



South Pender Island Local Trust Committee Regular Meeting Agenda

Date: April 3, 2018
Time: 10:00 am
Location: South Pender Fire Hall
8961 Gowlland Point Road, South Pender Island, BC

			Pages
1.	CALL TO ORDER	10:00 AM - 10:00 AM	
2.	APPROVAL OF AGENDA		
3.	TOWN HALL AND QUESTIONS	10:00 AM - 10:15 AM	
4.	COMMUNITY INFORMATION MEETING		
	none		
5.	PUBLIC HEARING		
	none		
6.	MINUTES	10:15 AM - 10:20 AM	
6.1	Adopted Local Trust Committee Minutes Dated February 20, 2018 (for Information)		4 - 10
6.2	Section 26 Resolutions-without-meeting Dated March 2018		11 - 11
6.3	Advisory Planning Commission Minutes		
	none		
7.	BUSINESS ARISING FROM THE MINUTES	10:20 AM - 10:25 AM	
7.1	Follow-up Action List Dated March 2018		12 - 13
8.	DELEGATIONS		
	none		
9.	CORRESPONDENCE	10:25 AM - 10:30 AM	
<i>Correspondence received concerning current applications or projects is posted on the LTC webpage</i>			

9.1	CRD Regional Parks - March 15 2018 Letter re: Gulf Islands Regional Trails Plan (attached)	14 - 14
10.	APPLICATIONS AND REFERRALS	10:30 AM - 10:40 AM
10.1	North Pender Island Local Trust Committee Bylaws No. 216 & 217 Referral (attached) for response	15 - 17
11.	LOCAL TRUST COMMITTEE PROJECTS	10:40 AM - 11:20 AM
11.1	Pedestrian and Cycle Routes - Staff Report - Draft Bylaw 115 (attached) for consideration of First Reading	18 - 37
12.	REPORTS	11:20 AM - 11:40 AM
12.1	Work Program Reports (attached)	
12.1.1	<u>Top Priorities Report Dated March 2018</u>	38 - 38
12.1.2	<u>Projects List Report Dated March 2018</u>	39 - 39
12.2	Applications Report none	
12.3	Trustee and Local Expense Report Dated January 2018 (attached)	40 - 40
12.4	Adopted Policies and Standing Resolutions (attached)	41 - 41
12.5	Local Trust Committee Webpage	
12.6	Chair's Report	
12.7	Trustee Report	
12.8	Trust Fund Board Report Dated January 2018	42 - 44
13.	NEW BUSINESS	11:40 AM - 12:20 PM
13.1	Appointment of LTC Liaison to Plumper Sound Protection Association - Discussion	
13.2	First Nations Relationship Building - Verbal Report	
13.3	Briefing - Land-use Planning Implications of Fisheries and Oceans Canada (attached) <i>Integrated Geoduck Management Framework March 2018</i>	45 - 67
14.	UPCOMING MEETINGS	12:20 PM - 12:20 PM
14.1	Next Regular Meeting Scheduled for June 12, 2018, at the South Pender Fire Hall, Pender Island	

- | | | |
|-----|------------------------|---------------------|
| 15. | TOWN HALL | 12:20 PM - 12:30 PM |
| 16. | CLOSED MEETING
none | |
| 17. | ADJOURNMENT | 12:30 PM - 12:30 PM |



ADOPTED

South Pender Island Local Trust Committee

Minutes of Regular Meeting

Date: February 20, 2018
Location: South Pender Fire Hall
8961 Gowlland Point Road, South Pender Island, BC

Members Present: Peter Luckham, Chair
Bruce McConchie, Local Trustee

Staff Present: Robert Kojima, Regional Planning Manager
Jason Youmans, Island Planner
Shannon Brayford, Recorder

Regrets: Wendy Scholefield, Local Trustee

Public Present: There were 3 members of the public in attendance.

1. CALL TO ORDER

Chair Luckham called the meeting to order at 10:00 a.m. He acknowledged that the meeting was being held in the territory of the Coast Salish First Nations.

2. APPROVAL OF AGENDA

Trustee McConchie recommended the addition of 10.4 North Pender Island Local Trust Committee Bylaw Referral Bylaw 216 and 217.

By general consent the agenda was approved as amended.

3. TOWN HALL AND QUESTIONS

Peter Pare, a representative of Moving Around Pender (MAP), spoke to the staff report titled "Pedestrian & Cycle Routes". He requested that the related bylaw changes be considered under Scheduled "H" Transportation instead of under Schedule "D" Recreation, as proposed in the report. He also suggested it be made clear that while pedestrian and bike paths should be separate from the road, they should nonetheless be constructed within the MOTI right-of-way.

John Chapman spoke to the staff report "Pedestrian & Cycle Routes" and encouraged the Local Trust Committee (LTC) to formulate a fulsome, long range plan for cycling as a mode of viable transportation.

4. COMMUNITY INFORMATION MEETING

none

5. PUBLIC HEARING

none

6. MINUTES

6.1 Local Trust Committee Minutes Dated November 14, 2017

Chair Luckham noted that the Local Trust Committee (LTC) minutes are usually adopted by Resolution Without Meeting (RWM). He further reported that the RWM process was not used for the November minutes to facilitate consideration of recommended amendments.

SP-2018-001

It was MOVED and SECONDED,

That the November 14, 2017 minute of the South Pender LTC be adopted as amended and circulated electronically by Trustee Scholefield.

CARRIED

A discussion was held regarding the general policy for minutes and the rationale for that policy.

6.2 Section 26 Resolutions-without-meeting Dated February 2018

An overview of the RWM document was provided.

6.3 Advisory Planning Commission Minutes

none

7. BUSINESS ARISING FROM THE MINUTES

7.1 Follow-up Action List Dated February 2018

Regional Planning Manager (RPM) Kojima provided an overview of items on the report. Trustee McConchie requested information on feasibility of the Community-to-Community (C-to-C) event.

8. DELEGATIONS

none

9. CORRESPONDENCE

Correspondence received concerning current applications or projects is posted on the LTC webpage
none

10. APPLICATIONS AND REFERRALS

10.1 SP-DP-2017.1 (Poets Cove) - Monitoring Progress

Planner Youmans invited the LTC to ask questions on the matter.

Trustee McConchie noted that the trees had been removed and his understanding that the wood would be provided to Tsawout First Nation for carving. He noted effective inter-agency collaboration.

Planner Youmans provided an overview of the next steps and the monitoring systems in place to ensure compliance with the permit's requirements.

10.2 Mayne Island Local Trust Committee Bylaw 172 Referral

Regional Planning Manager (RPM) Kojima provided an overview of the referral.

SP-2018-002

It was MOVED and SECONDED,

That the South Pender Island Local Trust Committee respond to the Mayne Island Local Trust Committee Bylaw 172 Referral with "Interests unaffected".

CARRIED

10.3 Mayne Island Local Trust Committee Bylaw 171 Referral

RPM Kojima provided an overview of the referral.

SP-2018-003

It was MOVED and SECONDED,

That the South Pender Island Local Trust Committee respond to the Mayne Island Local Trust Committee Bylaw 171 Referral with "Interests unaffected".

CARRIED

10.4 North Pender Island Local Trust Committee Bylaw 216 and 217 Referral

RPM Kojima provided an overview of the referral.

SP-2018-004

It was MOVED and SECONDED,

That the South Pender Island Local Trust Committee respond to the North Pender Island Local Trust Committee Bylaw 216 and 217 Referral with "Interests Unaffected".

CARRIED

11. LOCAL TRUST COMMITTEE PROJECTS

11.1 Heritage Conservation - Staff Report

Planner Youmans provided an overview of the staff report, including examples of other jurisdictions with heritage registers and options available to this LTC.

A discussion of the options presented in the staff report was held and a recommendation was made that Trust Council consider undertaking a Trust Area-wide register, or develop a standardized process LTC's could use to create their own. .

SP-2018-005

It was MOVED and SECONDED,

That the South Pender Island Local Trust Committee direct staff, in consultation with the South Pender Island Historical Society, to develop a Community Heritage Register that includes only the Church of the Good Shepherd.

CARRIED

11.2 Pedestrian & Cycle Routes - Staff Report

Chair Luckham noted that comments were made on this matter during the Town Hall.

He invited Planner Youmans to provide an overview of the report and the recommendations made within it.

Planner Youmans addressed the comments made during the Town Hall and noted that the amendment could be addressed under Scheduled "H" Transportation instead of under Schedule "D" Recreation.

Planner Youmans addressed the concern that the term "Off Road" will exclude the routes from roadside areas. He noted that the assumption is that the roadside right of ways will be included, but that this assumption can be made more explicit in the policy language.

RPM Kojima noted that sensitive ecosystems and heritage roads may limit route placement.

Trustee McConchie spoke to the staff report, recommending that the pedestrian and bicycle path be included under both Schedule "D" Recreation and Schedule "H" Transportation.

Peter Pare, a representative of MAP, was invited to comment. He asked if a rezoning amendment could create an opportunity for the creation of a trail.

RPM Kojima provided an overview of the circumstances in which a right of way or linear park could be created.

Trustee McConchie requested information on the process moving forward.

Planner Youmans and RPM Kojima provided an overview of the types of community consultation that can be engaged and the overall timeline of the bylaw amendment process.

SP-2018-006

It was MOVED and SECONDED,

That the South Pender Island Local Trust Committee direct staff to draft an amendment to Schedule "D" and Schedule "H" of Official Community Plan Bylaw No. 107 to show a future pedestrian and bicycle path consistent with that shown in Appendix 1 of the Staff report dated February 8, 2018.

CARRIED

SP-2018-007

It was MOVED and SECONDED,

That the South Pender Island Local Trust Committee direct staff to draft amendments to Section 6.1.3 of Official Community Plan Bylaw No. 107 as shown in Appendix 2 of the staff report dated February 8, 2018.

CARRIED

12. REPORTS

12.1 Work Program Reports

12.1.1 Top Priorities Report Dated February 2018

Received for information.

12.1.2 Projects List Report Dated February 2018

Received for information.

12.2 Applications Report

none

12.3 Trustee and Local Expense Report Dated December 2017

Received for information.

12.4 Adopted Policies and Standing Resolutions

Received for information.

Trustee McConchie recommended that Policy 1, Resolution No. SP-LTC-12-06 be considered for an amendment at a future meeting.

12.5 Local Trust Committee Webpage

No remarks.

12.6 Chair's Report

Chair Luckham provided a report on his recent activities, including the following points:

- Recent work of Trust Council Executive (Anchorage in marine parks, First Nations Engagement, Financial Planning).
- Invited by Transport Canada to sit as a witness on the Committee for Derelict and Abandoned Vessels and made a formal presentation to the Committee from the Trust Area perspective.
- While in Ottawa met with the transportation critic with Elizabeth May, and with other MPs and senior staff regarding the importance of analyzing anchorage issues including the suitability of an anchorage and assessing its necessity.

12.7 Trustee Report

Trustee McConchie provided a report on his recent activities, including the following points:

- Attended the quarterly Trust Council meeting in Victoria in December.
- Working with local community members to inform the public and Transport Canada about the negative impacts of the temporary freighter anchorages in Southern Gulf Island waters.
- Assisted in the formation of the Plumper Sound Protection Association to enable advocacy during the Federal Government's Ocean Protections Plan process.
- Focused on the issue of styrofoam debris pollution from neglected and deteriorating docks.
- Wrote the South Pender Trustee report for the March issue of the Pender Post.

A discussion was held regarding the role of Islands Trust in dealing with styrofoam debris. Chair Luckham noted that the Trust Programs Committee is addressing the matter.

12.8 Trust Fund Board Report Dated November 2017

Chair Luckham provided a brief overview of the report.

13. NEW BUSINESS

13.1 Housing Agreement Administration Briefing

Received for information

13.2 First Nations Relationship Building - Verbal Report

It was noted that the staff member best suited to provide the report was unable to attend and there was agreement that the item shall be deferred to the next meeting.

13.3 Executive Committee re: Farm Industry Review Board & Aquaculture - Staff Memo

Received for information.

13.4 Appointment of LTC Liaison to Plumper Sound Protection Association

Chair Luckham noted his support of the formation of this Association.

Trustee McConchie provided a brief overview of the association and there was general agreement that the matter shall be deferred to the next meeting.

14. UPCOMING MEETINGS

14.1 Next Regular Meeting Scheduled for April 3, 2018, at the Fire Hall, Pender Island

15. TOWN HALL

Glen Sawyer requested and was provided with advice regarding the benefits and potential drawbacks of easements, boundary adjustment subdivisions, and other agreements that can be made between neighbours.

16. CLOSED MEETING

none

17. ADJOURNMENT

By general consent the meeting was adjourned at 11:29 a.m.

Peter Luckham, Chair

Certified Correct:

Shannon Brayford, Recorder



Islands Trust

Print Date: March 26, 2018

Resolutions Without Meeting

South Pender Island

Resolution #	Action	Resolution Description	Resolution Date
2018-03	In Favour	That the South Pender Island Local Trust Committee minutes of February 20, 2018, as presented, be Adopted.	26-Mar-2018

Follow Up Action Report

South Pender Island

14-Nov-2017

Activity	Responsibility	Target Date	Status
11.1 Heritage conservation - staff to initiate a C to C grant request for a 2018 event	Fiona MacRaid	22-Dec-2017	Done

20-Feb-2018

Activity	Responsibility	Target Date	Status
Meeting minutes adopted as per Trustee Scholefield submission	Lori Foster	02-Mar-2018	Done
Mayne Island Local Trust Committee Bylaw No. 172 - Interests unaffected	Sharon Lloyd-deRosario	02-Mar-2018	Done
Mayne Island Local Trust Committee Bylaw No. 171 - Interests unaffected	Sharon Lloyd-deRosario	02-Mar-2018	Done
North Pender Island Local Trust Committee Bylaws 216 and 217 - Interests unaffected	Sharon Lloyd-deRosario	02-Mar-2018	Done
Staff, in consultation with the South Pender Historical Society, is to develop a Community Heritage Register that includes only the Church of the Good Shepherd.	Jason Youmans	26-Mar-2018	On Going
Staff directed to draft amendments to OCP Schedules D and H consistent with Appendix 1 of staff report.	Jason Youmans	26-Mar-2018	Done
Staff directed to draft bylaw amendments to OCP transportation policies consistent with Appendix 2 of staff report.	Jason Youmans	26-Mar-2018	Done
Defer agenda item 13.4 (LTC liaison to Plumper Sound Protection Association) to LTC meeting of April 3, 2018.	Sharon Lloyd-deRosario	26-Mar-2018	Done
Defer Item 13.2 (FN Relationship Building) to April 3 LTC meeting	Sharon Lloyd-deRosario Fiona MacRaid	26-Mar-2018	Done



Follow Up Action Report



Making a difference...together

Regional Parks

490 Atkins Avenue
Victoria, BC, Canada V9B 2Z8

T: 250.478.3344

F: 250.478.5416

www.crd.bc.ca/parks

March 15, 2018

File No: 6130.30
Gulf Islands Regional Trails Plan

To various government agencies:
(sent by email)

RE: CAPITAL REGIONAL DISTRICT – GULF ISLANDS REGIONAL TRAILS PLAN

Over the past year, the Capital Regional District (CRD) has been developing a plan for regional trails on the Gulf Islands (Galiano, Mayne, North Pender, South Pender, Salt Spring and Saturna Islands).

The planning process included engagement to gather initial input from the public, First Nations and government agencies in early 2017 before drafting the plan, a second round of engagement between August-September 2017 on the draft regional trails plan, and finalizing the plan over the fall-winter 2017-2018, following consideration of all comments received. On March 14, 2018, the CRD Board approved the Gulf Islands Regional Trails Plan.

The plan envisions the development of approximately 50 km of new trails on the six islands that will connect ferry terminals with key island destinations. Cooperation with partners will be key to the successful implementation of the plan, which is anticipated to occur over a number of years. The Gulf Islands Regional Trails Plan is available through the CRD website at:
<https://www.crd.bc.ca/project/gulf-islands-regional-trails-plan>

The CRD would like to thank all participants in the planning process and look forward to working with you on future regional park projects.

Sincerely,

Brett Hudson
Acting Senior Manager

cc: Karla Campbell, Salt Spring Island, CRD (email)
June Klassen, Southern Gulf Islands Electoral Area, CRD (email)
John Hicks, Planning & Protective Services, CRD (email)
Carolyn Stewart, Regional Parks, CRD (email)

CS:amm



Islands Trust

BYLAW REFERRAL FORM

Suite 200, 1627 Fort Street
Victoria, B.C. BC V8R 1H8
Ph: (250) 405-5151
Fax: (250) 405-5155
information@islandstrust.bc.ca
www.islandstrust.bc.ca

Island: North Pender Island Local Trust Area **Bylaws No.:** 216 & 217 **Date:** February 8, 2018

You are requested to comment on the attached Bylaw for potential effect on your agency's interests. We would appreciate your response within 30 days. If no response is received within that time, it will be assumed that your agency's interests are unaffected.

APPLICANTS NAME / ADDRESS:

N/A

PURPOSE OF BYLAW:

The purpose of the bylaws are to allow and regulate secondary suites as accessory residential uses in the Rural, Rural Residential, and Agriculture zones on North Pender Island. Please see the attached bylaws and staff report.

Background information and staff reports are available on the North Pender island webpage:

www.islandstrust.bc.ca/npender/suites

GENERAL LOCATION:

North Pender Island Local Trust Area

LEGAL DESCRIPTION:

N/A

SIZE OF PROPERTY AFFECTED:

N/A

ALR STATUS:

N/A

OFFICIAL COMMUNITY PLAN DESIGNATION:

N/A

OTHER INFORMATION:

Additional information is attached. For more background visit www.islandstrust.bc.ca/npender/suites

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

Name: Justine Starke

(Signature)

Title: Island Planner
Contact Info: Tel: 250-405-5189
Email: jstarke@islandstrust.bc.ca

PLEASE TURN OVER 

This referral has been sent to the following agencies:

Federal Agencies

N/A

Provincial Agencies

Agricultural Land Commission
BC Assessment Authority
Ministry of Forest, Lands & Natural Resource Operations
- Water Protection

Non-Agency Referrals

North Pender Island Advisory Planning Commission
Islands Trust – Bylaw Enforcement
Gulf Islands School District No. 64
Outer Gulf Islands RCMP
Razor Point Improvement District
Trincomali Water Improvement District
Island Health

Regional Agencies

Capital Regional District – Electoral Area Director
Capital Regional District – Building Inspection
Capital Regional District – Infrastructure Engineering (Integrated Water Services)
Magic Lake Water and Sewer Commission
North Pender Island Fire Rescue

Adjacent Local Trust Committees and Municipalities

Galiano Island Local Trust Committee
Mayne Island Local Trust Committee
Saturna Island Local Trust Committee
South Pender Island Local Trust Committee
Salt Spring Island Local Trust Committee
Thetis Island Local Trust Committee

First Nations

Cowichan Tribes
Halalt First Nation
Lake Cowichan First Nation
Lyackson First Nation
Malahat First Nation - TE'Mexs Treaty Association
Pauquachin First Nation
Penelakut Tribe
Semiahmoo First Nation
Stz'uminus First Nation
Tsartlip First Nation
Tsawout First Nation
Tsawwassen First Nation
Tseycum First Nation

BYLAW REFERRAL FORM RESPONSE SUMMARY

☐

Approval Recommended for Reasons Outlined Below

☐

Approval Recommended Subject to Conditions Outlined Below

☐

Interests Unaffected by Bylaw

☐

Approval Not Recommended Due to Reason Outlined Below

North Pender Island Local Trust Area

(Island)

216 & 217

(Bylaw Number)

(Signature)

(Name and Title)

(Date)

(Agency)

DATE OF MEETING: April 3, 2018
TO: South Pender Island Local Trust Committee
FROM: Jason Youmans, Island Planner
Southern Team
COPY: Robert Kojima, Regional Planning Manager
SUBJECT: Pedestrian and Bicycle Route Mapping Project

RECOMMENDATION

1. That the South Pender Island Local Trust Committee has reviewed the Islands Trust Policy Statement Directives Only Checklist and determined that Bylaw No. 115, cited as "South Pender Island Official Community Plan Bylaw No. 107, 2011, Amendment No. 1, 2018," is not contrary to, or at variance with, the Islands Trust Policy Statement.
2. That South Pender Island Local Trust Committee Bylaw No. 115, cited as "South Pender Island Official Community Plan Bylaw No. 107, 2011, Amendment No. 1, 2018," be read a first time.
3. That the South Pender Island Local Trust Committee direct staff to refer Bylaw No. 115 to the community groups, First Nations and agencies identified in Appendix 2 of the staff report for the LTC regular meeting of April 3, 2018 for review and comment.

REPORT SUMMARY

This staff report provides the South Pender Island Local Trust Committee with Bylaw 115 for consideration (see Appendix 1). Bylaw 115 contains map amendments to OCP Schedules "D" and "H" to include the preferred route for a multi-modal roadside path on South Pender Island. Bylaw 115 also contains OCP policy amendments to support the referenced map amendments.

BACKGROUND

At its February 20, 2017 meeting, the LTC passed the following resolutions (per the draft minutes):

SP-2017-006

It was MOVED and SECONDED,

That the South Pender Island Local Trust Committee direct staff to draft an amendment to Schedule "D" and Schedule "H" of Official Community Plan Bylaw No. 107 to show a future pedestrian and bicycle path consistent with that shown in Appendix 1 of the Staff report dated February 8, 2018.

CARRIED

SP-2017-007

It was MOVED and SECONDED,

That the South Pender Island Local Trust Committee direct staff to draft amendments to Section 6.1.3 of Official Community Plan Bylaw No. 107 as shown in Appendix 2 of the staff report dated February 8, 2018.

CARRIED

The proposed Schedule “D” under Bylaw 115 also amends the ocean access in the vicinity of Southlands Drive per a suggestion by Trustee Scholefield.

Per comments made by MAP representatives at the February 20, 2018 LTC meeting, staff have included policy language in Bylaw 115 that future roadside path development should be within the Ministry of Transportation and Infrastructure (MOTI) right-of-way wherever possible, though separate from the present travelled portion.

Additionally, Bylaw 115 contains a proposed policy amendment to OCP policy 6.1.2(a) that was not included in the staff report of February 20, 2018. This amendment would establish guidance that pedestrian and bicycle infrastructure may be constructed in advance of, rather than in response to, demand. Current OCP policy 6.1.2(a) could be interpreted that all transportation infrastructure should be constructed in response to, rather than anticipation of, demand, which may not be a desirable approach where active transportation is concerned.

Bylaw 115 follows on a decision by the LTC at its November 14, 2017 meeting to take up a request by Moving Around Pender (MAP) to include a roadside bicycle and pedestrian route in the South Pender OCP as a prudent step to demonstrate local commitment to pedestrian and cycling infrastructure should government funding for such become available.

See staff report of [February 20, 2018](#) for further analysis and information.

ANALYSIS

Policy/Regulatory

Islands Trust Policy Statement:

Staff have reviewed Bylaw 115 against the Islands Trust Policy Statement Directives Only Checklist and do not find any areas where the proposed bylaw is in clear conflict with the Islands Trust Policy Statement. See Appendix 5.

The subject map amendment and corresponding policies are specifically supported by several Policy Statement policies. In particular Policy 5.3.7 which states:

“Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the development of land use patterns that encourage establishment of bicycle paths and other local and inter-community transportation systems that reduce dependency on private automobile use.”

And Policy 5.5.7:

“Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the planning for bicycle and equestrian trail systems.”

Policy Statement consistency notwithstanding, should Bylaw 115 be advanced, the LTC should be cognizant of whether the proposed route may involve consideration of either/both ecological and First Nations heritage/cultural protection. Agency and First Nations referral will be helpful in this regard.

Official Community Plan:

OCP Subsection 6.1.3 already contains a number of objectives and policies concerning active transportation on the Island (see Appendix 3). Bylaw 115 refines and strengthens these policies to reflect the proposed map amendments.

Land Use Bylaw:

Construction of a pedestrian and bicycle route as shown on the proposed amendment to OCP Schedule D does not appear to conflict with the South Pender Island Land Use Bylaw. Concrete and asphalt paving and similar surfacing of land are not considered “structures” under the South Pender land use bylaw, and are therefore exempt from setback requirements.

Issues and Opportunities

See staff report of [February 20, 2018](#) for discussion of the following issues relative to the changes captured in Bylaw 115:

- CRD Gulf Islands Regional Trails Plan
- Ministry of Transportation and Infrastructure (MOTI) Letter of Agreement (1992/96)
- Scenic/Heritage Roads
- Sensitive Ecosystem Protection
- Public Expectations

Additional Map Amendments

Staff have not undertaken a close review of current Schedule “D” against the current parks and ocean access mapping from the CRD and other local knowledge to determine if any additional amendments to Schedule “D” are warranted while the map is open for revision. Staff will do so ahead of second reading. Additionally, staff anticipate agency and community review of Bylaw 115 may yield amendment suggestions.

Consultation

Staff recommend that Bylaw 115 be referred to the community groups, agencies and First Nations shown in Appendix 2.

The LTC may wish to consider whether any additional agencies or groups should receive referral of the proposed bylaw amendments.

Staff recommend a Community Information Meeting be held in advance of public hearing of Bylaw 115.

Statutory Requirements

Should Bylaw 115 be advanced, staff will carry out public notification in accordance with Section 466 of the *Local Government Act* and South Pender Island Development Procedures Bylaw No. 60 and will be undertaken once the LTC directs staff to schedule a public hearing.

As this project involves an OCP amendment, the LTC is required by the *Local Government Act* to consider opportunities for consultation with persons, organizations and authorities it considers will be affected. Staff anticipate that referral to the community groups, First Nations and agencies noted above, in addition to a Community Information Meeting, should satisfy the consultation requirement. The LTC should consider if it wishes to undertake additional consultation than identified above and direct staff accordingly.

Protocols

As noted, there is a 1992 Letter of Agreement between Islands Trust and the Ministry of Transportation and Infrastructure. Of relevance to this project are:

Objective 4: “To establish cycle routes and roadway standards to accommodate safe cycling.”

See Appendix 4 for a copy of policies concerning Cycle Route Plans from the Letter of Agreement.

Agencies

See Appendix 2 for suggested agency referral recipients.

First Nations

As this project involves an amendment to the OCP, referrals to First Nations with a known interest in South Pender Island will be required. See list in Appendix 2.

Rationale for Recommendation

Bylaw 115 reflects the direction given by the LTC at its meeting of February 20, 2018, which in turn reflects recommendations made by MAP in its November 2017 submission to the LTC. Bylaw 115 appears consistent with the Islands Trust Policy Statement.

Staff anticipate that community group, agency and First Nations referral of Bylaw 115 may yield useful recommendations for additions or alterations to the bylaw.

ALTERNATIVES

1. Amend Bylaw 115

The LTC may already have a clear idea of shortcomings to the proposed map, or desired policy changes that have not been identified by staff. If this is the case, the LTC could make the following type of resolution:

That the South Pender Island Local Trust Committee direct staff to make the following amendments to draft Bylaw 115:

- 1) *Amend the proposed Schedule “D” by*
- 2) *Amend the proposed implementation policies by . . .*

3) Amend Work Program

The LTC may determine that it does not wish to proceed with this initiative as a priority project at the present time. Should this be the case, the following resolution is recommended:

That the South Pender Island Local Trust Committee amend the work program to remove Pedestrian and Cycle Routes as a top priority.

As follow-up the LTC may consider identifying an alternative top priority project. Staff would then return to the LTC with a scoping report for the proposed new project.

NEXT STEPS

If the LTC accepts staff's recommendations, staff will begin the bylaw referrals process.

Submitted By:	Jason Youmans, Island Planner	March 10, 2018
Concurrence:	Robert Kojima, Regional Planning Manager	March 15, 2018

ATTACHMENTS

1. Bylaw 115
2. Referral Recipient List
3. Current OCP Land Transportation Policies
4. MOTI/Islands Trust Letter of Agreement – Excerpt
5. Islands Trust Policy Statement Directives Only Checklist

**SOUTH PENDER ISLAND LOCAL TRUST COMMITTEE
BYLAW NO. 115**

**A BYLAW TO AMEND SOUTH PENDER ISLAND OFFICIAL COMMUNITY PLAN
BYLAW NO. 107, 2011**

The South Pender Island Local Trust Committee enacts in open meeting assembled as follows:

1. CITATION

This Bylaw may be cited for all purposes as “South Pender Island Official Community Plan Bylaw No. 107, 2011, Amendment No. 1, 2018”.

2. SCHEDULES

2.1 South Pender Island Official Community Plan No. 107, 2011, Schedule “A” is amended as shown on Schedule 1, attached to and forming part of this bylaw.

2.2 South Pender Island Official Community Plan No. 2017, 2011, Schedule “D” is amended as shown on Schedule 2, attached to and forming part of this bylaw.

2.3 South Pender Island Official Community Plan No. 2017, 2011, Schedule “H” is amended as shown on Schedule 3, attached to and forming part of this bylaw.

3. SEVERABILITY

If any provision of this Bylaw is for any reason held to be invalid by a decision of any Court of competent jurisdiction, the invalid provision must be severed from the Bylaw and the decision that such provision is invalid must not affect the validity of the remaining provisions of the Bylaw.

READ A FIRST TIME THIS _____ DAY OF _____ 20____

PUBLIC HEARING HELD THIS _____ DAY OF _____ 20____

READ A SECOND TIME THIS _____ DAY OF _____ 20____

READ A THIRD TIME THIS _____ DAY OF _____ 20____

APPROVED BY THE EXECUTIVE COMMITTEE OF THE ISLANDS TRUST THIS
_____ DAY OF _____ 20____

APPROVED BY THE MINISTER COMMUNITY, SPORT AND CULTURAL
DEVELOPMENT THIS _____ DAY OF _____ 20____

ADOPTED THIS _____ DAY OF _____ 20____

Chair

Secretary

DRAFT

**SOUTH PENDER ISLAND LOCAL TRUST COMMITTEE
BYLAW NO. 115**

SCHEDULE 1

The South Pender Island Official Community Plan No. 107, 2011, Schedule “A” is amended as follows:

1. Subsection 6.1.2 Article (a) – “Transportation General Policies” - is deleted in its entirety and replaced with the following:
 - a) Pedestrian and bicycle paths notwithstanding, construction of transportation infrastructure is to be in response to, rather than in anticipation of, increased demand.
2. The paragraph under Subsection 6.1.3 – “Land Transportation” - is deleted in its entirety and replaced with the following:

“The location and classification of the island’s roads, plus any intended or additional phased roads, heritage roads, car stops and pedestrian and bicycle paths are shown on Schedule “H”. The functional characteristics of these classifications are:”
3. Subsection 6.1.3 Article (b) – “Land Transportation Policies” - is amended by adding new clauses after clause i) as follows:
 - ii) The Local Trust Committee will support agency and community group efforts to construct the network of bicycle routes, pathways, walkways and trails shown on OCP Schedules “D” and “H”.
 - iii) The Local Trust Committee should only support the installation of pedestrian and bicycle infrastructure does not compromise the unique and/or heritage values of the Scenic/Heritage roads identified in Schedule “H”.
 - iv) The Local Trust Committee will use rezoning applications as an opportunity to work toward development of the network of bicycle routes, pathways, walkways and trails shown on OCP Schedules “D” and “H”.
 - v) The Local Trust Committee will support implementation of the Capital Regional District Gulf Islands Regional Trails Plan on South Pender Island.

And by renumbering the subsequent clauses of the subsection to effect these changes.
4. The introductory paragraph and first bullet point of Advocacy Policy 6.1.3 Clause ii) are deleted in their entirety and replaced with the following:

“The creation of the network of bicycle and pedestrian paths, walkways and trails along routes shown on Schedules “D” and “H” is to be pursued by:

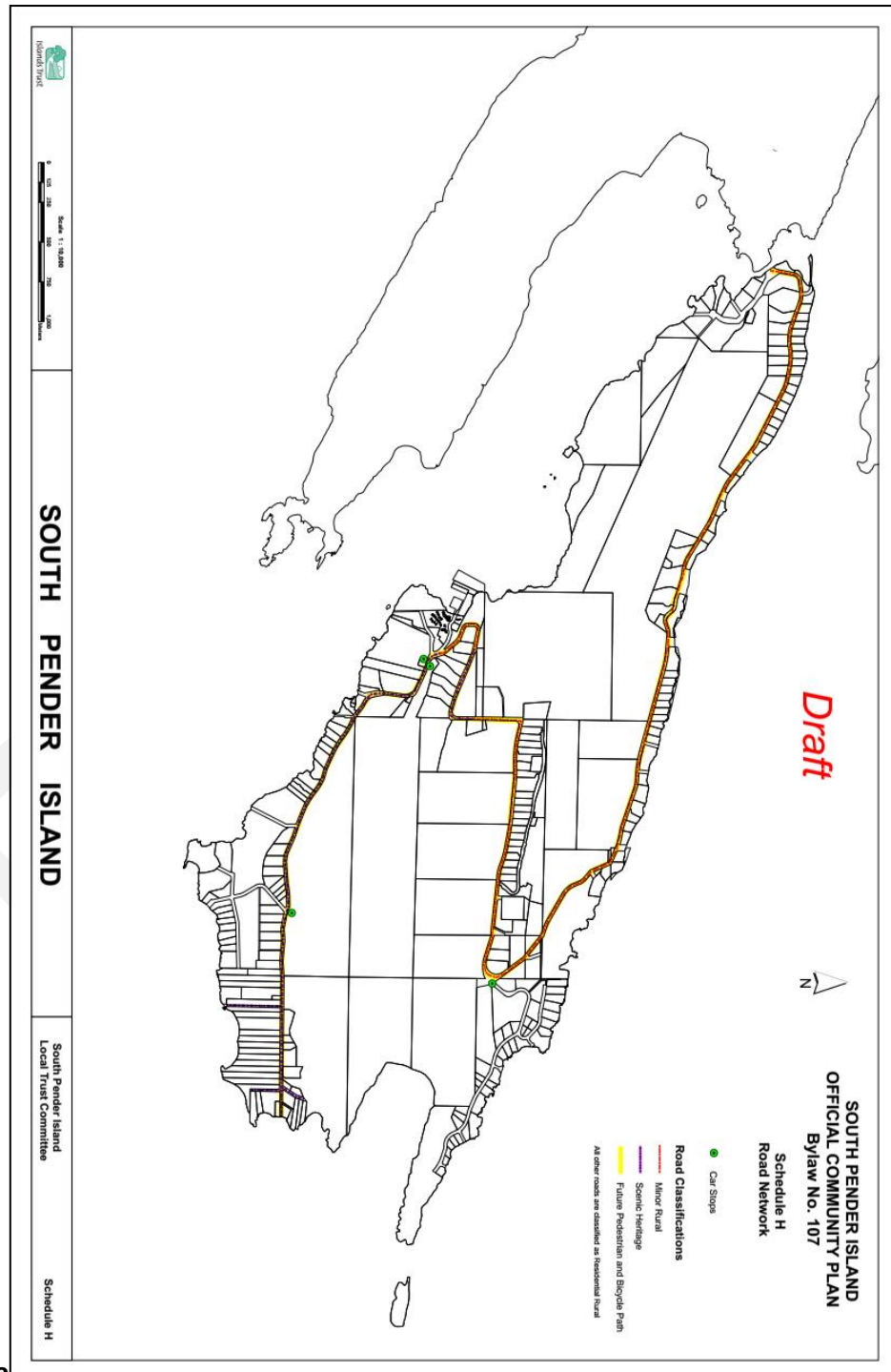
- requesting the Ministry of Transportation and Infrastructure to assist by developing pathways, walkways, and trails within road rights-of-way where their locations coincide with network routes and to provide bicycle paths along Minor Road rights-of-way shown in Schedules “D” and “H”.
5. Subsection 6.1.3 - “Advocacy Policies” - is amended by adding new clauses after clause ii) as follows:
- iii) Agencies and community groups are requested to prioritize separated bicycle and pedestrian paths over on-road bicycle lanes where feasible and where they will not have adverse effects on the natural environment.
 - iv) The pedestrian and bicycle path shown in Schedules “D” and “H” should, where feasible, be constructed within the Ministry of Transportation and Infrastructure right-of-way.
 - v) Agencies and community groups, in consultation with the Local Trust Committee, should ensure that installation of pedestrian and bicycle infrastructure does not compromise the unique scenic and/or heritage values of the Scenic/Heritage roads identified in Schedule “H”.

And by renumbering the subsequent clauses of the subsection to effect these changes.

SOUTH PENDER ISLAND LOCAL TRUST COMMITTEE BYLAW NO. 115

SCHEDULE 3

The South Pender Island Official Community Plan No. 107, 2011, Schedule “H” - “Road Network” is amended as follows



Recommended Referral Recipients for Bylaw 115

Community Groups

South Pender Island Advisory Planning Commission
 CRD Pender Island Parks and Recreation Commission (PIPRC)
 Moving Around Pender (MAP)

Agencies

Ministry of Transportation and Infrastructure
 CRD Regional Parks and Trails

First Nations

Cowichan Tribes
 Halalat First Nation
 Lake Cowichan First Nation
 Lyackson First Nation
 Malahat First Nation
 Pauquachin First Nation
 Penelakut Tribe

Semiahmoo First Nation
 Songhees First Nation
 Stz'uminus First Nation
 Tsartlip First Nation
 Tsawout First Nation
 Tsawwasswen First Nation
 Tseycum First Nation

Local Trust Committees

North Pender Island Local Trust Committee
 Saturna Island Local Trust Committee
 Mayne Island Local Trust Committee
 Galiano Island Local Trust Committee
 Salt Spring Island Local Trust Committee

PART 6 – SERVICES AND UTILITIES

This Part addresses the provision of the services and utilities to the South Pender Island community.

6.1 Transportation Services

Background

Transportation services available to the community consist primarily of the established public road system and the B.C. Ferries service operating from Otter Bay on North Pender Island. No on-island public transit exists; however, there is a commercial taxi service available. Car Stops have been implemented through the community group Moving Around Pender Alternative Transportation Society (MAP), as a simple and free alternative to single occupancy car use. Services of off-island based water taxis and floatplanes are also available.

The Ministry of Transportation and Infrastructure is responsible for the establishment and maintenance of public roads on South Pender Island. The Islands Trust has an agreement with the ministry regarding road standards within the Islands Trust area and the procedures for designation of scenic and heritage roads and cycle paths. Via the agreement, some road standards may be of reduced dimensions compared to those elsewhere in order to help maintain the Islands Trust rural character.

On-island water transportation facilities consist of the small portion of the federal government wharf at Bedwell Harbour and the private boat moorage space available at Poets Cove Resort marina. There are no boat launching ramps on the island.

Seasonal air transportation to South Pender Island is provided by commercial floatplane services that fly into Bedwell Harbour. Helicopter emergency evacuations use the designated site on North Pender Island or the site in the vicinity of Firehall #3 on South Pender Island.

6.1.1 Transportation General Objectives

- a) To support the development and maintenance of transportation services that primarily meets the needs of the South Pender Island community.
- b) To recognize the role of transportation in producing greenhouse gas emissions and the value of identifying options to reduce emissions including alternative forms of transportation.

6.1.2 Transportation General Policies

- a) Construction of transportation infrastructure is to be in response to rather than in anticipation of increased demand.
- b) Development of additional transportation fixed links between South Pender Island and any other Islands Trust island, Vancouver Island, or the Mainland is to be opposed.

6.1.3 Land Transportation

The location and classification of the island's roads, plus any intended additional or phased roads, heritage roads and car stops are shown on Schedule "H". The functional characteristics of these classifications are:

Minor Roads - access to principal developed areas;

Residential Roads - access from Minor Roads to individual properties; and

Scenic/Heritage Roads - having unique and scenic and/or heritage values.

6.1.3 (a) Land Transportation Objectives

i) To continue with the development and maintenance of a public road, pathway, walkway, and trail system that is safe and efficient, has minimal adverse effects on the natural environment, is compatible with the rural character of the island, and primarily serves the South Pender Island community.

ii) To encourage and support alternative transportation initiatives, including, but not limited to, car stops, neighbourhood zero emission vehicles, car shares, a bicycle path network and walking trails.

6.1.3 (b) Land Transportation Policies

i) The Local Trust Committee should support alternative transportation initiatives, including, but not limited to, car stops, neighbourhood zero and low emission vehicles, car shares, carpooling, a community bus, a bicycle path network and walking trails.

ii) Any agency with authority regarding the management of trails for use by the public is requested to restrict trail use to non-motorized use.

iii) Land uses shall be required to provide adequate off-street parking and where appropriate the Local Trust Committee may require alternatives to parking spaces, including but not limited to bicycle racks. Parking standards may be established for electric vehicle plug-ins in appropriate locations.

Advocacy Policies

i) The Ministry of Transportation and Infrastructure and its agents are requested to:

- continue to use the road standards established in the July 18, 1996 Letter of Administrative Understanding between the Islands Trust and the Ministry plus those of any agreed upon subsequent revisions which recognizes that lower road standards support the objective to maintain the rural character of the island, the need for a gentler approach in harmony with the land and applies a minor rural classification with paved width of 6.1m ;
- when developing new roads or improving existing ones, wherever possible, conform to land contours so the amount of cut and fill disturbance is reduced;
- encourage increased traffic safety by limiting vehicular speed, incorporating pull-offs, using cautionary signage in areas with limited visibility or traffic congestion, rather than by increasing road widths or straightening alignments;
- retain natural vegetation along the undeveloped portions of road rights-of-way, subject to traffic and fire safety considerations and operational maintenance constraints; and
- consult with the Local Trust Committee on behalf of the community regarding major roadwork.

ii) The creation of a network of pathways, walkways, and trails along routes shown on Schedule "D" is to be pursued by:

- requesting the Ministry of Transportation and Infrastructure to assist by developing pathways, walkways, and trails within road rights-of-way where their locations coincide with

network routes and to provide bicycle paths along Minor Road rights-of-way shown in Schedule "D";

- where land proposed for subdivision lies along a network route, requesting the subdivision Approving Officer to require dedication and construction of pathways for non-vehicular traffic. Such dedications are intended to secure non-vehicular public access routes in subdivision proposals where dedication of parkland is not required or the location of parkland to be dedicated does not coincide with a network route;
- encouraging a network of trail development within island parks and other public lands administered by Parks Canada, the Pender Islands Parks and Recreation Commission, and Capital Regional District Regional Parks; and
- encouraging landowners to donate land, grant easements over land, or to allow public passage over portions of their lands.

iii) The Ministry of Transportation and Infrastructure shall be requested to address safety by posting lower speed limits, installing crosswalks, and posting cyclist and pedestrian awareness signs in identified problem areas rather than by requiring roads to be straightened and widened.

iv) Residents and their guests are encouraged to use carpooling as a method to reduce single occupancy vehicle trips.

6.1.4 Water Transportation

6.1.4 (a) Water Transportation Objectives

- i) To ensure ferry service is provided at a level adequate for both Pender Islands.
- ii) To help retain other water transportation services for the Pender Islands as a back-up and alternative to the ferry service, particularly in case of medical or other emergencies.

6.1.4 (b) Water Transportation Policies

- i) Any proposed wharves, barge landing and boat launching ramps shall be sited to minimize the impact on the natural environment.
- ii) All water transport operators shall be requested to ensure services do not exceed the needs of the local community.
- iii) The establishment of group or shared docks shall be encouraged.
- iv) The Local Trust Committee will support efforts to develop a foot passenger-only ferry service.

Advocacy Policies

- i) The B.C. Ferries Corporation is requested to:
 - continue to provide an adequate level of ferry service to the Pender Islands at an affordable price;
 - continue with consultative processes involving representation from the Pender Islands for proposed changes to the ferry service;
 - ensure, in cooperation with the Ministry of Transportation, provision of adequate parking arrangements for foot passengers leaving vehicles or bicycles at the North Pender Island

Islands Trust Nomenclature**Ministry of Transportation and
Highways Nomenclature**

Major Rural
Main Rural
Minor Rural
Residential Rural/Local

Secondary Highway
Major road
Minor Road
Local Road

The road standard for the applicable classifications as set out in Section E will be applied for new roads, including subdivisions, and to existing roads when being upgraded.

2. Cycle Route Plans

The Islands Trust will prepare proposals for cycle route plans on the islands. Consultation on these proposals will occur with the Ministry of Transportation and Highways.

A negotiated agreement on the cycle route plan for the Islands Trust area is to be achieved between the Islands Trust and Ministry of Transportation and Highways by September 1993 and will subsequently form a component of this letter of understanding (Proposed Appendix B).

The agreed-to cycle route plan, when adopted by resolution or bylaw by the Local Trust Committee, may be forwarded to the Ministry of Highways and Transportation for registration.

The approved plan, for the designated cycle routes, will trigger adjustment of the shoulder standards for new roads and for existing roads when they are to be upgraded as indicated in section E. The requirements for safely accommodating cyclists will be recognized when prioritizing roads for upgrading.

3. Scenic Heritage Designation

The Islands Trust will prepare proposals for scenic/heritage designation to recognize roadways having unique and significant scenic and/or heritage value. Only a limited portion of roadways on an island will qualify for such designation.



ISLANDS TRUST POLICY STATEMENT DIRECTIVES ONLY CHECKLIST

File Name: Pedestrian and Cycle Routes

PURPOSE

To provide staff with the Directives Only Checklist to highlight issues addressed in staff reports and as a means to ensure Local Trust Committees address certain matters in their official community plans and regulatory bylaws, Island Municipalities address certain matters in their official community plans, and to reference any relevant sections of the Policy Statement.

POLICY STATEMENT

The Policy Statement is comprised of several parts. Parts I and II outline the purpose, the Islands Trust object, and Council's guiding principles. Parts III, IV and V contain the goals and policies relevant to ecosystem preservation and protection, stewardship of resources and sustainable communities.

There are three different kinds of policies within the Policy Statement as follows:

- Commitments of Trust Council which are statements about Council's position or philosophy on various matters;
- Recommendations of Council to other government agencies, non-government organizations, property owners, residents and visitors; and
- Directive Policies which direct Local Trust Committees and Island Municipalities to address certain matters.

DIRECTIVES ONLY CHECKLIST

The Policy Statement Directives Only Checklist is based on the directive policies from the Policy Statement (Consolidated April 2003) which require Local Trust Committees to address certain matters in their official community plans and regulatory bylaws and Island Municipalities to address certain matters in their official community plans in a way that implements the policy of Trust Council.

Staff will use the Policy Statement Checklist (Directives Only) to review Local Trust Committee and Island Municipality bylaw amendment applications and proposals to ensure consistency with the Policy Statement. Staff will add the appropriate symbol to the table as follows:

- ✓ if the bylaw is consistent with the policy from the Policy Statement, or
- ✗ if the bylaw is inconsistent (contrary or at variance) with a policy from the Policy Statement, or
- N/A if the policy is not applicable.

PART III: POLICIES FOR ECOSYSTEM PRESERVATION AND PROTECTION

CONSISTENT	No.	DIRECTIVE POLICY
	3.1	Ecosystems
✓	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.
N/A	3.1.4	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the planning, establishment, and maintenance of a network of protected areas that preserve the representative ecosystems of their planning area and maintain their ecological integrity.
✓	3.1.5	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the regulation of land use and development to restrict emissions to land, air and water to levels not harmful to humans or other species.
	3.2	Forest Ecosystems
✓	3.2.2	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the protection of unfragmented forest ecosystems within their local planning areas from potentially adverse impacts of growth, development, and land-use.
	3.3	Freshwater and Wetland Ecosystems and Riparian Zones
✓	3.3.2	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address means to prevent further loss or degradation of freshwater bodies or watercourses, wetlands and riparian zones and to protect aquatic wildlife.
	3.4	Coastal and Marine Ecosystems
N/A	3.4.4	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the protection of sensitive coastal areas.
N/A	3.4.5	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the planning for and regulation of development in coastal regions to protect natural coastal processes.

PART IV: POLICIES FOR THE STEWARDSHIP OF RESOURCES

CONSISTENT	No.	DIRECTIVE POLICY
	4.1	Agricultural Land
N/A	4.1.4	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification and preservation of agricultural land for current and future use.
N/A	4.1.5	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the preservation, protection, and encouragement of farming, the sustainability of farming, and the relationship of farming to other land uses.
N/A	4.1.6	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the use of adjacent properties to minimize any adverse affects on agricultural land.
CONSISTENT	No.	DIRECTIVE POLICY
N/A	4.1.7	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the design of road systems and servicing corridors to avoid agricultural lands unless the need for roads outweighs agricultural considerations, in which case appropriate mitigation measures shall be required to derive a net benefit to agriculture.
N/A	4.1.8	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address land uses and activities that support the economic viability of farms without compromising the agriculture capability of agricultural land.
N/A	4.1.9	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the use of Crown lands for agricultural leases.
	4.2	Forests
N/A	4.2.6	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the need to protect the ecological integrity on a scale of forest stands and landscapes.
N/A	4.2.7	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the retention of large land holdings and parcel sizes for sustainable forestry use, and the location and construction of roads, and utility and communication corridors to minimize the fragmentation of forests.
N/A	4.2.8	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the designation of forest ecosystem reserves where no extraction will take place to ensure the preservation of native biological diversity.

CONSISTENT	No.	DIRECTIVE POLICY
	4.3	Wildlife and Vegetation
	4.4	Freshwater Resources
N/A	4.4.2	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address measures that ensure neither the density nor intensity of land use is increased in areas which are known to have a problem with the quality or quantity of the supply of freshwater, water quality is maintained, and existing, anticipated and seasonal demands for water are considered and allowed for.
N/A	4.4.3	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address measures that ensure water use is not to the detriment of in-stream uses
	4.5	Coastal Areas and Marine Shorelands
N/A	4.5.8	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the needs and locations for marine dependent land uses.
N/A	4.5.9	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the compatibility of the location, size and nature of marinas with the ecosystems and character of their local planning areas.
N/A	4.5.10	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the location of buildings and structures so as to protect public access to, from and along the marine shoreline and minimize impacts on sensitive coastal environments.
N/A	4.5.11	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address opportunities for the sharing of facilities such as docks, wharves, floats, jetties, boat houses, board walks and causeways.
	4.6	Soils and Other Resources
N/A	4.6.3	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the protection of productive soils.

PART V: POLICIES FOR SUSTAINABLE COMMUNITIES

CONSISTENT	No.	DIRECTIVE POLICY
	5.1	Aesthetic Qualities
✓	5.1.3	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the protection of views, scenic areas and distinctive features contributing to the overall visual quality and scenic value of the Trust Area.
	5.2	Growth and Development
N/A	5.2.3	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address policies related to the aesthetic, environmental and social impacts of development.
N/A	5.2.4	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address any potential growth rate and strategies for growth management that ensure that land use is compatible with preservation and protection of the environment, natural amenities, resources and community character.
N/A	5.2.5	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address means for achieving efficient use of the land base without exceeding any density limits defined in their official community plans.
N/A	5.2.6	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification of areas hazardous to development, including areas subject to flooding, erosion or slope instability, and strategies to direct development away from such hazards.
	5.3	Transportation and Utilities
✓	5.3.4	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the development of a classification system of rural roadways, including scenic or heritage road designations, in recognition of the object of the Islands Trust.
✓	5.3.5	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the impacts of road location, design, construction and systems.
N/A	5.3.6	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the designation of areas for the landing of emergency helicopters.
✓	5.3.7	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the development of land use patterns that encourage establishment of bicycle paths and other local and inter-community transportation systems that reduce dependency on private automobile use.
	5.4	Disposal of Waste
N/A	5.4.4	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification of acceptable locations for the disposal of solid waste.

CONSISTENT	No.	DIRECTIVE POLICY
	5.5	Recreation
N/A	5.5.3	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the prohibition of destination gaming facilities such as casinos and commercial bingo halls.
N/A	5.5.4	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the location and type of recreational facilities so as not to degrade environmentally sensitive areas, and the designation of locations for marinas, boat launches, docks and anchorages so as not to degrade sensitive marine or coastal areas.
N/A	5.5.5	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification of sites providing safe public access to beaches, the identification and designation of areas of recreational significance, and the designation of locations for community and public boat launches, docks and anchorages.
N/A	5.5.6	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification and designation of areas for low impact recreational activities and discourage facilities and opportunities for high impact recreational activities.
✓	5.5.7	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the planning for bicycle, pedestrian and equestrian trail systems.
	5.6	Cultural and Natural Heritage
✓	5.6.2	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification, protection, preservation and enhancement of local heritage.
✓	5.6.3	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the preservation and protection of the heritage value and character of historic coastal settlement patterns and remains.
	5.7	Economic Opportunities
N/A	5.7.2	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address economic opportunities that are compatible with conservation of resources and protection of community character.
	5.8	Health and Well-being
✓	5.8.6	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address their community's current and projected housing requirements and the long-term needs for educational, institutional, community and health-related facilities and services, as well as the cultural and recreational facilities and services.

	POLICY STATEMENT COMPLIANCE
✓	<i>In compliance with Trust Policy</i>
	<i>Not in compliance with Trust Policy for the following reasons:</i>



Islands Trust

Print Date: March 27, 2018

Top Priorities

South Pender Island

No.	Description	Activity	R/Initiated	Responsibility	Target Date
2	First Nations Reconciliation	To work with South Pender community to explore reconciliation initiatives on South Pender Island and to apply for a Community to Community grant for 2018	16-Jan-2017		
2	Heritage Conservation	To review options for designating church of the good shepherd	19-Sep-2017	Jason Youmans	01-Dec-2018
2	Pedestrian and Cycle Routes	Consider amending OCP map schedule and policies to designate future cycle / pedestrian routes	14-Nov-2017		01-Dec-2018

Projects

South Pender Island

Description	Activity	R/Initiated
Lower Ecological Footprint	explore alternative energy solutions, reducing GHG emissions, preservation of water supply and quality, and other initiatives to lessen our impact on our environment of the SPI LTA.	28-Apr-2015
Agricultural Land Review		06-Sep-2016
Pedestrian and Cycle Routes	Consider amending OCP map schedule and policies to designate future cycle / pedestrian routes	04-Nov-2014
Development Permit Areas	review existing DPAs for sensitive ecosystems to determine current status	28-Apr-2015
Sea level Rise and Shoreline Erosion		28-Apr-2015

Islands Trust
LTC EXP SUMMARY REPORT F2018
Invoices posted to Month ending January 2018

665 South Pender	Invoices posted to Month ending January 2018	<u>Budget</u>	<u>Spent</u>	<u>Balance</u>
65000-665	LTC "Trustee Expenses"	750.00	93.27	656.73
LTC Local				
65200-665	LTC - Local Exp - LTC Meeting Expenses	2,000.00	837.59	1,162.41
65210-665	LTC - Local Exp - APC Meeting Expenses	500.00	0.00	500.00
65220-665	LTC - Local Exp - Communications	300.00	0.00	300.00
65230-665	LTC - Local Exp - Special Projects	500.00	0.00	500.00
TOTAL LTC Local Expense		<u>3,300.00</u>	<u>837.59</u>	<u>2,462.41</u>
Projects				
73001-665-2011	South Pender OCP/LUB	2,500.00	2,300.63	199.37
73001-665-4091	South Pender LUB Amendments	6,000.00	0.00	6,000.00
TOTAL Project Expenses		<u>8,500.00</u>	<u>2,300.63</u>	<u>6,199.37</u>

South Pender Island Local Trust Committee

POLICIES AND STANDING RESOLUTIONS

Revised: April 28, 2015

No	Meeting Date	Resolution No.	Issue	Policy
1.	May 23, 2006	SP-LTC-12-06	Adoption of Minutes	That staff prepare draft of meeting minutes for Local Trust Committee reading, correction and amendment as soon as possible following meetings. The South Pender Island Local Trust Committee will adopt these minutes by Resolution without Meeting within fourteen business days, if possible, of each meeting. [The adopted minutes will be posted to the website as soon as possible and a copy will also be included in the next meeting's agenda package].
2.	October 5, 2010		Follow up action list	Send FUAL to trustees once drafted following the meeting.
3.	April 28, 2015	SP-2015-015	Printed Agenda Pkgs	That whereas full agendas are available for public perusal on the website, and whereas the SPILTC endeavours to lower its ecological footprint be it moved that full paper printed agenda packages no longer be provided for future SPILTC meetings. [Copies of the agenda cover will be brought to the meetings]



Trust Fund Board Report to Local Trust Committees and Bowen Island Municipality January 2018



Election of the Trust Fund Board Chair

Trustee Tony Law was nominated and elected by acclamation as the Trust Fund Board (TFB) Chair for 2018.

Re-appointment of Robin Williams

The Minister has approved the re-appointment of Robin Williams to the TFB for two years. Trustee Williams will continue to represent the TFB on the Financial Planning Committee.

New 'Salish View' Conservation Proposal, Lasqueti Island

The TFB received and accepted a conservation proposal submitted by the Lasqueti Island Nature Conservancy, (LINC) regarding the acquisition of the property known as 'Salish View'. The TFB agreed to contribute \$32,000 from the Lasqueti Island Acquisition Fund to purchase Salish View, on the condition that the primary donors to this Fund support the use of the funds for this project. Staff will be working with LINC on fundraising and communications for the campaign, and if the campaign is successful, the land will be protected by the TFB as a nature reserve, with a covenant held by LINC.

Regional Conservation Plan (RCP)

The TFB approved the final 2018-2027 Regional Conservation Plan (RCP). The Board is referring the RCP to Trust Council for endorsement at the March Trust Council meeting. The TFB also reviewed a three-year work plan that builds on the approved RCP. The RCP will be used by the TFB to evaluate conservation proposals, to direct communications and fundraising efforts and to guide property management work. The three-year work plans will be used by staff and board members to guide their work and measure progress towards achieving the larger goals of the ten-year RCP. The final RCP will be posted on the Islands Trust Fund (ITF) website after the March Trust Council meeting and a news release will be issued.

Fairyslipper Forest campaign

Fairyslipper Forest is now protected as a TFB nature reserve. A board-to-board celebration event will be held in Cowichan Valley on February 24, 2018 to celebrate the successful completion and protection of Fairyslipper Forest Nature Reserve on Thetis Island. Public celebration events will be held on Thetis Island on April 21-22, 2018.

Report on Islands Trust Meeting with the Minister

The TFB discussed possible follow-up actions emerging from the recent Islands Trust meeting with the Minister of Municipal Affairs and Housing regarding the requested change to the Islands Trust Act to change the name of the Islands Trust Fund.

Agricultural Land Commission (ALC) Review

Trustee Tony Law attended the a regional stakeholder meeting held by the Minister of Agriculture's Advisory Committee on the Revitalization of the Agricultural Land Reserve and Agricultural Land Commission on February 6, 2018 in Nanaimo.

Summary of Current Island-by-Island Activities

Denman

Staff attended an open house on January 27, for public consultation on the revised management plan for Morrison Marsh Nature Reserve, to be completed by April 2018. Invasive species removal and trail clearing, sign installation, tree caging for forest restoration continues at all three TFB nature reserves.

Gabriola

Construction is almost complete on the boardwalk around the large western redcedar tree. Notice of the work went into the local paper and social media, and the RCMP was notified to deter vandalism. Construction of boardwalk over a wet area on one section of the existing trail will begin in February.

Galiano

Invasive species removal and trail clearing is in progress on the Laughlin Lake and Vanilla Leaf Nature Reserves. The Board received and approved a request from a

Please feel free to contact members of the Trust Fund Board or Islands Trust Fund staff for more details.

Tony Law, Chair tlaw@islandstrust.bc.ca
Islands Trust Fund itfmail@islandstrust.bc.ca

Master's student to perform research on pollinators and microclimates on Retreat Island Covenant provided that conditions for ecological integrity and stakeholder approval are met.

Lasqueti

Riparian restoration and nesting box maintenance is in progress at the John Osland Nature Reserve.

North Pender

Public consultation, including a questionnaire and open house scheduled for February 17, 2018, are underway for a revised management plan for the Medicine Beach Nature Sanctuary, to be completed by April 2018.

Please feel free to contact members of the Trust Fund Board or Islands Trust Fund staff for more details.

Tony Law, Chair tlaw@islandstrust.bc.ca
Islands Trust Fund itfmail@islandstrust.bc.ca

To:	Local Trust Committees	For the Meeting of:	Various
From:	David Marlor, LPS Karen Hurley, TAS	Date Prepared:	March 2, 2018
SUBJECT:	Land-use planning implications of Fisheries and Oceans Canada <i>Integrated Geoduck Management Framework 2017</i>		

PURPOSE: To inform local trust committees about the land-use implications of the of Fisheries and Oceans Canada *Integrated Geoduck Management Framework 2017*

BACKGROUND:

At the November 2, 2017 meeting the Executive Committee requested that:

Local Planning Services and Trust Area Services staff collaborate on the preparation of a briefing for local trust committees about the land-use planning implications of the DFO 2017 Integrated Geoduck Management Framework.

The Fisheries and Oceans Canada (DFO) *Integrated Geoduck Management Framework 2017* (IGMF) guides the management of geoduck clam aquaculture, including siting guidelines for new applications for inter-tidal and sub-tidal geoduck aquaculture, as well as for applications for size increases to existing shellfish aquaculture operations.

Currently in the Islands Trust Area, most shellfish aquaculture tenures are limited to Baynes Sound because this area has the best conditions for the raising of these types of shellfish. Wild geoduck clams are more widespread in the Islands Trust marine areas, and, under the IGMF, there is potential for geoduck clam aquaculture operations to be installed in wild geoduck habitats. As a result, staff expects that Geoduck clam aquaculture tenures could be applied for in many other locations throughout the Trust Area but would be influenced and/or limited by:

- appropriate ecological/substrate conditions;
- zoning; and
- the DFO IGMF 2017, which identifies areas available for geoduck clam aquaculture applications.

With release of the DFO Integrated Geoduck Management Framework 2017, applicants are now able to apply for aquaculture licenses throughout the B.C. coast, including the Trust Area. Shellfish aquaculture is now under the exclusive jurisdiction of DFO to manage the fishery and provide licenses to operators. The province issues tenures for the sites and manages the harmonized application process.

There are existing aquaculture licenses that include geoduck clams among many possible species that could be implemented at this time on many Gulf Islands, including: Lasqueti, Hornby, Salt Spring, and Denman. There are also many islands that have existing aquaculture licenses that do not currently include geoduck clams; however, operators could apply to have them added to the license, including: Thetis (5), Gabriola (1), Salt Spring (4 including one at Burgoyne Bay) and many near Denman.

Attached are maps of the Islands Trust Area, indicating areas that currently permit aquaculture and/or limited aquaculture.

Under IGMF 2017, there is also the potential for the opening up of wild geoduck areas to DFO applications for both intertidal and subtidal geoduck clam aquaculture licenses in various sites in the Trust Area by First Nations (red zones) and all operators (yellow and non-colour areas on attached maps).

DFO staff, however, is not expecting a large number of new or amendment applications for geoduck clam aquaculture and have advised that throughout BC there “are currently 57 facilities licensed for geoduck. Of this, 25 are licensed for intertidal, of which only 6 have approved harvest plans, and only 2 have ever reported production, the last being in 2015.” DFO staff has also confirmed that “the addition of geoduck to an existing licence requires an amendment with full DFO review. Any proposed addition of non-standard infrastructure (including geoduck tubes) would also trigger a review of the application by the BC government.

Implications of the IGMF

In British Columbia, the province has responsibility for issuing tenures for aquaculture and the federal government has responsibility for issuing licenses for the operation and management of aquaculture.

Under s.479 of the *Local Government Act*, local trust committees have the authority to zone the surface of the marine areas. However, aquaculture is a federally regulated industry and local zoning cannot infringe on the federal authority. Therefore, local trust committees are limited to determining the location that it deems suitable for aquaculture operations but cannot restrict the species grown in the tenure area. Local trust committees could regulate siting and size of buildings and structures as part of its s.479 authority, provided that such regulations do not restrict the aquaculture operations as licensed by the federal government.

Any areas suitable for geoduck clam aquaculture that are already zoned for aquaculture uses could be used to grow and harvest geoduck. Operator licenses may already include geoduck clams, or they could be added to the aquaculture license, likely without a referral process.

Areas that are not zoned for aquaculture would require a rezoning application before they could be used for aquaculture (including geoduck clams).

ATTACHMENT(S):

1. 2018 Island Trust water zoning maps (with index map)
2. Staff report on potential impacts associated with geoduck clam aquaculture in the Islands Trust Area, November 12, 2017
3. Fisheries and Oceans Canada *Integrated Geoduck Management Framework 2017* (IGMF)
4. IGMF Maps associated with Islands Trust Area -- Pacific Fisheries Management Areas: attached and at DFO website
 - a. 14 South - Denman, Hornby, Lasqueti, N. Thormanby Islands
 - b. 16 - Denman, Hornby, Lasqueti, N. Thormanby Islands
 - c. 17 - Gabriola, Galiano, Mudge and Thetis Islands
 - d. 18 - Saturna, Salt Spring Islands (all SSI Conditional Closure)
 - e. 19 - James, Sidney Islands

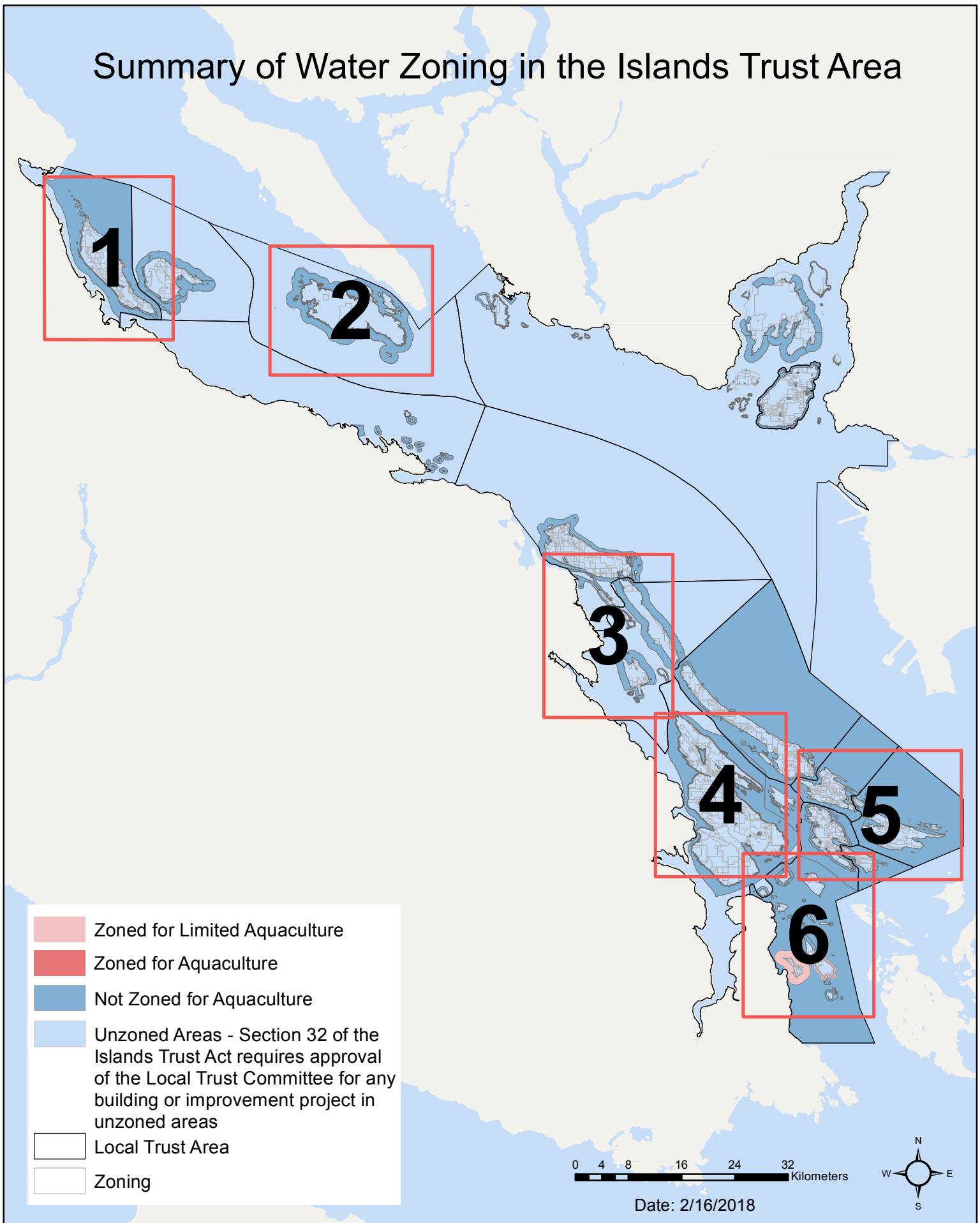
FOLLOW-UP:

TAS staff will continue to monitor any new information on geoduck clam aquaculture. Further follow-up at the direction of Local Trust Committees.

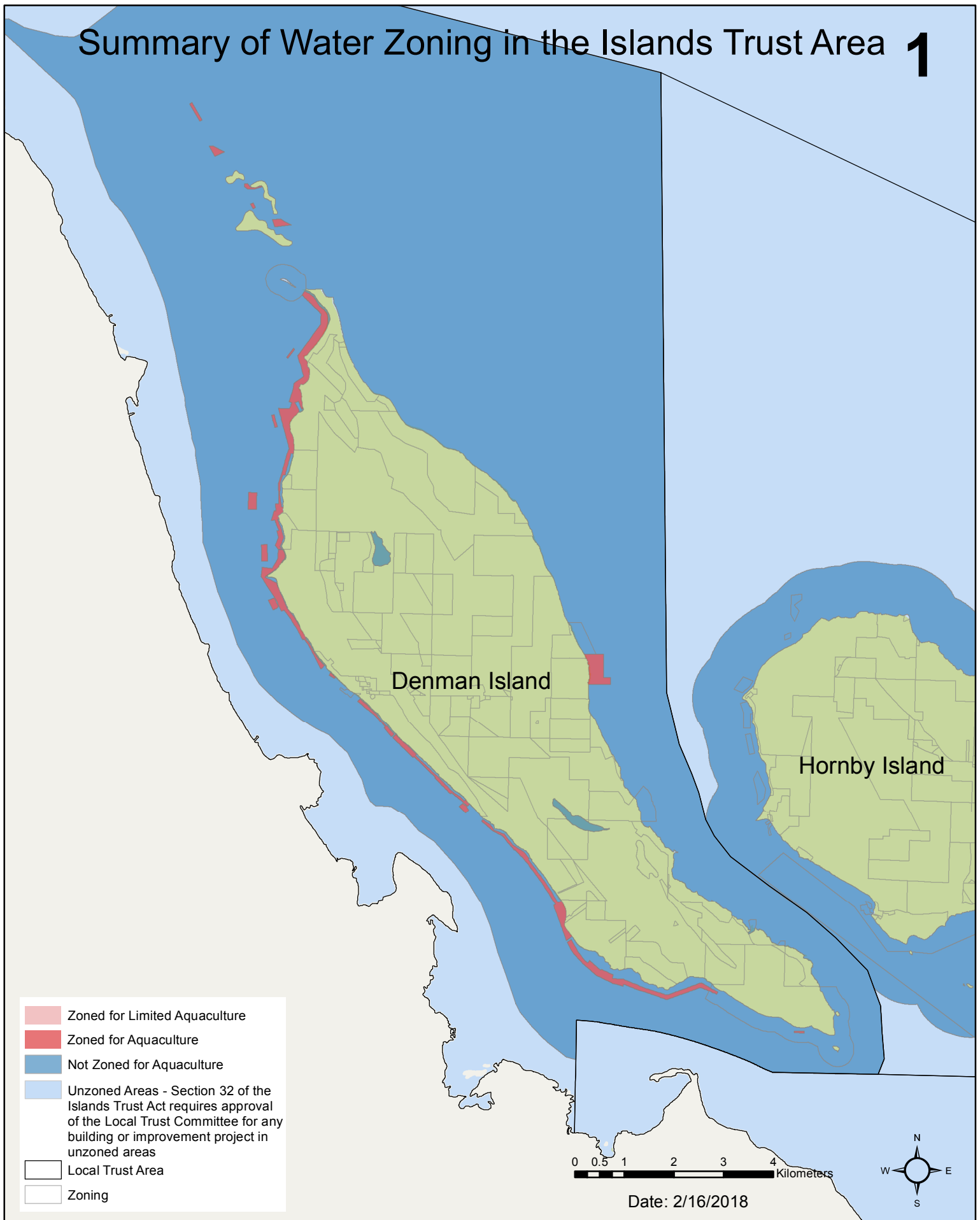
Prepared By: David Marlor, Local Planning Services
Karen Hurley, Trust Area Services

Reviewed By/Date: Clare Frater, Trust Area Services, March 5, 2018

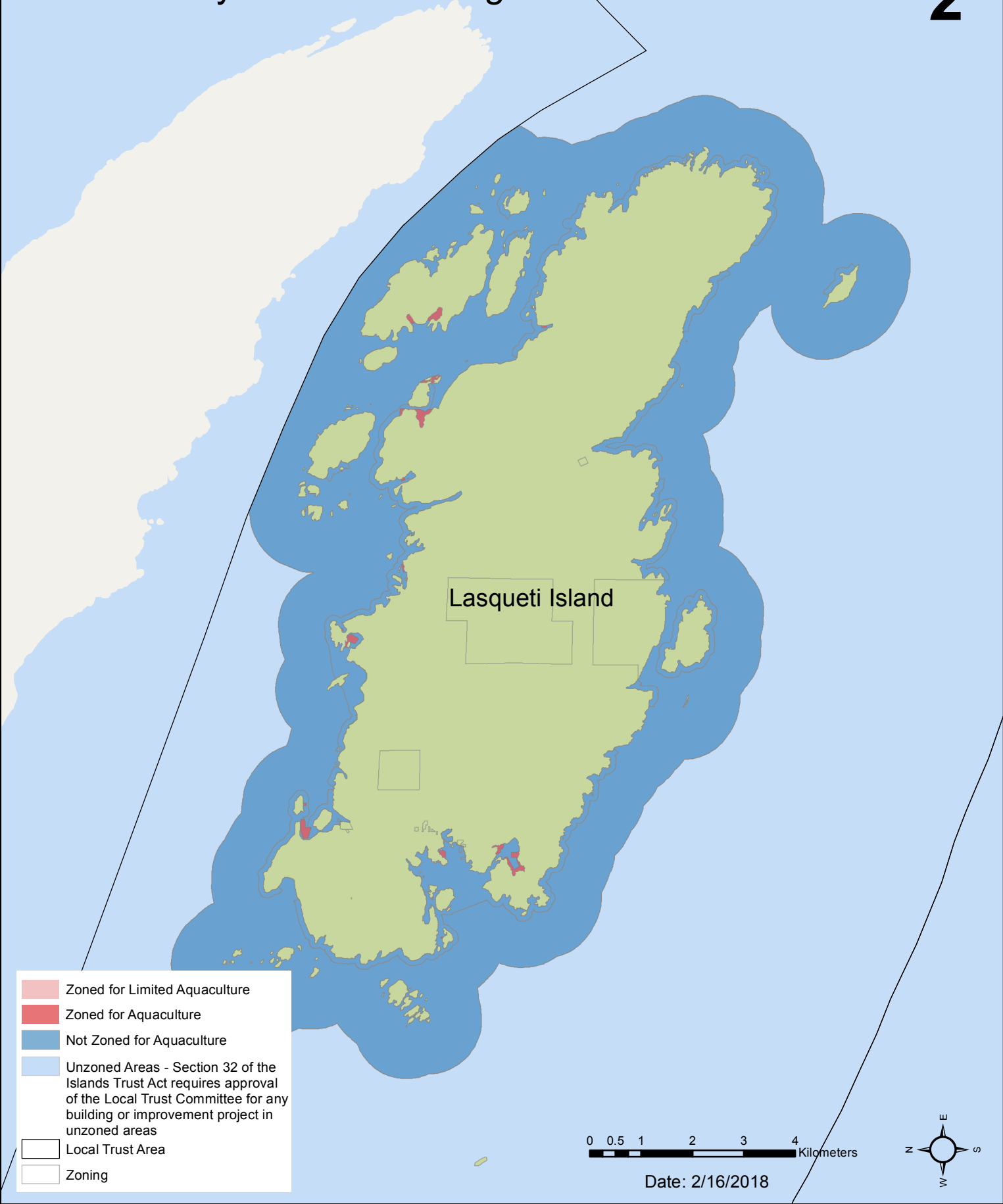
Summary of Water Zoning in the Islands Trust Area



Summary of Water Zoning in the Islands Trust Area 1



Summary of Water Zoning in the Islands Trust Area **2**



Summary of Water Zoning in the Islands Trust Area **3**

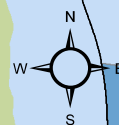
Gabriola Island

Thetis Island

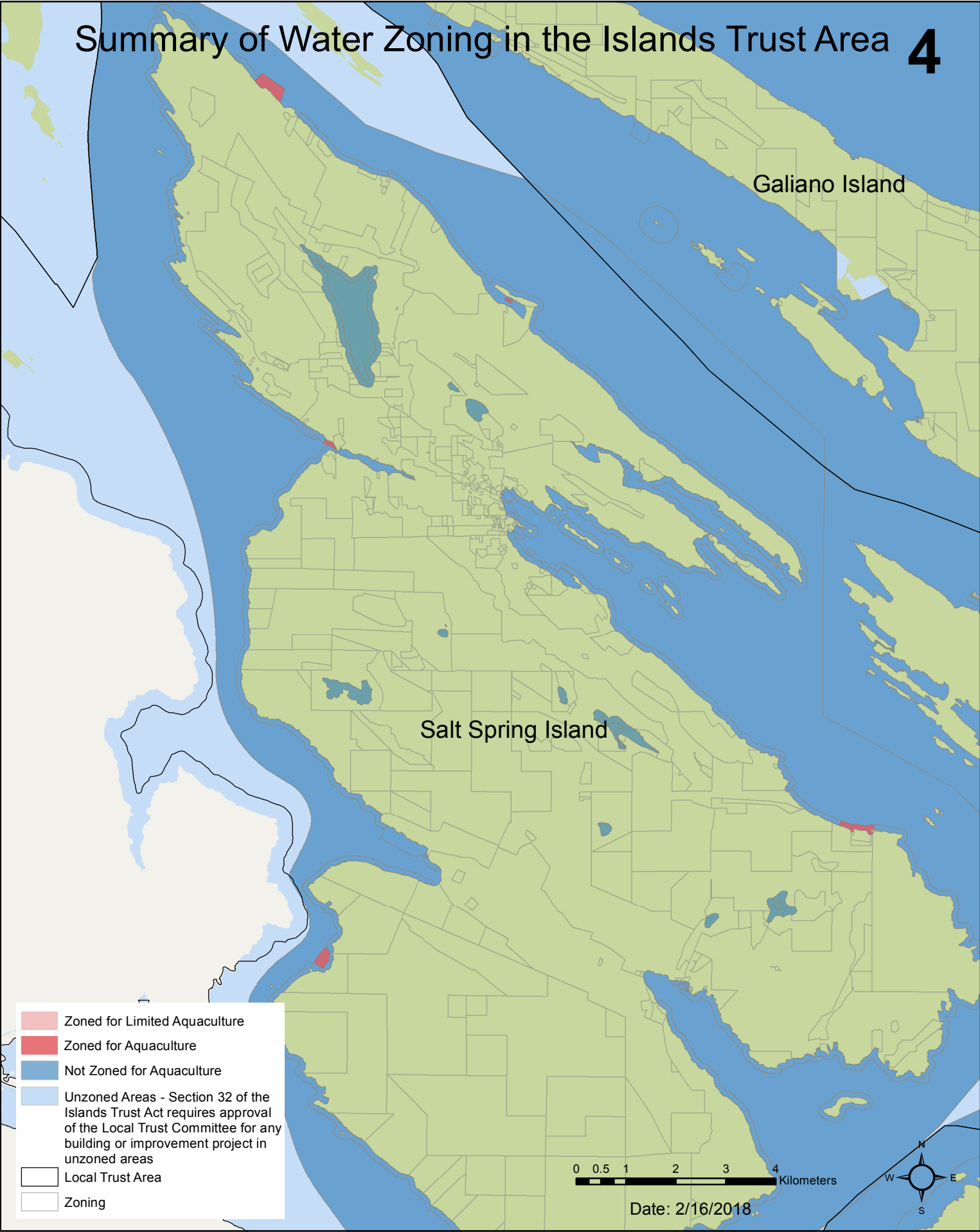
- Zoned for Limited Aquaculture
- Zoned for Aquaculture
- Not Zoned for Aquaculture
- Unzoned Areas - Section 32 of the Islands Trust Act requires approval of the Local Trust Committee for any building or improvement project in unzoned areas
- Local Trust Area
- Zoning

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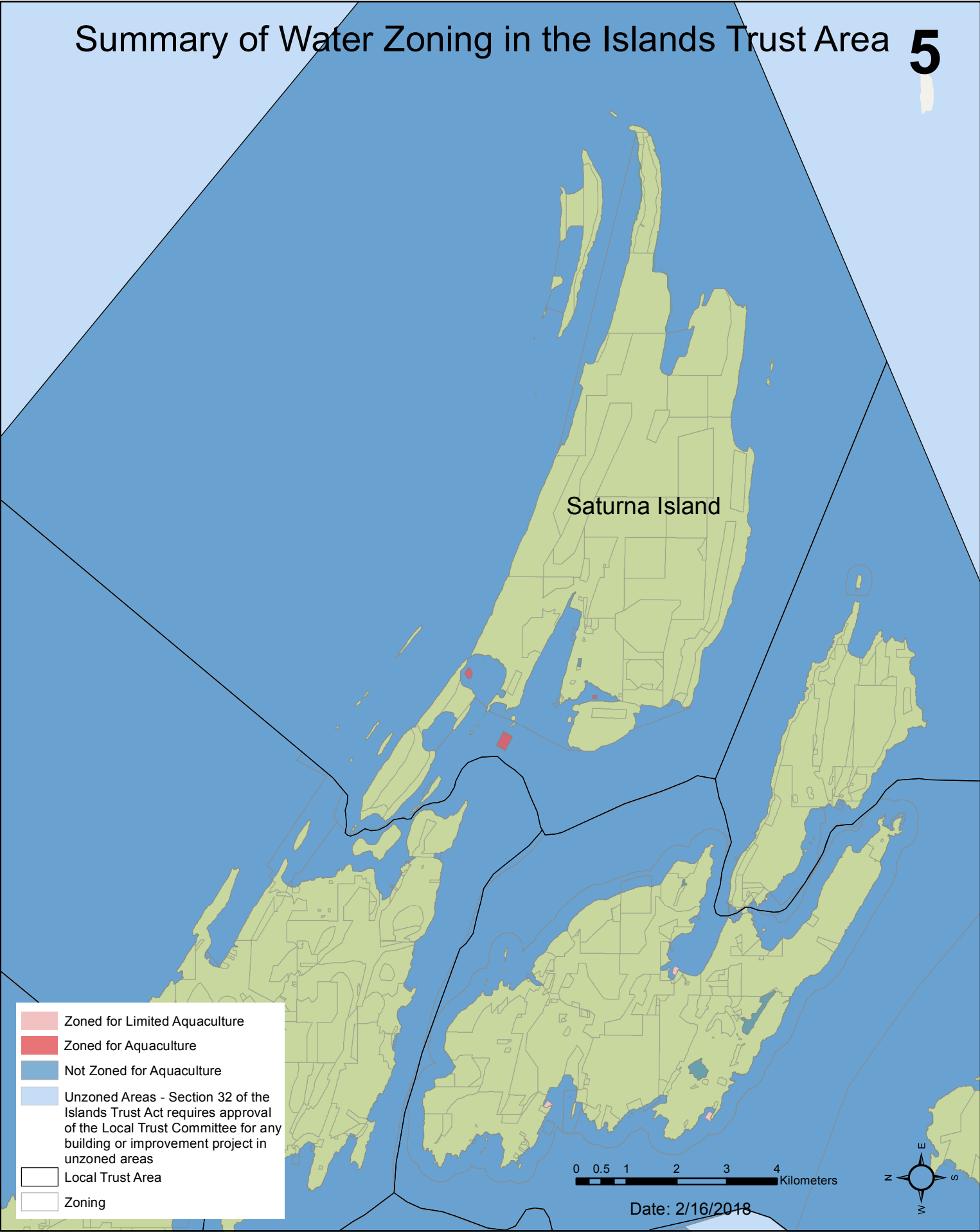
Date: 2/16/2018



Summary of Water Zoning in the Islands Trust Area 4



Summary of Water Zoning in the Islands Trust Area 5



Summary of Water Zoning in the Islands Trust Area 6

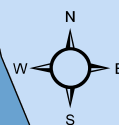
Salt Spring Island

Sidney Island

-  Zoned for Limited Aquaculture
-  Zoned for Aquaculture
-  Not Zoned for Aquaculture
-  Unzoned Areas - Section 32 of the Islands Trust Act requires approval of the Local Trust Committee for any building or improvement project in unzoned areas
-  Local Trust Area
-  Zoning

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Date: 2/16/2018



Staff report on potential impacts associated with geoduck clam aquaculture in the Islands Trust Area

**By Karen Hurley, PhD, Senior Policy Advisor
November 12, 2017**

On June 21, 2017, the Islands Trust Council requested Executive Committee to investigate the potential impacts associated with geoduck aquaculture in the Islands Trust Area and, as appropriate, initiate advocacy.

This report has been produced using review of the latest scientific peer-reviewed research on impacts from geoduck clam aquaculture, as well as conversations and meetings with staff from the Department of Fisheries and Oceans (DFO), the BC Ministry of Agriculture, the BC Ministry of Forests, Lands and Natural Resources Operations and Rural Development (FLNRORD), Vancouver Aquarium and members of the Association of Denman Island Marine Stewards. *Given the limited staff time available for this project, and the lack of definitive science, this report offers only an overview of potential impacts and highlights area worthy of further study.*

During a review of the issue, two major themes emerged: there is uncertainty as to the expected scale of the industry now that DFO's 2017 Geoduck Integrated Management Framework is in force and therefore there is uncertainty about the, scale of the potential impacts. There is also uncertainty about the extent to which geoduck aquaculture might occur in the intertidal zone.

The potential impacts discussed in this report include damage to habitat vital to other species including herring, reduced bird foraging, microplastic contamination, human health, chemical contamination, garbage and ocean acidification.

It is worth noting at the outset that, to date, there are no studies that evaluate the potential impacts of geoduck aquaculture at the ecosystem level or the cumulative impacts of an expanded industry in the Salish Sea, though most researchers call for this level of study to be done.

A description of geoduck clam aquaculture practice is attached as Appendix 1.

Geoduck aquaculture has taken place in British Columbia since the early 1990s. In that time, interest in geoduck aquaculture has continued to grow as demand for the giant clam, especially in China, has sent prices soaring. Many, including Trust Area First Nations, see the emerging geoduck aquaculture industry as a significant opportunity for economic development and long-term employment for local residents. Compared to Washington State the industry in BC is at an early stage, but with the recent approval of a DFO Integrated Geoduck Management Framework 2017 (IGMF) is poised to expand.

There are concerns in island communities that DFO has insufficiently considered ecosystem and cumulative impacts. In creating the IGMF, DFO chose to limit their consideration and scientific analysis geoduck aquaculture at the policy level to the principle of 'conservation', which was narrowly defined: "conservation and long-term sustainability of wild geoduck stocks is the first priority." No mention is made in the IGMF of protection of the marine environment, fish habitat or human health. DFO staff advises that broader ecological impacts will be assessed at the licence application level. This raises concern that assessment at the individual licence will result in insufficient consideration of cumulative impacts regionally.

Concerns about geoduck aquaculture impacts are not new. In 2007, the BC Legislature’s Special Committee on Sustainable Aquaculture [recommended](#) that:

“No new species are to be approved for commercial aquaculture without a consensus of independent peer-reviewed science demonstrating that the potential impact on the marine environment is minimal”. (7.5)

Recently approved geoduck clam tenures must be rescinded until conditions in Recommendation 7.5 are met”. (7.6)

Staff’s review of the available science did not result in an impression that there is scientific consensus that the potential impacts of intensive aquaculture in the Trust Area, including geoduck aquaculture, are certain to be minimal. Staff noted that many articles conclude with calls for additional research. As far as staff knows at this time, the 2007 recommendation to rescind the approved geoduck clam tenures was not acted on.

There are also strong feelings in island communities about aquaculture impacts generally. Residents are concerned that, in the past, aquaculture operators have not taken responsibility for lost equipment/garbage and that DFO is insufficiently monitoring and enforcing conditions of the licenses. Residents also seem to have a lack of trust in the adequacy of the federal government’s oversight of aquaculture, due to changes to the *Fisheries Act* in 2012 that significantly [weakened](#) the federal government’s role in fish habitat protection. There also appears to be a lack of clarity with members of the public regarding the respective roles and authorities of DFO, FLNRORD and Islands Trust.

Potential impacts of geoduck clam aquaculture

A summary of potential impacts identified by staff is below:

1. Potential damage to habitat vital to other species, including herring

There is limited local data available about habitat impacts associated with the geoduck industry so staff reviewed articles about impacts in Puget Sound, a nearby region that has more experience with intensive geoduck clam aquaculture. A review of the scientific literature related to geoduck aquaculture in Puget Sound reveals that there is an active debate among scientists as to the severity of the impacts or potential impacts. That said, most of the scientific reports call for additional research on ecological impacts even as geoduck aquaculture intensifies. Key among these are:

- *MacDonald et al.* (2013) report negative impacts on fish and snail habitat by geoduck aquaculture gear and suggest further research to understand impacts to forage fish populations.
- *Dethier et al.* (2007), marine scientists, raised [concerns and questions](#) about geoduck aquaculture impacts to habitat, marine species and ecosystem functions. Staff understands these questions remain unanswered.

In 2013, DFO scientists conducted a one-year study on potential impacts of geoduck clam intertidal aquaculture in a small study area (not a large commercial operation) near Nanoose, BC. This study concluded that there are limited ecologically-significant effects of intertidal geoduck aquaculture. The exceptions found were that after liquefaction of the geoduck site during harvesting the sediment structure took 123 days to recover, and that there was a lack of seasonal increase in infaunal (beings that live in the sand such as forage fish) abundance and richness after harvesting. The study recommended more research on a larger scale.

Robinson et al. (2013) describe how Pacific sand lance do not have a swim bladder, so when they are not foraging they bury into the intertidal or subtidal sand and they also aestivate in the sand (like hibernation) when food is scarce. A reduced number of forage fish and invertebrates living in the sand and finer ocean floor sediments after liquefaction from the stingers (inserted to a one metre depth) is not surprising because their habitat has been significantly changed. As *Dethier et al. (2007)* write: organisms in the intertidal zone are adapted to small scale disturbances – this large scale disturbance with stingers is not part of their evolutionary history.

Staff notes that it remains unclear whether geoduck aquaculture will occur in the intertidal zone. Although not specific to the geoduck industry's activities, a 2002 review of BC shellfish aquaculture in Baynes Sound assigned the impacts of site clearing with a rake and other harvesting activity as High Severity on forage fish intertidal habitat.

Doug Hay, PhD, who spent most of his career as a research scientist with DFO, and who continues to serve as scientist emeritus addressing issues related to herring and other forage fish, cautions that pertinent environmental impact analysis of risks to forage fish species have never been done. He suggests that nobody knows if geoduck aquaculture could jeopardize the amount and quality of spawning habitat for herring or other forage fish species such as surf smelt or sand lance, but that, the loss of vital spawning habitat could lead to declines in abundance of forage fish species, including herring, which in turn could impact other species, especially seabirds. Within the Trust Area, forage fish provide up to 50% of the diet of Chinook salmon that are the primary food of the Southern Resident orcas. Using spawning records back to 1928, Dr. Hay explains that the most important herring spawning areas occur on only 10% of the total BC coastline. *Lambert Channel, between Denman and Hornby Islands, is the largest area of herring habitat in BC with 35% of BC's total herring spawning area.* In addition, Dr. Doug Hay cautions that, collectively, we are all taking herring for granted, especially in the Strait of Georgia, and taking big risks with geoduck aquaculture in herring spawning areas. He recommends additional research on this topic.

The IGMF permits geoduck aquaculture in many parts of the herring spawning area of Baynes Sound and Lambert Channel (Denman and Hornby Islands). This is herring habitat that is defined as Vital by DFO.

2. Potential impacts to species due to reduced foraging

There is also concern that intensive intertidal geoduck aquaculture may negatively impact birds through alienation of foraging habitat in the inter-tidal zone as well as birds being caught in the predator netting. Baynes Sound and other marine areas within the Trust Area are important bird habitats. .

Ferriss et al. (2016) undertook modelling for Puget Sound that found that the gear associated with geoduck aquaculture including PVC pipes and anti- predator nets may, if the already intensive industry more that doubles in that region, have an impact on the Puget Sound food web because of changing forage opportunities including a substantial decrease of most resident birds including great blue herons and reduction in wild salmon.

There is widespread use of netting in the aquaculture industry. Given this, staff was interested to read studies that the anti-predator nets (APN), which were created to reduce bird and crab predation of aquaculture clams, have not been effective in reducing bird foraging behavior or crab predation. In fact, the nets have increased the number of small predatory crabs in Baynes Sound to the point that Dr. Leah Bendell (2014) suggests that “it is likely that maximum bivalve productivity within Baynes Sound has been reached in that any further gains hoped to be achieved through seeding will not be realized as a consequence of predation.”

Staff also learned that in a 2015 study, also focused on Baynes Sound, Dr. Bendell, documents how the anti-predator nets degrades the sediment geochemical characteristics, are hazards to wildlife and humans, and provides a place for sea lettuce to take hold, which contributes to poor water quality and a likely loss of ecological function on the sea bed. More research is recommended by the author.

3. Microplastic contamination

The plastic anti-predator netting and PVC pipes used in inter-tidal geoduck aquaculture may impact the marine environment as they break down in the saltwater and sun exposure. A recent research paper from Washington State explains that the “contribution from larger marine plastic debris to microplastic formation is greatest on beaches where UV light and wave action can enhance degradation.” According to Feldman (2002) PVC is a poorly photostable polymer especially the matt finish PVC, like the ones used in geoduck aquaculture, and can be severely weathered in outdoor uses where weathering is caused by heat, mechanical action (waves), algae and their enzymes (biodegradation). During a visit to Baynes Sound in early August, staff observed abandoned and in-place anti-predator netting and PVC pipe sections that were exposed to wave action and sunlight and, as a result, were in various states of weathering.

A 2014 paper by Jean-Pierre Desforges, Peter Ross, Vancouver Aquarium researcher, and others, documented extremely high levels of microplastics in the Strait of Georgia, of which 80% is fibrous plastics. In a 2015 paper by the same researchers found that zooplankton are eating these microplastic particles. Dr. Ross also explained to staff that researchers have found that the type of microplastic differs according to where you are looking. For example PVC microplastic is denser than water and therefore tends to be found in the sediments, while fibres are more buoyant and are found in the water column. Dr. Bendell argues that aquaculture plastic gear including ‘oyster blue’ rope, netting, and plastic net bags are contributing to the highly fibrous composition of microplastics in Baynes Sound. All of the researchers suggest that additional research is required, especially in terms of ecological consequences.

DFO and the BC Shellfish Growers Association also recognise that aquaculture gear may be a source of microplastics. In 2016 they initiated a collaboratively funded research project to investigate: *Microplastics and Shellfish Aquaculture: Presence, Extent, Potential Impacts and Mitigation Measures* including the type of microplastics and potential sources. The research is expected to be completed by December 31, 2017.

4. Human health

If undertaken, intertidal geoduck clam installations would involve anti-predator nets to protect the juvenile geoducks. There is a human health concern associated with the rebar used to hold the anti-predator nets (APN) in place because it tends to erode quickly at the bend and then break off, forming a point. These points are hazardous if stepped or fallen on – as happened on Denman Island twice in the summer of 2017 in clam tenures.

5. Chemical contamination

Lead line is a product used to attempt to hold the netting in place. This product is used throughout the fishing industry. It is made of a loosely braided nylon with lead balls inside. In the intertidal zone, if the nylon braid erodes there is a risk of [animals or birds ingesting](#) the lead balls. Future research is warranted.

6. Garbage

Garbage and gear abandonment is a long standing aquaculture issue, acknowledged by provincial staff and addressed in the BC Shellfish Growers *Environmental Code of Practice*. Staff observed an unsuccessful geoduck operation intertidal zone on the south end of Denman Island where the gear was obviously abandoned and causing potential danger to humans, marine species and birds.



Abandoned geoduck aquaculture gear in the intertidal zone of Denman Island.



Lead line with anti-predator netting (APN)



APN: a hazard to humans and other species

All images Denman Island. Photo credit: Karen Hurley

7. Ocean Acidification

Marine research by *Bendell et al.* (2014) in Baynes Sound suggests that increased number of clams, including geoduck clams, could further increase acidification of the ocean. Climate change is increasing the [acidification of the ocean](#). Lower pH levels in the ocean threaten sea life, including shellfish, and in turn, acidification of the ocean may speed up climate change.

Emerging activities that will increase understanding of impacts:

On August 10th, 2017 the US Center for Food Safety launched a [lawsuit](#) against the US Army Corp of Engineers for approving a massive expansion of aquaculture, predominantly geoduck aquaculture, in Puget Sound without fully considering cumulative impacts across the state, including the use of pesticides.

As an outcome of the Herring forum hosted in February 2017 by the Association for Denman Island Marine Stewards, various stakeholders are considering possible methods to investigate the cumulative impacts of aquaculture on Baynes Sound. In November 2017, the Trust Programs Committee approved a project charter for a Baynes Sound/Lambert Channel forum project charter. It is expected that geoduck aquaculture will be one of the topics discussed.

There are upcoming opportunities for those involved in geoduck and other aquaculture to work in partnership for the health of marine ecosystems. These include a DFO working group on use of plastics in aquaculture and a planned 2018 Islands Trust/World Wildlife Fund Baynes Sound/Lambert Channel Forum that will bring together First Nations and other governments as well as industry and community stakeholders to identify issues and recommend solutions that will contribute to improving the health of the marine ecosystem.(Project charter attached).

It is possible that new research on this topic may be presented at the 2017 Salish Sea Ecosystem Conference in Seattle in April 2017.

Conclusion:

Staff's initial review of this topic reveals that, although as in any scientific topic there is ongoing debate, there are potential impacts associated with an expanded geoduck industry worthy of further study, particularly if there is to be farming in the inter-tidal zone. These include: negative impacts to herring spawning habitat, bird forage opportunities, contributions to the microplastics load, human health, contamination and garbage. There are also many long-standing requests for research into the potential ecosystem level and cumulative effects of geoduck clam aquaculture.

Attachments:

1. Appendix 1: How does geoduck clam aquaculture work?
2. Appendix 2: What part of the Trust is, or could be, available for geoduck aquaculture?
3. Appendix 3: Baynes Sound/Lambert Channel 2018 forum project charter
4. Link: [Integrated Geoduck Management Framework 2017](#)
5. Link: [Maps: Integrated Geoduck Management Framework](#)
6. Link: [Herring Spawning Map Lambert Channel and Baynes Sound](#)
7. Link: [April 2014 letter from Islands Trust Chair to DFO re draft Integrated Geoduck Management Framework](#)

Appendix 1

How does geoduck clam aquaculture work?

The geoduck is the world's largest burrowing clam and one of the longest lived species: maximum age recorded is over 140 year. It is now a lucrative wild fishery in the luxury food market. It is generally not consumed locally, but predominantly flown to consumers in China, and therefore, is expected to have a very high carbon footprint.

Aquaculture trials have been underway in BC for 18 years and geoduck hatcheries exist in BC, including Baynes Sound. It is unknown at this time what type of geoduck aquaculture will be conducted within the Islands Trust Area. DFO and FLNRO staff have indicated that there will likely not be much intertidal geoduck aquaculture, especially on the large scale conducted in Puget Sound but that small intertidal areas are possible, and subtidal aquaculture could be conducted. Both are untried methods in the Islands Trust Area and staff observed a failed and abandoned geoduck intertidal installation on Denman Island.

Geoduck aquaculture in the intertidal zone involves placing hatchery-raised juvenile geoduck clams into PVC pipes (that have been inserted into the sand with an auger), sometimes each PVC pipe is covered with a fine net under a rubber band, and then the entire area is covered with anti-predator nets (APN). Attempts are made to hold the APN in place with bent rebar and sometimes with lead line. The intertidal PVC pipes and predator nets are kept in place for 18 months to two years. Subtidal geoduck aquaculture, involves divers placing the hatchery juvenile geoducks in the sand and then installing a mesh 'canopy net' over the area. Industry standards do not exist yet for subtidal geoduck aquaculture as it is a new method.

The geoducks are then left to grow for five to seven years. During this time the site should be maintained to ensure that the netting is intact and not covered with algae or seaweed. In both intertidal and subtidal geoduck aquaculture (and similar to wild geoduck), once they reach suitable maturity the geoducks are removed by liquefying the sand with high pressure water from a 'wand' or 'stinger' and then removing the geoducks alive by hand. Adult geoducks may be buried to a depth of 1m and sediment liquefaction may occur down to such depths.

In Puget Sound, Washington geoduck clam aquaculture has been financially successful resulting in large areas of the intertidal zone being used by aquaculture companies.



Puget Sound geoduck aquaculture. Photo from *Aquaculture North America* magazine. February 4, 2014

At this time, BC does not have a large geoduck aquaculture industry and according to staff at DFO and in the geoduck industry, most geoduck aquaculture trials in BC have not been successful. A 2012 report prepared for DFO includes a profitability ratio that indicates a -2.5% rate of return after 10 years and 1.7% rate of return after 15 years. A BC Ministry of Agriculture and Lands 2005 report assessed the economics of subtidal geoduck aquaculture and concluded that because of the high costs of the juvenile geoducks and the placement and removals by divers "the results could range from highly successful businesses to unfortunate business failures. Prospective geoduck farmers [operators] will need to carefully consider the opportunities and risks associated with developing a sub-tidal geoduck enterprise."

Appendix 2

What part of the Trust Area is, or could be, available for geoduck aquaculture?

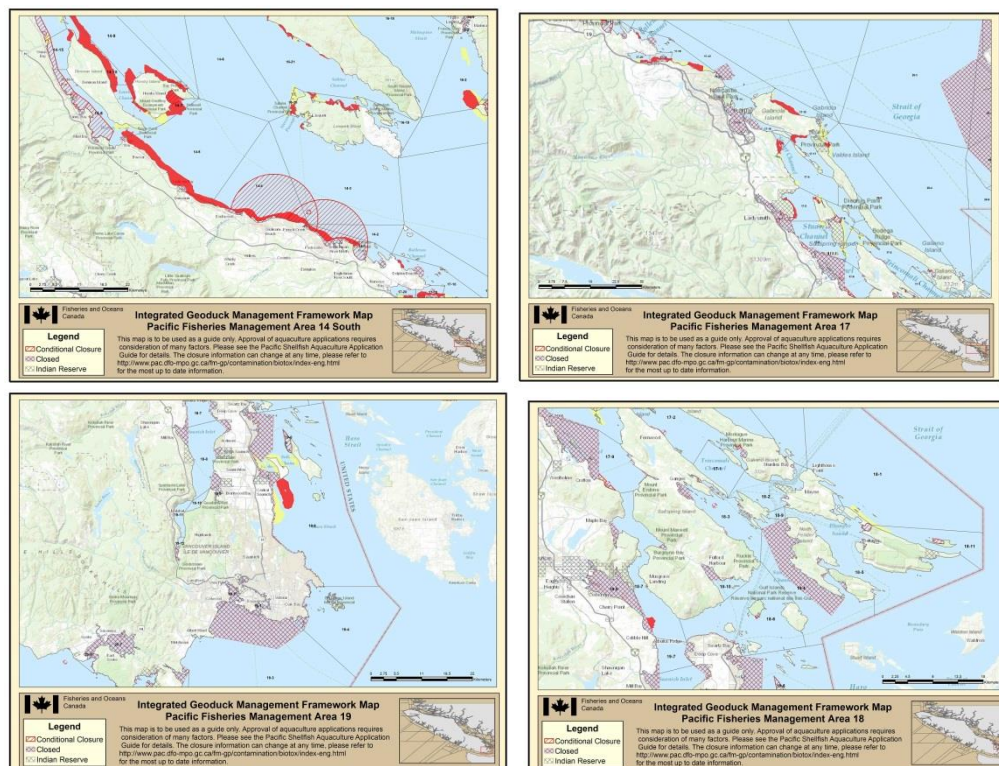
Although aquaculture impacts are now felt most strongly on Denman Island, geoduck aquaculture has the potential to be more prevalent Trust Area wide. Geoduck aquaculture could occur in various places throughout the Trust Area but would be influenced and/or limited by:

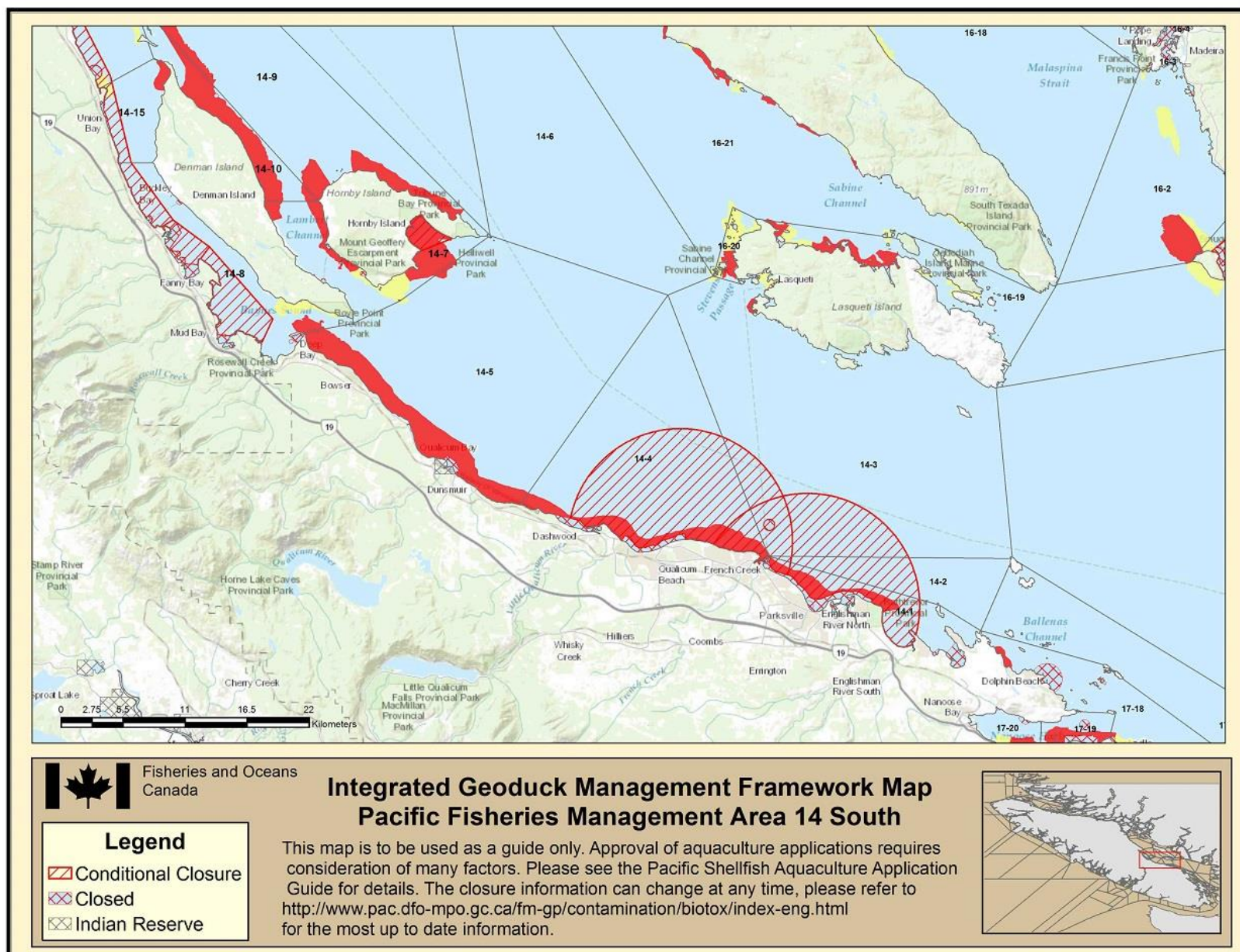
- appropriate ecological/substrate conditions;
- zoning; and
- the DFO IGMF 2017, which identifies areas available for geoduck aquaculture applications.

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There are existing aquaculture licenses that include geoduck among many possible species that could be implemented at this time on many Gulf Islands, including Lasqueti, Hornby, Salt Spring and Denman. There are also many islands that have existing aquaculture licenses that do not currently include geoduck; however, operators could apply to have them added to the license. These islands include Thetis (5), Gabriola, (1), Salt Spring (4 including one at Burgoyne Bay) and many near Denman. April 2014 letter from Islands Trust Chair to DFO re draft Integrated Geoduck Management Framework (attached) includes mapping Islands Trust Area that indicates current zoning in the permits aquaculture and/or limited aquaculture.

Under DFO's IGMF 2017 there is also the potential for the opening up of wild geoduck areas for both intertidal and subtidal geoduck aquaculture zones throughout the Trust Area by First Nations (red zones) and all operators (yellow and non-colour areas). [IGMF maps](#).







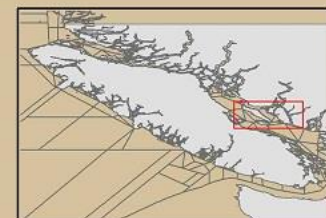
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Canada

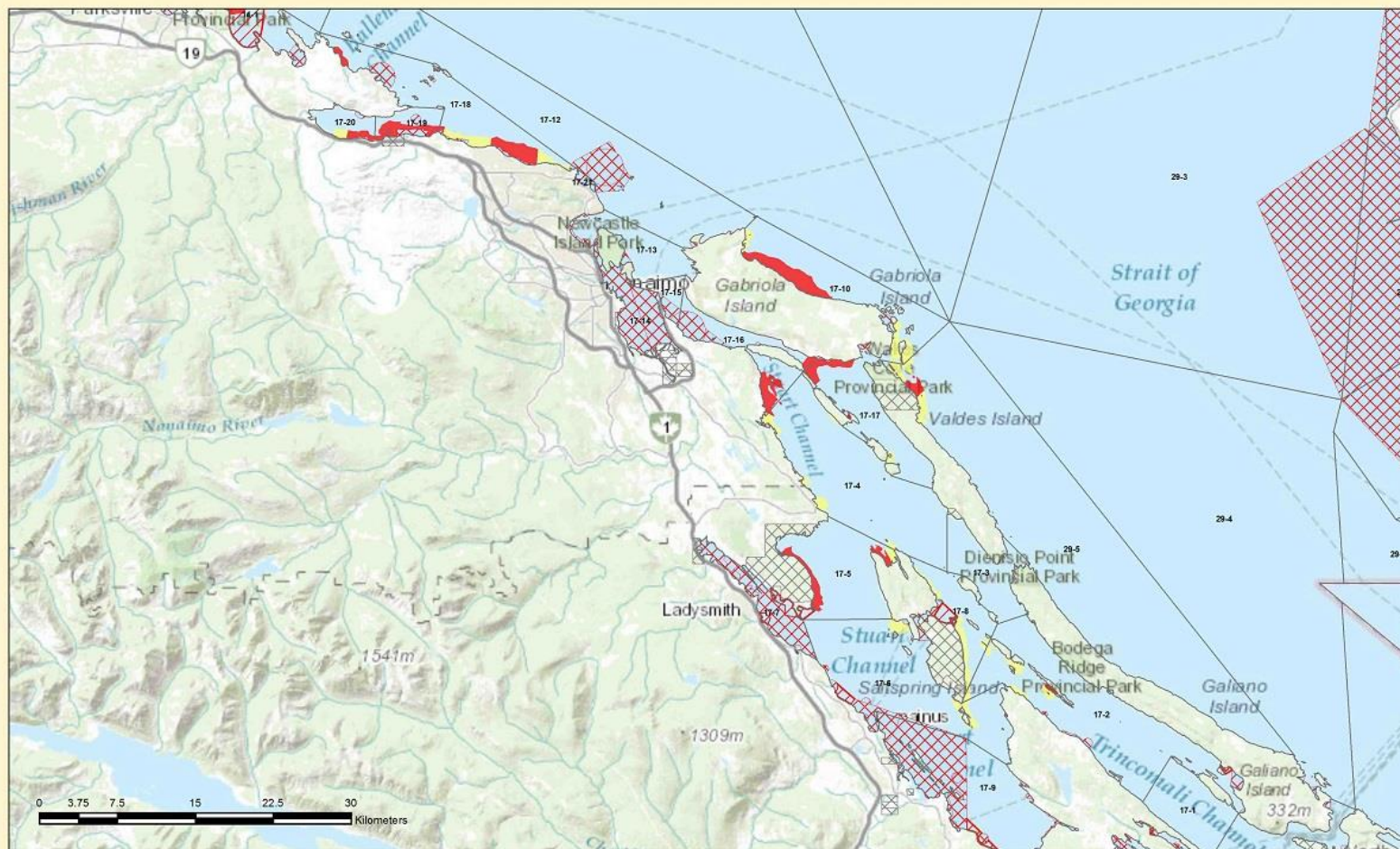
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- Conditional Closure
- Closed
- Indian Reserve

Integrated Geoduck Management Framework Map Pacific Fisheries Management Area 16

This map is to be used as a guide only. Approval of aquaculture applications requires consideration of many factors. Please see the Pacific Shellfish Aquaculture Application Guide for details. The closure information can change at any time, please refer to <http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/biotox/index-eng.html> for the most up to date information.





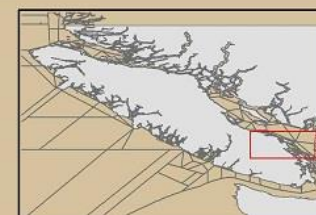
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Canada

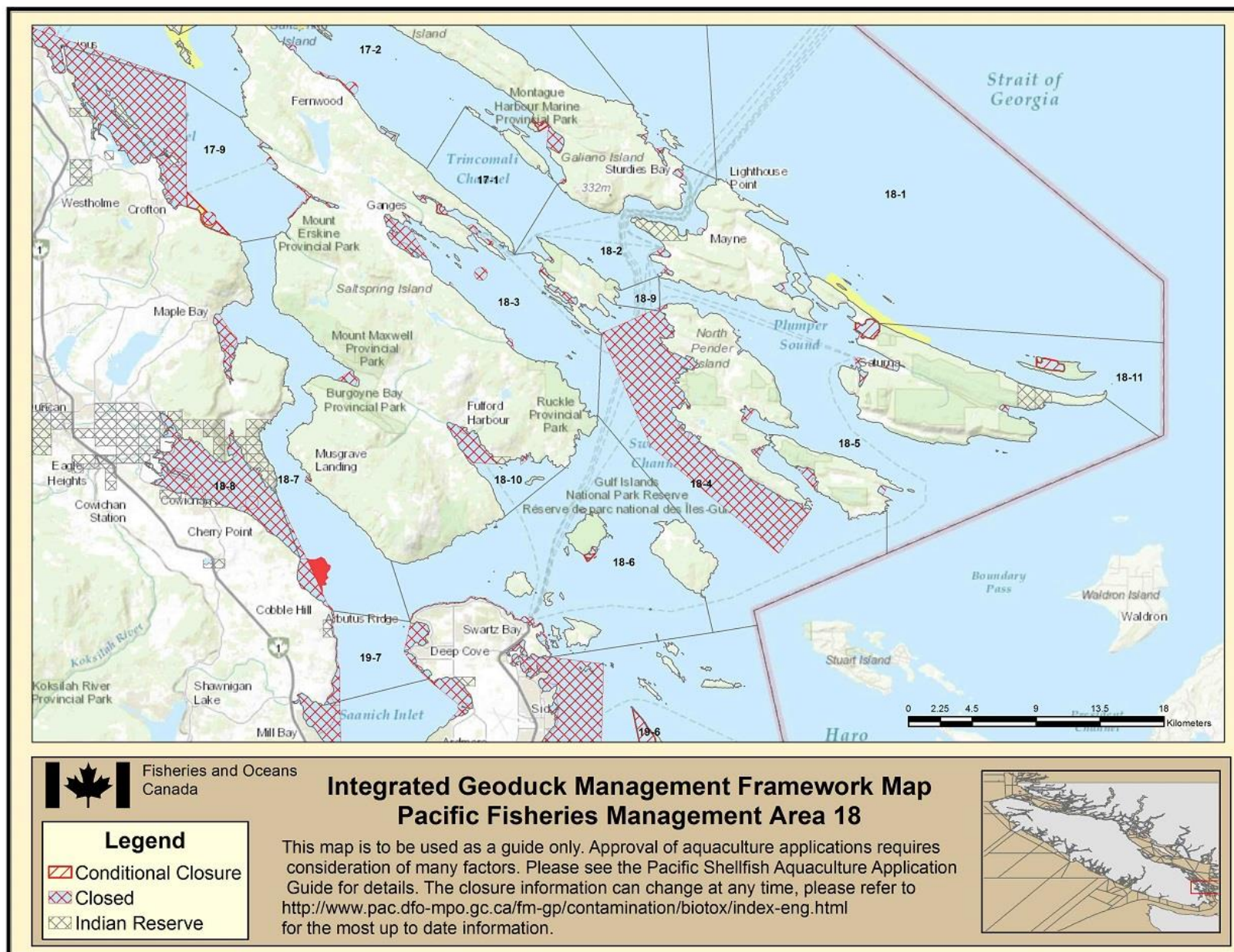
Legend

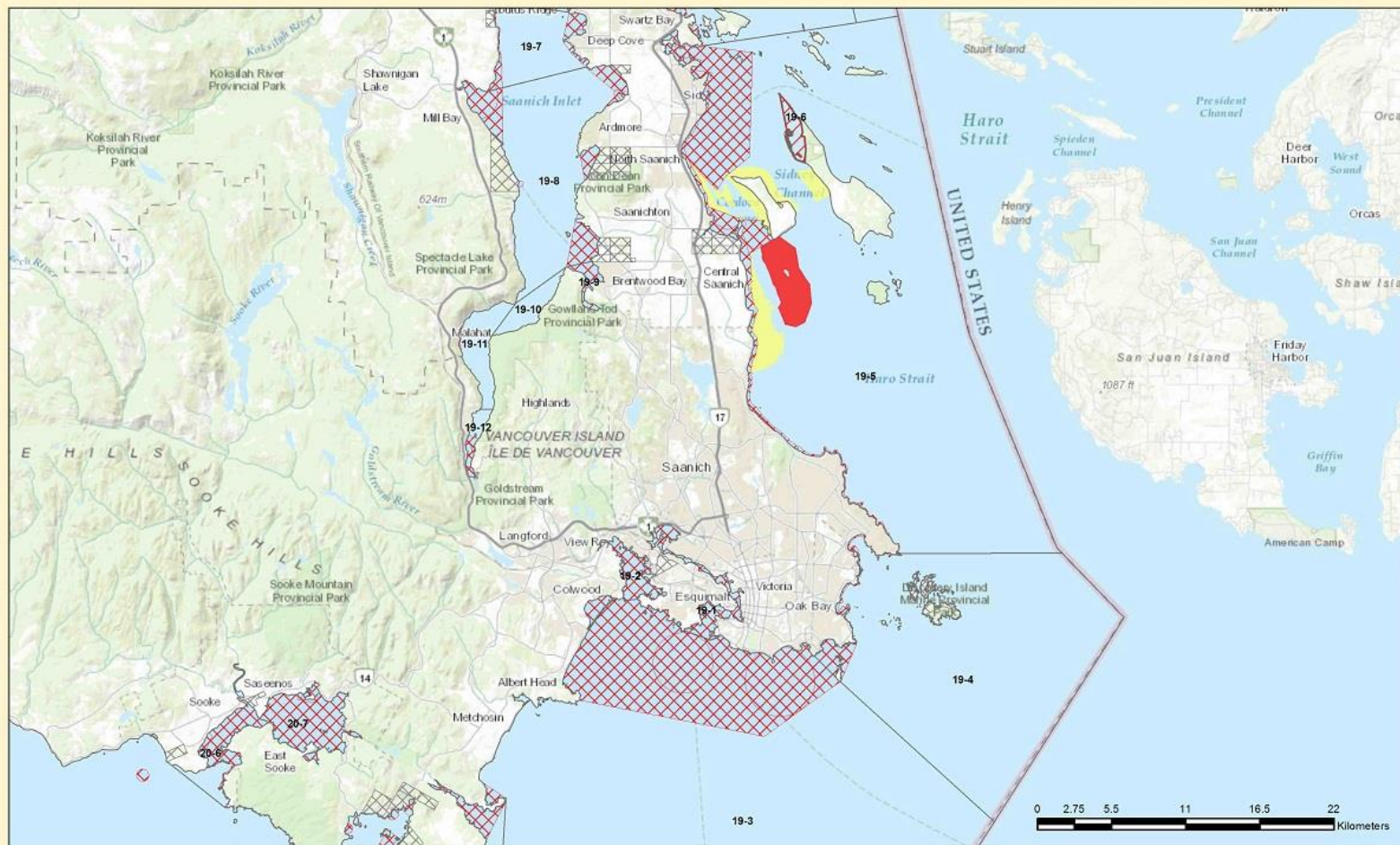
-  Conditional Closure
-  Closed
-  Indian Reserve

Integrated Geoduck Management Framework Map Pacific Fisheries Management Area 17

This map is to be used as a guide only. Approval of aquaculture applications requires consideration of many factors. Please see the Pacific Shellfish Aquaculture Application Guide for details. The closure information can change at any time, please refer to <http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/biotox/index-eng.html> for the most up to date information.







Fisheries and Oceans
Canada

Integrated Geoduck Management Framework Map Pacific Fisheries Management Area 19

Legend

- Conditional Closure
- Closed
- Indian Reserve

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