a Strata Lot or a strata lot created by a new Strata Lot following the adoption of this Bylaw: "

- e) Delete article 5.22(4)(a) and replace with:

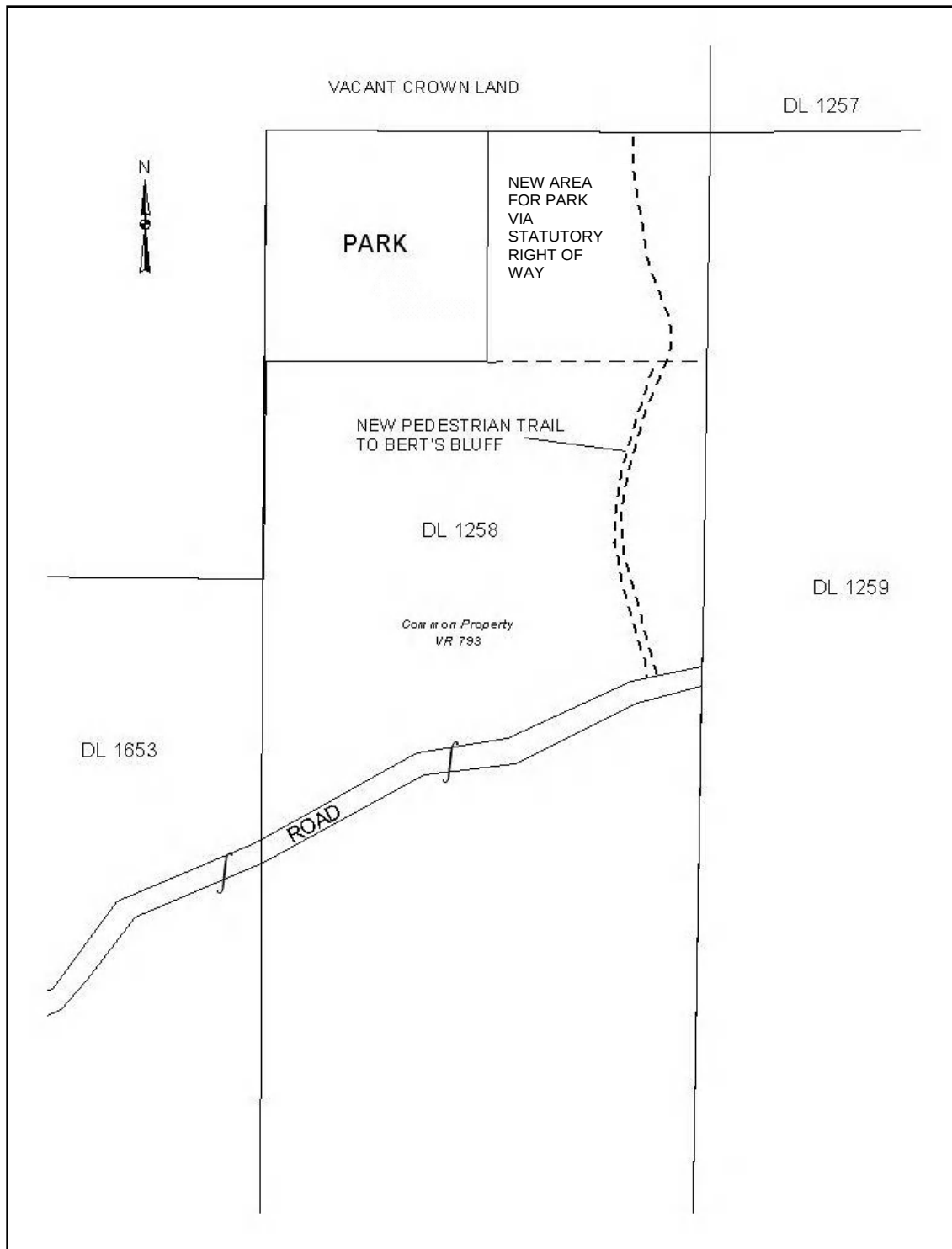
"granting and registration of a statutory right of way substantially in the form annexed to this Bylaw as Schedule E in favour of the Sunshine Coast Regional District and the Gambier Island Local Trust Committee for use by the public as parkland that portion of the common property of Strata Plan VR793 being 3.8

hectares generally located as shown and noted on Schedule D-1 to this Bylaw, and”

- f) To subsection 5.22(6) “Permitted Buildings, Structures and Density Areas 1 and 2” delete “Strata Plan VAS793” and replace with “Strata Plan VR793”
 - g) Delete subsection 5.22(20) “Subdivision Requirements Area 1” and replace with:

“Despite 5.22(19), one additional lot may be created within each of Strata Lot 1 to 33, District Lots 1258, 1653 and 3201, Strata Plan VR793 or created by a new strata plan for a total of 33 additional strata lots subject to the provision of the following amenities at the time of deposit of a subdivision plan creating the first such additional lot:”
 - h) Delete article 5.22(20)(a) “Subdivision Requirements Area 1” replace with:

“granting and registration of a statutory right of way substantially in the form annexed to this Bylaw as Schedule E in favour of the Sunshine Coast Regional District and the Gambier Island Local Trust Committee for use by the public as parkland in the amount of 3.8 hectares generally located as shown and noted on Schedule D-1 to this Bylaw as new park, and”
 - i) To subsection 5.22(23) delete the words “and Common Property Strata Plan VAS793”
2. Schedule “D-1” (CD 1 Zone Amenities) of Gambier Island Land Use Bylaw No. 86 cited as “Gambier Island Land Use Bylaw, 2004”, is deleted and replaced with the following:



LAND TITLE ACT
FORM C (Section 233) CHARGE
GENERAL INSTRUMENT - PART 1 Province of British Columbia

PAGE 1 OF 10 PAGES

Your electronic signature is a representation that you are a subscriber as defined by the Land Title Act, RSBC 1996 c.250, and that you have applied your electronic signature in accordance with Section 168.3, and a true copy, or a copy of that true copy, is in your possession.

1. APPLICATION: (Name, address, phone number of applicant, applicant's solicitor or agent)

Lynn Ramsay, Q.C., Miller Thomson LLP

1000, 840 Howe Street

604.687.2242

Client No: 010437 File No: 139645.0001

VR793 / 11223275 & 10785411

Vancouver

BC V6Z 2M1

Deduct LTSA Fees? Yes ☒

2. PARCEL IDENTIFIER AND LEGAL DESCRIPTION OF LAND:

[PID]

[LEGAL DESCRIPTION]

NO PID NMBR COMMON PROPERTY, STRATA PLAN VR. 793

STC? YES

Related Plan Number: **VAS793**

3. NATURE OF INTEREST

CHARGE NO.

ADDITIONAL INFORMATION

SEE SCHEDULE

4. TERMS: Part 2 of this instrument consists of (select one only)

(a) ☐ Filed Standard Charge Terms D.F. No.

(b) ☒ Express Charge Terms Annexed as Part 2

A selection of (a) includes any additional or modified terms referred to in Item 7 or in a schedule annexed to this instrument.

5. TRANSFEROR(S):

THE OWNERS, STRATA PLAN VR. 793

6. TRANSFEREE(S): (including postal address(es) and postal code(s))

SUNSHINE COAST REGIONAL DISTRICT

1975 FIELD ROAD

SECHELT

BRITISH COLUMBIA

V0N 3A1

CANADA

7. ADDITIONAL OR MODIFIED TERMS:

N/A

8. EXECUTION(S): This instrument creates, assigns, modifies, enlarges, discharges or governs the priority of the interest(s) described in Item 3 and the Transferor(s) and every other signatory agree to be bound by this instrument, and acknowledge(s) receipt of a true copy of the filed standard charge terms, if any.

Officer Signature(s)

Execution Date

Y	M	D
15		

Transferor(s) Signature(s)

THE OWNERS, STRATA PLAN VR. 793, by its authorized signatory(ies):

Name:

Name:

OFFICER CERTIFICATION:

Your signature constitutes a representation that you are a solicitor, notary public or other person authorized by the *Evidence Act*, R.S.B.C. 1996, c.124, to take affidavits for use in British Columbia and certifies the matters set out in Part 5 of the *Land Title Act* as they pertain to the execution of this instrument.

**LAND TITLE ACT
FORM D**

EXECUTIONS CONTINUED

PAGE 2 of 10 pages

Officer Signature(s)

Execution Date

Transferor / Borrower / Party Signature(s)

Y M D

15

SUNSHINE COAST REGIONAL
DISTRICT, by its authorized
signatory(ies):

Name:

Name:

15

GAMBIER ISLAND LOCAL TRUST
COMMITTEE, by its authorized
signatory(ies):

Name:

Name:

OFFICER CERTIFICATION:

Your signature constitutes a representation that you are a solicitor, notary public or other person authorized by the *Evidence Act*, R.S.B.C. 1996, c.124, to take affidavits for use in British Columbia and certifies the matters set out in Part 5 of the *Land Title Act* as they pertain to the execution of this instrument.

**LAND TITLE ACT
FORM E****SCHEDULE**

PAGE 3 OF 10 PAGES

NATURE OF INTEREST

CHARGE NO.

ADDITIONAL INFORMATION

Statutory Right of Way

Section 218

Over that Portion Shown on Plan EPP50176

NATURE OF INTEREST

CHARGE NO.

ADDITIONAL INFORMATION

NATURE OF INTEREST

CHARGE NO.

ADDITIONAL INFORMATION

NATURE OF INTEREST

CHARGE NO.

ADDITIONAL INFORMATION

NATURE OF INTEREST

CHARGE NO.

ADDITIONAL INFORMATION

NATURE OF INTEREST

CHARGE NO.

ADDITIONAL INFORMATION

TERMS OF INSTRUMENT – PART 2
STATUTORY RIGHT OF WAY AGREEMENT

THIS AGREEMENT dated for reference the 7th day of March, 2015

BETWEEN:

THE OWNERS, STRATA PLAN VR. 793, of 780, 333 Seymour
Street, Vancouver, B.C. V6B 5A6

(the “Grantor”)

AND:

SUNSHINE COAST REGIONAL DISTRICT, of 1975 Field Road,
Sechelt, B.C. V0N 3A1 and **Gambier Island Local Trust
Committee**, of 700 North Road, Gabriola Island, B.C. V0R 1X3

(collectively the “Grantees”)

WHEREAS:

- A. The Grantor owns certain lands and premises (the “Lands”) on Gambier Island, British Columbia, legally described as:

NPA
Common Property Strata Plan VR. 793

(hereinafter called the “Lands”)
- B. The Grantor has agreed to grant to the Grantees as an amenity pursuant to Gambier Island Land Use Bylaw No. 86, 2004 (the “Bylaw”), a statutory right of way to permit the use of an approximately 3.8 ha portion of the Lands as a public park and to facilitate the construction, installation, improvement, repair, maintenance and operation of public paths and trails, toilets, picnic tables, benches, viewpoints, drainage works, signage, rails, fencing, bridges, waste receptacles and such other improvements as are customary and convenient for the use of rural land as a public park (the “Works”).
- C. The grant of Statutory Right of Way is over a portion of the Lands substantially as shown as “New Park” on Schedule D-1 to the Bylaw and specifically located on Schedule “A” to this Statutory Right of Way Agreement.
- D. This Statutory Right of Way is necessary for the operation and maintenance of the Grantees' undertaking.

THIS AGREEMENT is evidence that in consideration of payment of \$2.00 by the Grantees to the Grantor and other and valuable consideration, the receipt of which is acknowledged by the Grantor, the Grantor covenants and agrees with the Grantees in accordance with Section 218 of the *Land Title Act* as follows:

1. GRANTS

The Grantor for the purposes recited, hereby grants, conveys and confirms to the Grantees in perpetuity the full, free and uninterrupted right, liberty, easement and statutory right of way for the Grantees, its officers, employees and contractors, and subject to such rules and limitations as the Grantees deems necessary or desirable to the Grantees' licensees, agents, invitees, including all members of the public and others of the Grantees at all times hereafter from time to time at their will and pleasure without specific authorization or invitation or licence to enter, go, be on, pass and repass, without vehicles in the case of members of the public, and with or without personal property and equipment, upon, over, under and across that portion of the Lands outlined in heavy black on the plan of statutory right of way deposited in the New Westminster Land Title Office under number EPP50176 (the "Right of Way") a reduced paper print copy of which plan is attached hereto as Schedule "A" to use the Right of Way as if it were a public park open to the public from time to time in the Grantees' discretion and subject to rules and regulations of the Grantees and without limiting the generality of the foregoing to:

- (a) construct and install the Works upon the Right of Way and to remove, replace, repair, maintain and operate the Works;
- (b) make surveys and tests on the Right of Way;
- (c) establish grades and levels on the Right of Way;
- (d) excavate or otherwise alter the contours of the Right of Way and to backfill trenches;
- (e) store on the Right of Way all personal property (including equipment) necessary to install, remove, repair, maintain or replace the Works, provided that the Grantees shall consult the Grantor as to the duration and location of such storage;
- (f) remove from the Right of Way such structures, improvements, fixtures, fences, gates, cattle guards, trees, shrubs, plants and other obstructions whatsoever as, in the Grantees' opinion, is necessary in order to construct, install, remove, repair, operate, maintain or replace the Works or to enable the public to use the Right of Way as a public park;
- (g) do all other things on the Right of Way as may be reasonably required in connection with the foregoing.

2. GRANTOR'S OBLIGATIONS

The Grantor must:

- (a) not do or permit to be done any act or thing which in the opinion of the Grantees may interfere with the use of the Right of Way as a public park or interfere with, injure or impair the operating efficiency of, or the use of, the Works;
- (b) permit the Grantees to peaceably hold and enjoy the rights hereby granted;

- (c) not place, erect or construct any building, structure or other improvement on the Right of Way;
- (d) not, without approval in writing from the Grantees, remove or damage any vegetation of any kind in the Right of Way, remove any soil from the Right of Way, or deposit any soil or any other material in the Right of Way;
- (e) at its own expense, do or cause to be done all acts necessary to grant priority to this Agreement over all charges and encumbrances which are registered, or pending registration, against title to the Lands in the Land Title Office, save and except those as have been approved by the Grantees or have been granted in favour of the Grantees;
- (f) upon every reasonable request and at its own expense, do or execute or cause to be done or executed all such further and other lawful acts, deeds, things, conveyances and assurances in law whatsoever for better assuring to the Grantees the rights, liberties and statutory right of way hereby granted.

3. GRANTEES' OBLIGATIONS

No right herein granted to or reserved by the Grantees shall require the Grantees to clean, repair, or maintain the Works or the Right of Way unless the Grantees is expressly required herein to perform such cleaning, repairing or maintenance.

4. GRANTEES' RIGHTS

The Grantees shall and may peaceably hold and enjoy the rights, liberties and right of way hereby granted without hindrance, molestation or interruption by the Grantor or any person, firm or corporation claiming by, through, under or in trust for the Grantor.

The Works installed by the Grantees in, upon or under the Right of Way remain chattels and the property of the Grantees, notwithstanding that the same may be annexed or affixed to the freehold, and the Works may at any time be removed in whole or in part by the Grantees in its discretion.

5. INDEMNIFICATION

Notwithstanding that the Grantees' interest in the Right-of-Way Area is a statutory right-of-way, that the Right-of-Way has not been dedicated as park the parties acknowledge and agree that: the Grantor will not be liable to the Grantees and any other users of the Trail, for any liabilities arising out of or resulting from the operation, maintenance or use of the Right of Way except where such liabilities arise out of or result from breaches of this instrument by the Grantor, including but not limited to a failure by the Strata Corporation to fulfil its obligations under this Agreement

6. MISCELLANEOUS

6.1 No Waiver

No waiver of default by either party shall be effective unless expressed in writing by the party waiving default, and no condoning, overlooking or excusing by either party of a previous default

of the other shall be taken to operate as a waiver of any subsequent default or continuing default, or to in any way defeat or affect the rights and remedies of the non-defaulting party.

6.2 Discretion

Wherever in this Statutory Right of Way the approval of the Grantees is required, or some act or thing is to be done to the Grantees' satisfaction, or the Grantees is entitled to form an opinion:

- (a) such provisions shall not be deemed to have been fulfilled or waived unless the approval, opinion or expression of satisfaction is in writing signed by the Grantees' Director of Operations (the "Director");
- (b) such approval, opinion or satisfaction shall be at the discretion of the Director acting reasonably in accordance with sound municipal engineering practice; and
- (c) any discretion of the Director shall not be subject to public law duties, and the principles of procedural fairness and the rules of natural justice shall have no application.

6.3 No Derogation

This Statutory Right of Way Agreement does not:

- (a) affect or limit the discretion, rights, duties or powers of the Grantees under any statute, bylaw, or other enactment;
- (b) affect or limit any statute, bylaw or other enactment applying to the Lands; or
- (c) relieve the Grantor from complying with any statute, bylaw or other enactment.

6.4 Notice

Any notice to be given pursuant to this Right of Way Agreement shall be in writing, and may be delivered personally or sent by prepaid mail. The addresses of the parties for the purpose of notice shall be the addresses hereinbefore set out. If notice is delivered personally it may be left at the addresses in the same manner as ordinary mail is left by Canada Post and shall be deemed received when delivered. If notice is mailed it shall be deemed received five (5) days after mailing. Any party may at any time give notice in writing to the other of any change of address and from and after the receipt of notice the address therein specified shall be deemed to be the address of such party for the giving of notice.

6.5 Severance

If any section, subsection, sentence, clause or phrase in this Agreement is for any reason held to be invalid by the decision of a court of competent jurisdiction, the invalid portion shall be severed and the decision that it is invalid shall not affect the validity of the remainder of the Agreement.

6.6 Entire Agreement

This Statutory Right of Way Agreement is the entire agreement between the parties, and neither the Grantees nor the Grantor has made representations, warranties, guarantees, promises,

covenants or agreements to the other except those expressed in writing in this Statutory Right of Way Agreement, and no amendment of this Statutory Right of Way Agreement is valid or binding unless in writing and executed by the parties.

6.7 Headings

The headings in this Statutory Right of Way Agreement are inserted for reference and convenience only and must not be used to construe or interpret the provisions hereof.

6.8 Schedules

Schedule "A" being a reduced copy of the plan delineating the Right of Way forms part of this Agreement.

6.9 Interpretation

Wherever the singular or masculine is used in this Agreement, the same is deemed to include the plural or the feminine or the body politic or corporate as the context so requires.

6.10 Parties

Every reference to a party is deemed to include the heirs, executors, administrators, successors, assigns, employees, agents, officers, and invitees of such party wherever the context so requires or allows.

6.11 Interest In Land and Enurement

This Agreement runs with the land, but no part of the fee of the soil thereof passes to or is vested in the Grantees under or by this Agreement, and the Grantor may fully use the Right of Way subject only to the rights and restrictions herein set forth.

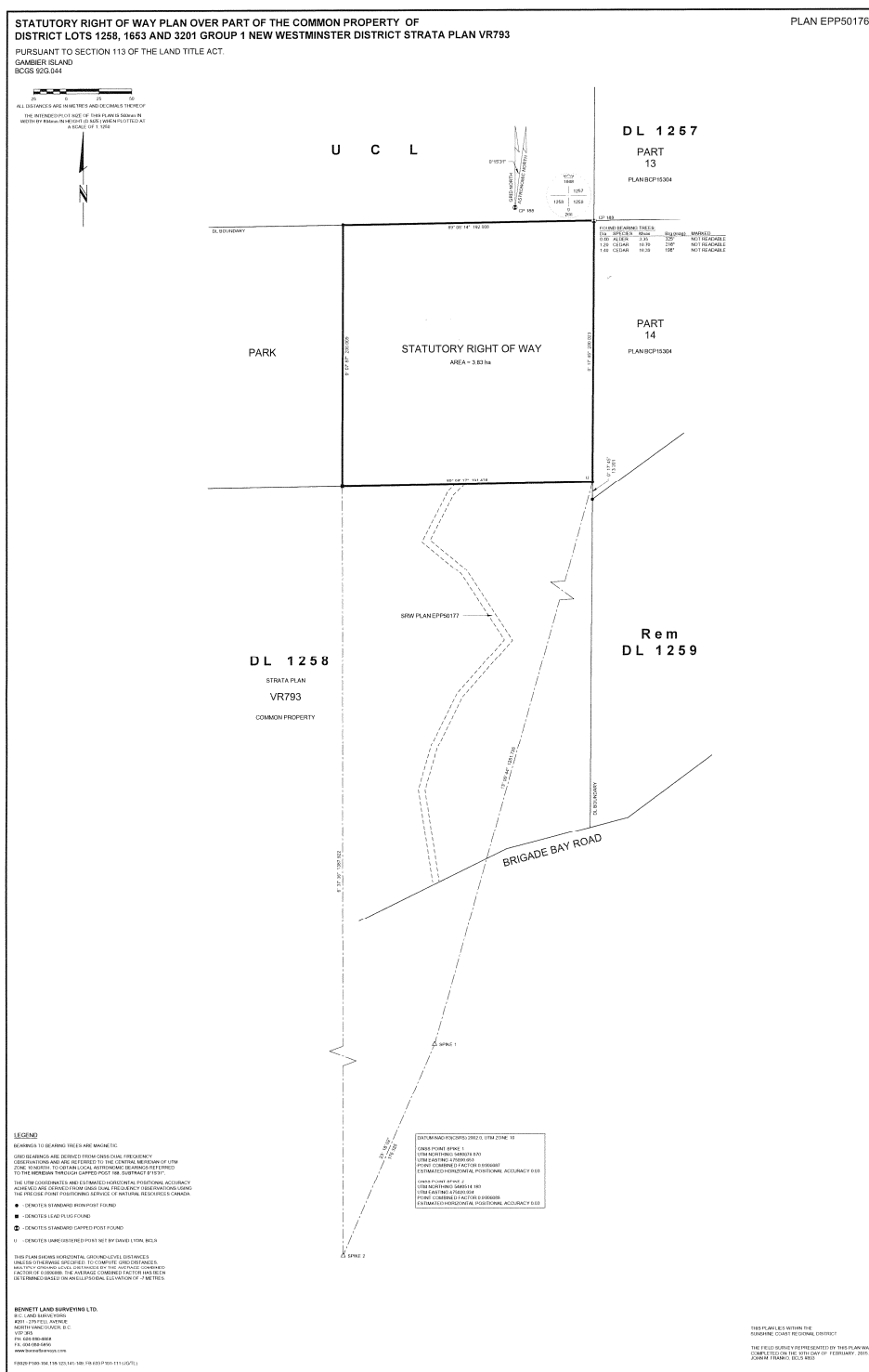
This Agreement shall enure to the benefit of and be binding on the parties hereto notwithstanding any rule of law or equity to the contrary.

6.12 Execution

As evidence of their agreement to be bound by the above terms, the parties each have executed and delivered this Agreement under seal by executing Part 1 of the *Land Title Act* Form C to which this Agreement is attached and which forms part of this Agreement.

SCHEDULE "A"

Explanatory Plan



STAFF REPORT

Date: May 26, 2015 **File No:** 6500-20
(Gambier RAR Implementation)

To: Gambier Island Local Trust Committee
For the meeting of June 18, 2015

From: Aleksandra Brzozowski
Island Planner

CC: Courtney Simpson, Regional Planning Manager

Re: Implementation of Riparian Areas Regulation

Interim Report

The purpose of this report is provide the Local Trust Committee with the results of watershed verification and stream mapping on Gambier, Keats, Anvil, and Bowyer Islands, and to present options and recommendations for implementing the provincial Riparian Areas Regulation.

Project Objectives

The objective of this project is the implementation of the Riparian Areas Regulation in the Gambier Island Local Trust Area.

Background

Implementation of the provincial Riparian Areas Regulation (RAR) is a LTC Top Priority Work Program item.

The RAR was enacted under Section 12 of the *Fish Protection Act* in July 2004 and took effect on March 31, 2006. The objectives of the Act are to:

- (1) Ensure sufficient water for fish;
- (2) Protect and restore fish habitat;
- (3) Improve riparian protection and enhancement; and
- (4) Provide stronger local government powers in environmental planning.

Please refer to the April 5, 2012 Staff Report prepared by Chris Jackson for background information regarding the Riparian Areas Regulation and general options for the Islands Trust local trust areas.

On April 12, 2012, the LTC passed a motion requesting staff to establish a northern working group to develop community consultation options and education materials for RAR implementation. Such a working group did not come to pass, and the LTC contracted the preparation of a double-sided factsheet communicating the details of the RAR and its upcoming

implementation on Gambier, as well as a report on communication options for distributing the material and engaging the community in related discussions. There was support for use of posters, a link to the brochure on the Islands Trust website, and printed copies in community hubs and at Local Trust Committee meetings, and non-support for a mail-out. This brochure was completed in July 2013.

On January 30, 2014, the LTC passed a motion requesting staff to prepare a report exploring options to implement the *Riparian Areas Regulation* in the Gambier Trust Area. Please refer to the March 20, 2014 Staff Report for background information regarding current options specific to the Gambier LTA.

On March 20, 2014, planning staff presented the LTC with six possible options to implement the RAR, and advised next steps. The LTC passed resolutions directing staff to report back with an outline for a possible Request for Proposals, and to continue investigating other jurisdictions' methods of implementing the RAR.

On May 22, 2014, discussion ensued on a potential Request for Proposals from Qualified Environmental Professionals to provide an outline and anticipated budget for RAR mapping services for Gambier Island. The LTC directed staff to prepare and advertise a Request for Proposals regarding mapping services for basic verification of RAR-applicable watersheds on Gambier Island.

Identifying RAR watersheds on Gambier Island

In the months following the May 22, 2014 LTC resolution, planning staff worked with the Islands Trust GIS Coordinator as well as staff from the Ministry of Forests, Lands, and Natural Resource Operations to narrow down the number of watersheds on Gambier Island that would require mapping, with the aim to establish a financially manageable mapping contract. The watershed boundaries were described using ESRI hydrologic modeling tools/techniques and subsequently reviewed and adjusted by Paul DeGreef. Data previously submitted to the Islands Trust by the Gambier Streamkeepers was used to ground truth or improve the accuracy of the modeled streams, adjusting the model to better fit where there was streamkeepers data, thereby improving the accuracy where ground data was lacking.

The result was a list of twelve basin watersheds possibly applicable to the RAR, which were then assessed for their necessity to be mapped outright by a QEP (Attachment 1). Some watersheds already had proof of fish presence (Centre Creek, Gambier Creek, Mannion Creek, and the creek running through Sea Ranch), some watersheds fell within one property (Camp Latona), and others were deemed unlikely to pursue activities that would trigger the RAR (forestry lots on the west of the island, Halkett Bay Provincial Park, and low development pressure in Douglas Bay). Ultimately, four watersheds were identified as requiring mapping to assess RAR applicability – Whispering Creek watershed, Fircom Creek watershed, Grennon Creek watershed, and the watershed to the east of the Mount Artaban Nature Reserve.

Narrowing down this scope afforded enough budget to also map identified watersheds on some associated islands. The Request for Proposals solicited bids to assess watersheds on Gambier, Keats, Bowyer, Anvil, and the Thormanby Islands. The contract in two parts was awarded to Madrone Environmental Services (Madrone); mapping for Gambier and the Howe Sound Islands was to be completed by March 31, 2015, and mapping of the Thormanby Islands is to be completed by March 31, 2016.

Results of RAR mapping

QEPs from Madrone conducted mapping on Gambier, Keats, Bowyer, and Anvil Islands February 24 – March 4, 2015. The deliverables of the contract were to conduct an on-site assessment of watersheds identified as having the potential to be RAR applicable, and to map the streams in RAR-applicable watersheds. Madrone also used RAR assessment methodology to assess the likely widths of Streamside Protection and Enhancement Areas (SPEAs) for the RAR-applicable streams, colloquially known as “RAR no-go zones”, in order to provide additional information about how far riparian setbacks might ultimately be for the mapped streams.

A final report – including discussion on methodology and landowner contact, mapping results, and recommendations – is included as Attachment 2 to this report; the lead QEP is also expected to present mapping results at the June 18, 2015 LTC meeting on Keats Island.

Mapping Results for Keats Island

Madrone mapped ten watersheds on Keats Island and determined that two are applicable to the RAR. While fish habitat attributes are lacking, the Plumper Creek watershed was considered to be applicable to the RAR because there is no barrier preventing seasonal access by anadromous fish, and there is sufficient potential habitat above tidewater. Another large unnamed watershed, which lies inland from Camp Barnabas, was also deemed RAR-applicable.

Detailed summaries of Keats’ RAR-applicable watersheds can be found on pages 28-30 of the Madrone final report. The map on page 31 of the Madrone report showing mapped watercourses can inform the basis for RAR regulation on Keats Island.

Mapping Results for Bowyer Island

Of the five watersheds on Bowyer Island identified for mapping, one watershed (Orchid Creek) contained streams applicable to the RAR. This watershed includes three ditches that are also considered by the provincial regulation as RAR applicable, in that they contribute to the potential fish habitat of Orchid Creek.

A detailed summary of Bowyer’s RAR-applicable watershed can be found on pages 32-33 of the Madrone final report. The map on page 34 of the Madrone report showing mapped watercourses can inform the basis for RAR regulation on Bowyer Island.

Mapping Results for Anvil Island

Two watersheds on Anvil Island were identified for mapping, and the Champside Creek watershed was deemed to be applicable to the RAR. There is a waterfall along this creek, and Madrone notes that the fish habitat values along this creek are higher downstream of the waterfall.

A detailed summary of Anvil’s RAR-applicable watershed can be found on pages 35-36 of the Madrone final report. The map on page 37 of the Madrone report showing mapped watercourses can inform the basis for RAR regulation on Anvil Island.

Mapping Results for Gambier Island

Of the four watersheds on Gambier Island identified and prioritized for mapping, three were assessed as RAR-applicable – Grennon Creek, Whispering Creek, and Fircom Creek. Madrone notes that the Gambier watersheds it mapped represented the highest relative fish habitat quality out of all the watersheds mapped in this contract.

Another feature noted in the Madrone report was the occurrence of avulsion on Gambier Island. Avulsion is the abandonment of a water channel and the formation of a new water channel. When an area is avulsed, there can be a period of time when there is no clear stream channel for water flows; water may flow along one path one year and another the next. For 50 metres in the Fircom Creek watershed, no singular defined channel could be identified. The avulsion zone for the Fircom Creek watershed occurs near the boundary to the Crown land, inferring that previous activity on Crown land may have impacted the Fircom Creek watershed by washing out the previously established water channel. Madrone notes that there is evidence of logging activity in the surrounding area.

Detailed summaries of the RAR-applicable watersheds that Madrone mapped can be found on pages 15-27 of the Madrone final report.

Because Madrone was only requested to assess four watersheds on Gambier Island, the maps produced in the Madrone report do not show all the Gambier watersheds that are considered RAR-applicable. Islands Trust mapping staff have produced a map that amalgamates the watersheds identified by Madrone with the watersheds that planning staff identified as RAR-applicable. The map is attached (Attachment 3), entitled "Identification of RAR applicable watersheds on Gambier Island", and will inform the basis for RAR regulation on Gambier Island.

Relevant Policy and Land Use Considerations

Trust Council Strategic Plan

The Islands Trust Council Strategic Plan contains the following relevant policy:

- 1.3.6 Adopt new bylaws to implement RAR on all islands where still required

Islands Trust Policy Statement

The Islands Trust Policy Statement contains the following relevant Directive Policy:

- 3..1.3 Local trust committees and island municipalities shall, in their official community plans and regulatory bylaws, address the identification and protection of the environmentally sensitive areas and significant natural sites, features and landforms in their planning area.

Analysis

The RAR is intended to provide protection to "streams" which the regulation defines as "*a watercourse, whether it usually contains water or not, that provides fish habitat, including ponds, lakes, rivers, creeks and brooks as well as ditches, springs, and wetlands that are connected by surface flow to such watercourses*". The intent of the regulation is to provide protection for those features which are capable of supporting fish whether they are currently present or not.

There are a number of ways that local governments can become compliant with the RAR including applying zoning, or using DPAs to implement the RAR.

Changes to zoning would establish a setback consistent with the 30 metre RAA. A setback would regulate the siting of buildings and structures and a landscape strip provision could be established within the RAA to prevent vegetation removal. The concern with the zoning approach is that it is inflexible. Any work within the RAA would require a variance and conditions could not be attached to a variance in the manner that they can be included in development permit.

The DPA amendment option could manage land alteration, including vegetation removal, provide a map schedule showing the designated streams and 30 metre DPA, and provide for the flexibility inherent in considering issuance of a development permit, which can attach conditions and include variances.

In general, subject islands could meet the RAR by way of the following options:

- A. Amend the island's OCP to designate all lands within 30 metres of watercourses in RAR-identified watersheds as DPAs. The advantage of this approach is that it provides greater certainty with respect to actual watercourse locations and limits reviews and applications to work within 30 metres of fish-bearing or potential fish-bearing streams. This is the approach taken in other local trust areas, including Gabriola and Denman Islands.
- B. Amend the island's OCP to designate RAR-identified watersheds as DPAs. The advantage of this approach is that it does not require specifying the 30 metre on either side of a stream, considering that exact stream channel locations could change over time. This is the approach taken by the Sunshine Coast Regional District for their RAR DPAs.
- C. Amend the island's Land Use Bylaw (LUB) to establish both a 30 metre setback and a landscape strip for all watercourses within the RAR-identified watersheds. As noted above, this approach is possible but not recommended as it does not establish any certainty with respect to the actual location of streams. Any development within 30 metres of a watercourse would require a variance which could only be approved once a QEP assessment is provided, and conditions cannot be incorporated into the variance.

Bylaw provisions could also exceed the RAR by pursuing one of the following further options:

- D. Designating a DPA across the entire island with guidelines for areas within 30 metres of ALL watercourses, regardless of fish habitat status. The advantage of this approach is that all values associated with watercourse protection are addressed, not just fish habitat. The disadvantage of this approach is that the RAR requires a 30 metre Riparian Assessment Area; while adding slightly more specificity and clarity to the situation, the resulting impact on landowners and staff processing applications would be significant.
- E. Designating a RAR DPA within 30 metres of watercourses in RAR-applicable watersheds, and a different 15 metre DPA with watershed protection requirements for watercourses in watersheds deemed not to be RAR-applicable. The advantage of this approach is that other values associated with watercourse protection are addressed, not just fish habitat.

Options

The identification of RAR-applicable watersheds on Gambier, Keats, Bowyer, and Anvil Islands marks a significant progression in implementing the RAR in the Gambier Local Trust Area. The mapping of streams in these watersheds provides further information to use in the development of bylaw provisions. However, Gambier Island's identification process was a special case and will be analyzed following the analysis for the other three islands.

Options for implementing RAR on Keats, Bowyer, and Anvil Islands

With the identification of streams within RAR-applicable watersheds, one can establish Riparian Assessment Areas (RAA) 30 metres out from any RAR-applicable stream.

Staff recommends that the LTC pursue approach either Option A or Option B for Keats, Bowyer, and Anvil Islands. In the case of either choice, staff also recommends that the Development Permit Guidelines closely follow the guidelines that were recently adopted for Gabriola Island (Attachment 4).

Options for implementing RAR on Gambier Island

Gambier Island has been a particularly unique case for implementing RAR. Crown land is not applicable to the RAR, nor are activities such as forestry, conservation, or park; therefore, special consideration is warranted for the remaining areas of Gambier Island that could be RAR-applicable.

As stated earlier in this report, the decision to narrow down the number of watersheds on Gambier Island that would require mapping was made to ensure a financially manageable mapping contract. If development pressure for a watershed was low or if the watershed fell within one property, there wasn't the rationale for spending significant financial resources to map those streams. However, this decision has resulted in missing stream mapping for these watersheds on Gambier.

Avulsion on Gambier Island is also a relatively unique occurrence among islands in the Islands Trust Area. The Madrone report suggests that avulsion on Gambier Island can occur as a result of a significant change in surrounding areas, such as tree removal. Considering the large portion of Crown land inland of RAR-applicable watersheds and the fact that forestry is likely to remain a permitted use in this Crown land into the foreseeable future, and that forestry practices are exempt from the RAR, the LTC should consider the ongoing possibility of potential avulsion zones elsewhere on the island.

Staff recommends that Gambier Island use Option B, similar to the approach taken by the Sunshine Coast Regional District, with Development Permit Area guidelines that are based upon language used in the Gabriola bylaws. A variation on this approach would be to establish a 30 metre DPA for the watersheds where stream mapping has been done, and to denote the entire watershed RAR-applicable with the remaining identified 8 watersheds. If this variant is used, staff advises that a disclaimer should be placed on the map to clarify that both mapped and unmapped streams are considered applicable to the RAR. This is what is done in the Sunshine Coast Regional District (Attachment 5).

Considering both the higher fish habitat values present on Gambier Island, as well as the value in protecting the island's watersheds in general, there is merit to choosing to exceed the RAR. Options E or F are recommended if the LTC decides to exceed the RAR on Gambier Island.

Staff notes that a DPA map currently exists in the Gambier Island OCP (DPA #3) but is set at 15 metres of a watercourse and does not contain any text guidelines. It should be noted that the current DPA #3 was established through a significant amount of work and interest by local residents with expertise in biology and conservation, but with equipment that is considered outdated and below a desired level of accuracy for OCP schedules. Local knowledge can, hopefully, continue to be an asset with this current project, but staff notes that the stream location data on the current DPA #3 map may be replaced as part of this RAR amendment.

Project Scope and Timeline

The project scope and timeline remains on track. Some minor revision of the project charter will clarify the changes to the mapping contract scope that occurred over the winter.

Project Charter

Staff has attached the current RAR Project Charter for revision. Staff has made some changes to the Project Charter to better reflect the current budget and timeline for milestones (Attachment 6).

Resources and Roles

The RAR implementation project was allotted \$30,000 for the 2014/2015 fiscal year. The mapping contract for Gambier, Keats, Anvil, and Bowyer Islands was set for \$43,850, spending the 2014/2015 LTC project budget, with the remainder funded by Local Planning Services' Technical and Scientific Studies budget.

Looking forward to the current 2015/2016 fiscal year, there is \$10,000 allotted for RAR work in the Gambier LTA, but the contract to map the watersheds on the Thormanby Islands will spend the entirety of those funds and no specific project budget has been allocated for the remaining costs to implement the RAR. However, the anticipated expenses, such as a mail-out, printing of informational material and community meeting opportunities could be funded from the LTC communications budget (\$300) or the LTC special project budget (\$750). Given that existing brochures and materials can be adapted for use in the community consultation process it can be expected that overall costs aside from the statutory public hearing can be kept within this budget.

Communications

Community consultation is fundamental to any proposed changes to LTC policies and regulations. However, as the RAR is a provincially legislated requirement, providing for meaningful consultation is challenging as the LTC's options are limited. In order to bring its bylaws into compliance with the provincial regulation, it must amend them to provide a minimal level of protection as prescribed in the provincial regulation. There are limited options in terms of the tools that can be used and the only real choice the LTC has is whether to meet or to exceed the requirements of the RAR.

It is important that the LTC communicate clearly and effectively the reasons and limited options for the potential amendments. Experience within the Islands Trust has shown the RAR implementation process to be a potentially contentious community issue, particularly once maps are circulated to the public.

The LTC has previously discussed how to best communicate the RAR to property owners. The approaches the LTC may consider, alone or in combination, are:

1. *Direct mail-out letters to all owners providing opportunities to individually contact trustees and staff to have questions answered.*

It has been noted by the past LTC that this is not a preferred option.

2. *Information materials placed in community hubs and links to on-line information in email lists to landowners.*

It has been noted by the past LTC that this is a preferred option.

3. *Advertised but informal open-house(s), where affected and interested persons can drop-in and one-on-one ask questions specific to their property and their concerns.*

The past LTC has noted that on-site community meetings would not be a preferred option for Gambier Island.

4. *Town hall, where all affected and interested persons can attend and hear others' questions and comments, and the answers and responses.*

The past LTC has noted that on-site community meetings would not be a preferred option for Gambier Island.

Staff seeks feedback from the current LTC on how it wishes to pursue community consultation given the input from the previous LTC, the information provided by the Madrone mapping, and the requirements of the RAR.

For Keats, Anvil, and Bowyer Islands, the options for meeting the RAR are limited and fairly straightforward. Communication materials about the RAR and implementation options should be clear and seek feedback on accuracy of information, but there may be little opportunity for the community to collaborate on solutions. This could be done either before drafting the bylaws for First Reading, or afterwards as part of the legislative process; Staff recommends the former.

For Gambier Island, there may be more rationale for early community consultation about options moving forward. A number of watersheds are affected, certain watersheds have more detailed mapping than others, and there is more rationale for exceeding the RAR on Gambier Island. The LTC may wish to solicit comments and values from the community before making a decision on the best manner in which to implement RAR. Such questions can be posed by way of an online survey. While it has been stated previously that on-site community meetings are not appropriate for Gambier Island, Staff notes that the August 6, 2015 LTC meeting will be held at the Gambier Island Community Centre. Should the LTC wish to host a public open house after the LTC meeting, it can direct staff to prepare communication materials for that date.

Next Steps

Next steps include decisions about the preferred approach for implementing RAR, community consultation, and drafting of bylaw amendments for Gambier and the Howe Sound Islands.

The mapping work for the Thormanbys is scheduled to take place in late fall 2015 when seasonal flow is present. It is expected that the bylaw amendment process for Gambier and the Howe Sound Islands will move forward in 2015 and decisions about whether to insert the Thormanbys in the same bylaw amendment process will be made in early 2016.

Summary of Planning Recommendations

As noted earlier in this report, the implementation of riparian protection through RAR is not discretionary and such protection must meet or exceed the provincial requirements.

Staff recommends that the LTC amend the OCP for Keats, Bowyer, and Anvil Islands to designate all lands within 30 metres of streams in RAR-identified watersheds as DPAs. This is the approach taken in other local trust areas, including Gabriola and Denman Islands.

For Gambier Island, staff recommends that the OCP is amended to designate RAR-identified watersheds as DPAs. The advantage of this approach is that it does not require specifying the 30 metre on either side of a stream, considering that not all identified watersheds have stream mapping information available and exact stream channel locations could change over time. This is the approach taken by the Sunshine Coast Regional District for their RAR DPAs.

Regarding community communication, Staff recommends that information materials about the implementation of RAR be prepared for all subject islands and disseminated prior to drafting of the bylaws for First Reading.

Recommendations

THAT the Gambier Island Local Trust Committee:

1. advise staff on how they wish to proceed with the implementation of amendment bylaws for Keats, Bowyer, and Anvil Islands and how to communicate this bylaw amendment topic to the public;
2. direct staff to draft RAR bylaws for Keats, Bowyer, and Anvil Islands to present for First Reading at a future LTC meeting;
OR
direct staff to prepare communications materials to solicit feedback from the public about the mapping and next steps prior to First Reading;
3. advise staff on how they wish to proceed with the implementation of amendment bylaws for Gambier Island and how to communicate this bylaw amendment topic to the public;
4. review, and amend if needed, the revised Project Charter for Riparian Areas Regulation Implementation; and,
5. endorse the revised Project Charter for Riparian Areas Regulation Implementation.

Prepared and Submitted by:

Aleksandra Brzozowski

Island Planner

June 1, 2015

Date

Concurred in by:

Courtney Simpson

Courtney Simpson, RPP, MCIP,
Regional Planning Manager

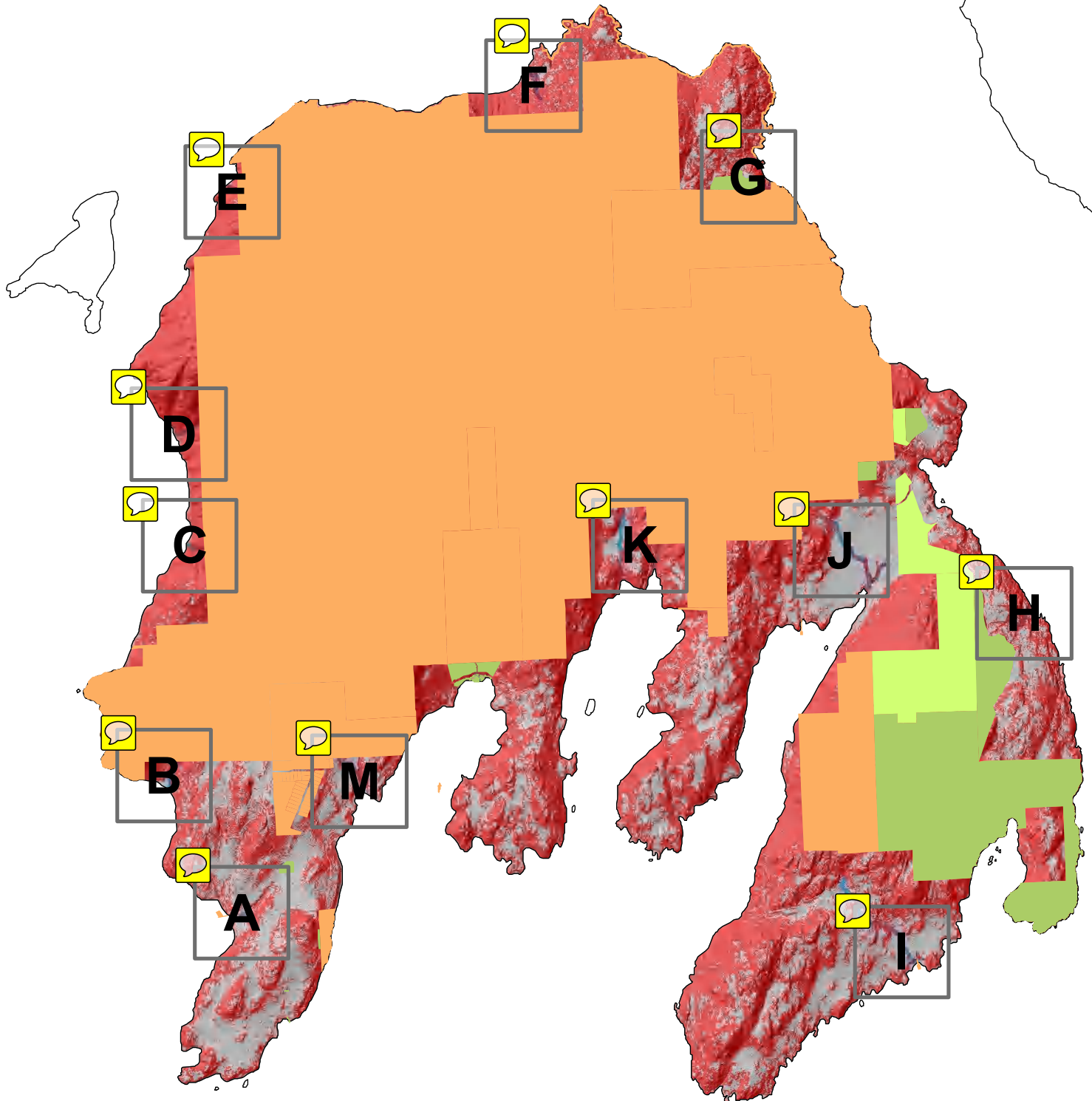
June 4, 2015

Date

Attachments:

1. Summary and comments on Basin Watersheds on Gambier Island
2. RAR Stream Identification for Gambier, Keats, Anvil, and Bowyer Islands - Final Report, by Madrone Environmental Services Ltd, April 20, 2015
3. Identification of RAR applicable watersheds on Gambier Island produced by Islands Trust mapping staff, May 12, 2015
4. Excerpts from Gabriola Island Bylaw No. 265 and No. 266 - RAR regulations
5. Excerpt from Roberts Creek Bylaw No. 641 - RAR Map Schedule
6. Gambier LTA Riparian Areas Regulation project charter – revised charter dated May 29, 2015

Gambier Stream Corridor Review



-  Parks
-  Protected Areas
-  Crown Land
-  > 20 Percent Slope
-  Stream Corridors

Summary of comments: SZ comments on basin watershed streams.pdf

Page:1

 Author: szupanec Subject: Sticky Note Date: 2014-10-08 09:27:15

F= No known fish presence; >20% stream slope; 416m stream length; 1 recreation service zone parcel (institution camp)

Not included in RFP for mapping as it pertains to one property with low development pressure; can be included in DP area for streamside protection as it is a basin watershed stream.

 Author: szupanec Subject: Sticky Note Date: 2014-10-08 09:27:18

G - No known fish presence; <20% stream slope; 125 m stream length; 1 residential parcel

Not included in RFP for mapping as it pertains to one property with low development pressure; can be included in DP area for streamside protection as it is a basin watershed stream.

 Author: szupanec Subject: Sticky Note Date: 2014-10-08 09:27:20

E= No known fish presence; >20% stream slope; 125m stream; 1 forestry lot

Not included in RFP for mapping as it pertains to one property with low development pressure; can be included in DP area for streamside protection as it is a basin watershed stream.

 Author: szupanec Subject: Sticky Note Date: 2014-10-08 09:28:05

D= No known fish presence; 20% stream slope; 305m stream; 1 forestry lot

Not included in RFP for mapping as it pertains to one property with low development pressure; can be included in DP area for streamside protection as it is a basin watershed stream.

 Author: szupanec Subject: Sticky Note Date: 2014-10-08 09:44:29

K= Recorded fish presence; 1095m; one stream on each of two residential properties

Not included in RFP for mapping as it pertains to one property with low development pressure; can be included in DP area for RAR and streamside protection as it has known fish presence.

 Author: szupanec Subject: Sticky Note Date: 2014-10-08 09:29:09

C= No known fish presence; >20% stream slope; 215m stream length; 1 forestry lot

Not included in RFP for mapping as it pertains to one property with low development pressure; can be included in DP area for streamside protection as it is a basin watershed stream.

 Author: szupanec Subject: Sticky Note Date: 2014-10-08 09:47:40

J= Recorded fish presence; 1361m; in ALR and over one, possibly two large acreages.

Not included in RFP for mapping as it pertains to one property with low development pressure; include in DP area for RAR and streamside protection as it has recorded fish presence.

 Author: szupanec Subject: Sticky Note Date: 2014-10-08 09:49:51

H= No known fish presence; <20% stream slope; 400m stream length; 5 residential and possibly four more properties.

INCLUDE in RFP for stream mapping to verify location of stream and tributaries and assess RAR applicability in order to apply DP.

 Author: szupanec Subject: Sticky Note Date: 2014-10-08 09:30:52

B= recorded fish presence; 324m stream; one residential property and possibly two others however recent subdivision application prompted RAR assessment and mapping therefore no need to include this in the RFP for mapping as DP will apply to this area.

 Author: szupanec Subject: Sticky Note Date: 2014-10-08 09:42:59

M= Recorded fish presence; 524m; at least nine residential properties

INCLUDE in RFP for stream mapping to verify location of stream and tributaries that may be applicable to RAR and DP area for streamside protection.

 Author: szupanec Subject: Sticky Note Date: 2014-10-08 09:39:19

A= No known fish presence; <20% stream slope; 28m stream length; 3 residential properties and possibly 6 more.

INCLUDE in RFP for stream mapping to verify exact location of stream and tributaries that could be applicable to RAR AND streamside protection DP that captures other important non-RAR qualities.

 Author: szupanec Subject: Sticky Note Date: 2014-10-08 11:43:32

I = No known fish presence; <20% stream slope; 1450 m stream length; 15 residential properties at least

INCLUDE in RFP for stream mapping to verify location of stream and tributaries and RAR applicability and include in DP area.



RIPARIAN AREA REGULATION STREAM IDENTIFICATION

Gambier, Keats, Anvil and Bowyer Islands

PREPARED FOR:

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April 20, 2015

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RIPARIAN AREA REGULATION STREAM IDENTIFICATION

Gambier, Keats, Anvil and Bowyer Islands

1 Introduction and Objectives

The Riparian Areas Regulation (RAR) is the basis of streamside protection in British Columbia. The RAR was enacted in 2004 under Section 12 of the Fish Protection Act. The RAR is a joint initiative with Fisheries and Oceans Canada (DFO), the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) and local government. The RAR uses a science-based approach to help ensure land development activities do not result in a harmful alteration, disruption or destruction (HADD) of fish habitat.

In BC, the definition of fish habitat includes all aquatic and terrestrial areas that affect fish life processes. Fish habitat, therefore, includes the area directly adjacent to a stream (*i.e.*, the riparian area) because it provides food, nutrients, and other functions vital to fish survival.

In order to become compliant with the provincial RAR, Islands Trust contracted Madrone Environmental Services Ltd. (Madrone) to conduct fieldwork to identify RAR-applicable drainages in target watersheds on Gambier, Keats, Bowyer and Anvil Islands, located in Howe Sound. Islands Trust will use the stream-mapping data to develop a process that recognizes focus areas adjacent to applicable streams (e.g. by incorporating Development Permit Areas or implementing other regulations).

The primary objective of the project was to map the centre-line of streams with a high level of accuracy (within 1 m – 5 m), to allow Islands Trust to accurately identify RAR applicable watercourses. As per the RAR, any development within the Riparian Assessment Area (RAA) triggers the requirement for an assessment completed by a Qualified Environmental Professional (QEP).

In order to help determine the extent of riparian setbacks under the RAR (referred to under the regulation as Streamside Protection and Enhancement Areas – SPEAs), bankfull stream width measurements were taken during fieldwork. The objective of this exercise was to supply Islands Trust with additional data to help with the implementation of planning tools to manage riparian areas.

2 Methodology

2.1 Background Research

Background research was carried out using the Fisheries Information Summary System (FISS) (<http://www.env.gov.bc.ca/fish/fiss/index.html>) and Habitat Wizard (<http://www.env.gov.bc.ca/habwiz/>) to determine whether any documented stream or fish distribution data existed for the study area. During the fieldwork, local landowners also provided valuable information regarding the distribution of fish in the focal watersheds.

2.2 Assessment Area

The study area, as identified by Islands Trust, included four specific watersheds on Gambier Island (referred to as Areas A, H, M and I by Islands Trust), ten watersheds on Keats Island, two watersheds on Anvil Island and five watersheds on Bowyer Island. With regard to Gambier Island, Area A is associated with the Grennon Creek watershed; Area H is associated with an un-named watercourse; Area M is associated with the Whispering Creek watershed; and Area I is associated with the Fircom Creek watershed. Silver Creek (local, un-gazetted name) represented the only named watercourse on Keats Island. Orchid Creek (local, un-gazetted name) occurred in one of the watersheds on Bowyer Island. One of the watersheds on Anvil Island contained a named, gazette watercourse (Champside Creek). Figures 1-4 represent the target watersheds included in the stream mapping project. Drainages inside Crown Land, parks or protected areas were not mapped, as per the scope of this project.

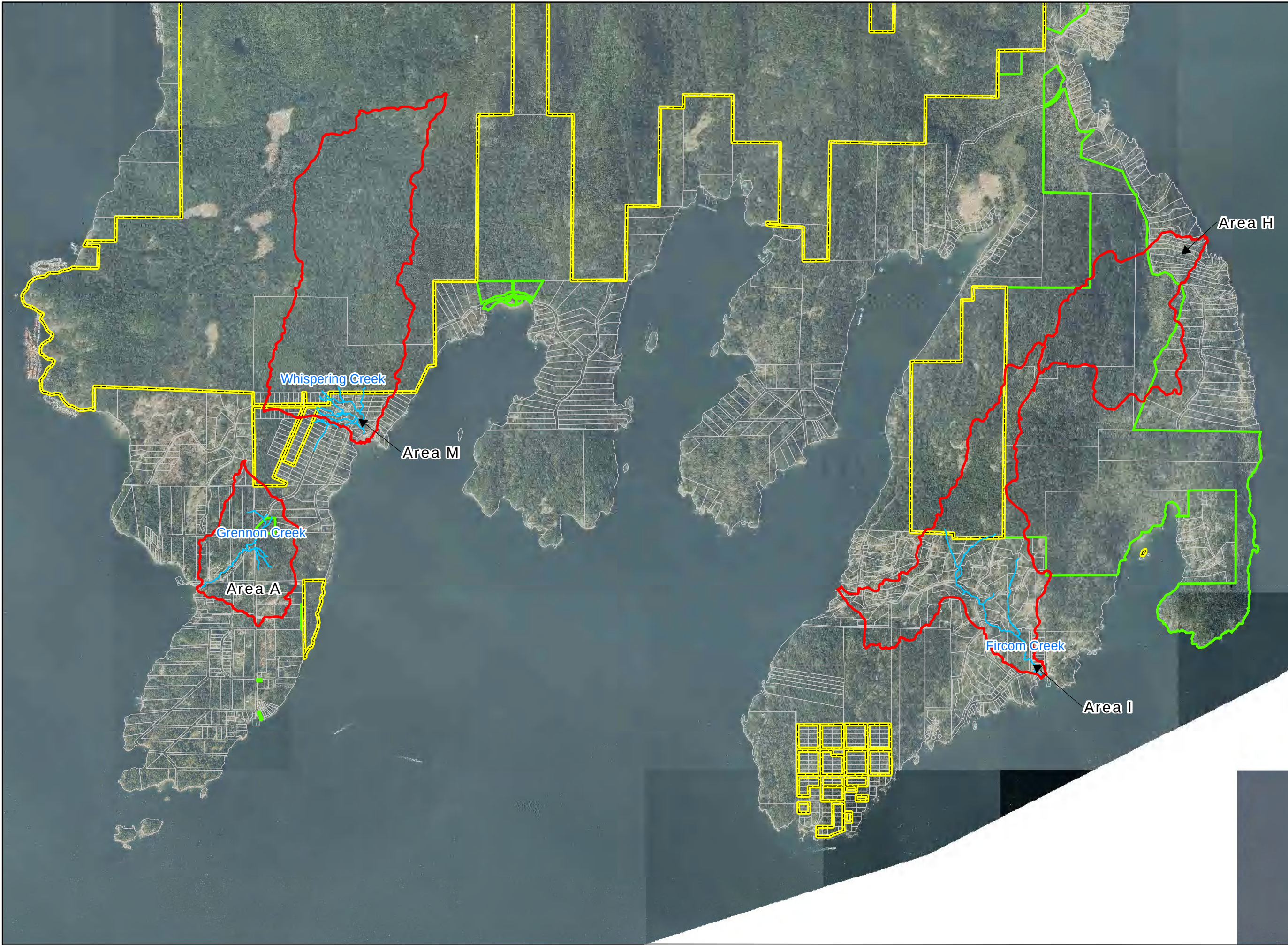


Figure 1:
Assessed Watersheds
(Gambier Island)

PROJECT: Howe Sound Islands RAR Stream Mapping	
CLIENT: Islands Trust	
GEOGRAPHIC AREA: Howe Sound, BC	
ASSESSMENT DATE: February - March 2015	
MAP SCALE: 1:30,000	MAPPING DATE: March 25, 2015
DOSSIER NO: 15.0021	DRAWN BY: Anna Jeffries

- Assessed Streams
- Assessed Watershed
- Park or Protected Area
- Crownland

0 200 400 800 1,200
m





Figure 2:
Assessed Watersheds
(Keats Island)

PROJECT: Howe Sound Islands RAR Stream Mapping	
CLIENT: Islands Trust	
GEOGRAPHIC AREA: Howe Sound, BC	
ASSESSMENT DATE: February - March 2015	
MAP SCALE: 1:15,000	MAPPING DATE: March 25, 2015
DOSSIER NO: 15.0021	DRAWN BY: Anna Jeffries

- Assessed Streams
- Assessed Watershed
- Park or Protected Area
- Crownland

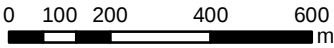




Figure 3:
Assessed Watersheds
(Anvil Island)

PROJECT: Howe Sound Islands RAR Stream Mapping	
CLIENT: Islands Trust	
GEOGRAPHIC AREA: Howe Sound, BC	
ASSESSMENT DATE: February - March 2015	
MAP SCALE: 1:10,000	MAPPING DATE: March 25, 2015
DOSSIER NO: 15.0021	DRAWN BY: Anna Jeffries

- Assessed Streams
- Assessed Watershed
- Park or Protected Area
- Crownland

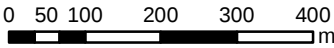
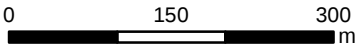




Figure 4:
Assessed Watersheds
(Bowyer Island)

PROJECT: Howe Sound Islands RAR Stream Mapping	
CLIENT: Islands Trust	
GEOGRAPHIC AREA: Howe Sound, BC	
ASSESSMENT DATE: February - March 2015	
MAP SCALE: 1:7,000	MAPPING DATE: March 24, 2015
DOSSIER NO: 15.0021	DRAWN BY: Anna Jeffries

- Assessed Streams
- Assessed Watershed
- Park or Protected Area
- Crownland



2.3 Landowner Contact

Islands Trust provided a list of landowners to be contacted, based on the anticipated network of streams in each of the focal watersheds. The data included names and addresses, which necessitated looking up contact phone numbers using on-line directories. Not all affected properties could be contacted, as phone numbers were not always listed. In instances where landowners were absent during the contact phase, detailed messages were provided.

While completing the first round of fieldwork for Gambier Island, it became apparent that the stream network extended beyond the spatial extent of the property information provided. Upon completion of the Gambier Island stream mapping, Islands Trust were able to send out generic emails to affected properties, and also provided phone numbers for landowners that would be potentially affected by the mapping on the remaining islands (Keats, Bowyer and Anvil). Prior to the completion of the second phase of fieldwork, therefore, we were able to make contact with a greater number of landowners.

During fieldwork, efforts were made to make contact with property owners by knocking on doors and explaining the objectives of the mapping work. This approach was not always practical, based on the extent of some of the properties and/or landowners being absent during the field assessment. Each field crew also carried copies of a letter from Islands Trust explaining the purpose of the project, for distribution to the public during fieldwork.

2.4 Definition of a “Stream” under the RAR

In order to identify applicable drainages in the field, the definition of a “stream” as listed under the provincial RAR, was used as a standard. As per Section 1.4.2 of the RAR Assessment Methodology; (http://www.env.gov.bc.ca/habitat/fish_protection_act/riparian/documents/assessment_methods.pdf), a “stream” is defined as follows:

“...any watercourse — natural or human made — that provides fish habitat that contains water on a perennial or seasonal basis, is scoured by water or contains observable deposits of mineral alluvium, or has a continuous channel bed including a watercourse that is obscured by overhanging or bridging vegetation or soil mats. A watercourse may not itself be inhabited by fish, but may provide water, food and nutrients to streams that do support fish.”

The RAR further identifies a stream as:

*“...any of the following that provides fish habitat:
a watercourse, whether it usually contains water or not;*

a pond, lake, river, creek, brook;

a ditch, spring or wetland that is connected by surface flow to something referred to in paragraph (a) or (b).

If a barrier to the upstream movement of fish is identified, a watercourse is classified as a stream above the barrier if there is potential fish habitat downstream of the barrier. Any part of a watercourse that is not inhabited by fish (e.g. above a barrier) that connects by surface flow to fish habitat is considered a stream under the RAR process.

Watercourses that do not support fish or connect by surface flow to fish habitat (e.g. isolated wetlands) are not considered “streams” under the RAR process. No focused mapping of isolated wetlands was carried out as part of this assessment. It should be noted that wetland ecosystem types still provide benefits to a range of species and provide important functions (e.g. stormwater retention).

Ditches are also considered “streams” under the RAR, if they provide habitat for fish, or connect by surface flow to fish habitat. As the SPEA for ditches is generally less than the SPEA for a natural watercourse, the distinction was made during the fieldwork phase as to whether a watercourse qualified as a ditch. As per the regulation, a ditch is an entirely constructed, straight watercourse with no significant headwaters or springs feeding it.

2.5 Field Assessment Procedures

The field assessment for Gambier Island was completed between February 24th and 26th 2015, with one crew of two people. Two crews of two people were then split to complete the mapping for Keats, Bowyer and Anvil Islands, which took place between March 2nd and 4th 2015. Field crews were led by Trystan Willmott, B.Sc., A.Sc.T., and Justin Lange, B.Sc., R.P.Bio., A.Sc.T.

The timing of the fieldwork (late winter) was favourable in that it was carried out during a period when seasonal watercourses contained flowing water. This allowed for the maximum upper extent of tributaries to be determined, as evidence of surface flow during drier times of the year can be difficult to observe, especially in areas with dense understory vegetation. Streams were either followed to their source, which necessitated the determination of the point where no further evidence of surface flow (including ephemeral flow) could be detected, or to the boundary of park/protected land or Crown Land.

As the scope of the project was to identify watercourses that would be applicable to the RAR (potentially fish bearing streams and non-fish-bearing streams flowing into potentially fish-

bearing streams), assessments were completed on each identified watershed to determine RAR applicability. Streams were deemed to be applicable if low gradient seasonal habitat (less than 20%) occurred above tidewater, providing potential habitat for anadromous fish capable of completing their life cycle in seasonal streams (e.g. chum – *Oncorhynchus keta* – and pink – *Oncorhynchus gorbuscha* salmon). Where a natural barrier at tidewater occurred (either based on excessive gradient or a singular feature), the stream was not mapped if low-gradient perennial habitat did not occur above the barrier. Where streams were of a suitable magnitude to provide perennial habitat above a barrier in low-gradient habitat (less than 20%), these streams were mapped, based on the potential for resident fish to occur above the barrier.

Stream mapping commenced at the upper limit of tidal influence, as noted by indications of the high tide line in the field. The upper limit of tidal influence is relevant in the implementation of the RAR, as the regulation does not apply to marine or estuarine habitats, as per Page 14 of the RAR assessment methods:

“The Riparian Areas Regulation does not apply to marine or estuarine shorelines; these waters are still considered fish habitat under the Fisheries Act and DFO should be contacted regarding appropriate setback widths to ensure that development activities do not result in a harmful alteration, disruption or destruction of fish habitat. The boundary between freshwater habitats and estuarine habitats is considered the upstream extent of tidal influence.”

Where applicable, the outlet stream of each target watershed was traversed on foot, which allowed for the identification and subsequent mapping of all tributary drainages entering the main-stem. Concurrently with stream mapping, basic habitat data was also collected along each stream. Data collected included gradient, channel morphology (e.g. riffle-pool/cascade pool or step-pool), extent of riparian vegetation and fish habitat potential. Fish habitat attributes such as cover/security, Large Woody Debris (LWD) and spawning substrate were also noted.

Representative site photographs were taken during each stream traverse (Appendix 1). GPS way points were collected to depict the location of features such as natural barriers to upstream fish movement (e.g. waterfalls) and human-made barriers (e.g. culverts). The downstream and upstream boundaries of ravines were also identified during the mapping phase.

The edges of wetlands and constructed ponds were not mapped in the field, although their dimensions and attributes were recorded during the assessment. The level of detail shown on the orthophoto coverage, in addition to ground-truthing, allowed for the accurate digitizing of wetland/lake edges on the final maps.

As part of the field assessment, bankfull widths were taken along each stream traverse in order to provide Islands Trust with more data for planning purposes. As per the RAR methodology (using the “Detailed Assessment”), SPEA dimensions for streams are generally based on multiplying the average channel width by 3 (dependent on channel morphology and vegetation potential). The “Simple Assessment” is another standard used under the RAR, which derives the SPEA from the depth of potential riparian vegetation, stream periodicity and fish presence/absence.

Using the Detailed Assessment, the SPEA can never be less than 10 m, with the maximum being 30 m, and is measured as a horizontal distance from the High Water Mark (HWM). As per the Simple Assessment methodology, the SPEA is measured from the Top of Bank (TOB). Bankfull widths taken in the field were used to determine the estimated SPEA dimensions for each stream segment indicated in the map product, using the Detailed Assessment procedure (Figures 5 – 10).

Under the Detailed Assessment methodology, wetlands (including lakes and ponds) are associated with default 15 m – 30 m SPEAs depending on aspect. North facing banks receive a maximum 30 m SPEA, based on the function provided by shade, where-as south, west and east facing banks are associated with 15 m SPEAs.

It should be noted that the SPEAs shown on the maps should only be used as a guide for planning purposes, as the scope of the project did not include the completion of a full detailed RAR assessment on the mapped streams. It should also be noted that the scope of the project did not include the identification of the HWM, Top of Bank (TOB) or Top of Ravine Bank (TORB).

Under the RAR methodology, the 30 m Riparian Assessment Area (RAA) is measured as a horizontal distance from the HWM in the case of a streams, wetlands and lakes. As per the regulation, any developments within the RAA trigger the completion of an assessment using the RAR methodology. When assessing ravines, the RAA extends from the HWM to a point that is either 10 m or 30 m back from the TORB. If a ravine is less than 60 m wide, the RAA is 30 m from the TORB; ravines that are greater than 60 m wide are associated with a RAA that extends 10 m back from the TORB.

While mapping the streams, the downstream and upstream extent of ravines, as defined in the RAR methodology –

http://www.env.gov.bc.ca/habitat/fish_protection_act/riparian/documents/assessment_methods.pdf was identified. The purpose of this exercise was to provide Islands Trust with data for planning purposes, based on the fact that the RAA for ravines extends from the TORB, as

discussed above. As stated, the scope of the project did not include the identification of the TORB, or measuring the width of ravines.

Each field crew collected data using a Trimble GEOXH6000 GPS unit connected to an external receiving antenna. These units have the capability of receiving position data from GPS and GLONASS satellites, which results in increased accuracy. Data collection thresholds were set on the GPS units to fit within the standards required by Islands Trust, including: a minimum elevation angle to satellites of 15° above the horizon; a maximum Horizontal Dilution of Precision (HDOP) of 5; a maximum Position Dilution of Precision (PDOP) of 8; and a minimum number of 4 satellites for position fixes. As per RISC standards, a minimum of 45 individual fixes were taken for static features such as barriers to the upstream migration of fish. During each stream traverse, position fixes were taken every second. Terra Sync software was used for the collection of field data.

2.6 Assessing for Fish Presence or Potential Fish Presence

While background research using databases is useful in determining the general distribution of fish, it cannot be relied upon as a complete inventory. For example, a lack of data for any given stream or watershed cannot be interpreted as indicating that the stream or watershed does not contain fish. Proving non fish presence generally requires rigorous sampling procedures during optimal seasons. Given the fact that the project was focused on identifying potentially fish bearing streams and connected watercourses, no detailed sampling procedure was carried out. Fish sampling, therefore, was beyond the scope of this assessment.

In order to provide Islands Trust with more data and help determine the distribution of fish throughout each watershed, barriers to the upstream movement of fish were mapped on streams that provided attributes necessary to support fish. It should be noted, however, that the identification of barriers or high gradient reaches that could potentially limit the distribution of fish through a system was not the main focus of this assessment, as a “stream” under the RAR is not necessarily fish bearing. If a watercourse connects by surface flow to fish habitat, it is considered a “stream” under the RAR. Information regarding the location and description of barriers observed during the fieldwork could be used to help with future enhancement initiatives, such as providing fish passage around barriers, which would increase the length of habitat available for fish.

2.7 Field Assessment Limitations

In some instances, the density of vegetation growing in the watercourse did not make it feasible to follow the drainage with the GPS, as the external antenna would become significantly fouled and/or impeded, leading to poor GPS operating conditions. In these cases, the GPS data collection was paused and resumed where access to the stream channel was possible. In some cases, stream segments were impenetrable (usually as a result of dense Himalayan blackberry – *Rubus discolor*) growth. In other cases, impassable fences were encountered that did not allow for streams to be traversed. Where fences or impenetrable vegetation precluded mapping a section of a stream, imagery and/or contour interpretation was used (wherever practical to do so) to estimate the location of the stream. The portions of streams that could not be accessed have been identified in the map products (refer to Figures 5 – 10).

2.8 GPS Data Management and GPS Limitations

After field assessments were completed, the GPS data was downloaded and post-processed using the closest base station relative to the study area (located in Burnaby, BC). The post-processed data was then viewed in Pathfinder Office software, which is used in conjunction with Trimble GPS units and the Terra Sync field collection software. The data was converted to shapefile format and imported into ArcGIS10, which included the creation of a metadata report of all the data collected, including Dilution of Precision (DoP) values, Horizontal Precision and number of satellites used for each position fix.

Using GPS for stream mapping does have obvious limitations, as characteristics in the field play a significant role in the accuracy of data. Ravines with a closed tree canopy likely represent the most difficult GPS collection conditions, which were encountered during the field assessment. Coupled with satellite signal attenuation through the tree canopy and significant multi-path affects from dense tree cover and/or rock features, locational accuracy can be temporarily lost during the traverse of a stream. Temporary loss of locational accuracy during a stream traverse can lead to the creation of “zingers” in the data, where the GPS cannot provide an accurate position.

Traversing obstacles in the creek, or ducking under overhead obstructions (e.g. vegetation) can also lead to temporary loss of locational accuracy, based on the fact that the external antenna is forced out of the optimal position. For example, when climbing over or under a log, the antenna can either be on a horizontal plane, or pointing towards the ground, leading to poor accuracy. Pausing and resuming the data collection in areas of dense vegetation, or when trying to traverse areas of heavy blow down over the stream can also lead to a temporary loss of locational accuracy. Based on the high data logging interval (one locational fix per second), the

correct line of the stream could be identified in the data by ignoring the “zingers”. It should be noted that the vast majority of data collected met the required accuracy standards.

Having a high data logging interval allowed for an increased number of points to be taken along each stream traverse, leading to increased accuracy. It should be noted, however, that it was generally not possible to follow the exact centre of the stream in a smooth line, unless the stream was completely open, with a uniform depth and no obstructions (which is rarely the case). During the stream traverses, there would often be the need to move sideways in the creek bed to avoid an obstruction or sections of deep water. The high logging interval of the GPS units allowed for these sideways movements to be depicted in the data, leading to a “jagged” appearance to the mapped stream line. The creek lines were, therefore, smoothed using the Smooth tool in the Advanced Editing Toolbar in ArcGIS. Smoothing the line features created a more natural stream appearance, while not losing the locational accuracy (sideways movements around obstacles etc. were always within the confines of the channel).

3 Results

3.1 Documented Fish Distribution Data

Background research using web-based data sets indicated documented fish presence in only one of the identified watersheds on Gambier Island (Whispering Creek – “Area M”). The gazetted watershed code for this stream is 905-079000-36000, with chum salmon, pink salmon, chinook salmon (*Oncorhynchus tshawytscha*) and coho salmon (*O. kisutch*) being confirmed species. Anecdotal evidence from local landowners suggests that coastal cutthroat trout (*O. clarkii clarkii*) also occur in this stream. Observations of juvenile salmonids during the field assessment confirmed fish presence in the upper reaches of the main tributary to Whispering Creek.

Coastal cutthroat trout are also known to occur in Grennon Creek (Mike Stamford - pers. comm.). Grennon Creek was the subject watershed in “Area A” on Gambier Island. Based on local knowledge, the watershed to the immediate north of Grennon Creek also represents potential fish habitat (Mike Stamford – pers. comm.). McDonald Creek, which flows into the head of West Bay, is also likely to provide habitat for fish (Mike Stamford – pers. comm.).

Other confirmed fish-bearing streams for Gambier Island located in areas beyond the scope of this project are:

- Centre Creek (watershed code 905-079000-21000), which flows into Centre Bay. Documented as supporting pink salmon, chum salmon and coho salmon;

- Gambier Creek (watershed code 905-079000-73800). Documented as supporting rainbow trout (*O. mykiss*);
- Mannion Creek (watershed code 905-079000-48200). Documented as supporting chum salmon, coho salmon, chinook salmon, pink salmon and coastal cutthroat trout; and
- Un-named stream flowing into the head of Port Graves Bay (known locally as the “Sea Ranch” property) – watershed code 905-079000-08400. Documented as supporting pink salmon, chinook salmon, chum salmon and coho salmon.

It is understood that Island’s Trust reasoning for focusing the scope of the mapping on the four watersheds on Gambier Island and not including the other confirmed fish-bearing streams was due to the priority to protect streams flowing through multiple private properties. Where streams flow through one large individual property, Island’s Trust would be able to liaise with the property owner individually to help manage any future development plans in the RAA. Furthermore, watersheds flowing through Crown Land or protected areas were not identified by Island’s Trust for mapping, likely due to the fact that the streams are either afforded protection already, as is the case with park land, or because the RAR would not be applicable on Crown Land.

No documented fish distribution data occurs for Keats Island, Bowyer Island or Anvil Island. Out of these islands, only Anvil Island contains gazetted streams – Champside Creek (watershed code 905-082000-03700) and an un-named stream (watershed code 905-082000-70700). The Champside Creek watershed represents one of the focus watersheds for this assessment. It appears that the mapping on the FISS and Habitat Wizard databases inaccurately shows Champside Creek as occurring in the western watershed that was assessed on Anvil Island. Based on field observations and watershed boundaries, Champside Creek actually enters the ocean via the eastern watershed (Figure 10).

3.2 RAR-Applicable Watershed Summaries

Figures 5 – 10 depict the mapped drainage network in each of the target watersheds (where RAR-applicable streams were found). The maps also indicate the locations of barriers to upstream fish movement, the extent of ravines and the location of ditches. The streams have been colour-coded to indicate the estimated SPEA range (as per the Detailed Assessment process under the RAR), which is based on bankfull channel measurements taken in the field.

The following descriptions summarize the characteristics of each watershed. The streams are described in an upstream direction, starting from the confluence with the ocean. Representative photographs are included in Appendix 1.

3.2.1 Gambier Island

3.2.1.1 Area A – Grennon Creek, Gambier Island

This stream flows into the ocean at New Brighton close to the South-western tip of Gambier Island (Figure 5). Above tidewater, the stream gradient is between 4% and 5% and the bankfull width is between 3 and 4 m. The stream represents a riffle-pool system, with a substrate of gravel and small cobble.

Approximately 100m from tidewater, the stream flows under West Bay Road via a closed metal pipe. Structures have been added to the stream channel at the outlet of the culvert to facilitate fish passage. A log with a V-notch has been placed across the channel to back-up the water and create a pool at the culvert outlet. A wooden weir structure, consisting of two steps, has also been placed upstream of the main V-notch weir, decreasing the height of the culvert outlet drop. While the structures at the outlet will improve fish passage through the culvert, the considerable length of the culvert will at least present an obstacle to fish moving in an upstream direction. Consideration should be given to removing the culvert and replacing it with a structure that does not represent an obstacle to fish passage. A clear-span bridge would be the best option, but an oversized embedded culvert or open-bottomed arch would also be suitable alternatives.

Upstream of the West Bay Road crossing, functioning riparian vegetation is limited, with dense Himalayan blackberry occurring over the stream channel. Riparian vegetation continues to be fragmented where the stream flows through historically disturbed private properties. Riparian habitat conditions improve as the stream becomes confined in a steep-sided ravine, with segments of mature coniferous forest occurring.

Upstream of the ravine, the stream has been confined where it flows along the base of the rock-armoured edge of West Bay Road (at the point where the main tributary stream enters). Where the stream turns away from the road edge, fish habitat conditions improve, with habitat restoration work evident in the form of log weirs and the creation of pool habitat units. Spawning habitat consisting of suitably-sized gravel occurs throughout the restored area downstream of the upper West Bay Road crossing. The stream flows underneath West Bay Road, but this second crossing is via an embedded culvert, which does not represent an obstacle to fish passage.

Upstream of the road, the stream continues through mature, moist coniferous forest, with grand fir (*Abies grandis*), western hemlock (*Tsuga heterophylla*) and western redcedar (*Thuja plicata*) being the leading species. Fish habitat attributes are generally limited, due to a lack of deep pools for rearing. Upstream of the mature forest, the stream crosses underneath West Bay Road via a closed metal pipe, at which point the potential for fish to occur is extremely limited. A roadside ditch joins the main-stem at the inlet of the culvert. Upstream of the crossing, the gradient increases to approximately 20% and the stream becomes poorly defined. The stream was followed to the point where no further evidence of surface flow could be defined.

One significant tributary enters the main-stem at the second West Bay Road crossing (Tributary 1). The confluence is marked by a culvert under the road, which represents a barrier to upstream fish movement. The outlet drop is too high to allow any reasonable potential for fish to pass through the culvert. Removal of this structure and replacement with a fish-passable structure should be considered. Upstream of the culvert, fish habitat is generally limited, due to a lack of deep pools and a substrate consisting mainly of organics and fine sediment (very deep deposits in places). Approximately 30 m from the road crossing, large boulders (rip-rap) occur within the stream channel; the origin of these boulders is unknown.

The tributary stream branches into two poorly-defined drainages (Tributaries 1A and 1B), which drain a broad, moist depression upstream of West Bay Road. The depression consists of mature forest, with high soil moisture content indicated by hydrophytic species such as skunk cabbage (*Lysichiton americanum*), salmonberry (*Rubus spectabilis*) and Devil's club (*Oplapanax horridus*).

Personal communication with Mike Stamford confirmed coastal cutthroat trout presence in Grennon Creek. Mr. Stamford has observed trout in excess of 35 cm upstream of the second (embedded) culvert under West Bay Road. His assumption, which would appear to be accurate, was that these larger fish were returning sea-run coastal cutthroat trout. Mr. Stamford has also sampled coastal cutthroat trout up to 20 cm (fork length) immediately downstream of the second road culvert on the main-stem and also reported that rearing cutthroat trout (fry) were abundant in parts of the upper watershed above the culvert (based on sampling by electroshocking approximately 5 years ago).

Mr. Stamford further explained that at least one local resident has been instrumental in improving fish habitat in Grennon Creek. Enhancement work was evident in the form of the remediation work at the outlet of the first culvert crossing and also from the placement of instream log weirs creating rearing habitat downstream of where the main tributary joins. It is important that stewardship work continues on Grennon Creek, as there are opportunities to improve habitat throughout the system.

Removal of the culvert where Tributary 1 enters the main-stem would be beneficial. This culvert is currently perched too high above the water to allow fish to pass through it (the culvert is a barrier to upstream fish movement). Placement of an embedded culvert, or an open-bottomed arch

structure would allow fish access to habitat upstream. Once the culvert is replaced, habitat enhancement upstream of the crossing, most notably activities associated with improving the amount of rearing habitat, and also improving spawning habitat, would also be beneficial. Replacing the culvert on the mains-stem at the first road crossing with a structure that does not impede fish passage would also help fish complete the necessary movements throughout the stream to fulfil their life history requirements.

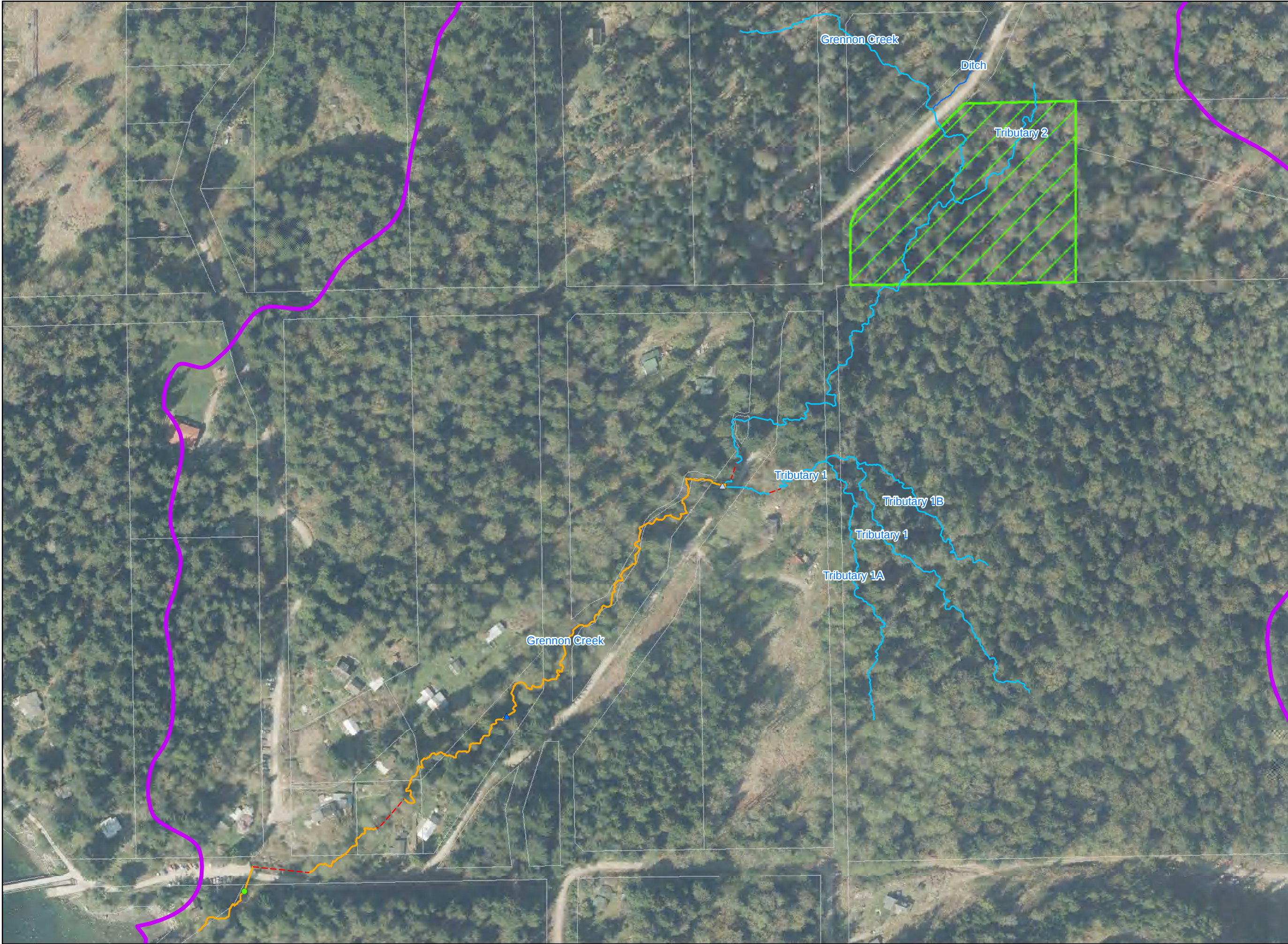


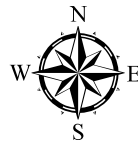
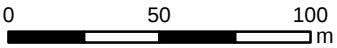
Figure 5:
Grennon Creek -
Gambier Island

PROJECT: Howe Sound Islands RAR Stream Mapping	
CLIENT: Islands Trust	
GEOGRAPHIC AREA: Howe Sound, BC	
ASSESSMENT DATE: February - March 2015	
MAP SCALE: 1:2500	MAPPING DATE: March 26, 2015
DOSSIER NO: 15.0021	DRAWN BY: Anna Jeffries

Assessed Stream SPEA Widths*

- 5m
- 10m
- 12m
- 15m
- 20m
- Not Field Verified
- Obstacle to Upstream Fish Movement (culvert)
- Natural Barrier to Upstream Fish Movement (waterfall)
- Barrier to Upstream Fish Movement (culvert)
- Ravine - Downstream Extent
- Ravine - Upstream Extent
- Parcel Boundaries
- Watershed Boundary
- Park or Protected Area
- Crownland

*Streamside Protection and Enhancement Area (SPEA) widths are based on detailed RAR assessment methodology



3.2.1.2 Area M – Whispering Creek

Whispering Creek flows into West Bay on the Southern side of Gambier Island over a gently sloping cobble beach (Figure 6). The stream represents a high-energy cascade-pool system, with a substrate comprised mainly of large gravel and cobbles. The average bankfull width is 7 m and the gradient is 3.5%. Approximately 60 m from tidewater, the stream becomes confined in a steep sided ravine. The ravine side-slopes are vegetated with mature coniferous forest consisting of western redcedar, western hemlock and Douglas-fir.

Immediately downstream of the Wilderness Road crossing, the stream flows over a vertical bedrock waterfall, which represents a definitive barrier to upstream fish movement. Upstream of the waterfall, the gradient decreases and the channel becomes unstable and aggraded. The channel widens, with ephemerally-flowing side channels evident. The stream was followed up to the Crown Land boundary, where it continues as a high energy cascade-pool system through mature forest.

Based on the channel type and associated substrate size, spawning habitat is generally limited throughout the mapped segment of Whispering Creek. High energy flows, scour and associated deposition of bed-load in aggrading areas of the channel will adversely affect spawning success. Stable LWD is lacking throughout the system. Riparian vegetation is generally intact throughout the mapped stream segment, and it is providing proper biological function in the form of litter fall/insect drop, bank stability and shade.

Local knowledge suggests that returns of chum salmon have been decreasing recently, but pink salmon numbers increased considerably last year (2014). The habitat available for anadromous fish is limited by the waterfall immediately downstream of the Wilderness Road crossing, but anecdotal evidence from local landowners suggests that resident coastal cutthroat trout occur in the upper reaches above the waterfall.

Tributary 1 enters the main-stem via a perched culvert under Mountain Road, which represents a barrier to the upstream movement of fish. The outlet drop is too high to allow any potential for fish to pass through the culvert. Fish habitat attributes are limited upstream of the culvert due to relatively high gradient (>10%) and a general lack of fish habitat attributes. The stream substrate is comprised of large cobbles and boulders, consistent with a step-pool channel morphology. The average bankfull width is 2.5m. Riparian vegetation is limited, mainly due to the proximity of Mountain Road, which parallels the left bank of the stream.

Upstream of the Grove Road crossing (closed metal pipe), the gradient decreases and the stream becomes consistent with a riffle-pool system. A series of constructed ponds occur on the

stream between Mountain Road and West Bay Road. The lower pond is drained by six PVC pipes through a constructed dam, and each pond is connected by surface-flowing water. Recent excavations and extensive landscaping have occurred around the ponds. During the assessment, the landowner explained that fruit trees would be planted in the cleared areas. To prevent the movement of sediment from the land and retain soil as a growing medium, the landowner has contoured the slopes accordingly.

It is extremely important that the dam at the lower pond outlet is maintained appropriately and that it represents a structure that is capable of holding back water, especially during periods of high flows. It is also important that the outlet culverts and culverts connecting the ponds do not become blocked, which could potentially overwhelm the system and cause a breach of the dam. A breach or failure of the constructed dam would lead to negative impacts to downstream properties and also negative impacts to the tributary channel and the connected Whispering Creek main-stem.

During the assessment, numerous red-legged frog (*Rana aurora*) egg masses were observed throughout the ponds (a provincially blue-listed species that is also registered on Schedule 1 of the Species at Risk Act). The landowner has also observed long-toed salamanders (*Ambystoma macrodactylum*), Pacific chorus frogs (*Psuedacris regilla*) and rough-skinned newts (*Taricha granulosa*) using the ponds.

Upstream of the ponds, the stream has been historically ditched through an area currently being prepared for agricultural use. At West Bay Road, the stream flows under the road via a closed metal pipe. Upstream of the road, the stream has been historically ditched along part of West Bay Road and through private properties, but more natural stream characteristics return where the stream flows through mature coniferous forest. The stream was followed up to a spring-fed source at the base of a slope-break characterised by moist soil conditions and hydrophytic vegetation (mainly skunk cabbage).

Tributary 1A joins Tributary 1 as a steep (>20% gradient) step-pool system with near-vertical cascades over bedrock. The gradient of the stream decreases upstream of the Grove Road crossing, with historical ditching evident through private properties. The stream continues up to West Bay Road, where it has been ditched along the road edge. The ditch was very unstable during the assessment, with evidence of sloughing banks and mobilization of sediment. The stream continues underneath West Bay Road via a closed metal pipe and up the steep slope to the north of West Bay Road. The stream was followed to a spring-fed source at the base of a slope-break located at a similar elevation as the source of Tributary 1.

Tributary 1B joins Tributary 1 as a historically ditched system alongside Grove Road. Upstream of the ditch, the stream is poorly defined through hydrophytic vegetation, with segments represented by diffuse seepage flow over deep organic deposits. As the gradient increases towards West Bay Road, the stream channel becomes well defined, with alluvial deposits of sand and gravel. Upstream of West Bay Road, the stream has been historically ditched through private properties. The stream was followed up to an inaccessible fence, but is expected to originate at a similar elevation as Tributaries 1, 1A, 1C and 3.

Tributary 1C flows into the western side of the largest of the excavated ponds located on Tributary 1. The stream is well defined, with alluvial gravels occurring throughout. The stream flows up to a culvert underneath West Bay Road (closed metal pipe) and up the steep slope to the north of West Bay Road. The source of the stream is consistent with Tributaries 1, 1A, 1B and 3 in terms of elevation and its spring-fed characteristics. The stream is joined at the culvert under West Bay Road by tributary 1C-1, which also originates at a spring located at a similar elevation as Tributaries 1, 1A, 1B and 3.

Tributary 3 joins Whispering Creek upstream of the Wilderness Road crossing. The stream consists of gravel substrate and is consistent with a riffle-pool system. The gradient of the stream increases approximately 30 m from the confluence, where the channel type shifts to a cascade-pool morphology. The stream has been historically ditched where it flows through private property to the north of West Bay Road. The source of the stream is similar to Tributaries 1, 1A, 1B, 1C and 1D, as it is spring fed by water seeping out of a slope-break in an area comprised of deep organics and skunk cabbage.

Upslope of West Bay Road, several drainages (Tributaries 1, 1A, 1A-2, 1B, 1B-1, 1C, 1C-1, 1D, 3 and 3A) originate at springs located at the base of a slope-break, which drain down the steep slope to the north of West Bay Road. These streams have been historically ditched up-slope of the road, but the majority represent natural streams as opposed to ditches. One of the drainages was classified as a ditch (as per Figure 6), as it does not originate at a natural headwater spring and it has been constructed along the edge of a property. One other ditch was identified during the assessment, which flows along the north side of West Bay Road.

The culvert joining Tributary 1 to Whispering Creek is a barrier to the upstream movement of fish, and the natural gradient of this stream is relatively high where it flows alongside Mountain Road. Natural barriers to the upstream movement of fish also occur on Tributary 1A where it joins Tributary 1, and Tributary 3 occurs upstream of a natural barrier to upstream fish migration. Low-gradient habitat occurs upstream of the Grove Road crossing on Tributary 1 and throughout Tributary 3, with perennial flow occurring in the streams (a landowner stated that the majority of the streams flow year round). All streams contained surface-flowing water

during the assessment. Anecdotal evidence from one local landowner (living close to Tributary 1A upstream of the high gradient segment) suggests that resident coastal cutthroat trout were historically present in the stream. Historical stream alteration (e.g. ditching), placement of culverts and domestic water use have decreased the suitability of Tributary 1 (including connected drainages) and Tributary 3 to support fish. There is the potential, however, that resident salmonids still persist (albeit unlikely due to current habitat conditions). Even historical fish presence is unlikely in the stream segments upslope of West Bay Road, due to excessive gradient.

The highest magnitude tributary to Whispering Creek (Tributary 2) enters as a steep, high-energy cascade-pool system with an average bankfull width of 3.5 m. The gradient at the confluence is in excess of 15% and the substrate consists of large cobbles and boulders. Approximately 50 m upstream of the confluence, the gradient decreases and the channel morphology shifts to a riffle-pool system, consistent with the lower stream energy. Segments of the stream have been aggraded with significant deposits of gravel and sand, which have resulted in a loss of available fish habitat. The aggraded areas will likely become dewatered during the summer months. The stream flows through a narrow ravine vegetated with mature coniferous forest, which is providing proper biological function.

Juvenile salmonids (species could not be confirmed) were observed in the lower-gradient segment of Tributary 2 during the assessment. Although the stream represents confirmed fish habitat, attributes are limited by excessive gradient, which occurs close to the confluence, and also by the aggradation of the channel by sand and gravel.

Based on field observations, the watershed boundary for Whispering Creek is inaccurate (refer to Figure 6). The current mapped extent of the watershed does not encompass the ditch flowing alongside West Bay Road, nor does it include the full Western extent of Tributary 1A.



Figure 6:
Whispering Creek
Gambier Island

PROJECT: Howe Sound Islands RAR Stream Mapping	
CLIENT: Islands Trust	
GEOGRAPHIC AREA: Howe Sound, BC	
ASSESSMENT DATE: February - March 2015	
MAP SCALE: 1:2,500	MAPPING DATE: April 20, 2015
DOSSIER NO: 15.0021	DRAWN BY: Anna Jeffries

- Assessed Stream SPEA Widths*
- 5m
 - 10m
 - 12m
 - 15m
 - 20m
 - Not Field Verified
 - Obstacle to Upstream Fish Movement (culvert)
 - Natural Barrier to Upstream Fish Movement (waterfall)
 - Barrier to Upstream Fish Movement (culvert)
 - Ravine - Downstream Extent
 - Ravine - Upstream Extent
 - Parcel Boundaries
 - Watershed Boundary
 - Park or Protected Area
 - Crownland

*Streamside Protection and Enhancement Area (SPEA) widths are based on detailed RAR assessment methodology

0 12.5 25 50 75 m



3.2.1.3 Area I – Fircom Creek

Fircom Creek flows into Fircom Bay on the south-eastern side of Gambier Island (Figure 7). The confluence with the ocean is represented by a bedrock cascade, which at the very least represents a significant obstacle to anadromous fish. The gradient of the stream is high (up to 15%) for the first 40 m from tidewater, with numerous cascades over bedrock, consistent with a step-pool system. The gradient of the stream decreases significantly 40 m from the ocean (down to 2%), with a corresponding riffle-pool channel type and substrate consisting of gravel and cobble. Riparian vegetation is providing proper biological function in the form of litter fall/insect drop, shade and provision of LWD. Moderate fish habitat attributes occur within the stream above the high gradient segment, with appropriately-sized spawning substrate, pools and stable LWD. The average bankfull width is 4 m.

Approximately 150 m from tidewater, the stream flows under a gravel road via an open-bottomed structure, which allows for unimpeded fish passage. Upstream of this road crossing, the gradient of the stream increases gradually as the stream becomes confined in a ravine, with a shift to a cascade-pool channel type and a corresponding change in the substrate to large cobbles and boulders. A short break in the ravine (approximately 80 m long) occurs approximately 600 m from tidewater, but ravine characteristics continue again after this break up to the tributary 3 confluence. A natural definitive barrier to the upstream movement of fish occurs in the ravine, where a near-vertical bedrock cascade occurs (Figure 7). Upstream of the cascade, the stream flows under a gravel road via a collapsing wooden box culvert. A waterfall occurs upstream of this road crossing, represented by an 8 m drop over bedrock.

Above the waterfall, the gradient drops and the confinement of the stream decreases, as the ravine gives way to gentler slopes (at the tributary 3 confluence). The stream crosses underneath a third gravel road via a closed metal pipe. Upstream of this crossing, the channel becomes extremely unstable, and has avulsed. For approximately 50 m, no singular defined channel could be identified, although evidence of surface flow was noted in the form of flood rafted debris and deposition of alluvial material. No surface-flowing water occurred throughout the avulsion zone.

The stream becomes re-defined again upstream of the avulsed channel, where the gradient increases significantly (in excess of 40%). The channel is characterised by large boulders and bedrock, typical of the high energy channel type. Riparian vegetation is lacking in the high-gradient segment upstream of the avulsion zone, with logging activities evident in the surrounding area. Blow-down has occurred over the stream, with tree stems and associated debris jams occurring within the channel. The stream channel is unstable, with evidence of significant bed-load movement and deposition.

The stream flows underneath a logging access road via a closed metal pipe, where it flows adjacent to the road prior to entering protected park land. The stream was mapped up to the park boundary, where it continued to flow as a well-defined cascade-pool system.

Tributary 1 enters the main-stem as a relatively low gradient stream, but the gradient quickly increases, with values up to 35% recorded. The stream is well-defined and consists of a substrate of large cobbles and boulders. The stream is confined within a narrow forested ravine for the majority of its length and has an average bankfull width of 2 m. The stream was mapped up to a point where no evidence of surface flow could be detected along a gravel road close to the start of the Mount Artaban trail. The ravine is consistent from the confluence with the main stem up to the point where the stream becomes poorly defined adjacent to the gravel road (the stream's headwaters).

Tributary 2 is a poorly defined, high gradient (12-14%) stream with a mix of alluvial deposits and organics. The average bankfull width is less than 1 m and segments of the channel were dry during the assessment.

Tributary 3 is a poorly defined low gradient (1.5%) stream, with an organic substrate. The average channel width is approximately 1 m and minimal seepage flow occurred within the stream during the assessment.

Tributary 4 represents a historically ditched system, which joins the main-stem close to the avulsion zone. The drainage has defined vertical side walls, and the substrate consists of cobble and gravel.

Tributary 5 enters the main-stem immediately upstream of the avulsed area. The stream is less than 2.5 m wide and consists of large cobbles and boulders, consistent with the high gradient (approximately 20%). Approximately 100 m of the stream is confined within a narrow ravine, with a logging access road occurring along the top of bank adjacent to the right bank of the stream. Riparian vegetation is generally lacking, with historical forest harvesting activities evident. The stream was mapped up to the park land boundary, which corresponded with the origin of the stream.

Fish habitat in the Fircom Creek system is generally limited by excessive gradient above the natural barrier to upstream fish movement. There is the potential that anadromous fish could occur in the stream up to the barrier, but access to the stream from the ocean is restricted by the cascade and high-gradient reach immediately above tidewater. During favourable tides and stream flows, anadromous fish may be able to gain access to the stream. The magnitude of the

stream and occurrence of low gradient habitat in the lower reaches indicates that resident fish could also occur.

It should be noted that signs indicating the applicability of the Riparian Area Regulations were observed during the field assessment (refer to photos in Appendix 1). These signs were likely erected as part of the subdivision phase for the area. Where the stream flows through the subdivided area, the riparian corridor remains intact and riparian vegetation is providing proper biological function. The upper reaches, immediately downstream of the park boundary, have been historically impacted by forestry activities.

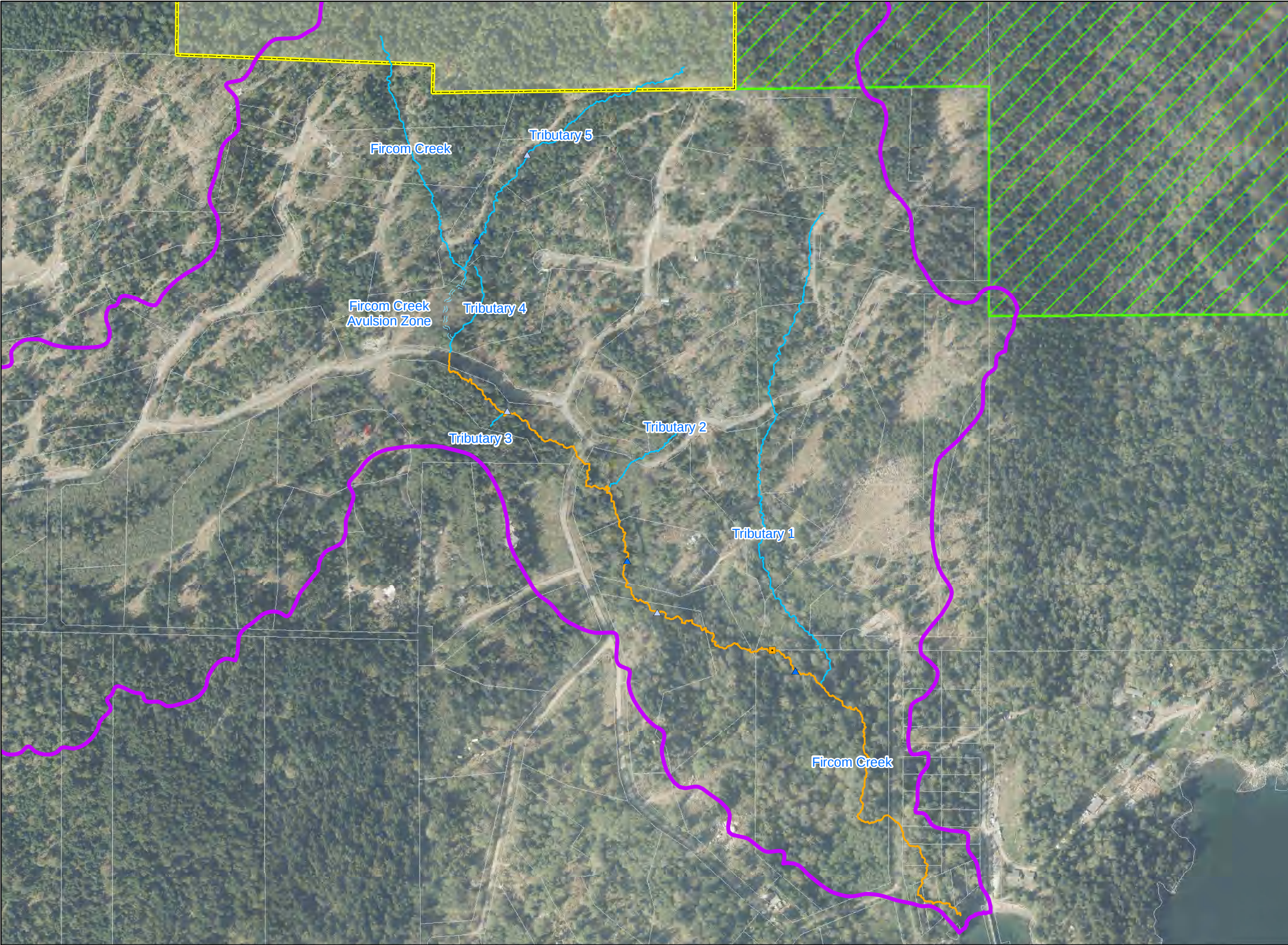


Figure 7:
Fircom Creek -
Gambier Island

PROJECT:
Howe Sound Islands RAR Stream
Mapping

CLIENT:
Islands Trust

GEOGRAPHIC AREA:
Howe Sound, BC

ASSESSMENT DATE:
February - March 2015

MAP SCALE:
1:5000

MAPPING DATE:
March 25, 2015

DOSSIER NO:
15.0021

DRAWN BY:
Anna Jeffries

- Assessed Stream SPEA Widths*
- 5m
 - 10m
 - 12m
 - 15m
 - 20m
 - Not Field Verified
 - Obstacle to Upstream Fish Movement (culvert)
 - Natural Barrier to Upstream Fish Movement (waterfall)
 - Barrier to Upstream Fish Movement (culvert)
 - Ravine - Downstream Extent
 - Ravine - Upstream Extent
 - Parcel Boundaries
 - Watershed Boundary
 - Park or Protected Area
 - Crownland

*Streamside Protection and Enhancement Area (SPEA) widths are based on detailed RAR assessment methodology

0 50 100 200
m



3.2.2 Keats Island

3.2.2.1 Watershed 1 (“Plumper Creek”)

The outlet of this watershed flows into Plumper Cove on the north-western side of Keats Island (Figure 8). As such, the stream was given the label “Plumper Creek”. The outlet stream flows out over a cobble/sand beach as a relatively low gradient (<10%) stream. The stream is a low-magnitude system, with a bankfull width less than 2 m. The substrate in the reach immediately above tidewater consists of large cobble, with some gravel alluvium mixed in. Where the gradient decreases approximately 50 m from tidewater, the substrate shifts to predominantly gravel. Approximately 100 m from tidewater, the gradient increases significantly to 25%.

Two poorly-defined tributary drainages feed into the main-stem; these drainages are less than 1 m wide, with shallow flow mainly over an organic substrate. The main-stem and tributaries were mapped up to their source, which represented moist depressions supporting hydrophytic vegetation (mainly skunk cabbage). The main-stem and tributaries contained continuous surface flow during the assessment.

The majority of the main-stem and tributaries flow through mature, undisturbed coniferous forest. Disturbance has occurred within the riparian zone in the lower-most reach of the main-stem, as a result of historic and continued residential land use.

The watershed was considered to be applicable to the RAR, as there is no barrier preventing seasonal access to the stream by anadromous fish, and at least 100 metres of potential habitat occurs above tidewater (the point where the gradient increases significantly). Fish habitat attributes are lacking, however, due to the low magnitude of the stream. It is unlikely that resident fish would occur in the stream, as perennial summer refuge habitat in the form of deep pools does not occur. There is the potential (albeit low) that anadromous fish that do not rely on freshwater over the summer rearing period (e.g. chum salmon and pink salmon) could occur in the lower reaches of the stream.

3.2.2.2 Watershed 2

This watershed is the second largest on the island and the outlet meets the ocean close to the northern tip of Keats Island (Figure 8). The outlet stream is well-defined and flows out over a gently sloping gravel-cobble beach. The gradient of the stream immediately above tidewater is relatively low (5%) and the substrate consists of large gravel and cobble (cascade-pool channel morphology). Over the first 100m of stream channel, the gradient increases gradually, but remains less than 20%. The bankfull width is less than 2 m throughout.

Above tidewater, the stream is incised, and extensive Himalayan blackberry growth occurs in the immediate riparian area, with open fields adjacent to the riparian blackberry thickets. The stream has been historically altered (channelization and placement of culverts) through the lower reaches (from tidewater 250m upstream) where the stream flows through Camp Barnabas. Beyond the developed area associated with the camp, the stream flows through undisturbed mature forest consisting of western redcedar, western hemlock and Douglas-fir (*Pseudotsuga menziesii*).

The gradient of the stream increases to more than 20% through the forested area, up to a point where the stream flows under a property access road via a metal culvert (> 20 m long). Above this culvert, the gradient of the stream decreases and the morphology shifts to a low energy riffle-pool system with a substrate consisting mainly of gravel. The stream was mapped up to the source close to the southern edge of the watershed, which is represented by a broad depression consisting of hydrophytic vegetation.

A well-defined tributary joins the main-stem immediately upstream of the beach. The tributary is moderately steep at the confluence (15-18%), with a gravel/cobble substrate (cascade-pool channel morphology) flowing through a narrow ravine. The lower reaches of the stream are associated with dense Himalayan blackberry growth, but the majority flows through mature forest consisting of western redcedar, western hemlock and Douglas-fir. The gradient of the stream increases steadily throughout the forested area, reaching up to 30%. The stream was followed up to a point where no further evidence of surface flow could be determined. The upper segment of the stream was not flowing during the assessment, but the dry channel was readily identifiable. The bankfull width of the tributary did not exceed 2 m.

Based on gradient and habitat conditions observed during the field assessment, potential habitat for anadromous fish (albeit marginal) occurs in the main watershed outlet stream from tidewater to approximately 100 m inland. Above this point, the gradient increases and the potential for any fish to occur is extremely unlikely. The low magnitude of the watercourse precludes the use of the stream by resident fish, including low-gradient habitat located above the high gradient segment (perennial habitat is lacking). The landowner, who was present during the assessment, did confirm that the stream is dry during the summer months. The landowner also explained that a retired Fishery Officer had advised him informally that the stream is non-fish-bearing. It is understood, however, that this classification was not based on any sampling, but rather a brief assessment of the characteristics of the stream. Due to the seasonal flow regime, anadromous fish that migrate quickly to the ocean after emergence from the gravel (e.g. chum salmon and pink salmon) could occur in the lower reaches of the stream. The occurrence of this potential habitat led to the decision to include the watershed as being RAR-applicable.

The tributary stream is unlikely to support fish, even on a seasonal basis, based on excessive gradient from the confluence with the main-stem. The tributary is still applicable to the RAR, as it connects by surface flow to the main-stem, which represents potential fish habitat.

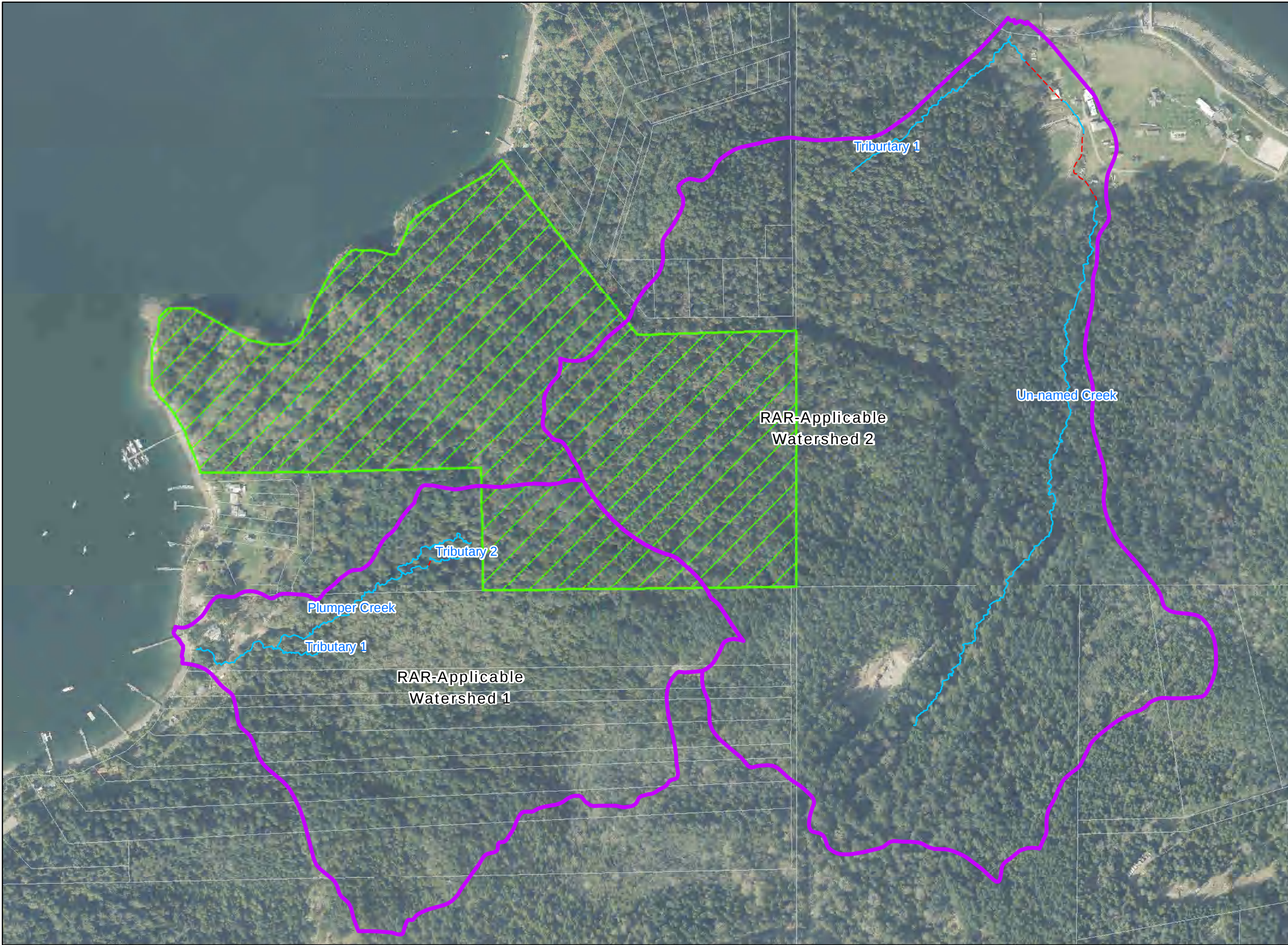
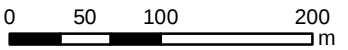


Figure 8:
RAR Applicable Watersheds
Keats Island

PROJECT: Howe Sound Islands RAR Stream Mapping	
CLIENT: Islands Trust	
GEOGRAPHIC AREA: Howe Sound, BC	
ASSESSMENT DATE: February - March 2015	
MAP SCALE: 1:5000	MAPPING DATE: March 25, 2015
DOSSIER NO: 15.0021	DRAWN BY: Anna Jeffries

- Assessed Stream SPEA Widths*
- 5m
 - 10m
 - 12m
 - 15m
 - 20m
 - - - Not Field Verified
 - Obstacle to Upstream Fish Movement (culvert)
 - Natural Barrier to Upstream Fish Movement (waterfall)
 - Barrier to Upstream Fish Movement (culvert)
 - ▲ Ravine - Downstream Extent
 - ▲ Ravine - Upstream Extent
 - ▭ Parcel Boundaries
 - ▭ Watershed Boundary
 - ▨ Park or Protected Area
 - ▨ Crownland

*Streamside Protection and Enhancement Area (SPEA) widths are based on detailed RAR assessment methodology



3.2.3 Bowyer Island

3.2.3.1 Orchid Creek

Orchid Creek flows into the ocean on the southwestern side of Bowyer Island (Figure 9). At tidewater, the stream flows over a low-gradient cobble beach, which during extreme high tides is not a barrier to anadromous fish. Upstream of tidewater, the gradient of the stream steepens to approximately 15%. Approximately 60 m upstream of tidewater, the stream is directed under a gravel road via a 400 mm culvert. Upstream of the culvert, the gradient of the stream lessens to approximately 10-12%.

Over the length of the stream, the bankfull width ranges between 1.0 m and 1.5 m and the stream bed is composed mainly of alluvial materials in the form of small cobbles and gravel. Based on the channel characteristics Orchid Creek is most consistent with that of a step-pool system. Over time, Orchid Creek has been modified to provide a source of potable water to homes in the area. While traversing the stream, several storage tanks and networks of pipe were observed adjacent to the stream.

The headwaters of Orchid Creek are representative of a ground water fed spring. Channel definition is lacking and the substrate composed entirely of organic materials. At the time of the assessment, small pools were observed within the headwaters.

Adjacent to the middle and lower reaches of Orchid Creek, riparian vegetation has been subject to anthropogenic disturbances. Mature trees persist within the riparian zone; however, it was noted that understory shrub and herb growth is limited. Along the upper portion of the stream and particularly within the headwaters, riparian vegetation remains relatively undisturbed and is providing proper biological function in the form of litter fall/insect drop, shade and provision of LWD.

The potential for fish to occur within the stream is low. Segments of the stream provide suitable spawning habitat, but in this case, rearing habitat in the form of deep pools is lacking. Based on the fact there is no definitive barrier at tidewater and the stream possesses a “stepped” profile, there is potential for anadromous salmonids to enter the lower portion of the stream during high tides. Therefore, there is the potential that salmonid species (*e.g.*, Pink Salmon) that can complete their lifecycle in seasonal streams may migrate into Orchid Creek.

Ditch 1 enters the main-stem of Orchid Creek on the left bank. The ditch is on average 0.5 m wide and flows at a gradient of 10-12%. Small alluvium in the form of gravel dominates the substrate composition; however, pockets of organic materials were also noted at the time of the

assessment. The ditch was mapped up to a point where no evidence of surface flow could be detected adjacent to a gravel road.

Ditch 2 represents a feature that was constructed to direct water flow away from an existing house. At its confluence with Orchid Creek, Ditch 2 flows over a 2 m high vertical ledge. This feature represents a barrier to the upstream migration of fish. Above the ledge, the width of the ditch ranges between 0.3 m and 0.5 m. The gradient of the drainage was noted to be approximately 10% and the substrate composed mainly of small gravel. Approximately 20 m upstream the ditch flows through a 400 mm culvert, positioned under a road. Upstream of the road crossing, the gradient of the ditch increases with values of up to 25% documented. The channel is well defined and has an average bankfull width of 0.6 m. A portion of the ditch immediately adjacent to the house has been piped using small diameter PVC pipe. The ditch was mapped to an area where no surface flow could be detected.

Ditch 3 is consistent with that of a roadside ditch. This drainage represents a feature that was excavated between Ditch 2 and the main-stem of Orchid Creek. The ditch is a low gradient (2%) watercourse that possesses an average channel width of approximately 0.4 m. Over its length, the stream bed is composed of a mix of small alluvium (gravel) and organic substrate. Ditch 3 represents an ephemeral drainage, which only contains water after periods of heavy rain.





Figure 9:
RAR Applicable Watershed
Orchid Creek - Bowyer Island

PROJECT:
Howe Sound Islands RAR Stream
Mapping

CLIENT:
Islands Trust

GEOGRAPHIC AREA:
Howe Sound, BC

ASSESSMENT DATE:
February - March 2015

MAP SCALE: 1:1000	MAPPING DATE: March 25, 2015
DOSSIER NO: 15.0021	DRAWN BY: Anna Jeffries

Assessed Stream SPEA Widths*

- 5m
- 10m
- 12m
- 15m
- 20m
- Not Field Verified
- Obstacle to Upstream Fish Movement (culvert)
- Natural Barrier to Upstream Fish Movement (waterfall)
- Barrier to Upstream Fish Movement (culvert)
- Ravine - Downstream Extent
- Ravine - Upstream Extent
- Parcel Boundaries
- Watershed Boundary
- Park or Protected Area
- Crownland

*Streamside Protection and Enhancement Area (SPEA) widths are based on detailed RAR assessment methodology

0102040m



82

3.2.4 Anvil Island

3.2.4.1 Champside Creek

In the southeast corner of Anvil Island, Champside Creek flows over a gently sloping gravel-cobble beach into the ocean (Figure 10). FISS and Habitat Wizard databases do not assign a gazetted name to the stream in this location, but watershed boundaries and observations made in the field suggest that this watershed is actually the Champside Creek watershed.

Above tidewater, the stream is well-defined with a relatively low (5%) gradient. The stream bed consists of large gravel and cobble and ranges in width from 1.50 m to 2.50 m. The physical characteristics of the stream are indicative of a cascade-pool channel morphology. Within the first 100 m above tidewater, the immediate riparian zone is composed mainly of red alder (*Alnus rubra*), sword fern (*Polystichum munitum*) and salmonberry thickets. The stream has been historically altered (channelization and placement of culverts) through the lower reaches where the stream flows adjacent to residential properties.

Beyond the developed area associated with the residential properties, the stream flows through an undisturbed ravine that is composed of mature forest. Riparian vegetation is dominated by Douglas-fir, western redcedar, western hemlock, sword fern and salmonberry. The gradient of the stream remains relatively subdued at approximately 6%. In sections, the bankfull width of the stream increases to 3.5 m, but the average remains approximately 2.5 m. Gravel dominates the streambed; however, large cobbles are more abundant, which is indicative of a cascade-pool system. At the upper extent of the ravine, the stream flows over a vertical bedrock waterfall, which represents a definitive barrier to upstream fish movement. The waterfall is approximately 3m high.

Fish habitat values for Champside Creek are considered to be moderate downstream of the waterfall. Based on the channel type and associated substrate size, spawning habitat is abundant. However, it should be noted that high energy flows and movement of bed load will negatively impact spawning success. It should also be noted that rearing habitat in the form of deep pools is lacking. Stable LWD is abundant throughout the system. Riparian vegetation is generally intact below the waterfall, and it is providing proper biological function in the form of litter fall/insect drop, bank stability and shade.

Upstream of the waterfall, the gradient decreases to approximately 2-3% and the channel is 3 m wide for approximately 20 m. Upstream of this point, to the boundary with Crown Land (cessation of mapping), the gradient of the stream increases significantly with portions exceeding 50%. It was not possible to obtain accurate bankfull widths as the stream flows

amongst large boulders. Several bedrock cascades and vertical waterfalls were also noted within the upper portion of Champside Creek. While traversing the upper portion of the stream, a cement dam was observed with piping extending down the hillside. It appeared that this structure had been installed for the purpose of withdrawing water from the creek.

Tributary 1 flows into Champside Creek on the left bank and is approximately 25-30 m long. The channel is on average 0.4 m wide and flows at a gradient of 25-30%. Alluvium in the form of small gravel dominates the substrate composition; however, segments of organic materials were also noted at the time of the assessment. The headwaters of the stream are representative of a groundwater spring. The stream was mapped up to a point where no evidence of surface flow could be detected.

Tributary 2 enters Champside Creek on the right bank via a bedrock ledge that possesses a gradient of approximately 40%. Upstream of the bedrock ledge, the gradient decreases to approximately 25% and water flows over a series of bedrock cascades for 10-15 m. Beyond the bedrock cascades, Tributary 2 is consistent with that of a cascade-pool system. The bankfull width on average is 2.0 m and the gradient of the stream 5-6%. Substrate composition is dominated by gravel, but cobbles were also observed throughout the channel. Tributary 2 was mapped up to an area where water emerges from a ground water source, adjacent to a bedrock cliff.

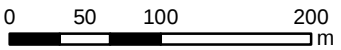


Figure 10:
RAR Applicable Watershed
Anvil Island

PROJECT: Howe Sound Islands RAR Stream Mapping	
CLIENT: Islands Trust	
GEOGRAPHIC AREA: Howe Sound, BC	
ASSESSMENT DATE: February - March 2015	
MAP SCALE: 1:4000	MAPPING DATE: March 25, 2015
DOSSIER NO: 15.0021	DRAWN BY: Anna Jeffries

- Assessed Stream SPEA Widths*
- 5m
 - 10m
 - 12m
 - 15m
 - 20m
 - Not Field Verified
 - Obstacle to Upstream Fish Movement (culvert)
 - Natural Barrier to Upstream Fish Movement (waterfall)
 - Barrier to Upstream Fish Movement (culvert)
 - Ravine - Downstream Extent
 - Ravine - Upstream Extent
 - Parcel Boundaries
 - Watershed Boundary
 - Park or Protected Area
 - Crownland

*Streamside Protection and Enhancement Area (SPEA) widths are based on detailed RAR assessment methodology



3.3 Non-RAR Applicable Watershed Summaries

3.3.1 Gambier Island – Area H

This watershed occurs on the eastern side of Gambier Island (Figure 11) and was first assessed by boat to determine the characteristics of the outlet drainage. While the boat-based assessment confirmed that the watershed outlet was excessively steep (with regard to potential fish access), no outlet drainage could be located, due to an inability to position the boat close enough to the shore. In order to confirm the occurrence and characteristics of any outlet streams, a land-based assessment was also completed. The assessment confirmed the existence of an outlet drainage, which entered the ocean in a small embayment consisting of a cobble beach.

The outlet drainage consists of an unstable channel, with eroding banks and large boulders and cobbles occurring within the channel. The drainage was dry during the assessment, but displayed evidence of short-lived high flow events. The drainage is very steep ($>45\%$) and did not contain any water during the assessment. Close to the top of the slope break, no defined channel exists, and ephemeral water flow will cascade over a near-vertical face consisting of compacted clay. Based on the excessive gradient and lack of water, the watershed comprising Area H does not contain any potential fish habitat.

3.3.2 Keats Island

Based on observations in the field, the following watersheds do not contain any potential fish habitat. It should be noted that the lack of spatial area covered by the watersheds on Keats Island generally inhibits the development of streams that are of a suitable magnitude to support fish (even seasonally-flowing streams are lacking in the non-RAR applicable watersheds). In addition, where outlet streams were identified, excessive gradient precluded use of the stream by anadromous fish.

3.3.2.1 Silver Creek Watershed

The Silver Creek watershed represents the largest watershed on Keats Island (Figure 12). The confluence of the stream with the ocean occurs over a near vertical bedrock cliff- face, which represents a definitive barrier precluding access to the stream by anadromous fish. The lower segment of the stream immediately above the cliff flows through a steep (20-40%) bedrock-controlled step-pool channel in an incised ravine. The riparian vegetation throughout the ravine consists of mature coniferous forest (western redcedar and Douglas-fir). The gradient of the stream decreases considerably approximately 100m from tidewater, where the channel morphology changes to a riffle-pool system with gradients between 3% and 4%. Large gravel

and cobble occur in the stream above the point where the gradient decreases. At Keats Road, the stream is piped under the road via a perched metal culvert. The headwaters of the stream occur in a wide depression above Keats Road, in a protected park area.

Silver Creek was determined to be a non RAR-applicable stream, as there is no potential for seasonal access to the stream by anadromous fish, due to the occurrence of the definitive barrier at tidewater. Despite being the largest watershed on the island, the relatively short length of low-gradient habitat above the steep reach close to tidewater offers very minimal habitat attributes for resident salmonids. Based on stream magnitude, the stream lacks the necessary deep pools and perennially-available habitat that would be required to support a population of resident fish. Local knowledge suggests that the stream does not flow through the drier summer months.

The stream was mapped where it flows through private property from the tidewater barrier up to the park. While the stream is not applicable under the RAR, it does represent the most significant stream on Keats Island. The stream is a well-defined natural system supporting a unique assemblage of riparian vegetation that is currently relatively undisturbed. This riparian corridor will provide habitat for numerous species of plants and wildlife. The stream also represents an important water resource; protection of the riparian habitat, while not necessarily benefitting fish, will ensure the protection of water quality.

3.3.2.2 Watershed A

This watershed is located immediately to the west of the Silver Creek watershed (Figure 12). The extent of the watershed was traversed from east to west within approximately 50 m of the ocean to check for the occurrence of any outlet streams. Evidence of intermittent scour was observed over the forest floor in the centre of the watershed, but no defined stream channels with connectivity to the ocean were observed. The drainages contained no water at the time of the assessment, and occurred on steep slopes (the slope down to the ocean exceeded 40%).

3.3.2.3 Watershed B

This watershed parallels watershed A, with the outlet occurring approximately 600 m to the west (Figure 12). The steep slope down to the ocean was traversed on foot from east to west across the watershed to determine the characteristics of any outlet drainages. A very poorly defined drainage was observed in the centre of the watershed, with evidence of scour by flowing water over the forest floor. No water was present in the drainage at the time of the

assessment, and no alluvial deposits were noted. No defined connectivity occurred with the ocean, and the slope down to the ocean exceeded 40%.

3.3.2.4 Watershed C

This watershed parallels watershed B, with the outlet occurring approximately 300 m to the west (Figure 12). The outlet drainage was located by walking from east to west along the beach (known locally as Pebble Beach). The outlet drainage is relatively well defined, with large cobbles and boulders occurring in a narrow draw with evidence of “flashy” flows and associated scour by flowing water. Minimal intermittent seepage flow occurred at the time of the assessment. The drainage drops steeply down to the beach, with the gradient exceeding 40%. There is no potential for anadromous fish to access this stream, mainly based on excessive gradient, but also associated with the lack of adequate flow (even on a seasonal basis). Excessive gradient and lack of perennial habitat precludes use of the drainage by resident fish.

3.3.2.5 Watershed D

Watershed D meets the ocean approximately 1 km from the south-western tip of Keats Island (Figure 12). The outlet drainage flows out onto the rocky intertidal area over a concrete boat launch via a PVC pipe placed through a retaining wall. The drainage has been historically ditched through private property from the inlet of the PVC pipe, where it rises steeply (>30%) up to a culvert located underneath an access right of way. The main drainage is ditched along the edge of the right of way, where the gradient decreases significantly (<10%) with a secondary minor drainage joining from the west at the culvert inflow. The drainage continues as a ditched system to the north of the right of way. Minimal surface-flowing water was observed at the time of the assessment.

If the artificial barrier to fish movement at tidewater was removed (the PVC pipe), the excessive slope (>30%) located immediately upslope of the PVC pipe inlet precludes access to the drainage on a seasonal basis by anadromous fish. Based on observations of water flow during the assessment, the drainage will not contain adequate water on a perennial basis, or the necessary habitat attributes, to support resident fish.

3.3.2.6 Watershed E

This watershed is located close to the south-western tip of Keats Island (Figure 12). The watershed was traversed from west to east within 50 m of the ocean to determine whether any outlet streams occurred. Some evidence of intermittent scour by water over the forest floor

was noted in a depression located between two rock bluffs in the centre of the watershed. No defined stream was observed and the slope down to the ocean exceeded 40%.

3.3.2.7 Watershed F

This watershed occurs on the main Keats Camp property (Figure 12). A series of roadside ditches combine throughout the property, creating one main outlet ditch that flows alongside Keats Road down to the Keats Landing public dock. The main outlet ditch drains underneath Keats Road via a metal culvert. The outlet of the culvert occurs at the top of a steep (70%) slope above the beach to the immediate west of the dock. Surface-flowing water was present in the ditches during the assessment.

Based on the characteristics of the ditches draining the watershed and lack of perennial habitat and attributes necessary to support fish life processes, resident fish will not occur in this watershed. The excessive gradient down to the beach precludes any potential for seasonal use of the drainage by anadromous fish.

3.3.2.8 Watershed G

Watershed G occurs on the north-eastern side of Keats Island (Figure 12). The outlet of the watershed down to the ocean is narrow and steep (>40%). Several poorly defined intermittent drainages were noted within shallow depressions while traversing the side slope, exhibiting evidence of “flashy” high flows. No water was present within these drainages at the time of the assessment. Based on the size and gradient of the watershed, water will drain very quickly from the watershed during periods of heavy rainfall. No defined streams were observed, and there was no connectivity between the ephemeral drainages and the ocean.

3.3.3 Bowyer Island

3.3.3.1 Watershed A

This watershed occurs in the southwestern corner of Bowyer Island (Figure 13). A series of ditches were previously excavated in the southwestern portion of the watershed to direct runoff and prevent flooding of a small field. In the southeastern portion of the watershed, water seeps from a spring and flows over a bedrock ledge and into the ocean. The ledge is approximately 15 m in height. Upstream, channel definition is lacking and substrate throughout the area is composed of organics. The entire length of the drainage is approximately 50 m.

Based on the characteristics of these drainages and lack of perennial habitat and attributes necessary to support fish life processes, resident fish will not occur in this watershed. The excessive gradient (>45%) down to the beach precludes any potential for seasonal use of the watershed by anadromous fish.

3.3.3.2 Watershed B

Watershed B occurs on the southern end of Bowyer Island (Figure 13). The outlet of the watershed down to the ocean has a gradient of approximately 25-30%. Several poorly defined intermittent drainages were noted while traversing the side slope, exhibiting evidence of “flashy” high flows. The drainages originate from seasonally wetted areas within the forest, approximately 50-75 m upslope of tidewater. In this particular case, the drainages have been modified and water is collected to provide a potable source of water. The drainages within this watershed cannot support either anadromous or resident fish species. The habitat requirements for supporting the various life processes do not exist as the drainages are steep and ephemeral.

3.3.3.3 Watershed C

The outlet of Watershed C occurs on the southeastern corner of the Island (Figure 13). Due to limited access, the outlet of the watershed was assessed from a boat. No drainages were observed to be emptying into the ocean during the assessment. Along the entire length of the watershed outlet, a vertical ledge runs parallel to the foreshore. The ledge was documented to be approximately 4-5 m in height. Due to the topographical characteristics at tidewater and the lack of perennial flow, it was noted that there is no potential for fish to occur within this watershed.

3.3.3.4 Watershed D

This watershed is located in the northeastern portion of Bowyer Island (Figure 13). Due to the excessive gradient (80-90%), the outlet of the watershed was assessed from a boat. Along the entire length of the watershed outlet, a vertical (approximately 50-60 m) bedrock face extends from the height of land down into the ocean. There was no evidence of water flow over the bedrock ledge at the time of the assessment. There is no potential for fish to occur within this watershed, based on the excessive gradient and lack of a perennial water source.

3.3.4 Anvil Island

An un-named creek flows into the ocean at the southern end of Anvil Island (Figure 14). The confluence of the stream with the ocean occurs over a low-gradient cobble/gravel beach. Immediately upstream of the natural boundary of the marine environment, the stream flows over a vertical ledge that is approximately 2.0 m in height. This feature represents a barrier to the upstream migration of anadromous fish species due to the fact there is no plunge pool at the base. Upstream of the barrier, the stream is contained within a ravine for 30-40 m. The stream flows at a gradient of 20% and the bankfull width ranges between 1.0 m and 2.0 m. Throughout the ravine, the stream bed is composed mainly of cobbles and gravel; however, in several sections the stream flows over clay. Riparian vegetation within the ravine is dominated by dense shrub growth, particularly salmonberry and Himalayan blackberry.

Upstream of the ravine, the channel morphology shifts to cascade-pool. The gradient lessens to 5-7% and larger cobbles dominate the substrate. On average the bankfull width is approximately 1.5 m. Riparian vegetation is intact and composed of mature coniferous forest.

Approximately 150-175 m upstream of tidewater, the stream channel was not discernable and water flow was non-existent. Upslope, the gradient increases significantly to approximately 60-75%.

Based on observations made during the assessment, the watershed was determined not to be applicable to the RAR. There is no potential for anadromous fish to ascend past the vertical ledge at tidewater. In addition, the stream is lacking habitat attributes (*e.g.*, perennial flow, pools and spawning gravel) that are required for resident salmonids.

Although the stream is not considered to be applicable to the RAR process, it was mapped to a point where a channel could not be discerned. The riparian corridor adjacent to the mapped portion of the stream will provide habitat for unique plant assemblages and wildlife. Protection of the riparian zone will ensure that this habitat type and water quality within the stream are maintained.

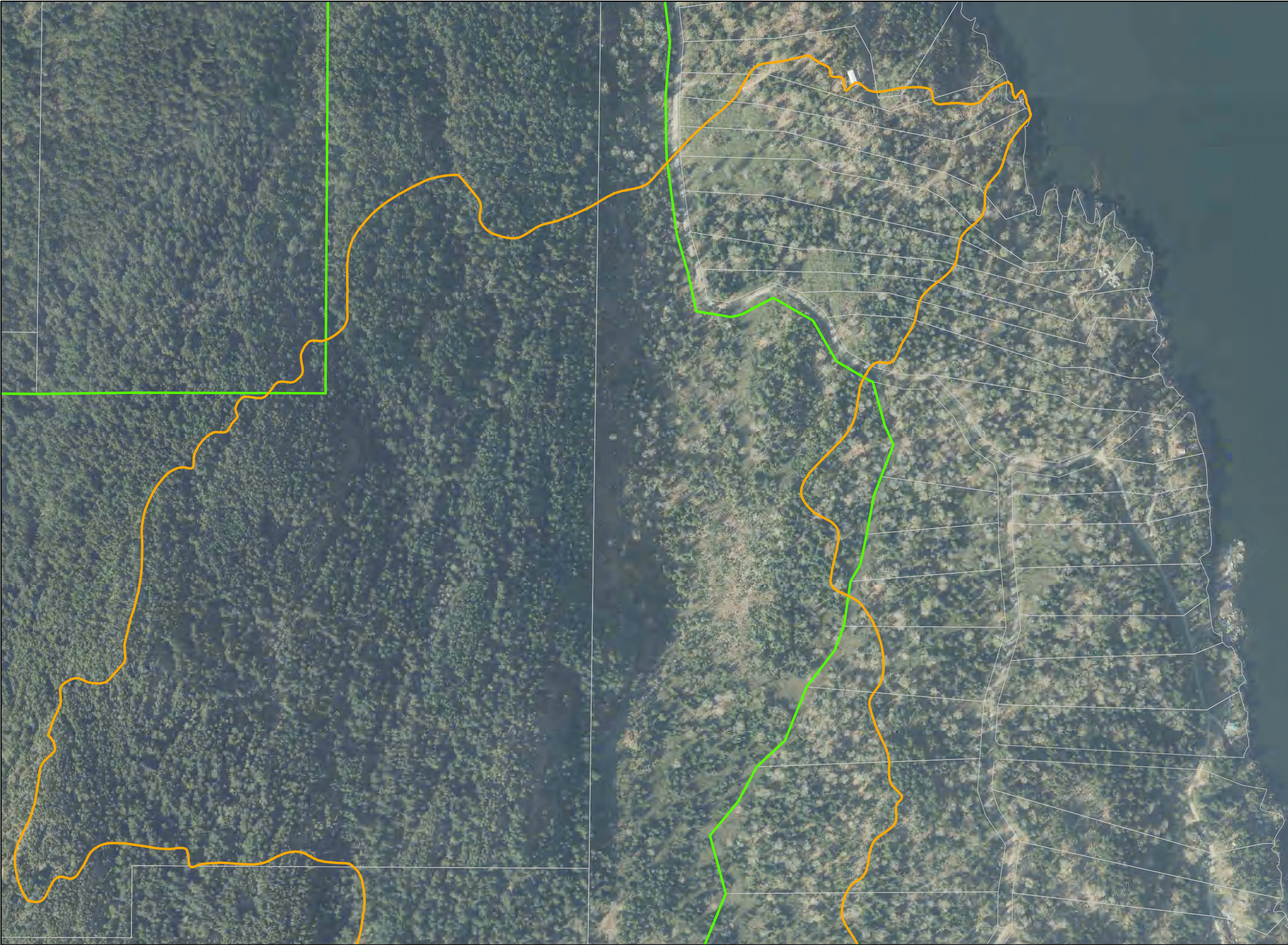


Figure 11:
Non-RAR Applicable Watershed
(Area H - Gambier Island)

PROJECT:
Howe Sound Islands RAR Stream
Mapping

CLIENT:
Islands Trust

GEOGRAPHIC AREA:
Howe Sound, BC

ASSESSMENT DATE:
February - March 2015

MAP SCALE: 1:5000	MAPPING DATE: March 26, 2015
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DOSSIER NO: 15.0021	DRAWN BY: Anna Jeffries
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- Assessed Streams
- Non-RAR Applicable Watershed
- Park or Protected Area
- Crownland

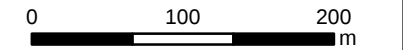




Figure 12:
Non-RAR Applicable Watersheds
(Keats Island)

PROJECT:
Howe Sound Islands RAR Stream
Mapping

CLIENT:
Islands Trust

GEOGRAPHIC AREA:
Howe Sound, BC

ASSESSMENT DATE:
February - March 2015

MAP SCALE:
1:15,000

MAPPING DATE:
March 26, 2015

DOSSIER NO:
15.0021

DRAWN BY:
Anna Jeffries

- Assessed Streams
- Non-RAR Applicable Watershed
- Park or Protected Area
- Crownland

0 100 200 400 600
m





Figure 13:
Non-RAR Applicable Watersheds
(Bowyer Island)

PROJECT:
Howe Sound Islands RAR Stream
Mapping

CLIENT:
Islands Trust

GEOGRAPHIC AREA:
Howe Sound, BC

ASSESSMENT DATE:
February - March 2015

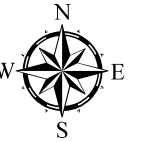
MAP SCALE: 1:7,000	MAPPING DATE: March 25, 2015
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DOSSIER NO: 15.0021	DRAWN BY: Anna Jeffries
------------------------	----------------------------

- Assessed Streams
- Non-RAR Applicable Watershed
- Park or Protected Area
- Crownland



0 150 300
m



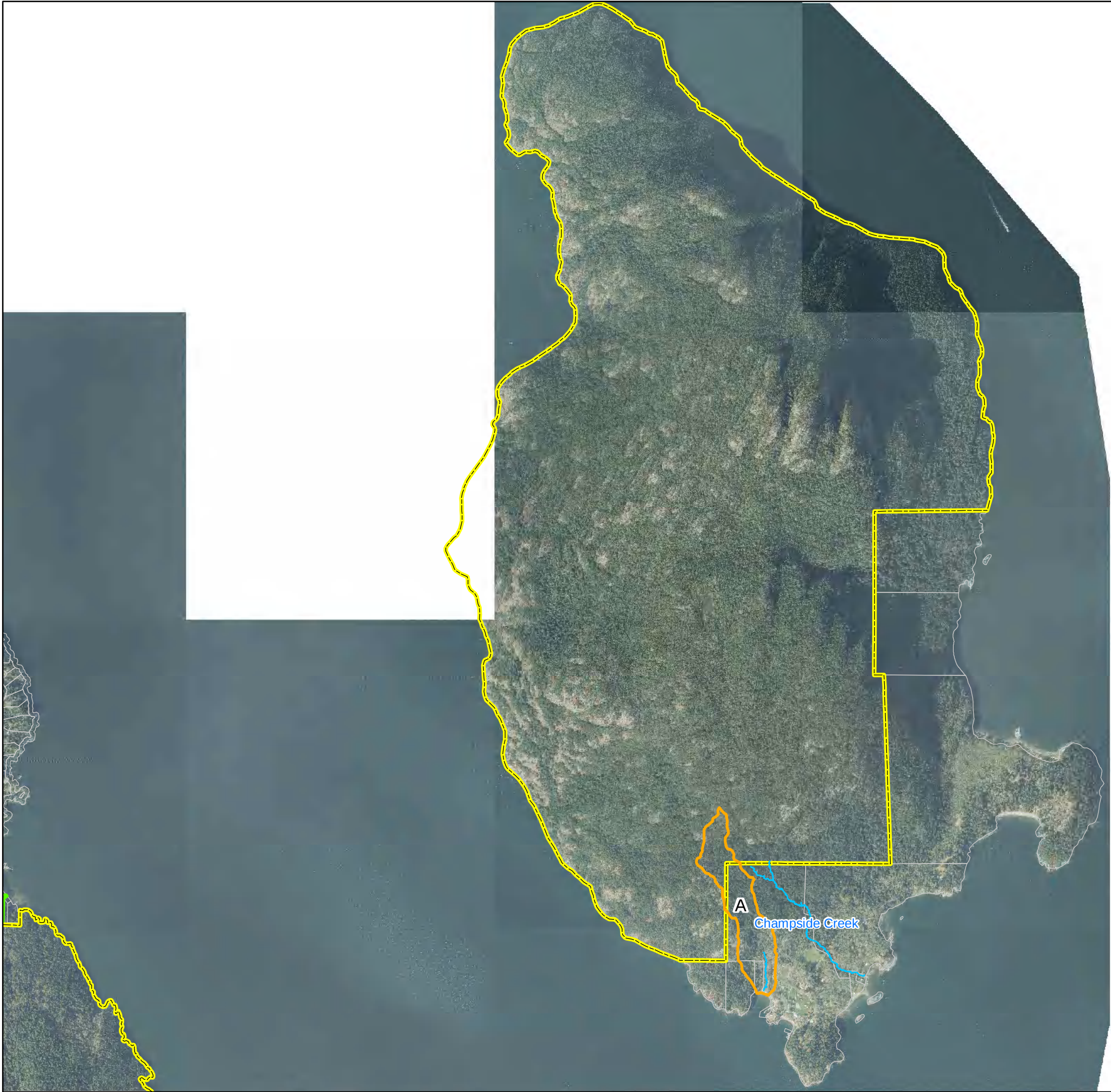


Figure 14:
Non-RAR Applicable Watersheds
(Anvil Island)

PROJECT:
Howe Sound Islands RAR Stream
Mapping

CLIENT:
Islands Trust

GEOGRAPHIC AREA:
Howe Sound, BC

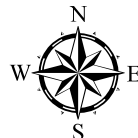
ASSESSMENT DATE:
February - March 2015

MAP SCALE: 1:20,000	MAPPING DATE: March 25, 2015
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DOSSIER NO: 15.0021	DRAWN BY: Anna Jeffries
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- Assessed Streams
- Non-RAR Applicable Watershed
- Park or Protected Area
- Crownland

0 100 200 400
m



4 Discussion and Recommendations

The assessment of twenty one identified focal watersheds on Gambier, Keats, Anvil and Bowyer Islands resulted in the identification of 14.2 km of RAR-applicable streams. Three out of the four identified watersheds on Gambier Island contained streams that apply to the RAR; two out of the ten watersheds on Keats Island contained RAR-applicable streams; one of the two identified watersheds on Anvil Island contained applicable streams; and one of the five identified watersheds on Bowyer Island contained streams applicable to the RAR. The watersheds mapped on Gambier Island (Grennon Creek, Whispering Creek and Fircom Creek) represent the highest relative fish habitat quality out of the mapped watersheds. Potential fish habitat (albeit marginal) occurs in the applicable watersheds on Keats, Bowyer and Anvil Islands.

Silver Creek, which occurs on Keats Island, was also included in the mapping exercise. Despite the occurrence of a definitive barrier precluding the use of the stream on a seasonal basis by anadromous fish, and a lack of available perennial habitat to support resident fish (based on stream magnitude), the stream represents a well-defined, stable natural system supporting a unique riparian vegetation assemblage. It also represents the most significant stream on Keats Island in terms of magnitude. While lacking the necessary attributes to support fish, wildlife will make use of the unique habitat niche within the stream (e.g. amphibians).

Although not considered an RAR-applicable stream, the un-named creek that flows into the ocean at the southern end of Anvil Island was also mapped. The stream lacks perennial habitat for resident fish and the barrier at tide water is insurmountable by anadromous species, but the mapped portion of the stream is well-defined. The riparian zone adjacent to the stream is providing habitat for wildlife and is supporting unique vegetation assemblages. Despite not being applicable under the RAR, identifying where Silver Creek and the un-named creek on Anvil Island occur will provide Island's Trust with options for protection of these water resources and associated riparian areas.

RAR - applicable streams were mapped for inclusion into appropriate bylaws to be set up by Islands Trust to allow conformance with the provincial RAR process. The edges of lakes, wetlands and ponds located along the stream traverses were not mapped in the field as part of the assessment process, but the edges were delineated using field observations and orthophoto interpretation. It is important that these features are included as RAR-applicable water bodies.

As part of the project scope, bankfull widths were measured on each applicable stream to help determine the width of the SPEA under the RAR methodology (using the Detailed

Assessment). This information can be used by Islands Trust as a planning tool to help implement bylaws that “meet or beat” the RAR.

Setting up permanent riparian setbacks that would “meet or beat” the RAR would also need to take into account the fact that numerous riparian areas are currently developed, or encroached upon. Landowners should be encouraged to enhance riparian areas, especially adjacent to sensitive areas, or areas that are experiencing erosion due to the removal of riparian vegetation. Landowners adjacent to streams often do not realize the financial incentives of maintaining a functioning riparian zone. For example, intact riparian vegetation can help prevent lateral bank movement, thus protecting valuable property from erosion. Potential hazards associated with flooding can also be ameliorated as a result of maintaining a functioning riparian area.

The SPEA dimension data could also be used to educate the public about the extent of riparian setbacks should Development Permit Areas (DPAs) be set up. The DPA process would likely involve establishing 30 m DPAs, which represent the RAA. Any new development proposed within any RAA would trigger the completion of a Detailed Assessment under the RAR methodology.

The scope of the project involved the identification of stream centre lines. Under the RAR methodology, the 30 m RAA extends back as a horizontal distance from the HWM, or in the case of ravines, from the HWM to a point that is either 10 m or 30 m back from the TORB (depending on the width of the ravine). The SPEA is measured from the HWM under the Detailed Assessment methodology, or from the TOB using the Simple Assessment methodology. During the fieldwork, the lateral extent of ravines was identified, in order to identify those sections of streams where the RAA (or DPA) would extend back from the TORB. Where ravines are wider than 60 m, the RAA extends from the HWM to a point that is 10 m back from the TORB; ravines that are less than 60 m wide are associated with a RAA that extends from the HWM to a point that is 30 m beyond the TORB. The scope of the project did not include surveying the width of ravines. Field observations suggest that the vast majority of ravines encountered did not exceed the 60 m width threshold.

It should be noted that farming activities are not subject to the RAR, but are subject to the federal Fisheries Act. The RAR does apply, however, to non-farming activities on Agricultural Land Reserve. The RAR does not apply to existing land uses and structures, as these are considered legally non-conforming. Any new developments inside a previously developed SPEA or RAA would trigger the RAR, and the new development would be subject to the RAR. Enhancement of riparian areas using appropriate techniques (e.g. replanting with native vegetation to stabilize banks) is encouraged in previously impacted riparian areas.

Landowners should be made aware that any changes in and about a stream are subject to notifications or approvals under the provincial Water Act. Activities such as the placement of culverts, construction of dams or ponds, and the establishment of domestic water intakes are all subject to provincial review and approval. Low-risk enhancement operations associated with invasive species removal and replanting are not subject to the RAR as long as the projects are completed or authorized by a public body. Local stewardship groups (e.g. Streamkeepers) represent good resources for landowner education and implementation of restoration activities.

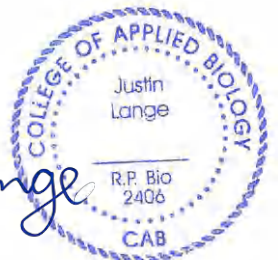
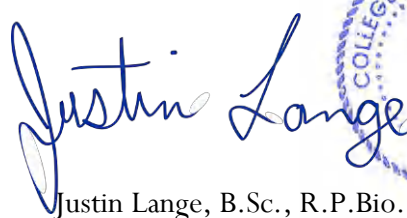
Enhancement potential occurs throughout the applicable streams, but perhaps the stream with the highest potential for a relatively quick return on resources invested is Grennon Creek. Specifically, the removal of the culvert which represents the confluence of the main tributary with the main-stem would reinstate fish habitat in the tributary. The culvert is currently a barrier to upstream fish movement, and replacement with an open-bottomed arch or embedded culvert would increase the amount of habitat available for fish. If enhancement activities were completed in the tributary (specifically focused on the improvement of rearing and/or spawning habitat) in conjunction with the fish passage improvements, benefits would be significantly increased.

If you have any questions or comments about the mapping project, please do not hesitate in contacting the undersigned.

Prepared by:



Trystan Willmott, B. Sc., A.Sc.T



Justin Lange, B.Sc., R.P.Bio., A.Sc.T.

Madrone Environmental Services Ltd.



APPENDIX I – PHOTOS

Gambier Island – RAR-Applicable Watersheds

Area A (Grennon Creek and main tributary)



Looking south west over the estuary of Grennon Creek.



Looking downstream along Grennon Creek immediately upstream of tidewater. .



Log weirs placed at the outlet of the first West Bay Road culvert to improve fish passage.



Disturbed riparian zone and dense Himalayan blackberry growth immediately upstream of the culvert pictured above.



Looking downstream over a segment of Grennon Creek confined within a ravine in the lower reaches.



Looking upstream along Grennon Creek towards the culvert carrying tributary 1 underneath West Bay Road.



The confluence of tributary 1 with Grennon Creek is represented by a perched culvert which is a barrier to the upstream movement of fish.



Looking upstream along Grennon Creek towards the second West Bay Road crossing. Note instream habitat enhancement in the form of log weirs creating pool habitat units and pool/riffle sequencing.



Embedded culvert at the second West Bay Road crossing on Grennon Creek allows for unimpeded fish passage.



Value of Grennon Creek as important fish habitat represented by signage immediately downstream of the culvert pictured above.



Typical channel morphology upstream of the second West Bay Road crossing.



Grennon Creek where it becomes poorly defined upslope of the third West Bay Road crossing.



Morphology of tributary 1 upstream of the culvert (barrier) located at the confluence with Grennon Creek.



Boulders obscuring the stream channel (potentially from a failed retaining wall) on tributary 1 immediately upstream of the West Bay Road crossing.



Deep deposits of fine sediment in the lower reaches of tributary 1.



Moist forest with hydrophytes indicates the headwaters of tributaries 1, 1A and 1B.

Area M (Whispering Creek and main tributaries)



Typical channel morphology along the lower reaches of Whispering Creek.



Aggradation of sediment where Whispering Creek flows underneath Mountain Road.



Large cobble/boulder substrate typical of the cascade-pool channel morphology in the lower reaches of Whispering Creek.



Confined segment of Whispering Creek where it flows through the ravine to the east of Mountain Road.



Vertical waterfall over a bedrock ledge immediately downstream of the Wilderness Road crossing represents a definitive barrier to the upstream movement of fish.



Unstable channel conditions (aggradation of the channel bed and debris jams) immediately downstream of the Crown Land boundary.



Perched culvert at the confluence of tributary 1 with Whispering Creek represents a barrier to the upstream movement of fish.



Looking upstream along the high gradient segment of tributary 1 where it is confined to the west of Mountain Road.



Low gradient, riffle-pool channel type on tributary 1 immediately upstream of the Grove Road crossing.



Outlet of constructed dam creating a complex of ponds on tributary 1.



Looking east over the largest of the ponds located on tributary 1 immediately upstream of the impoundment pictured above.



One of many red-legged frog egg-masses observed throughout the ponds located on tributary 1.



Looking downstream along tributary 1 upstream of the pond complex where it flows through an area being prepared for agriculture.



Tributary 1 where it flows as a ditched system adjacent to the west side of West Bay Road.



Tributary 1 where it has been ditched immediately upslope of West Bay Road.



Natural channel conditions in tributary 1 close to the headwaters upslope of West Bay Road.



Headwaters of tributary 1 represented by groundwater seepage at the base of a slope break upslope of West Bay road.



Looking upstream along tributary 2 showing typical high-gradient cascade-pool channel type in the lower reaches.



Aggraded, dewatered segment of tributary 2 immediately downstream of the Crown Land boundary.



Looking downstream along tributary 3 towards the confluence with Whispering Creek.



Higher energy channel located in the higher gradient segments of tributary 3 upstream of West Bay Road.



The headwaters of tributary 3 are similar to tributary 1 – seepage of groundwater located at a slope break upslope of West Bay Road.

Area I (Fircom Creek and main tributaries)



Bedrock cascade at the point where Fircom Creek meets the ocean.



High-gradient step-pool bedrock-controlled channel immediately upstream of tidewater.



Looking upstream along Fircom Creek showing typical low energy riffle-pool channel type immediately upstream of the high gradient segment pictured above.



Embedded culvert allows for unimpeded fish passage at the first gravel road crossing.



Pool habitat units with LWD in the lower reaches of Fircom Creek provide security habitat for fish.



Looking upstream along the middle reaches of Fircom Creek where the gradient increases and the channel morphology shifts to a cascade-pool system.



Near vertical bedrock cascade represents a natural barrier to the upstream movement of fish on Fircom Creek (located approximately 450 m from tidewater).



Vertical waterfall located upstream of the cascade pictured above.



Fircom Creek in a low gradient, unconfined channel located close to the tributary 3 confluence.



Above and below: Looking downstream along the avulsed segment of Fircom Creek.





Looking upstream along Fircom Creek where it becomes defined upstream of the avulsion zone.



Above and below: typical high-gradient step-pool channel type in the upper reaches of Fircom Creek where it flows through a previously logged area. Note general channel instability and aggradation of material where the gradient decreases in the upper picture.





The upper reaches of Fircom Creek where it crosses into the mature forest represented by protected park land.



Characteristics of Fircom Creek where it flows through park land.



Signage observed on Fircom Creek in the upper reaches close to the avulsed channel.



Looking upstream along tributary 1 from the confluence with Fircom Creek.



Typical confined characteristics of tributary 1.



The upper reaches of tributary 1 adjacent to a gravel road.



Above and below: poorly-defined characteristics of tributary 2.





Looking upstream along tributary 3. Note poorly defined channel and organic substrate.



Looking upstream along tributary 4. Note historical ditching activity.



Cascade-pool channel type typical of tributary 5 immediately upstream of the confluence with Fircom Creek.



Typical characteristics of tributary 5 where it flows through a previously logged area in the upper reaches.



Headwaters of tributary 5 located on park land.

Gambier Island – Non-RAR Applicable Watershed

Area H



Looking upstream along the outlet stream of Area H immediately above tidewater. Note significant gradient ($>40\%$) and lack of water.



Seepage over a steep clay bank in the Area H outlet stream close to the slope break above tidewater.

Keats Island – RAR-Applicable Watersheds

Watershed 1 (“Plumper Creek”)



The outlet of Plumper Creek over a gently sloping gravel/cobble beach.



Above and below: looking downstream along the lower reaches of Plumper Creek.





Coarse woody debris from blow-down commonly obscured the channel.



Seepage through organics represented the headwaters of Plumper Creek.

Watershed 2



The outlet of watershed 2 over a gently sloping cobble beach.



Above and below: looking upstream along the subject stream immediately above tidewater.





Looking west over the subject stream obscured by dense Himalayan blackberry growth in the lower reaches.



Looking upstream where the stream flows through the Christian Retreat property.



Dense Himalayan blackberry growth obscuring the channel where it flows through the Christian Retreat property.



Typical characteristics of the subject stream where it flows through mature forest in the upper reaches.



Dense Himalayan blackberry growth in the lower reaches of tributary 1.



Above and below: low-gradient channel characteristics in the upper reaches of tributary 1 where it flows through mature forest.

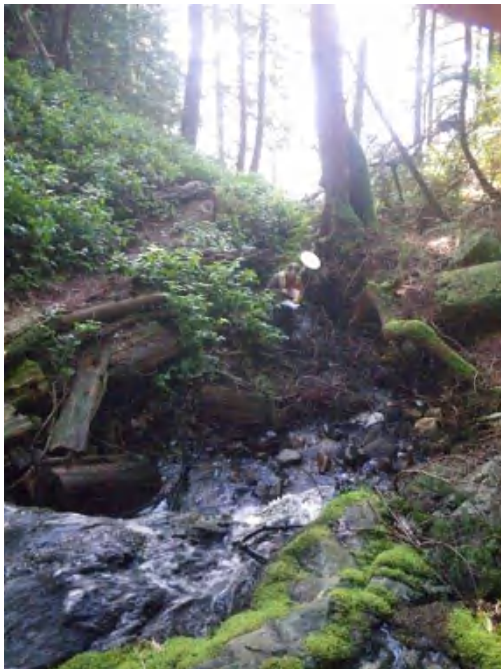


Keats Island – Non RAR-Applicable Watersheds

Silver Creek



Waterfall over bedrock where Silver Creek meets the ocean. This feature is a definitive barrier preventing access to the stream by anadromous fish.



Looking downstream along the high gradient bedrock-controlled lower reach of Silver Creek. Note mature forest type and well-defined stream channel.



Typical cascade-pool channel morphology of Silver Creek.

Watershed A



Evidence of ephemeral water flow over the forest floor.



Looking south down the steep (>40%) slope towards the ocean where ephemeral flow over the forest floor was noted.

Watershed B



Above and below: ephemeral flow indicated by scour over the forest floor located on steep (>40%) slopes leading down to the ocean.



Watershed C



Above and below: looking upslope along the watershed outlet drainage immediately above tidewater. The slope gradient exceeds 40%.



Watershed D



PVC pipe spilling the watershed outlet drainage onto a concrete boat launch located in the intertidal zone.



Characteristics of the outlet drainage immediately above tidewater.



Looking upslope along the drainage along the steep (30%) slope located immediately above tidewater.



Looking east (upstream) along the watershed outlet drainage upslope of the point where it flows under the access road.

Watershed E



Minimal evidence of ephemeral scour was noted over the forest floor in this watershed.



Moist depression located between two rock bluffs contained limited evidence of scour by ephemerally flowing water.

Watershed F



Above and below: the main ditch system draining watershed F.



Outlet of the main outlet ditch over a steep (70%) slope to the north of Keats Road.

Watershed G



Above and below: scour over steep (40%) slopes leading down to the ocean indicates ephemeral flow in this watershed.



Bowyer Island – RAR-Applicable Watershed

Orchid Creek and tributaries



Orchid Creek as it flows into the marine environment.



Typical channel morphology and stream bed of Orchid Creek.



Orchid Creek immediately upstream of the road crossing. Note the wooden grate that was installed to prevent debris from plugging the culvert.



The headwaters of Orchid Creek. Note the lack of channel definition and abundance of organic substrate.



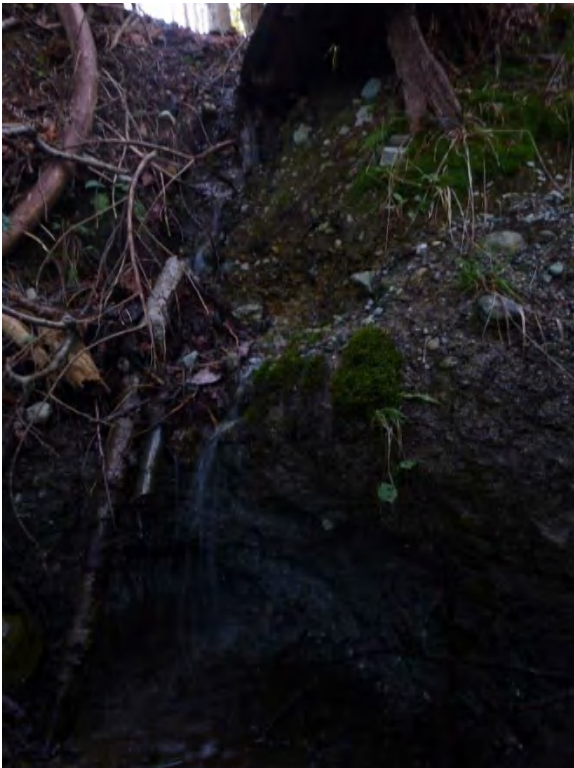
Looking downstream at the confluence of Ditch 1 with Orchid Creek.



Ditch 1 immediately upstream of the confluence with Orchid Creek.



The headwaters of Ditch 1. As can be seen in the photo this area represents a seasonally wetted area.



The confluence of Ditch 2 and Orchid Creek.



A representative photo of the channel morphology of Ditch 2.



Ditch 2 as it flows adjacent to a house. It should be noted the ditch was manually excavated to ensure water does not inundate the house structure.



Looking northwest at the area where Ditch 3 flows into Ditch 2.

Bowyer Island - Non RAR-Applicable Watersheds

Watershed A



The western outlet of Watershed A. Note the excessive gradient ($>45\%$), lack of flow and minimal evidence of scour.



The outlet of Watershed A. Note that ephemeral flow would occur over a vertical bedrock ledge in excess of 5 m high.



A representative photo of the upper-most portion of the outlet drainage in the eastern part of Watershed A. Note the lack of channel definition.

Watershed B



The headwaters of Watershed B.



The outlet drainage of Watershed B as it nears the ocean. Note the gradient is excessively steep (25-30%) to permit entry into the stream by anadromous fish.

Watershed C



The outlet of Watershed C as seen from the ocean. No outlet drainages were noted. Note the topography associated with the steep ledge.

Watershed D



The outlet of Watershed D. Note the steep, bedrock outcrops that extend down into the ocean. No outlet drainage was observed.

Anvil Island – RAR-Applicable Watershed

Champside Creek and tributaries



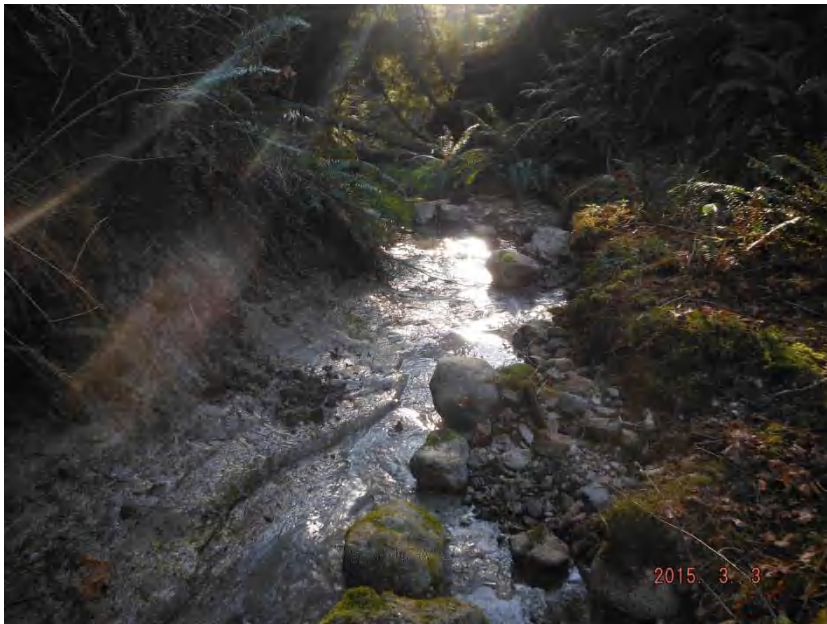
The outlet of Champside Creek, immediately upstream of the marine environment.



The channel morphology of Champside Creek immediately upstream of the ocean.



A representative photo of the culverts that have been installed under the road within the residential area. It is unlikely that the culverts represent a barrier to the upstream movement of fish during periods of high discharge.



Typical channel characteristics of the portion of Champside Creek that is contained within a ravine. Note the streambed is composed of alluvium and clay.



A representative photo of the lower-most waterfall. This feature represents a definitive barrier to upstream fish movement.



The upper-most mapped segment of Champside Creek.



Looking upstream at Tributary 1 from its confluence with Champside Creek.



The headwaters of Tributary 1, which was noted to be a groundwater spring.



The lower-most portion of Tributary 2 as seen from the confluence with Champside Creek.



Tributary 2, upstream of the confluence.

Anvil Island - Non-RAR Applicable Watershed

The outlet of the un-named creek. Note there is a vertical ledge approximately 2.0 m in height at the natural boundary of the marine environment.



The un-named creek immediately upstream of tidewater.

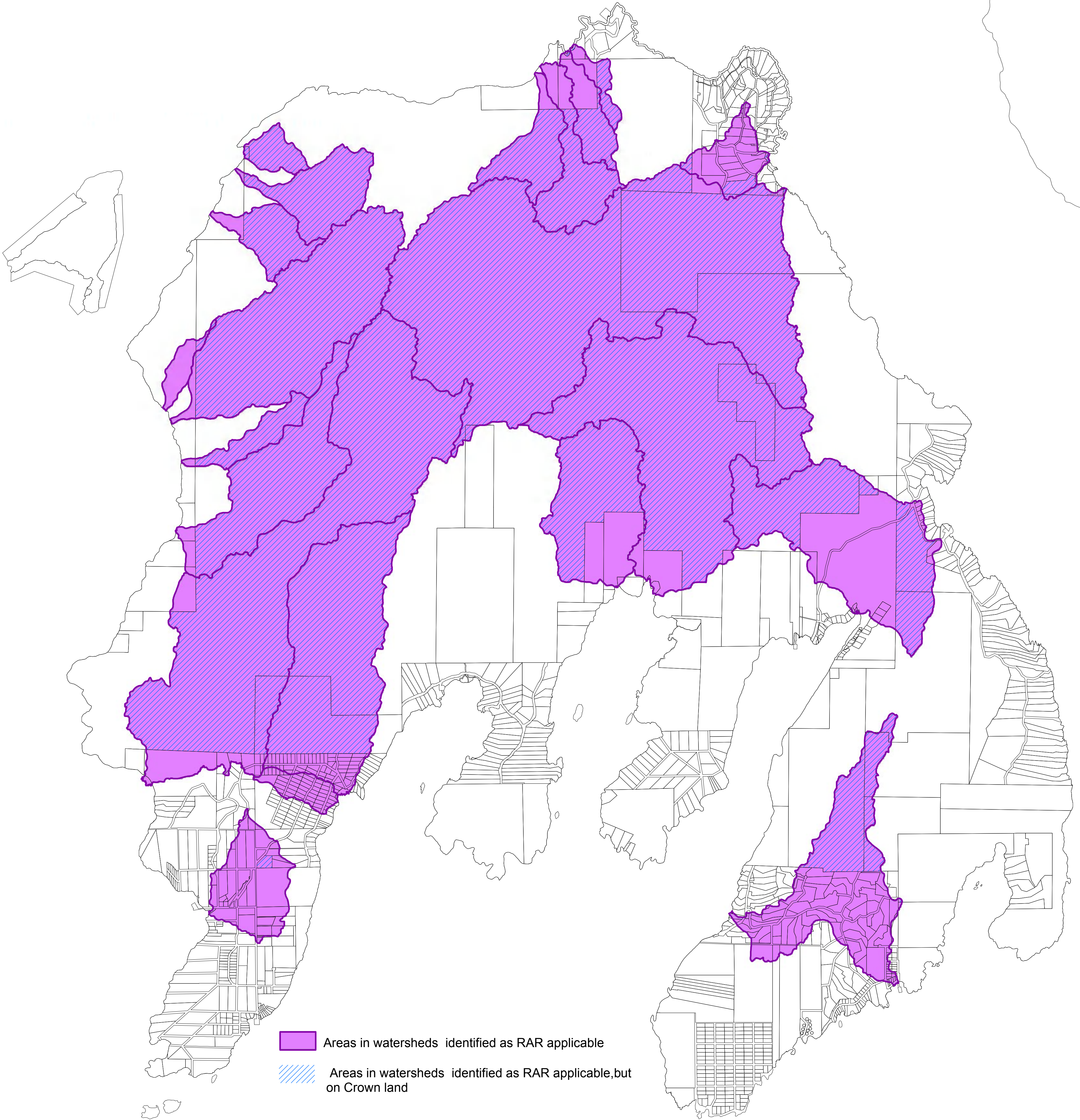


Looking downstream at the portion of the un-named creek approximately 100 m upstream of tidewater.



A representative photo of the area where the channel became indiscernible.

Identification of RAR applicable watersheds on Gambier Island



Excerpt of RAR DPA Guidelines for Gabriola Island

Schedule “A” of Gabriola Island Land Use Bylaw No. 177 cited as “Gabriola Island Land Use Bylaw No. 177, 1999”, is amended by:

1. Adding a new part, immediately following “Part E – Subdivision”, as follows:

F.3 DP-3 Riparian Areas

F.3.1 Definitions

- F.3.1.1 Terms used in Section F.3 that are defined in the provincial *Riparian Areas Regulation* have the same meaning as the definition given in the Regulation, as it may be amended from time to time.

F.3.2 Applicability

- F.3.2.1 The following activities shall require a development permit whenever they occur within the DPA, unless specifically exempted under Policy F.3.3.1:
- a. subdivision of land
 - b. construction of, addition to, or alteration of a building or other structure
 - c. removal, alteration or destruction of vegetation
 - d. disturbance of soils
 - e. creation of non-structural, impervious or semi-impervious surfaces
 - f. application of artificial fertilizer, pesticides or herbicides
 - g. any other development, as that term is defined under the provincial *Riparian Areas Regulation*

- F.3.2.2 In the event that a parcel of land is subject to more than one development permit area, all development permit area guidelines shall apply and only one development permit, containing conditions based on guidelines in all applicable development permit areas, is required.

F.3.3 Exemptions

- F.3.3.1 The following activities are exempt from any requirement for a development permit. Despite these exemption provisions, owners must satisfy themselves that they meet any other applicable local, provincial or federal requirements.
- a. for certainty, all uses that are not residential, commercial or industrial or accessory to such a use
 - b. interior or exterior alterations, renovations, maintenance, reconstruction or repair to a pre-existing permanent building or structure to an extent that does not alter, extend or otherwise increase the footprint
 - c. repair or replacement of a septic field on the same spot
 - d. the removal of trees that have been examined by an arborist and certified to pose an immediate threat to life or property
 - e. With the exception of nesting trees protected under Section 34 of the *Wildlife Act*, cutting of vegetation and trees more than 15 meters from the stream's high water mark or the top of the ravine bank, provided the cutting is not a precursor to development, the roots/stumps are left in the ground, and the cutting does not result in land alteration
 - f. gardening and yard maintenance activities, not involving the application of artificial fertilizer, pesticides or herbicides, within a pre-existing *landscaped area*, including mowing, pruning, planting, and minor soil disturbance that does not alter the general contours of the land

- g. manual removal of invasive species and manual planting of native vegetation conducted in accordance with best management practices
- h. pruning of not more than two trees in one growing season and that is conducted in accordance with the standards and recommendations of the International Society of Arboriculture, and that does not involve: the lift pruning of lower limbs to the extent that the live crown ratio is less than 50%, the removal of more than 25% of the crown in one growing season, topping, or the pruning or removal of a structural root within the critical root zone
- i. ecological restoration or enhancement projects undertaken or authorized by a public body
- j. work that is authorized by Fisheries and Oceans Canada by permit under Section 35 of the *Fisheries Act*
- k. emergency procedures to prevent, control or reduce immediate threats to life or property including:
 - i. emergency actions for flood-protection and erosion protection,
 - ii. clearing of an obstruction from a bridge or culvert or an obstruction to drainage flow, and
 - iii. repairs to bridges and safety fences carried out in accordance with the *Water Act*
- l. farm operations as defined in the *Farm Practices Protection (Right to Farm) Act* and farm uses as defined in Section 2(2) of the *Agricultural Land Reserve Use, Subdivision, and Procedure Regulation* and horticulture as defined in the Gabriola Island Land Use Bylaw 177
- m. The construction of a fence if no native trees are removed and the disturbance of native vegetation is restricted to 0.5 meters on either side of the fence, or 1.5 meters on either side of the fence in agricultural areas
- n. The construction of a private trail if all of the following apply;
 - i. The trail is 1 meter wide or less;
 - ii. No native trees are removed;
 - iii. The surface of the trail is pervious (for example, soil, gravel or wood chips)
 - iv. The trail is designed to prevent soil erosion where slopes occur; and
 - v. Where the trail parallels the stream, the trail is more than 5 meters away from the high water mark of a stream.
- o. Disturbance of soils more than 15 meters from the stream's high water mark or the top of the ravine bank if the total area of soil disturbance is less than 5 meters squared
- p. The constructing of a small accessory building such as a pump house, gazebo, garden shed or playhouse more than 15 meters from the stream's high watermark or the top of the ravine bank if the building is located within an existing landscaped area and the total area of small accessory building is less than 10 meters squared

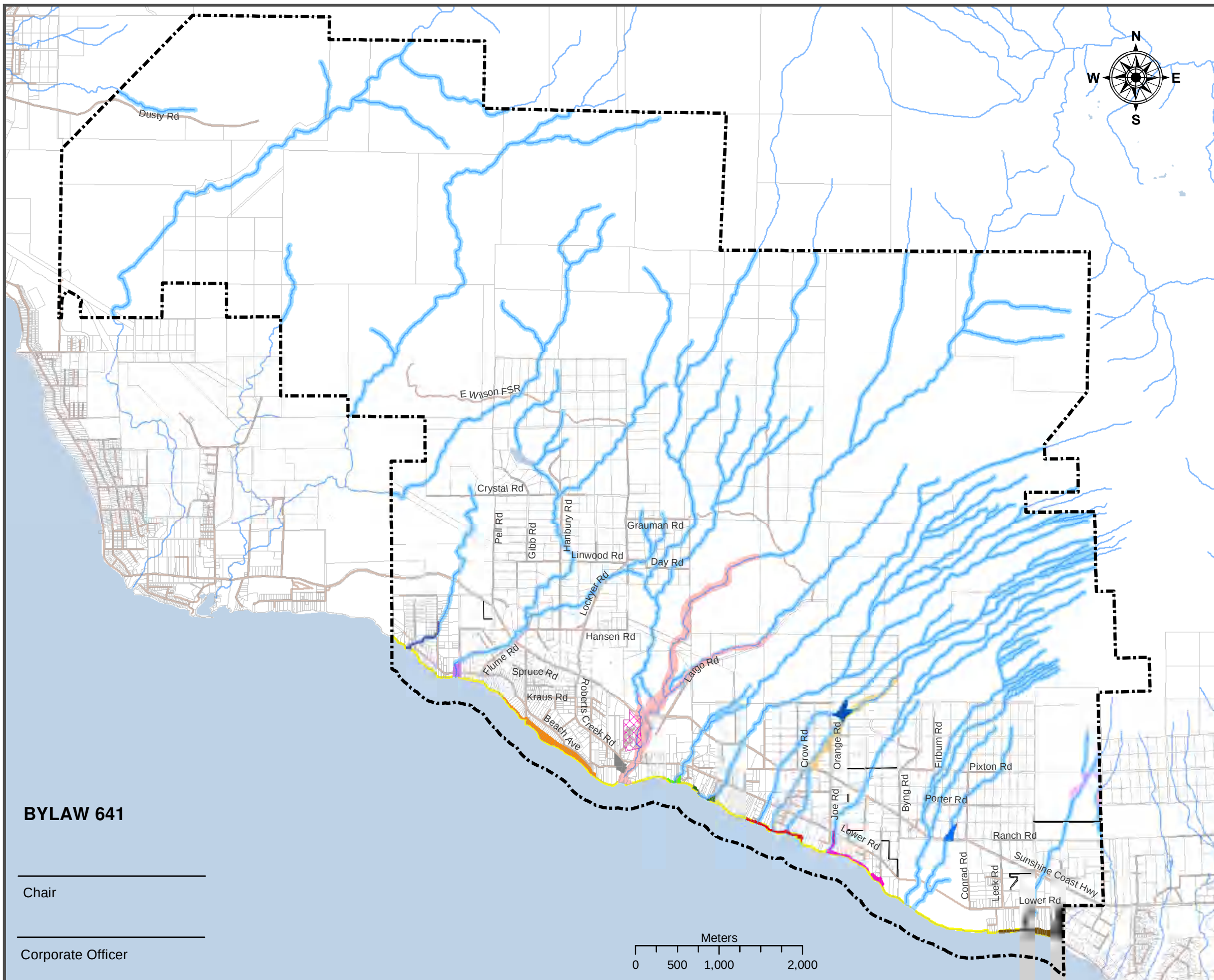
Information Note: For best management practices on manual removal of invasive species and planting of native vegetation, property owners should contact organizations such as the Invasive Species Council of British Columbia and the Coastal Invasive Species Committee.

Information Note: Some activities not listed here that are regulated under other provincial or federal legislation may not require a development permit.

F.3.4 Guidelines

Prior to undertaking any applicable development activities within DP-3, an owner of property shall apply to the Local Trust Committee for a development permit, and the following guidelines apply:

- F.3.4.1 In general, all development in this DPA should be undertaken in a manner that restores or maintains the proper function and condition of the riparian area, water bodies and ecosystems. Where a Qualified Environmental Professional (QEP) or other professional has made recommendations for mitigation measures, enhancement or restoration in order to lessen impacts on the riparian area and ecosystems, the Local Trust Committee may impose permit conditions, including a requirement for security in the form of an irrevocable letter of credit, to ensure the restoration and/or protection of riparian areas and ecosystems is consistent with the measures and recommendations described in the report.
- F.3.4.2 The development permit should not allow any development activities to take place within any Streamside Protection and Enhancement Area (SPEA) identified by the QEP and the owner should be required to follow any measures identified by the QEP for protecting the SPEA over the long term and these measures should be included as conditions of the development permit. The width of the SPEA may be less than the width of the DPA.
- F.3.4.3 Where a QEP or other professional's report describes an area within the DPA as suitable for development, that is, where the SPEA is less than the width of the DPA, the development permit should only allow the development to occur in compliance with the measures described in the report. Monitoring and regular reporting by a QEP or other professional at the applicant's expense may be required during construction and development phases, as specified in a development permit.
- F.3.4.4 If the nature of the proposed project within the DPA changes after the professional report has been prepared such that it is reasonable to assume that the professional's assessment of the impact of the development may be affected, the Local Trust Committee may require the applicant to have the professional update the assessment at the applicant's expense and development permit conditions may be amended accordingly.
- F.3.4.5 The Local Trust Committee may consider variances to the subdivision, siting or size regulations of this Bylaw where the variance may result in enhanced protection of a SPEA, riparian buffer or riparian ecosystem in compliance with recommendations of a professional's report.



Legend

- Plan Area Boundary
- Land Parcels
- Local Roads
- Stream
- DPA #1 - Stream Riparian Assessment Areas*
- DPA #2A - Beach Front Slopes
- DPA #2B - Beach Front Slopes
- DPA #2C - Beach Front Slopes
- DPA #2D - Beach Front Ravine Slopes
- DPA #3A - Lower Moscrop Creek
- DPA #3B - Lower Flume Creek
- DPA #3C - Roberts Creek System
- DPA #3D - Robinson and Clough Creeks
- DPA #3E - Clough Creek
- DPA #3F - Lower Stephens Creek
- DPA #3G - Lower Malcolm Creek Area
- DPA #3H - Slater Creek Area
- DPA #3I - Unnamed Creeks
- DPA #4 - Shoreline
- DPA #5 Multi-Family/Cluster Housing
- DPA #6 - Commercial Core
- DPA #7 - Agricultural Buffering

* All mapped and unmapped streams are designated DPA #1.

BYLAW 641

Chair

Corporate Officer

Sunshine Coast
Regional District



Riparian Areas Regulation Implementation - Project Charter

Gambier Island Local Trust Committee

Date: May 22, 2014

Revised:

Purpose This project will improve the protection of fish and fish habitat in the Gambier Local Trust Area (LTA) by improving stream mapping and amending the Official Community Plan and Land Use Bylaw to come into compliance with the Riparian Areas Regulation (RAR) of the provincial Fish Protection Act.

Background Strategy 1.3 of the Islands Trust Council's 2011-2014 Strategic Plan is to "Protect fish habitat by implementing Riparian Areas Regulation". All watersheds (~150) in the LTA are unverified for RAR applicability. Implementation of the provincial Riparian Areas Regulation (RAR) has been a priority project of the GMLTC work program for the 2011-2014 term, pending funding for mapping necessary to establish which watersheds and streams would be applicable to the RAR.

Objectives

- Improve the protection of riparian habitat on islands in the Gambier LTA
- Become compliant with the RAR
- Ongoing notification and effective engagement with property owners, residents and First Nations in the area.

Scope & Deliverables

- Determination of RAR applicability in areas of the Gambier Island LTA permitting residential, commercial, or industrial use.
- Community information dissemination to communicate mapped data and next steps
- Community Information Meetings to present draft bylaws – Keats and Associated Islands
- Adoption of development permit areas to protect riparian areas in the Gambier, Keats, and Associated Islands OCPs.

Workplan Overview

Deliverable/Milestone	Date
Mapping of relevant watersheds and streams on Gambier & assoc. islands	Winter/Spring 2015
Communicate information to public about mapped data and next steps	Summer 2015
Draft regulation for Gambier, Keats, Anvil, Bowyer Islands	Fall 2015
Mapping of relevant watersheds and streams on Thormanbys	Fall 2015
Draft regulation for Thormanby Islands	Fall/Winter 2015
Public Hearing	Winter 2016
Bylaw adoption	Spring 2016

Project Team

Aleksandra Brzozowski, Island Planner	Project Manager
Marnie Eggen, Planner	RAR Advisor
Barb Dashwood, GIS Technician	Mapping support
Theresa Warren, Office Admin Assistant	Meeting Logistics
Lisa Webster-Gibson, Legislative Clerk	Referrals and Public Hearing

RPM Approval:

Courtney Simpson

Date: May 9, 2014

LTC Endorsement:

Resolution #: GM-2014-034

Date: May 22, 2014

Amended:

Budget

Budget Source: Mapping — RAR project and ; Communications - LTC local expenses; Public Hearing—program

Fiscal	Item	Cost
14/15	RAR Mapping (Gambier and Howe Sound Islands)	\$43,850
14/15	Communications	\$1,500
15/16	RAR Mapping (Thormanbys)	\$13,740
15/16	Public Hearing	\$1,500
	Total	\$60,590

Date: May 8, 2015

File No.: GM 6500-20
Gambier OCP Review

To: Gambier Island Local Trust Committee
For the meeting of June 18, 2015

From: Aleksandra Brzozowski, Island Planner

CC: Courtney Simpson, Regional Planning Manager

Re: Gambier Island Official Community Plan (OCP) Review

Purpose

The purpose of this report is to provide the Local Trust Committee (LTC) with the draft Project Charter and Communications Plan for the Top Priority Gambier Official Community Plan review project.

Project Background

A review of Gambier's Official Community Plan (OCP) was placed as Priority #4 on the Top Priorities work program at the February 12, 2015 LTC meeting.

For information regarding background and relevant policy and land use considerations, please refer to the reports presented at the March 26, 2015 and May 7, 2015 LTC meetings.

Draft Project Charter

Staff has prepared a draft Project Charter for the OCP Review project, breaking the project into two phases – an Engagement phase and a Bylaw Amendment phase.

The Engagement Phase comprises background research and information gathering, mapping to assist discussion, and engagement with the community, other agencies, and First Nations on identified topics. Once prospective bylaw amendments are identified, the project will move into the Bylaw Amendment Phase.

The Bylaw Amendment Phase comprises the regular bylaw amendment process – drafting of bylaws, revisions, referrals, official readings of the bylaw, consultation, public hearings, and adoption.

Both the Engagement and the Legislative phases have the same Objectives and Scope.

Project Charter Draft Objectives

Staff has drafted four draft objectives for the project, and solicits any feedback on these objectives.

In Scope & Out of Scope

Based on previous discussion with the LTC, the following is drafted as in scope for the project:

- Policies regarding the current Wilderness Conservation (Crown) lands
- Park and trail prioritization
- Shoreline protection
- Updating OCP schedules based on more current mapping data
- Review of Development Permit Areas (including Riparian Areas Regulation)
- Protection of archaeological and cultural sites
- Review of advocacy policies
- Policies to promote economic development
- Policies to support the revitalization of New Brighton

Also in scope are housekeeping matters such as adding needed definitions, updating Ministry titles, and removing typographical errors.

The Wilderness Conservation land use designation is the only land use designation that has been identified as warranting review; as such, review of land use designations in general is Out of Scope.

Also noted as out of scope are issues that fall under the authority of other agencies, and issues concerning operations on the island (e.g. maintenance of trails or roads), and discussions regarding density (save possibly for New Brighton).

Milestones and Work Plan

The milestones and work plan are divided out into the two phases.

For the Engagement Phase, the first items on the work plan focus on gathering data to use during stakeholder engagement and to provide background information for the bylaw amendment content.

Part of this information gathering stage includes both an Island Profile and a Crown Land Profile. The Island Profile will compile information about both the ecosystems and the community on Gambier Island through the lens of land use planning. This Island Profile will also feature research on Gambier histories and interests from the Squamish and Tsleil-Waututh Nations. The Crown Land Profile will compile information and various interests found on the Crown land on Gambier. A Crown land profile is to be completed in 2016-2017 by Trust Area Services (TAS) as part of their larger project; however, TAS supports the LTC pursuing the Crown Land Profile project with the intention to better serve the LTC with land-use planning information.

The next milestone in the Engagement Phase focuses on stakeholder engagement. Stakeholders for this project include agencies such as the Sunshine Coast Regional District, the Ministry of Transportation, the Ministry of Forests, Lands and Natural Resource Operations, as well as all the neighbourhoods and community organizations that make up the Gambier Island community. Staff proposes that the LTC pursue online engagement and contract a firm experienced in this type of engagement.

Stakeholder engagement is proposed to take place by topic, and engagement will be tailored to best suit the consultation needs of each topic.

Bringing together the information gathered in the early part of the project and the results of the stakeholder engagement, Staff will conduct an analysis of the entirety of the Engagement Phase

and introduce next steps for the Bylaw Amendment Phase, including an outline of draft amendments.

The milestones and work plan for the Bylaw Amendment Phase unfold in the regular manner using the legislative process with bylaw drafts, engagement with First Nations, First Reading, referrals to agencies and the APC, consultation with the public, Second Reading, further public consultation, Third Reading, and approval by the Executive Committee and the Ministry of Community, Sports, and Cultural Development.

Project Charter Budgets

There is \$10,000 allocated in the 2015/2016 budget for this project. The Engagement Phase draft Project Charter details the proposed expenditures, including hiring a contractor for the Crown Land Profile. Another item in the budget is \$5,000 to contribute to an Archaeological Overview Assessment in partnership with the Squamish Nation.

An additional amount of funding is available for staffing to address the shortfall in in-house staffing for the remainder of 2015, and could be used to hire a consultant for communications work for the Gambier OCP review.

Currently, there is no budget for the Bylaw Amendment Phase of the project. Staff anticipates that a \$3,000 budget will be requested for the 2016/2017 to see the LTC through the legislative process, which will include meetings for the Advisory Planning Commission.

Communications

Goals of communication for this project include informing and engaging property owners, relevant agencies, First Nations, and others identified as having an interest. This engagement is needed to ensure that relevant bylaw objectives, policies and regulations are adopted that meet the needs of property owners and other regulatory agencies both in the present and into the future.

Communications with property owners will be an important part of this project and may require unique approaches. There is no one convenient meeting location for property owners, and no newspaper that would be likely to reach the majority. Communications may include a combination of direct mail-outs, the Islands Trust website, an email list, online surveys, or receipt of input via mail or email. Community Information Meetings (CIM) may be held on Gambier in various locations; for example, a meeting may be scheduled for North or West Vancouver, as the majority of property owners live in these locations.

Due to staffing changes in the Northern Office, direct staffing resources for the remainder of 2015 will be more limited than anticipated when the LTC set this project as a work program priority. However, the short staffing in the office offers increased budget for external consultants, and management is willing to allot a good portion of this budget to the Gambier OCP review project. Online engagement is an area of communication not often pursued in the Islands Trust due to its high demand on human resources to create and monitor websites, message boards, and/or forums. The LTC could regard this staffing challenge as an opportunity to contract professionals in public consultation who have experience in online engagement. Planning staff would oversee and manage the contract, ensuring that the particular needs of the LTC and the Gambier community are met.

The external contract would be managed by Planning Staff, from the Request for Proposals through the oversight of the work. Contracted staff would be responsible for preparing and

distributing communication materials, as well as compiling a final report at the end of the consultation period.

Staff anticipates that the bulk of resources for progressive communications work will occur in the Engagement Phase of the project, and that the Bylaw Amendment Phase will follow a more straightforward consultation approach.

Staff has prepared a draft Communications Plan for the Engagement Phase of the OCP Review (attached). This Communications Plan lays out the anticipated schedule of communication with the public and agencies, and the key messages intended for each item of communication.

First Nations Engagement

The Province's Consultative Areas Database identifies the Squamish Nation and the Tsleil-Waututh Nation as having Aboriginal rights in the project area. At the May 7, 2015 business meeting, the LTC passed a formal resolution to engage in early and ongoing consultation with both First Nations.

Part of the proposed Project Charter work plan is sharing information with the two First Nations. The Squamish Nation is exploring the creation of a Marine Use Plan for the Howe Sound area and will likely have data that could prove useful for land use planning purposes. The Tsleil-Waututh Nation has employed a bioregional planning approach to the area in past initiatives. The Squamish Nation has also expressed interest in pursuing an Archaeological Impact Overview for Gambier Island, which, if affordable, would be a major item on the project work plan in the early part of 2016.

There is a funding opportunity through the Union of BC Municipalities (UBCM) to support events between First Nations and local governments with the aim to advance tangible outcomes that will advance relationships between the parties. On May 7, 2015, the LTC passed a resolution directing staff to investigate and prepare an application for the Community to Community funding to support engagement with the local First Nations regarding discussion of the Official Community Plan for Gambier Island. At the time of writing this report, Planning staff have been liaising with the Grants Administrator and the two First Nations to submit an application to the UBCM.

Project Priority

This project currently sits at #4 on the Priority Project list, meaning that the other three priority projects – Foreshore Protection, Riparian Areas Regulation, and Implementation of OCP Advocacy Policies – take precedence for Staff and Trustee workload.

With the sinking of the HMS Annapolis, the Woodfibre LNG environmental assessment process nearing completion, and the BURNCO environmental assessment set to take place in summer, Staff recommends moving this project to Priority #3 on the Top Priorities list.

Project Resources

As noted earlier in this report, staffing resources are reduced for the remainder of 2015. This project charter and communications plan takes this situation into consideration. The Northern Office does have a summer student planner who has been assigned to assist with the Gambier

LTC work program; the summer planner will assist with the research for the Island Profile in the later half of the summer.

External contracts will be pursued to assist with compiling technical information for the Crown land profile, and with the public engagement work.

Project Roles

Stakeholder engagement at the information and consultation level will be the joint role of Planning Staff and the LTC.

Stakeholder engagement at the political level will be the role of the LTC. Bodies that will likely require direct political engagement are the Sunshine Coast Regional District, First Nations, FLNRO, and community organizations.

RECOMMENDATIONS:

That the Gambier Local Trust Committee:

1. Endorse the draft Project Charter as amended; and,
2. Endorse the draft Communications Plan as amended.

Prepared and Submitted by:

Aleksandra Brzozowski

Aleksandra Brzozowski,
Island Planner

June 1, 2015

Date

Concurred in by:

Courtney Simpson, RPP MCIP
Regional Planning Manager

Date

Attachments:

- 1) Draft Project Charter
- 2) Draft Communications Plan

Gambier OCP Review - Engagement Phase Project Charter

Gambier Island Local Trust Committee

Date: April 20, 2015

Purpose To review the OCP to address topics deemed out-of-date or problematic to better reflect the Gambier community and achieve the object of the Islands Trust.

Background The LTC identified this project as a Top Priority in February 2015.

Objectives

- To adopt policies that advance the stewardship of sensitive ecosystems on Gambier Island
- To address community needs that are within the scope of land use planning
- To engage and collaborate with First Nations
- To revise land use and advocacy policies with the aim to reflect current realities

In Scope

- Land uses and policies for the Wilderness Conservation lands
- Park and trail prioritization
- Updating OCP schedules with current mapping data
- Protection of archaeological and cultural sites
- Shoreline protection
- Policies to promote economic development
- Policies to promote revitalization of New Brighton
- Review of advocacy policies
- Review of Development Permit Areas

Out of Scope

- Review of Density/Build-Out
- Review of Land Use Designations outside of WC
- Operational concerns under the authority of other agencies

Workplan Overview

Deliverable/Milestone	Date
Early consultation with local governments, agencies, and First Nations	May—August 2015
Information gathering and mapping regarding environmental topics (Shoreline protection info, update OCP Schedules, Sensitive Ecosystems)	May—August 2015
Prepare Request for Proposals for consultation contract; award contract	July—September 2015
Community To Community Forum with First Nations to share histories and interests and to explore possible Arch Overview	September / October 2015
Stakeholder engagement regarding Park and Trail prioritization, and Wilderness Conservation lands	Winter 2015
Stakeholder engagement regarding shoreline protection, sensitive ecosystem mapping (include Riparian Areas Regulation?)	Winter 2015
Stakeholder engagement regarding economic development and advocacy	Spring 2016
Report to LTC regarding results of stakeholder engagement and outline of draft amendments	Summer 2016

Project Team

Aleksandra Brzozowski	Project Manager
Courtney Simpson	Project Sponsor
Becky McErlean	Admin Support
Barb Dashwood	GIS technician

RPM Approval:

Date:

LTC Endorsement:

Resolution #:

Budget

Budget Source: \$10,000 (2015/2016 Fiscal)

Fiscal	Item	Cost
2015-2016	Crown Land Profile—contractor support re interpretation of external data	\$ 3,000
2015-2016	Communications & Meetings	\$ 2,000
2015-2016	Contribution to Arch Overview	\$ 5,000
	Total	\$10,000

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Gambier OCP Review Bylaw Amendment Phase Project Charter

Gambier Island Local Trust Committee

Date: May 26, 2015

Purpose To review the OCP to address topics deemed out-of-date or problematic to better reflect the Gambier community and achieve the object of the Islands Trust.

Background The LTC identified this project as a Top Priority in February 2015.

Objectives

- To adopt policies that advance the stewardship of sensitive ecosystems on Gambier Island
- To address community needs that are within the scope of land use planning
- To engage and collaborate with First Nations
- To revise land use and advocacy policies with the aim to reflect current realities

In Scope

- Land uses and policies for the Wilderness Conservation lands
- Park and trail prioritization
- Updating OCP schedules with current mapping data
- Protection of archaeological and cultural sites
- Shoreline protection
- Policies to promote economic development
- Policies to promote revitalization of New Brighton
- Review of advocacy policies
- Review of Development Permit Areas

Out of Scope

- Review of Density/Build-Out
- Review of Land Use Designations outside of WC
- Operational concerns under the authority of other agencies

Workplan Overview

Deliverable/Milestone	Date
Consultation with First Nations on outline of draft amendments	Spring 2016
Consultation with FLNRO following completion of new protocol agreements between Islands Trust and FLNRO	Summer 2016
Report to LTC on approaches to bylaw amendments (omnibus v. several)	Summer 2016
Referral to Gambier APC on first draft of bylaw	Summer/Fall 2016
First Reading	Fall 2016
Stakeholder consultation regarding draft bylaws	Winter 2016/2017
Engagement with SCRD, agencies and First Nations re draft bylaws	Winter 2016/2017
Second Reading	Spring 2017
Public Hearing and Third Reading	Summer 2017

Project Team

Aleksandra Brzozowski	Project Manager
Courtney Simpson	Project Sponsor
Becky McErlean	Admin Support
Barb Dashwood	GIS technician

RPM Approval:

Date:

LTC Endorsement:

Resolution #:

Budget

Budget Source: \$3,000 (anticipated 2016/2017 project budget)

Fiscal	Item	Cost
2016-2017	Communication Materials	\$ 500
2016-2017	APC meetings	\$1,000
2016-2017	Meetings and Public Hearing	\$1,500
	Total	\$3,000

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Community Plan Review for Gambier Island

Communications Plan

Creation Date: May 25, 2015

Last Updated:

Version: 1

	Name	Endorsement Date
Project Sponsor	Courtney Simpson Regional Planning Manager	
Project Manager	Aleksandra Brzozowski Island Planner	
Local Trust Committee	Gambier Island	

Purpose

Taken from "Guidelines: A Strategic Approach to Local Trust Committee Communications" approved by Executive Committee, August 2011:

A Communication Strategy is an essential planning tool to help coordinate communication activities by:

- *Ensuring all communications focus proactively on Islands Trust's priorities, goals and objectives in a clear, timely and cost-effective way*
- *Ensuring roles & responsibilities are clear and consistent, ideally guided by policy*
- *Harnessing and focusing combined efforts to prevent duplication, avoid unintended conflicts and to make the most of existing opportunities (e.g. partnership with other agencies)*
- *Minimizing last-minute demands (crisis management)*
- *Anticipating public reaction before launching projects*

Goals of Project Communications

- *To ensure that asserted Aboriginal rights are not infringed upon and further, to assist First Nations in achieving their goals in the Community Plan area where opportunities exist*
- *To describe the process, timeline and opportunities for input to property owners*
- *To empower property owners to have their say and demonstrate that they are being heard and their comments are valued*
- *To make participation in this process accessible to all property owners, other stakeholders, and First Nations*
- *To engage the Sunshine Coast Regional District in discussion of shared interests including parks and building inspection*
- *To explain and educate around the policy and legislated framework for creating an official community plan and land use bylaw in the Islands Trust Area, including the Policy Statement*

Background

A review of Gambier's Official Community Plan (OCP) was placed as Priority #4 on the Top Priorities work program at the February 12, 2015 LTC meeting.

In previous years, the LTC has expressed a desire to pursue a comprehensive plan for the area that would holistically address cross-jurisdictional issues such as road networks and forest tenure in Crown land; such a project has been on the Projects List since 2010. Staff recognizes that there remains desire to apply a comprehensive planning lens to this OCP review as appropriate, and this should be considered when developing the communications plan.

Stakeholders

Stakeholder	Interests, expectations, concerns
<i>Islands Trust</i>	• Preservation and protection of the Trust Area ecosystems • The scale, rate and type of development in the Trust Area are compatible with maintenance of the integrity of Trust Area ecosystems • To sustain island character and healthy communities
<i>Property owners & residents</i>	• New policies should be fair, clear, and respect our needs • Policies should not significantly impact land values • Expect clear, proactive communication
<i>First Nations</i>	• TBD
<i>Agencies (FLNRO, Coastal Health, SCRD, MOTI)</i>	• To achieve their mandates on Gambier Island
<i>Citizens of BC</i>	• Preservation and protection of the Trust Area ecosystems

Resources

Due to staffing changes in the Northern Office, staffing resources for the remainder of 2015 will be somewhat limited. However, there is now budget for appropriate external resources to be contracted. Engagement for the Gambier OCP has been deemed a suitable candidate for this funding.

The external contract would be managed by Planning Staff, from the Request for Proposals through the oversight of the work. Contracted staff will be responsible for preparing and distributing communication materials, as well as compiling a final report at the end of the consultation period.

The LTC will be asked to endorse the Request for Proposals as well as the initial newsletter and survey, but will not necessarily be given the opportunity to endorse future consultation materials due to time constraints between LTC meetings. By endorsing this Communication Plan, the LTC is directing staff to oversee this communications.

Action Plan for Engagement Phase

Method	Key content / message	Cost	Target Date
<i>Contact with First Nations</i>	Early consultation	n/a	May 2015
<i>Website updates</i>	All project background documents	n/a	June 2015
<i>Meeting with SCRD</i>	Early discussion of shared interests (parks, building inspection)	n/a	July 2015
<i>Request for Proposals for Consultation component</i>	Establish consultation goals for prospective consultant	TBD	July 2015
<i>Newsletter #1</i>	Communicate process, perceived timelines, anticipated scope	\$200	July 2015
<i>Survey or Online Forum</i>	Solicit opinions and feedback on identified topics	Contract	September/October 2015
<i>Community to Community Forum with First Nations</i>	Sharing of histories and interests re Gambier Island and to establish next steps	\$750	October 2015
<i>Newsletter #2</i>	Update on work, how to participate in online engagement	Contract	October 2015
<i>Survey #2 (online)</i>	Solicit feedback on 2-3 specific topics	Contract	November 2015
<i>Survey #3 (online)</i>	Solicit feedback on 2-3 specific topics	Contract	November 2015
<i>Survey #4 (online)</i>	Solicit feedback on 2-3 specific topics	Contract	November 2015
<i>Newsletter #3</i>	Summary of the Final Report from the consultant re: input from engagement, advertise for Gambier APC, Next steps	\$200	Spring 2016

Top Priorities

Gambier Island

No.	Description	Activity	Received/Initiated	Responsibility	Target Date	Status
1	Foreshore protection/stewardship and clarity; implementation of Development Approval Information Bylaw (DAI) or Development Permit Areas (DPA's).	Investigate and recommend options for protection/stewardship within the local trust area through the use of existing land use planning tools.	Jan-31-2012	Aleksandra Brzozowski	Nov-27-2014	On Going
2	OCP advocacy policies - implementation & support	Work related to supporting the advocacy policies stated in the Gambier, Keats, and Associated Islands OCPs and in the IT Strategic Plan. Ex. Woodlots, industrial facilities, cross-jurisdictional management of Howe Sound	Oct-24-2013	Dan Rogers Kate-Louise Stamford	May-31-2015	On Going
3	Riparian Areas Regulation Implementation Project for Gambier Island Local Trust Area.		Oct-26-2011	Aleksandra Brzozowski	Dec-31-2012	On Going
4	Gambier OCP comprehensive review.		Feb-12-2015	Aleksandra Brzozowski	Feb-01-2017	On Going

Projects

Gambier Island

No.	Description	Activity	Received/Initiated	Status
1	Keats Island OCP Map Amendment - add trail map used during public process developing OCP.		Mar-08-2007	On Going
1	Consider a mechanism to recognize authorizations of additional dwellings as permitted by s. 4.4.10 of Keats LUB		Aug-04-2010	On Going
1	Development Approval Information Bylaw	Develop and adopt a D.A.I bylaw for the Gambier Trust Area.		On Going
1	Consultation with Squamish First Nation	Scope interim strategies pending completion of a possible protocol agreement to address protection of archaeological and heritage resources.	Jan-31-2012	On Going
1	Strategic Planning Review for Howe Sound		Jan-31-2012	On Going
1	Review Gambier OCP/LUB to address:	- definition of breakwater - trams (currently silent) - advocacy policies around pump out stations - review of title Wilderness Conservation - 2013: REVIEW KEATS AND GAMBIER LUBS FOR ACCOMMODATION of OCEAN LOOP GEO-EXCHANGE SYSTEMS - 2010: GHG Emissions (a more proactive approaches to plan for GHG reductions especially in relation to Policies 6.1 and 6.2 in consultation with SCRD.) Initiative arises from recommendation of SCRD in comments about bylaws 111 & 112.	May-22-2014	On Going
1	Staff to research the history of Site-Specific water zones on Gambier.		Sep-26-2013	On Going



Applications w/ Status - Gambier Island Status: Open

Applications

Development Variance Permit

File Number	Applicant Name	Date Received	Purpose
GM-DVP-2002.1	Land Plan Group Inc. Planner: Sonja Zupanec	Jan-24-2002	PID: 014-385-694 Keats Island - Keats Camp cottage lots - siting variances DL 696

Planning Status

Status Date: Apr-10-2008

still on hold pending rezoning

Status Date: Aug-13-2007

on hold pending rezoning application

Status Date: May-16-2006

Met with applicant. Outstanding items forwarded for attention. May be add'l fees.

File Number	Applicant Name	Date Received	Purpose
GM-DVP-2011.2	Elena and France Corin and Larouche Planner: Marnie Eggen	Mar-22-2011	PID: 024-212-041 1250 Taki-Te-Si Road, Gambier Island vary the setback to the natural boundary of the sea for retaining wall

Planning Status

Status Date: Jun-09-2015

no change

Status Date: Feb-02-2015

no change

Status Date: Aug-26-2014

no change

File Number	Applicant Name	Date Received	Purpose
GM-DVP-2015.2	FREDRIK SVERRE	May-08-2015	Site 69, Buccaneer Bay Holdings. Variance to lot line setback in the Land Use Contract.

Planner: Teresa Rittermann

Planning Status

Status Date: Jun-09-2015

Planner reviewing application and writing Staff Report. Aiming to have on the agenda for August 6 LTC meeting.

Status Date: May-19-2015

File assigned to Planner TR.

File Number	Applicant Name	Date Received	Purpose
GM-DVP-2015.3	ROSANN YOUNG	Jun-08-2015	PID: 024-211-591 1508 Taki-Te-Si Road (formerly 1556) Variance of the 15 metre setback to permit the residence to be built within 14 metres of the high water line.

Planner: Teresa Rittermann

Planning Status

Rezoning

File Number	Applicant Name	Date Received	Purpose
GM-RZ-2004.1	LandPlan Group Inc.	Jun-16-2004	PID: 014-385-694 Keats Island - Keats Camp rezoning application DL 696

Planner: Aleksandra Brzozowski

Planning Status

Status Date: Apr-27-2015

Agreed that applicant will work to complete the terms of the Land Use Contract without amendment, ie. not requiring Bylaw 101.

Status Date: Oct-10-2014

Applicant notified SZ not lead planner on file

Status Date: Sep-18-2014

Trust Fund accepted nature reserve at Sandy Beach

Subdivision

File Number	Applicant Name	Date Received	Purpose
GM-SUB-2000.1	LANDPLAN GROUP INC.	May-04-2000	PID: 014-385-694 Keats Island - 111 bare land strata subdivision, 2 camp lots, and remainder(Keats Camp); nature reserve, park dedication, parking lot. DL 696

Planner: Sonja Zupanec

Planning Status

Status Date: Jun-06-2007

On hold pending rezoning application.

Status Date: May-16-2006

Met with applicant - revised plan to come based on LUC. May be add'l fees.

Status Date: Dec-21-2005

MOT issues Prelim Layout NOT APPROVED with conditions.

File Number	Applicant Name	Date Received	Purpose
GM-SUB-2010.1	Venture Management Ltd Planner: Sonja Zupanec	May-25-2010	PID: 015-980-324 7 residential lots

Planning Status

Status Date: Jan-06-2012

No further action until applicant finalizes final plan of subdivision.

Status Date: Mar-16-2011

Comments sent to MoTI. Depth to width information was received.

Status Date: Feb-23-2011

Waiting for applicant to confirm that lots comply with depth to width ratio. Revised comments to be sent to MoTI.

File Number	Applicant Name	Date Received	Purpose
GM-SUB-2012.2	Reel 17 Investments Ltd. Planner: Aleksandra Brzozowski	Jun-29-2012	4 lot subdivision

Planning Status

Status Date: Jun-09-2015

PLA granted by MOTI on May 22, 2015.

Status Date: Apr-27-2015

Revised referral response sent to MOTI.

Status Date: Dec-08-2014

Reaffirmed with MOTI that DVP is required before property is deemed compliant with zoning.

File Number	Applicant Name	Date Received	Purpose
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GM-SUB-2013.1

Creus Engineering Dec-09-2013

PID: 014-385-694 The Convention of Baptist Churches of BC Keats Island
9 Lot Subdivision

Planner: Sonja Zupanec

Planning Status

Status Date: Mar-28-2014

Under review by planner

Islands Trust
LTC EXP SUMMARY REPORT F2016
Invoices posted to Month ending May 2015

630 Gambier	Invoices posted to Month ending May 2015	<u>Budget</u>	<u>Spent</u>	<u>Balance</u>
65000-630	LTC "Trustee Expenses"	3,000.00	0.00	3,000.00
LTC Local				
65200-630	LTC - Local Exp - LTC Meeting Expenses	2,500.00	501.79	1,998.21
65210-630	LTC - Local Exp - APC Meeting Expenses	750.00	0.00	750.00
65220-630	LTC - Local Exp - Communications	300.00	0.00	300.00
65230-630	LTC - Local Exp - Special Projects	750.00	214.00	536.00
TOTAL LTC Local Expense		<u>4,300.00</u>	<u>715.79</u>	<u>3,584.21</u>
Projects				
73001-630-2016	Gambier OCP/LUB	7,000.00	0.00	7,000.00
73001-630-3003	Gambier RAR	10,000.00	0.00	10,000.00
73001-630-4052	Gambier Howe Sound Community Forum	1,000.00	0.00	1,000.00
TOTAL Project Expenses		<u>18,000.00</u>	<u>0.00</u>	<u>18,000.00</u>

Gambier Island Local Trust Committee

POLICIES AND STANDING RESOLUTIONS

Updated: March 26, 2015

No	Meeting Date	Resolution No.	Issue	Policy
1.	October 6, 2010	GM-082-2010	Guidelines for the appointment of members to the advisory planning commission	It was MOVED and SECONDED that the Gambier Island Local Trust Committee endorses the following guidelines for the appointment of members to the advisory planning commission and requests that such guidelines be posted on the Islands Trust website and are used in any posting to solicit expressions of interest from candidates for advisory planning commission membership: “The Gambier Island Local Trust Committee shall make all reasonable efforts, in the consideration of appointments to the advisory planning commission that members are: - representative of a broad cross section of the geographical areas of the Gambier Island Local Trust Committee area; - representative of a range of backgrounds and expertise that is supportive to each other in the consideration of matters referred to the advisory planning commission - where feasible and practical of a balanced representation of gender and age groups. Consideration shall be given to the following criteria in any appointment: ▪ Previous experience as a member of a Board of Variance ▪ Experience on a local government council, board, local trust committee, commission or other body ▪ Experience with other volunteer boards, commissions or committees ▪ Experience and credential in a planning, design or related profession ▪ Experience and credentials in a building or design trade ▪ Educational background ▪ Length of residency in the local trust area Availability, and willingness to travel between local trust areas.”
2.	March 26, 2015	GM-2015-018		It was MOVED and SECONDED, that the Gambier Island Local Trust Committee amend the APC appointment guidelines to allow for representation of members to be weighted to a geographic area subject to a current top priority project.

Trust Fund Board Report to Local Trust Committees and Bowen Island Municipality May 2015

ITF Name Change – Meeting with Assistant Deputy Minister

Trust Fund Board Chair Tony Law joined the Executive Committee for a meeting with Jay Schlosar, an Assistant Deputy Minister with the Ministry of Community, Sport and Cultural Development. The main topic was the long-standing request for a legislative amendment to the *Islands Trust Act* to re-name the Islands Trust Fund to Islands Trust Conservancy. Mr. Schlosar agreed that the existing name presents a barrier to fundraising and marketing and that a new name that reflects what we do could make a significant difference for us. Although the proposed change is minor, Mr. Schlosar cautioned those attending that there are always many competing priorities for the legislative agenda. The ADM indicated his willingness to move our request forward and will keep us informed about timelines and process. The Trust Fund Board appreciates the support of Trust Council and the Executive Committee in advancing the name change request, something that has been on the Board's agenda for several terms.

Lasqueti Crown Land Acquisition

Representatives of TFB and staff will be meeting with the Chief and Councillors of Qualicum First Nation to begin discussing a possible Sponsored Crown Grant application on Lasqueti Island. The parcel in question is north of Mount Trematon, an existing Islands Trust Fund nature reserve encompassing the highest point on Lasqueti. The acquisition would contribute to a significant network of protected areas for the island.

Islands Trust Fund Annual Report – A good read!

TFB has approved our annual report for 2014-15 to be included as a section in the Islands Trust Council's annual report to the Minister. While this report meets a statutory requirement, it also offers a good read that provides interesting information about our work. We encourage trustees who want to be more familiar with our activities to read our section when the draft comes to Trust Council's meeting for approval in June 2015.

Conservation Covenants on Salt Spring Island

In February we registered a conservation covenant on 0.3 hectares of a private Salt Spring Island property, providing legal protection to a First Nations burial site, as well as forest ecosystem values. A covenant has also been registered on our Cyril Cunningham Nature Reserve by the Habitat Acquisition Trust and the Salt Spring Island Conservancy, adding a new layer of protection.

Howe Sound Science and Knowledge Workshop

Kate Emmings, Ecosystem Protection Specialist, attended a workshop co-hosted by the Squamish Nation, Vancouver Aquarium, and David Suzuki Foundation to "bring knowledge holders together to identify and share observations, information, experiences, and future knowledge priorities related to the aquatic biophysical features of Howe Sound." Kate shared eelgrass and forage fish data for the area and identified potential resources for the Gambier Island Local Trust Committee.

Strategic Plan

Trust Fund Board has submitted its input for the Islands Trust Strategic Plan. All our suggestions relate to the Policy Statement goal of Ecosystem Preservation and Protection and to achieving objectives of the Regional Conservation Plan. Our input supports activities to protect coastal and marine areas, including utilizing land use planning tools for shoreline protection.

More information?

Please contact any of the three trustees who are members of the Board – Tony Law, Susan Morrison and Kate-Louise Stamford – who will be glad to help answer any questions you may have.



Memorandum

700 North Road Gabriola Island BC V0R 1X3

Telephone **250. 247-2063** FAX: 250. 247-7514

Toll Free via Enquiry BC in Vancouver 660-2421. Elsewhere in BC **1.800.663.7867**

northinfo@islandstrust.bc.ca www.islandstrust.bc.ca

Date June 8, 2015 File Number GM-3030-01
General

To Gambier Island Local Trust Committee

From Aleksandra Brzozowski
Island Planner
Northern Office

Re Merry Island Lighthouse Designated as Heritage Lighthouse

This memorandum is to provide an update on the 2012 Heritage Lighthouse Program application for the Merry Island lighthouse.

The Northern Office received a letter from the Ministry of Environment notifying the Islands Trust that the application to designate the lighthouse on Merry Island as a Heritage Lighthouse under the *Heritage Lighthouse Protection Act*.

Planning staff submitted an application in 2012 to have the Merry Island lighthouse and caretaker's residence designated as part of this program. The application included a petition of support as well as a letter of support from the Sunshine Coast Regional District.

Attachment: Letter from Ministry of Environment re: heritage designation for Merry Island lighthouse
Heritage Lighthouse Program application

ec: Garry Nohr, Sunshine Coast Regional District

Minister of the Environment



Ministre de l'Environnement

Ottawa, Canada K1A 0H3

Ms. Sonja Zupanec
Islands Trust
700 North Road
Gabriola Island BC V0R 1X7

Dear Ms. Zupanec:

I am pleased to advise you that I recently designated the Merry Island Lighthouse as a heritage lighthouse under the *Heritage Lighthouse Protection Act*. The designation of this lighthouse ensures the protection of its heritage character for present and future generations.

In view of their interest in this matter, I have informed the Member of Parliament for West Vancouver–Sunshine Coast–Sea to Sky Country and the Minister of Community, Sport and Cultural Development for the Province of British Columbia of this designation.

For further details, I invite you to contact Mr. Norman Shields, Manager, Heritage Designations, Parks Canada, at hsmbc-clmhc@pc.gc.ca or by telephone at 1-855-283-8730.

Sincerely,

The Honourable Leona Aglukkaq, P.C., M.P.
Minister of the Environment

c.c.: Mr. John Weston, M.P.
The Honourable Coralee Oakes, M.L.A.





Heritage Lighthouse Protection Act – Nomination Package

What is the *Heritage Lighthouse Protection Act*?

The *Heritage Lighthouse Protection Act* is a law designed to protect federally owned lighthouses that have significant heritage value. Residents of Canada can have a say in the future of lighthouses by signing petitions requesting the heritage designation of lighthouses that are important to them. Related buildings, such as a keeper's residence or fog alarm building, may be included in a heritage lighthouse designation if they contribute to the heritage character of the lighthouse. Once designated, the Act protects the heritage character of heritage lighthouses.

How will heritage lighthouses be designated?

Federally-owned lighthouses will be designated by the Minister responsible for Parks Canada (the Minister of the Environment) in consultation with the Historic Sites and Monuments Board of Canada. All designations will be based on heritage evaluation criteria developed specifically for Canadian lighthouses.

Who can sign a petition to nominate a lighthouse for designation?

Petitions to nominate a lighthouse for designation under the Act may be signed by residents of Canada who are 18 years of age or older. Petitions must have at least 25 signatories, with names and addresses appearing on the petition. A petition template is included with this nomination package.

How do I submit a petition?

Completed petitions and nomination packages should be sent to the office of the Heritage Lighthouse Program at Parks Canada. The mailing address and contact information is provided at the end of this page. Petitions must be received by May 29, 2012.

What are some key dates?

May 29, 2012: Two-year petitioning period ends.

May 29, 2015: Final date for the Minister to consider petitions and announce any resulting designation.

August 27, 2015: Final date to publish results of the program in the *Canada Gazette*.

Can a surplus lighthouse be designated?

Yes. Lighthouses that are surplus to the operational requirements of the federal government may be designated if a person or body commits to buy or otherwise acquire the lighthouse and protect its heritage character. Please consult the program website or contact our office for more information about surplus lighthouses.

We can help!

You are encouraged to contact the Heritage Lighthouse Program office with any questions you may have about the program or if you require assistance in completing a petition.

Heritage Lighthouse Program

Parks Canada Agency
25 Eddy Street (25-5-P)
Gatineau, Québec
K1A 0M5

Tel: 819-934-9096

Fax: 819-953-4139

lighthouses@pc.gc.ca

[www.parkscanada.gc.ca/
lighthouses](http://www.parkscanada.gc.ca/lighthouses)





Heritage Lighthouse Program

Identification of the Nominated Lighthouse and Point of Contact

(Please print or type)

Identification of the lighthouse being nominated:

MERRY ISLAND LIGHTHOUSE

(Name of the lighthouse)

MERRY ISLAND, BRITISH COLUMBIA

(Location of the lighthouse)

(Directory of Federal Real Property number, if known)

CARETAKERS' RESIDENCE

(Description of any related buildings being nominated, if applicable)

(Description of any existing historical recognition / designation, if known)

Please attach a recent photo (if possible).

Identification of Point of Contact:

SONJA ZUPANEC, ISLAND PLANNER, ISLANDS TRUST

(Name of person, organization, or municipality initiating the nomination)

700 NORTH ROAD

(Street Address or PO Box)

GABRIOLA ISLAND

(City)

BC

(Province / Territory)

V0R 1X7

(Postal Code)

(250) 247-2211

(Home telephone)

(Office telephone)

(250) 247-7514

(Facsimile)

SZUPANEC@ISLANDSTRUST.BC.CA

(Email address)

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**SUNSHINE COAST
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Toll Free 1.800.687.5753
Web Site: www.scrd.ca



November 3, 2011

Sonja Zupanec, Island Planner
Islands Trust
700 North Rd
Gabriola Island, BC
V0R 1X3



Dear Sonja:

Re: Heritage Lighthouse Protection for Merry Island

The Sunshine Coast Regional District supports the Islands Trust's application to Parks Canada to designate the lighthouse and related buildings for Heritage Lighthouse Protection.

The Merry Island lighthouse is the only manned station on the Sunshine Coast. It is an important local feature for the residents and maritime community. The lighthouse continues to perform a significant role in protecting commercial and recreational maritime traffic in our busy shipping lanes. Merry Island is a gateway to Halfmoon Bay, Pender Harbour and onwards to Desolation Sound.

It is important that such iconic architectural and historic buildings are protected for future generations.

Yours truly,

A handwritten signature in black ink, appearing to read "G. Nohr".

SUNSHINE COAST REGIONAL DISTRICT

Garry Nohr, SCRD Chair

