Islands Trust Council
Quarterly Meeting Agenda

Date: Tuesday, September 12, 2017

Location: Denman Island Community Hall

1196 Northwest Road, Denman Island, BC

			Pages
1.	CALL TO ORDER		
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	4.7	Committee Review - RFD	35 - 36
		That Trust Council requests the Executive Committee to consider a review of current Council Committees in terms of mandate, organization, resourcing and function.	
5.	FIELD TRIP TO DENMAN ISLAND NATURAL BURIAL CEMETERY		
6.	NEW BUSINESS		
7.	LOCAL PLANNING SERVICES		
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8. ADMINISTRATIVE SERVICES

8.1 Director of Administrative Services Report 51 - 52

8.2 Financial Planning Committee Work Program Report 53 - 53

8.3 June 30, 2017 Quarterly Financial Report - RFD 54 - 58

That the Islands Trust Council approve the June 30, 2017 Quarterly Financial Report as presented

8.4 Statement of Financial Information (SOFI) Report 59 - 63

8.5 2018/19 Budget 64 - 72

9. TRUST AREA SERVICES

9.1 Director of Trust Area Services Report 73 - 76

9.2 Trust Programs Committee Work Program Report 77 - 78

9.3 Trust Fund Board Report 79 - 80

9.4 Audited Financial Statements for the Islands Trust Fund or 2016-17 81 - 96

9.5 Cancellation of Letter of Understanding with BC Hydro for woodpole test and treat program 97 - 107

That Trust Council agrees to the cancellation of the Letter of Understanding [LOU] between BC Hydro and Islands Trust and Bowen Island Municipal Council Concerning Pesticide Use During the BC Hydro Woodpole Test and Treat Program.

9.6 Water Conservation and Advocacy Project Update - Briefing 108 - 113

10. BC FERRIES SESSION 114 - 133

11. COMMUNITY PRESENTATION

11.1 The Association for Denman Island Marine Stewards 134 - 201

12. DELEGATIONS AND TOWN HALL 202 - 202

12.1 Edina Johnson of Denman Island Residents Association Marine Guardians re Marine Environment Damage 203 - 218

12.2 Zdenek Brich of Anchorages Concern Thetis (ACT) re freighter anchorages around Thetis 219 - 229

12.3 Harlene Holm of DCLTA re affordable housing initiatives 230 - 349

12.4 Sheila Malcolmson re abandoned vessels legislation 350 - 361

12.5 Graham Brazier of GIA re marine stewardship and planning 362 - 364

13. EFFECTIVE ADVOCACY/ REGIONAL DISTRICTS SESSION

13.1 Advocacy Session Outline 365 - 405

14. CLOSED MEETING (Separate Agenda)

That the Islands Trust Council meeting be closed to the public subject to Section 90(1) of the Community Charter in order to consider matters related to:

(c) labour relations or other employee relations,

(g) litigation affecting the Islands Trust; and

(i) receipt of advice that is subject to solicitor-client privilege;

and that CAO Russ Hotsenpiller be invited to attend the closed session.

15. SUMMARY / UPDATES

15.1 Trustee Updates

15.1.1 BC Ferries (Ferry Advisory Committee Chairs)

15.1.2 First Nations

15.1.3 Gulf Islands National Park Reserve Advisory Committee (Trustee Masselink)

15.1.4 Salt Spring Island Watershed Protection Authority (SSIWPA) (Vice Chair Grams)

15.1.5 Howe Sound Community Forum

15.1.6 Freighter Roundtable Update

15.2 Priorities Chart 406 - 407

15.3 Draft December 2017 Trust Council Schedule 408 - 408

15.4 Disposition of Delegations and Town Hall Requests

By General Consent

16. CORRESPONDENCE

17. NEXT MEETING - December 5, 2017 in Victoria

18. ADJOURNMENT

ISLANDS TRUST COUNCIL

RESOLUTION WITHOUT MEETING MINUTES

RESOLUTION WITHOUT MEETING NO. TC-RWM-2017-001

It was Moved by Trustee George Grams and Seconded by Trustee Susan Morrison:

That Islands Trust Council Bylaw No. 167, cited as "Islands Trust Financial Plan Bylaw, 2017/2018" be adopted.

TRUSTEES CONTACTED	DATE VOTE RECEIVED	VOTE
George Grams	June 27, 2017	In Favour
Ken Hunter	June 27, 2017	In Favour
Heather O'Sullivan	June 27, 2017	In Favour
Kate-Louise Stamford	June 27, 2017	In Favour
Jeanine Dodds	June 27, 2017	In Favour
Peter Luckham	June 27, 2017	In Favour
Susan Morrison	June 27, 2017	In Favour
Dan Rogers	June 27, 2017	In Favour
Tony Law	June 27, 2017	In Favour
Timothy Peterson	June 27, 2017	In Favour
Lee Middleton	June 27, 2017	In Favour
George Harris	June 27, 2017	In Favour
Peter Grove	June 27, 2017	In Favour
David Critchley	June 27, 2017	In Favour
Brian Crumblehulme	June 27, 2017	In Favour
Sue Ellen Fast	June 27, 2017	In Favour
Melanie Mamoser	June 27, 2017	In Favour
Sandy Pottle	June 27, 2017	In Favour
Laura Busheikin	June 28, 2017	In Favour
Paul Brent	June 28, 2017	In Favour
Bruce McConchie	June 29, 2017	In Favour
Dianne Barber	June 29, 2017	In Favour
Alison Morse	July 2, 2017	In Favour
Wendy Scholefield	July 6, 2017	In Favour

TRUSTEES VOTE NOT AVAILABLE
Alex Allen
Derek Masselink

FINAL VOTE COUNT 24 IN FAVOUR
OPPOSED
CARRIED

THE CHAIR DECLARED THE ABOVE RESOLUTION CARRIED PURSUANT TO SECTION 13 OF THE *ISLANDS TRUST ACT* ON JULY 6, 2017.

_____ _____

CHAIR'S SIGNATURE RECORDER'S SIGNATURE

ISLANDS TRUST COUNCIL

RESOLUTION WITHOUT MEETING MINUTES

RESOLUTION WITHOUT MEETING NO. TC-RWM-2017-002

It was Moved by Trustee George Grams and Seconded by Trustee Susan Morrison:

That Islands Trust Council Bylaw No. 168, cited as "Revenue Anticipation Borrowing Bylaw, 2017-2018" be adopted.

TRUSTEES CONTACTED	DATE VOTE RECEIVED	VOTE
George Grams	June 27, 2017	In Favour
Ken Hunter	June 27, 2017	In Favour
Heather O'Sullivan	June 27, 2017	In Favour
Kate-Louise Stamford	June 27, 2017	In Favour
Jeanine Dodds	June 27, 2017	In Favour
Peter Luckham	June 27, 2017	In Favour
Susan Morrison	June 27, 2017	In Favour
Dan Rogers	June 27, 2017	In Favour
Tony Law	June 27, 2017	In Favour
Timothy Peterson	June 27, 2017	In Favour
Lee Middleton	June 27, 2017	In Favour
George Harris	June 27, 2017	In Favour
Peter Grove	June 27, 2017	In Favour
David Critchley	June 27, 2017	In Favour
Brian Crumblehulme	June 27, 2017	In Favour
Sue Ellen Fast	June 27, 2017	In Favour
Melanie Mamoser	June 27, 2017	In Favour
Sandy Pottle	June 27, 2017	In Favour
Laura Busheikin	June 28, 2017	In Favour
Paul Brent	June 28, 2017	In Favour
Bruce McConchie	June 29, 2017	In Favour
Dianne Barber	June 27, 2017	In Favour
Alison Morse	July 2, 2017	In Favour
Wendy Scholefield	July 6, 2017	In Favour

TRUSTEES VOTE NOT AVAILABLE
Alex Allen
Derek Masselink

FINAL VOTE COUNT 24 IN FAVOUR
OPPOSED
CARRIED

THE CHAIR DECLARED THE ABOVE RESOLUTION CARRIED PURSUANT TO SECTION 13 OF THE *ISLANDS TRUST ACT* ON JULY 6, 2017.

_____ _____
CHAIR'S SIGNATURE RECORDER'S SIGNATURE

Islands Trust Council
Minutes of Quarterly Meeting

Date: June 20-22, 2017

Location: Lasqueti Island Community Hall, Main Rd, Lasqueti Island, BC

Members Present:

Executive Committee:
Peter Luckham, Chair (Thetis)
Laura Busheikin, Vice Chair (Denman)
George Grams, Vice Chair (Salt Spring)
Susan Morrison, Vice Chair (Lasqueti)

Local Trustees:
David Critchley, Denman
Melanie Mamoser, Gabriola
Heather O'Sullivan, Gabriola
George Harris, Galiano
Sandy Pottle, Galiano
Dan Rogers, Gambier
Kate Louise Stamford, Gambier
Alex Allen, Hornby
Tony Law, Hornby
Tim Peterson, Lasqueti
Brian Crumblehulme, Mayne
Dianne Barber, North Pender
Peter Grove, Salt Spring
Lee Middleton, Saturna

Municipal Trustees:
Sue Ellen Fast, Bowen
Alison Morse, Bowen

Regrets:
Derek Masselink, North Pender
Paul Brent, Saturna
Bruce McConchie, South Pender
Wendy Scholefield, South Pender
Ken Hunter, Thetis Island
Jeanine Dodds, Mayne

Staff Present:
Russ Hotsenpiller, Chief Administrative Officer
David Marlor, Director, Local Planning Services
Cindy Shelest, Director Administrative Services (June 20-21, 2017)
Clare Frater, Director, Trust Area Services
Carmen Thiel, Legislative Services Manager
Jennifer Eliason, Manager, Islands Trust Fund (June 20-21, 2017)
Marnie Eggen, Planner 1, Northern Office (June 20, 2017)
Emma Restall, Executive Coordinator/Recorder

DRAFT

1. CALL TO ORDER

The meeting was called to order at 1:38 p.m. Chair Luckham acknowledged that the meeting was being held in Coast Salish First Nations territory.

2. APPROVAL OF AGENDA

2.1 Introduction of New Items

6.1 Roundtable – Chamber of Shipping
6.2 Bowen Island Council Meeting Update
6.3 MLA Meeting Southern Gulf Islands

2.2 Approval of Agenda

By general consent the agenda was approved as amended.

3. GENERAL BUSINESS ARISING

3.1 Resolutions Without Meeting

None

3.2 March 2017 Trust Council Minutes

By general consent the Islands Trust Council adopted the minutes of the March 2017 Trust Council meeting as amended.

3.3 Trust Council Follow Up Action List

Provided for information.

3.4 Trustee Round Table

Trustees participated in a round table session to discuss common issues, concerns and successes.

The meeting recessed for a break at 2:42 p.m. and reconvened at 3:03 p.m.

4. EXECUTIVE

4.1 Chief Administrative Officer's Report

CAO Hotsenpiller reviewed internal and external organizational matters, including office space and leases, Trust Area relationships and LTC projects.

4.2 Executive Committee Work Program

The top priorities in the work program were:

1. Islands Trust Act amendments;
2. Oil spill and shipping safety;
3. Revisions to Crown Land protocol agreements and letters of understanding; and
4. First Nations relationship building.

By general consent the Islands Trust Council approved the top priorities of the Executive Committee Work Program Report.

4.3 Continuous Learning Plan

Trust Council reviewed the Continuous Learning Plan and received it for information.

4.4 Strategic Plan Update

CAO Hotsenpiller gave an overview of the revised Strategic Plan format and answered questions regarding the Quarterly Update.

Discussion ensued over the most effective way to report on progress and next steps.

4.5 Islands Trust Transition Plan Report

CAO Hotsenpiller gave an update on the potential Salt Spring Island incorporation, which included an updated timeline.

There was discussion over change of government and whether or not a change will impact incorporation and the timeline for Letters Patent.

4.6 Islands Trust Act - RFD

TC-2017-025

MOVED by Trustee Busheikin, SECONDED by Trustee Morrison,
that Trust Council delegate to Executive Committee the development of a process for identification and prioritization of potential amendments to the *Islands Trust Act*.

CARRIED

The order of business on the agenda was varied to address item 5 ahead of item 4.7

5. SPECIES AT RISK SESSION

Marnie Eggen presented on the species at risk within the Islands Trust Area and introduced two guest speakers:

Brad Langman, Environment Canada, spoke about the legislation guiding species at risk protection within British Columbia and the methods available to protect habitat;

Pamela Zevit, Registered Professional Biologist, gave a presentation on the tools and resources for conserving species at risk and critical habitat.

There was discussion over how to motivate passion for protecting species at risk.

The meeting recessed for the day at 5:15 p.m.

Wednesday, June 21, 2017

The meeting reconvened at 8:26 a.m. with 20 trustees present. Regrets: Derek Masselink (North Pender), Paul Brent (Saturna), Bruce McConchie (South Pender), Wendy Scholefield (South Pender), Ken Hunter (Thetis Island) and Jeanine Dodds (Mayne Island).

TC-2017-026

MOVED by Trustee Grove, SECONDED by Trustee Stamford,
that Trust Council add Species at Risk to the Islands Trust Policy Statement Topic Review Inventory.

CARRIED

TC-2017-027

MOVED by Trustee Grove, SECONDED by Trustee Morrison,
that Trust Council request that the staff provide recommendations to Trust Council for adding protection of Species at Risk to the Strategic Plan.

CARRIED

TC-2017-028
MOVED by Trustee Grove, SECONDED by Trustee Morrison,
that Trust Council request that the Executive Committee consider Species at Risk Recovery Plans in interpreting s. 3.1.3 of the Islands Trust Policy Statement when approving local trust committees' and island municipalities' official community plans and regulatory bylaws.

CARRIED

TC-2017-029
MOVED by Trustee Stamford, SECONDED by Trustee Grove,
that Trust Council request that the Trust Fund Board investigate options for increased use of federal or provincial stewardship agreements for species at risk in the Islands Trust Area.

CARRIED

The order of business on the agenda resumed at item 4.7

4.7 Hosting Trust Council – Briefing

CAO Hotsenpiller reported back to Trust Council on the decisions behind hosting December Trust Council meetings in Victoria.

Trustees offered feedback on the evaluation that was done and requested changes be made to better reflect the capabilities of individual islands to host Trust Council.

4.8 2018 Trust Council Quarterly Meeting Schedule

TC-2017-030
MOVED by Trustee Busheikin, SECONDED by Trustee Morrison
that the Islands Trust Council establish the meeting schedule for 2018 as written.

CARRIED

4.9 Visioning – RFD

A lengthy discussion ensued over the draft Visioning Statement presented by CAO Hotsenpiller. Clarification over how the statement was developed and where the ideas came from and who the Vision represents (Trust Area, not Trust Council) was given.

TC-2017-031
MOVED by Trustee Fast, SECONDED by Trustee Crumblehulme,
that the Trust Council adopt a header saying "Council's Vision For the Islands Trust Area:" followed by the graphic and vision paragraph and add to our strategic plan.

Trustees speaking in support of the motion noted:

- The process has been lengthy, and quicker outcome would be preferred;
- The visual speaks for itself and could stand alone as a statement; and
- Inspiring communities and change is separate from a statement.

Trustees speaking against the motion raised the following points:

- The impracticality of a single approach to First Nations management rather than individual approaches and concern over how the relationships is presented;
- Desire for the statement to be more aspirational and a need for a more inspirational rather than informational tone;
- Bigger focus on the environment is required;
- Elevated language and refined wording is required;
- Due to lack of input during the drafting process, a professional writer should be considered; and
- The statement should assist in focusing the Islands Trust Act amendments and should be a beacon of hope and capture attention.

The question on the motion was then called,

DEFEATED
Trustees Crumblehulme, Fast, Law, Harris and Mamoser In Favour

TC-2017-032
MOVED by Trustee Grove, SECONDED by Trustee O'Sullivan,
that Trust Council request Executive Committee to retain a consultant to draft an inspirational Vision Statement for the Islands Trust, based on the existing Object and recent work on a Vision Statement.

Debate ensued on whether the tone should be inspirational, aspirational or both, what type of consultant should be hired and what he/she should focus on.

The question on the motion was then called,

CARRIED
Trustee Pottle Opposed

6. NEW BUSINESS

6.1 Roundtable - Chamber of Shipping

Chair Luckham gave an update on a recent meeting with the Chamber of Shipping.

6.2 Bowen Island Council Meeting Update

Chair Luckham gave an overview of a recent meeting with the Bowen Island Mayor and councillors.

6.3 MLA Meeting Southern Gulf Islands

There was discussion on engagement with MLA Adam Olsen and MLA Sonia Furstenau.

7. LOCAL PLANNING SERVICES

7.1 Director of Local Planning Services Report

Director Marlor discussed employment updates for each office and a review of project delivery processes.

7.2 Local Planning Committee Work Program Report

Chair Luckham advised that the Chair of Local Planning Committee, Paul Brent, has stepped down and thanked him for his work on the Committee.

The top three priorities in the work program were:

1. Community Housing Needs;
2. Shoreline Marine Planning; and
3. Land Use Consultation for Radio Communication Towers.

Discussion ensued over progression on the Community Housing Needs project and the approach to project completion and staffing challenges.

TC-2017-033
MOVED by Trustee Mamoser, SECONDED by Trustee Peterson,
that the Islands Trust Council approve the top priorities of the Local Planning Committee Work Program Report.

CARRIED

The meeting recessed for a break at 10:15 a.m. and reconvened at 10:30 a.m.

7.3 EC-TC RFD Policy 4.1.ix – RFD

TC-2017-034
MOVED by Trustee Mamoser, SECONDED by Trustee Morrison,
that Islands Trust Council request staff to amend draft Policy 4.1.ix Inter-Local Trust Committee Community Planning Bylaw Referral Policy, to change Section C 1.1 from "must" to "should", section 1.3b to prior to public hearing for comment and the second section 1.1 to 1.4.

There was discussion over the accuracy of proposed revised wording.

The question on the motion was then called,

DEFEATED
All Opposed

TC-2017-035
MOVED by Trustee Mamoser, SECONDED by Trustee Allen,
that Islands Trust Council request staff to amend draft Policy 4.1.ix Inter-Local Trust Committee Community Planning Bylaw Referral Policy, in section 1.3b to read "prior to public hearing for comment".

CARRIED

TC-2017-036
MOVED by Trustee Busheikin, SECONDED by Trustee Harris,
that Islands Trust Council adopt amended Policy 4.1.ix Inter-Local Trust Committee Community Planning Bylaw Referral Policy with a change.

CARRIED

7.4 First Nations Charter Update
Received for information.

7.5 Marine Protection Tools - Briefing
Received for information.

7.6 Bylaw Enforcement Report - Briefing
Director Marlor gave a brief update on Bylaw Enforcement.

The order of business on the agenda was varied to address item 8 after item 14.

9. ADMINISTRATIVE SERVICES

9.1 Administrative Services Report
Provided for information.

9.2 Financial Planning Committee Work Program Report
The top three priorities in the work program were:
1. Finalize the 2017-2018 budget;
2. Complete the 2016-2017 forecast; and
3. Conduct the 2016/17 Year-End Audit.

TC-2017-037
MOVED by Trustee Grove, SECONDED by Trustee Grams,
that the Islands Trust Council approve the top priorities of the Financial Planning Committee Work Program Report.

CARRIED

9.3 Policy 6.5.1 General Revenue Fund Surplus - RFD
There was discussion about spending surplus on hiring staff to complete projects.

TC-2017-038
MOVED by Trustee Grove, SECONDED by Trustee Grams,
that the Islands Trust Council amend Policy 6.5.1 General Revenue Surplus Fund Policy as presented, including the creation of Specific Reserve Funds, and rename the policy Reserves and Surplus Policy.

CARRIED

TC-2017-039
MOVED by Trustee Grove, SECONDED by Trustee Grams,
that the Financial Planning Committee consider the creation of a specific reserve fund for Local Trust Committee Projects during the 2018/19 budget cycle.

CARRIED

9.4 Policy 7.2.1 Trustee Remuneration - RFD

TC-2017-040
MOVED by Trustee Grove, SECONDED by Trustee Grams,
that the Islands Trust Council amend Policy 7.2.1 Trustee Remuneration as presented.

CARRIED

9.5 March 31, 2017 Audited Financial Statements - RFD

TC-2017-041

MOVED by Trustee Grove, SECONDED by Trustee Morse,
that the Trust Council accept the audited financial statements of the Islands Trust including the Statement of Financial Position, the Statement of Operations, the Statement of Changes in Net Financial Assets and the Statement of Cash Flows, for the year ended March 31, 2017.

CARRIED

10 TRUST AREA SERVICES

10.1 Director of Trust Area Services Report

Director Frater highlighted several points in the report, which was provided for information.

10.2 Trust Programs Committee Work Program Report

The top three priorities in the work program were:

1. Protect Quality and Quantity of Water Resources;
2. Amend Crown Land Cooperation Agreements; and
3. Review the Islands Trust Policy Statement.

TC-2017-042

MOVED by Trustee Crumblehulme, SECONDED by Trustee O'Sullivan,
that the Islands Trust Council approve the top priorities of the Trust Programs Committee Work Program Report.

CARRIED

10.3 Trust Fund Board Report

Jennifer Eliason, Manager, Trust Fund Board presented the highlights of the report.

Chair Luckham acknowledged Trust Fund Board member Robin Williams' appointment to the Financial Planning Committee.

10.4 2016-2017 Annual Report - RFD

TC-2017-043

MOVED by Trustee Grams, SECONDED by Trustee Crumblehulme,
that the Islands Trust Council approve the 2016-2017 draft Annual Report (as amended) for submission to the Minister of Community, Sport and Cultural Development.

CARRIED

10.5 Policy Statement Amendment Project Scope- RFD

TC-2017-044

MOVED by Trustee Morrison, SECONDED by Trustee Crumblehulme,
that the Islands Trust Council assign the Executive Committee, with involvement from Trust Programs Committee as appropriate, to co-ordinate a review of the Introduction, Part I, Part II and Schedule 1 – Definitions sections of the Policy Statement.

DRAFT

Trustees speaking in support of the motion noted:

- The intent in referring it to the Executive Committee meetings is to provide it to a Committee that meets frequently and can handle the issue in a timely manner;
- The Executive Committee will fully engage with the Trust Programs Committee when doing the work.

Trustees speaking against the motion raised the following points:

- Some trustees who are not on the Executive Committee are interested in taking on more work;
- By referring tasks to the Executive Committee that Council Committees can take on restricts opportunities for non-Executive Committee members.

There was discussion over the committee structure and whether it should be reviewed.

The question on the motion was then called,

CARRIED

Trustees Middleton and Critchley Opposed

10.6 Policy 5.7.i Bylaw Checklists - RFD

TC-2017-045

MOVED by Trustee Busheikin, SECONDED by Trustee Morrison,

that the Islands Trust Council replace Policy 5.7.i Bylaw Checklists dated June 16, 2005 with Policy 5.7.1 Local Trust Committee Bylaws Checklists dated June 20, 2017.

CARRIED

10.7 Legislative Monitoring - Briefing

Provided for information.

Chair Luckham acknowledged the addition of Karen Hurley, Senior Policy Advisor, to Trust Area Services staff.

10.8 Well Water Workshops Project –Briefing

Provided for information.

Trustee Stamford requested feedback from trustees whose islands have hosted a workshop.

10.9 2017 Community Stewardship Awards - Briefing

Provided for information.

10.10 Trust Fund Board Working Landscape Study – Briefing

Jennifer Eliason gave an overview of the report and answered questions regarding policies and resources, marine tenure possibilities and advocacy.

The order of business on the agenda was varied to address item 13 ahead of item 11.

13 CORRESPONDENCE

13.1 Association for Denman Island Marine Stewards re Geoduck Aquaculture on Denman and the Straight of Georgia.

Received for information.

TC-2017-046
MOVED by Trustee Critchley, SECONDED by Trustee Morrison,
that Trust Council request Executive Committee to investigate the potential impacts associated with geoduck aquaculture in the Islands Trust Area and, as appropriate, initiate advocacy.

CARRIED

The meeting recessed at 12:22 p.m. and resumed at 1:00 p.m.

The order of business on the agenda resumed at item 11.

11 COMMUNITY PRESENTATION

11.1 Field Trip to the Last Resort Society

Trustees and staff toured the Judith Fisher Centre and learned about its health services, respite care, elder care and its off-grid power sources.

11.2 Lasqueti Island Nature Conservancy

Gordon Scott, President of Lasqueti Island Nature Conservancy, gave a presentation on conservation within the Coastal Douglas-Fir Zone.

12 TOWN HALL

Town Hall Participant - Peter Johnson

Mr. Johnson spoke to Trust Council about his desire to see Trust Council meet only on islands within the Trust Area and to see a public engagement activity built into Trust Council schedules.

Town Hall Participant - Jack Barret

Mr. Barret spoke about sustainability within the Trust Area. He posed the question: Will the Islands Trust create a policy that limits population growth?

The meeting recessed at 3:00 p.m. and resumed at 3:15 p.m.

14 TFB REGIONAL CONSERVATION PLAN SESSION

Jennifer Eliason gave a presentation on emerging themes in conservation planning, protected areas on the islands and recent workshop results.

Discussion points included:

- Data collection tools and procedures;
- Trust Fund Board funding
  - Islands Trust contribution
  - Endowment reserves and self-sustainability
  - The potential for core funding through provincial government;
- Marine protected areas and water protection zoning; and
- TFB achievements and successes

8. ROLE OF THE TRUSTEE SESSION

CAO Hotsenpiller re-delivered the March 2017 Role of the Trustee presentation due to low attendance at the last session.

There was a lengthy discussion over appropriate interaction with applicants.

The order of business on the agenda resumed at item 15.

15. SUMMARY/UPDATE

15.1 Trustee Updates

15.1.1 BC Ferries (Ferry Advisory Committee Chairs)

Reports included the following points:

- Upcoming consultation on Sunshine Coast about what is important to residents;
- People for a Healthy Community has facilitated selling of low-value Experience Cards; and
- New medically assured loading system.

15.1.2 First Nations

None – updated earlier on the agenda

15.1.3 Gulf Islands National Park Reserve Advisory Committee (Trustee Masselink)

There was discussion on the challenges facing the Parks Advisory Board.

15.1.4 Salt Spring Island Watershed Protection Authority (SSIWPA) (Vice Chair Grams)

Trustee Grams gave an overview of his report.

15.1.5 Howe Sound Community Forum

The recent Howe Sound Community Forum on May 5th, 2017 was discussed.

15.1.6 Freighter Roundtable Update

Discussed during Trustee Roundtable.

15.2 Priorities Chart

By general consent the Islands Trust Council adopted the Priorities Chart as presented.

15.3 Proposed September 2017 Trust Council Agenda Program

Provided for Information.

15.4 Disposition of Delegations and Town Hall Requests

None

The meeting recessed for the day at 5:06 p.m.

DRAFT

Thursday, June 22, 2017

The meeting reconvened at 8:19 a.m. with 19 trustees present. Regrets: Derek Masselink (North Pender), Paul Brent (Saturna), Bruce McConchie (South Pender), Wendy Scholefield (South Pender), Ken Hunter (Thetis Island) and Jeanine Dodds (Mayne Island). Absent: Timothy Peterson (Lasqueti).

16. CLOSED MEETING

TC-2017-047

It was MOVED Trustee Morrison and SECONDED Trustee Grams,

that the meeting be closed to the public subject to Sections 90(1)(c)(g) and (i) of the *Community Charter* in order to consider matters related to employee relations, litigation affecting the Islands Trust and receipt of advice that is subject to solicitor-client privilege and that staff attend the meeting.

CARRIED

Trustee Peterson arrived at the meeting at 8:50am.

17. RISE AND REPORT DECISIONS FROM CLOSED MEETING (if applicable)

It was reported that the Islands Trust Council awarded the 2017 Community Stewardship Awards on the following basis:

Individual Category

- Bob Turner, Bowen Island
- Liz Ciocea, Gabriola Island

Organization Category

- Denman Island Memorial Society
- Gabriola Arts Council

Enduring Achievement

- Bob Weeden, Salt Spring Island
- Everhard van Lidth de Jeude, Bowen Island
- Hornby and Denman Community Health Care Society
- Saturna Community Club

18. NEXT MEETING – September 14th on Denman Island

19. ADJOURNMENT

The meeting adjourned at 9:19 a.m.

Peter Luckham, Chair

Certified Correct

Emma Restall, Recorder

DRAFT

Follow Up Action Report

Trust Council

Chief Administrative Officer

Activity	Activity	Responsibility	Target Date	Status
10-Jun-2015	First Nations First Nations training and workshops	Russ Hotsenpiller David Marlor Clare Frater Cindy Shelest	31-Mar-2016	On Going
10-Jun-2015	Develop IT adaptation strategy regarding Salt Spring Island Incorporation	Russ Hotsenpiller Cindy Shelest David Marlor Clare Frater Carmen Thiel	15-Jun-2016	On Going
14-Mar-2017	Update Transition Plan to include revised Terms of Reference plan, important dates and more information to the other islands on what the impact to them will be.	Russ Hotsenpiller	31-Mar-2017	On Going
21-Jun-2017	Retain a Consultant to draft an inspirational Vision Statement for the Islands Trust, based on the existing Object and recent work on a Vision Statement	Russ Hotsenpiller	16-Aug-2017	On Going

Director, Administrative Services

Activity	Activity	Responsibility	Target Date	Status
20-Jun-2017	Send revised parking diagram to all trustees once deal is finalized.	Cindy Shelest	19-Jul-2017	On Going
20-Jun-2017	Amend Policy 6.5.1 General Revenue Surplus Fund Policy as presented, including the creation of Specific Reserve Funds, and rename the policy Reserves and Surplus Policy.	Cindy Shelest	12-Sep-2017	On Going
21-Jun-2017	amend Policy 7.2.1 Trustee Remuneration as presented.	Cindy Shelest	12-Sep-2017	On Going

Follow Up Action Report

Director, Local Planning Services

Activity	Activity	Responsibility	Target Date	Status
16-Jun-2010	Riparian Areas Regulation (June 2010) Status report to Council until completed LPC (DM) to TC	David Marlor	30-Sep-2016	On Going
13-Sep-2016	Community Housing Implement a co-ordination role for housing needs assessments between the various local trust areas and island municipalities to achieve efficiencies and compatibility, and to allow for consolidation.	David Marlor		Done
13-Sep-2016	Community Housing Explore and report back on the potential for Islands Trust entities to hold land for housing purposes.	David Marlor		On Going
21-Jun-2017	Amend draft Policy 4.1.ix Inter-Local Trust Committee Community Planning Bylaw Referral Policy, to section 1.3b to read "prior to public hearing fro comment".	David Marlor	28-Jun-2017	Done
20-Jun-2017	Provide recommendations to Trust Council for adding protection of Species at Risk to the Strategic Plan.	David Marlor Clare Frater	28-Jul-2017	On Going
20-Jun-2017	that Islands Trust Council adopt amended Policy 4.1.ix Inter-Local Trust Committee Community Planning Bylaw Referral Policy with a change.	David Marlor	12-Sep-2017	Done
21-Jun-2017	Replace Policy 5.7.i Bylaw Checklists dated June 16, 2005 with Policy 5.7.1 Local Trust Committee Bylaws Checklists dated June 20, 2017	David Marlor	12-Sep-2017	Done

Director, Trust Area Services

Activity	Activity	Responsibility	Target Date	Status

Follow Up Action Report

16-Sep-2015	Freighter anchorages Identify and act on opportunities re freighter anchorages	Clare Frater		On Going
13-Sep-2016	Explore the potential for expanding its advocacy role to other levels of government for increased funding for affordable housing in the Islands Trust Area.	Clare Frater	26-May-2017	On Going
20-Jun-2017	Add Species at Risk to the Islands Trust Policy Statement Topic Review Inventory.	Clare Frater	12-Sep-2017	Done
21-Jun-2017	Add geoduck management framework to Legislative Monitoring chart	Clare Frater Karen Hurley	12-Sep-2017	Done
21-Jun-2017	Submit the 2016-2017 Draft Annual Report (as amended) to the Minister of Community, Sport and Cultural Development.	Clare Frater	26-Jul-2017	On Going

Manager, Islands Trust Fund

Activity	Activity	Responsibility	Target Date	Status
14-Jun-2016	NAPTEP Certificate Issue subject to survey, covenant and baseline report.	Jennifer Eliason		On Going

CHIEF ADMINISTRATIVE OFFICER
2017 Second QUARTER REPORT

Date: August 22, 2017

Trust Council
September, Denman Island

A priority over the last two months has been to maintain communications with the Provincial government and to monitor changes in provincial mandate that will have impact on areas of interest to the Islands Trust. Ministries have been supporting new Ministers as well as adapting to changes in the senior bureaucracy. We can anticipate that we may be entering a period of engagement with the Province as priorities are implemented such as environmental policy, engagement with First Nations, agricultural reforms and marine programing. We have outreached to provincial colleagues to either maintain or establish relationships. Serena Robinson, the new Minister of Municipal Affairs and Housing, has maintained key administrative positions, which should benefit the Trust as we move into a very busy fall. We have also met with Adam Olsen, MLA, Saanich North and the Islands, to describe the Islands Trust priorities and to understand his priorities.

1. Organizational considerations

The primary focus of the CAO and executive offices has been preparations in advance of the Salt Spring referendum on September 9, research associated with possible amendments to the Islands Trust Act and outreach to the Province with regard to foreshore jurisdictions.

Office renovations We have developed an RFP for the renovations to the Victoria Office. Trust Council will recall that we negotiated lease hold improvements in our lease renewal and we are moving to use those funds for basic upgrades to the meeting office space, floors and office configuration. There has not been a dedication of funds by Trust Council to the Victoria office in over 10 years. Depending upon the costs of renovations, a request may be made for additional funds through the budget process.

Over the last 12 months there have been a number of **improvements to process and operations** throughout the organization. As these are implemented at different levels, Trustees may not be aware of all of these developments. The following list represents some of the recent improvements to function and efficiency at the Islands Trust.

- A new project management approach is being implemented including how LTCs select projects and how we use financial policy to support a better accounting of progress
- A changed agenda format and schedule for Trust Council
- Re-scheduling of EC to maximize meeting times and lessen travel
- Reporting to EC and Trust Council has moved to a more concise reporting format
- The development of special reserves to increase transparency and assist in budgeting
- Victoria office location lease signed
- Changing the report format for planning reports to LTCs to affect greater readability
- Creation of an Employee Advisory Committee and a Greater Management Committee
- Creating overlapping Island Planner positions in the Salt Spring and Southern planning teams to ensure a full complement of senior planners for Salt Spring
- Melding of marine issues and First Nations engagement into a single position
- Redevelopment of the Strategic Plan, creation of tracking application
- Streamlining of each committees top priorities and long range work plans
- Emphasis upon reporting, less reliance on direction to undertake reporting
- Move to a new agenda viewing platform and away from eScribe
- Development of new electronic document management system

2. **External considerations**

Komoks Band The Chair, CAO and Trustees Busheikin and Law met with the Komoks Band on July 14 to tour Denman and Hornby Islands.

BC Timber Sales was working on a Forest Stewardship Plan that included a significant portion of Crown land on Bowen Island. This became a significant issue on Bowen Island and the Mayor and Council mobilized to push back on any potential for logging activity and to request a more robust public process. As of the first week of August, BC Timber Sales had removed Bowen from the planning area and the issue has lessened.

UBCM The annual UBCM meeting will be held in Vancouver on September 25-29. The Islands Trust has requested meetings with four Ministers with the intention of advancing issues of importance to the Islands Trust. The following key points were submitted to the Province for each meeting.

Ministry of Municipal Affairs and Housing
Meeting request: The Islands Trust Executive Committee would like to discuss:

- The Islands Trust Fund's long standing name change request and the upcoming referral of the Trust Fund Board's five-year plan for approval and the Islands Trust Council's annual report for tabling in the legislature.
- Salt Spring Incorporation referendum result and next steps for the Islands Trust.
- The Islands Trust's process for identifying potential amendments to the *Islands Trust Act.*
- Need for the Province to amend legislation to support enforcement of violations of development permit area requirements.
- Need for a dedicated affordable housing program to be geared towards low-density island communities where the majority of affordable housing options are provided by individual homeowners and farmers.

Ministry of Forests, Lands, Natural Resource Operations, and Rural Development
Meeting request: The Islands Trust Executive Committee would like to discuss:

- Current efforts to explore the issue of provincial foreshore tenures in the Gulf Islands
- The need for senior government leadership on the prevention of foam pollution in the marine environment
- The Islands Trust's 2015 request that the Province provide core, multiyear funding for the Coastal Douglas-fir and Associated Ecosystems Conservation Partnership

Ministry of Transportation and Infrastructure
Meeting request: The Islands Trust Executive Committee would like to discuss:

- Reduction in ferry fares on minor routes
- Sunshine Coast Fixed Link Feasibility study update,
- The Islands Trust's process for identifying potential amendments to the *Islands Trust Act*
- Discussion regarding the condition of roads within the Trust Area

Ministry of Environment and Climate Change Strategy
Meeting request: The Islands Trust Executive Committee would like to discuss:

- Opposition to Kinder Morgan pipeline expansion
- Support for review of environmental assessment process and B.C.'s "professional reliance" system

The Islands Trust's 2015 request that the Province provide core, multiyear funding for the Coastal Douglas-fir and Associated Ecosystems Conservation Partnership.

Islands Trust

Top Priorities

Executive Committee

No.	Description	Activity	R/Initiated	Responsibility	Target Date
1	Islands Trust Act Amendments	Investigate possibility of amendments to the Islands Trust Act to broaden the Islands Trusts ability to serve its communities and to strengthen its mandate to preserve and protect, including seeking legislative change of Trust Fund name.	26-Oct-2016	Russ Hotsenpiller	
2	Oil Spill and Shipping Safety	Chair letters and participation on inter-agency working groups	01-Apr-2014	Clare Frater	
3	Revisions to Crown Land protocol agreements and letters of understanding	Meeting held with BIM, LPS, TAS, CSCD and FLNRO.	19-Jun-2014	Clare Frater	
4	First Nations Relationship Building	Working on implementing Project Charter through various initiatives, supporting LTCs on First nations engagement.	31-Aug-2016	David Marlor Clare Frater	

Projects

Executive Committee

Description	Activity	R/Initiated
Advocate to reduce negative impacts of shellfish aquaculture practices	Develop project charter and budget requests to build organizational capacity (knowledge and time) related to shellfish aquaculture advocacy	16-Aug-2017
Advocate for management of abandoned and derelict vessels	Continue to advocate for senior government solutions to abandoned and derelict vessels	30-Aug-2017

Executive Committee

No.	Description	Activity	R/Initiated	Responsibility	Target Date
	Prepare Islands Trust organization to adapt to the potential incorporation of Salt Spring Island	Develop detailed Islands Trust Adaptation Strategy to implement in the event of municipal incorporation of Salt Spring Island			30-Aug-2017
	Review the Islands Trust Policy Statement	Undertake a First Nations and public engagement process to prepare for Policy Statement amendment topics			30-Aug-2017
	Advocate to reduce impacts of other industrial marine activities	Advocate to reduce impacts of freighter anchorage activities			30-Aug-2017
	Improve communications about the Islands Trust object and history	Implement adopted communications plan for 2015/16			30-Aug-2017

Islands Trust Council Plan for Continuous Learning 2014-2018

(What other topics would trustees like to propose?)

2017-09-28

Year		Trust Wide and Administrative Topics	Legal and Governance Topics	Planning How-To	Working With Others
2018	March (Salt Spring)	(Freshwater Specialist) *(Water Sustainability Act)*		Adapting to Climate Change	
	June (Saturna)			Archaeological Site Protection (2)	Agricultural Land Commission/Islands Trust
	September (Gambier/Keats)		Subdivision Authority/ Bare Land Strata Regulations implications		First Nations Policy & Engagement
2017	Webinars (dates TBD)				
	March (Gabriola)	Role of the Trustee		Archaeological Site Protection	
	June (Lasqueti)	TFB Regional Conservation Plan	Role of the Trustee (2)	Species at Risk	
	September (Denman)				Effective Advocacy Regional Districts
	December (Victoria)	Ocean Protection Plan			(San Juan County) (U.S. and Canadian Consuls General)

POTENTIAL TOPICS/AGENCY LIAISON FOR CONSIDERATION FOR FUTURE SESSIONS:

Suggestions arising during 2014-2018 Term:

- *Water Sustainability Act (postponed from March 2017 due to difficulty scheduling speakers)*
- Heritage Conservation Act session
- Office of the Ombudsperson session
- Making Online Meetings Work
- OneNote for meetings
- Public Consultation and Polling
- NMCA – implications for local zoning jurisdiction
- Options for a trustee network
- Introduction to the Island Trust Policy Statement
- Participatory decision-making (using expertise on Bowen Island)
- Effective Communications and Social Media
- Fisheries and Oceans with a senior representative from the Department of Fisheries and Oceans

Strategic Plan 2014-2018

Quarterly Update – September 2017

SEPTEMBER **2017**

PRIORITIES

1	PROTECT THE NATURAL ENVIRONMENT OF THE ISLANDS TRUST AREA
2	PRESERVE, PROTECT AND ADVOCATE FOR COASTAL SHORELINES AND MARINE AREAS WITHIN THE ISLANDS TRUST AREA
3	REDUCE COMMUNITY ECOLOGICAL FOOTPRINT
4	PROTECT QUALITY AND QUANTITY OF WATER RESOURCES
5	ENHANCE, PROTECT AND RESTORE COMMUNITY CHARACTER, SOCIO-ECONOMIC DIVERSITY AND ECONOMIC SUSTAINABILITY
6	STRENGTHEN RELATIONS WITH FIRST NATIONS
7	IMPROVE ORGANIZATIONAL COST EFFECTIVENESS AND RESILIENCE
8	IMPROVE CO-OPERATION AND INTEGRATION WITH OTHER LEVELS OF GOVERNMENT
9	IMPROVE COMMUNITY AND AGENCY UNDERSTANDING AND SUPPORT FOR THE ISLANDS TRUST
10	IMPROVE COMMUNITY ENGAGEMENT AND PARTICIPATION IN ISLANDS TRUST WORK

The Islands Trust Council adopted its Strategic Plan for the 2014-18 term at its September 2015 meeting on Bowen Island.

QUARTERLY UPDATE

Trust Council receives quarterly updates on Strategic Plan status, with highlights of successes and significant progress.

PROGRESS

Objective 1. Protect the natural environment

T.1.1.1 Released summer Heron newsletter with information about land conservation options.

Issued news release and hosted a media event for a new SSI covenant resulting in three media articles.

T.1.1.3 Trust Fund Board reviewed Working Landscapes Conservation Study and directed staff to consider findings when drafting the 2018-2027 Regional Conservation Plan.

T.1.1.4 Completed annual Trust Fund Board property monitoring.

Conducted species at risk surveys on Cyril Cunningham Nature Reserve (SSI) and confirmed presence of two new species at risk.

T.1.5.1 Implemented a Securement Strategy for TFB acquisition and covenants.

T.1.5.3 Processing high volume of donations towards Fairyslipper Forest campaign (Thetis) after pledges were called in.

Objective 2. Preserve, protect and advocate for coastal shorelines and marine areas

T2.2.1 Forage fish habitat mapping for Lasqueti, Galiano, Salt Spring and Valdes and reports and mapping posted to MapIT and Islands Trust Fund website.

Objective 4. Protect quality and quantity of water resources

Delivered well and groundwater workshops on 11 islands in partnership with the Ministry of Forests, Lands and Natural Resource Operations and Rural Development and health authorities.

Objective 5. Enhance community character, socio-economic diversity and economic sustainability

T.5.5 A Victoria office renovation project is underway.

Objective 6. Strengthen relations with First Nations

Twenty-seven First Nations initiatives currently underway, nine of which are trust-wide initiatives, the remainder are at the local trust committee level.

Objective 7. Improve organizational cost effectiveness and resilience

T.7.1 Continued work by Management Team to review and update TC policies and procedures.

T 7.1.1 and 7.1.3 A strategic plan process for Information Technology and a review of electronic meetings have been initiated.

Objective 8. Improve cooperation and integration with other levels of government

T.8.1.1 Staff has not made progress this quarter on revising and consolidating six agreements regarding Crown Land in the Islands Trust Area

Communicated with Ministries following establishment of new provincial government, worked with Municipal Affairs and Housing regarding Salt Spring referendum.

Objective 9. Improve community understanding and support for the Islands Trust

T.9.1.5 A First Nations and public engagement plan is being prepared for the Policy Statement amendment project

Objective 10. Improve Community engagement

COMMUNITY HIGHLIGHTS

Local Trust Committees (LTCs) have advanced the following land use planning projects (only changes since June report noted):

BALLENAS-WINCHELSEA ISLANDS

The Executive Committee (Acting as an LTC) has prioritized Crown Lands protection in the Ballenas-Winchelsea LTA, and will be represented at the Mount Arrowsmith Biosphere Reserve Roundtable.

DENMAN ISLAND

Local trustees are engaging with community members to strength First Nations relationships.

GABRIOLA ISLAND

The Gabriola Island LTC is considering official community plan (OCP) and land use bylaw (LUB) amendments with respect to secondary suites.

GALIANO ISLAND

The Galiano Island LTC is reviewing private moorage policies and regulations and will be considering options for affordable housing

GAMBIER ISLAND

The Gambier Island Official Community Plan is currently under review.

HORNBY ISLAND

In support of First Nations Relationship building, local trustees are engaging with community members.

LASQUETI ISLAND

The Lasqueti LTC is undertaking a targeted OCP review with a focus on marine shoreline protection.

MAYNE ISLAND

The Mayne Island LTC is proceeding with Riparian Areas Regulation implementation

NORTH PENDER ISLAND

The North Pender Island LTC is proceeding with a review of options for secondary suites, and is proceeding with drafting bylaws for land use for waste management.

SALT SPRING ISLAND

The Salt Spring Island LTC continues to advance the Industrial Land Use project and the Land Uses in Rural Watershed Zones project. The LTC has advanced work in the Watershed Management project by supporting an agricultural land use inventory update to estimate agricultural water consumption

SATURNA

The Saturna LTC is implementing revisions to its OCP to recognize First Nations presence and place-names.

SOUTH PENDER

The LTC continues to work towards completion of a comprehensive review of its Land Use Bylaw,

THETIS ISLAND

The LTC is undertaking a review of dock regulations for Ruxton Island.

BRIEFING

To: Trust Council **For the Meeting of:** September 13, 2017

From: Russ Hotsenpiller **File No.:**

SUBJECT: **COMMUNICATIONS AND PREPARATIONS REGARDING THE SEPTEMBER 9, 2017 SALT SPRING INCORPORATION REFERENDUM**

DESCRIPTION OF ISSUE: To provide Trust Council with an update on preparations by the Islands Trust in advance of the September 9, 2017 incorporation vote on Salt Spring Island.

BACKGROUND:

Over the last 18 months the Islands Trust has prepared for the Salt Spring incorporation process. The following information is intended to provide Trust Council with an overview of our communications strategy and outline preparations underway for the result of the referendum.

1. Development of a Transition Plan: The Transition Plan, which addresses how the Islands Trust will adapt to a potential incorporation was adopted in December 2016 and has been available to Trustees and the public on our website. It has periodically been updated as timelines shift or new information is obtained.
2. Communications Plan: The Islands Trust has implemented a communications strategy for the incorporation process. As per the 'Principles and Objectives of a long term adaptation strategy,' adopted by Trust Council, the organization has occupied a position of neutrality with respect to the incorporation debate. This has meant that our communications strategy has generally been to provide important information to voters, to be aware of social discourse but to not engage in social media discussions or community debate. We have retained the right to correct misinformation if appropriate. We have made the following communications efforts:
    a. Reports to Trust Council: Trust Council and EC have received a number of reports regarding the incorporation process;
    b. Development of a webpage that includes links to relevant information for the community including the Transition Plan, the Salt Spring Islands Incorporation Study Committee Report and the CRD website for voter information;
    c. Development of a set of 'frequently asked questions"(FAQ), which provides answers and matters of clarification on key questions that are emerging from public discussion. Staff have also responded to questions from individual citizens. If enough questions on the same topic are asked by the public, we pose the question on the website and provide an answer. Staff also monitors social media sites in order to be aware of trending topics;
    d. The use of letters to the editor or press releases;
    e. Internally we have used our Intranet to provide information to staff on the incorporation process.
3. Communications with staff: We have kept staff aware of the events and implications of incorporation and responded to their concerns. There has been specific engagement with Salt Spring Island staff In advance of the referendum.

4. The Chair and CAO have met with Adam Olsen, MLA, Saanich North and the Islands, to discuss the Salt Spring incorporation process;
5. We have corresponded with Ministry staff regarding the development of letters patent and the production of public communications explaining letters patent.

In advance of the referendum the organization has - to a degree - planned for either outcome.

If Salt Spring votes 'YES:"

If the referendum returns a result in support of incorporation, we will undertake a series of steps in response. The Transition Plan was written with the understanding that there would be a 3 year adaptation period. The effect of a delayed referendum has resulted in a fourth year added to the interval as the vote for a Salt Spring council is synchronized with the local government election cycle in 2018. This affects our transition planning in that many of our immediate actions will be delayed for 6 to 8 months. Nevertheless the Transition Plan would be activated as soon as a YES result was returned.

The Chair of the Islands Trust would provide a statement to the media and it would be forwarded to the Salt Spring and regional media including all media outlets in the Trust area. The statement would address the incorporation results, introduce next steps and deliver key messages.

Senior management would visit with staff on Salt Spring to ensure employees were aware of any developing issues and to begin addressing concerns or opportunities associated with change.

The Islands Trust would seek a meeting with the Minister to discuss the future of the Islands Trust and to confirm the allocation of transition funding.

The process of developing terms of reference for a full adaptation strategy would begin. The intent of the strategy would be for Trust Council to select a preferred option to address the impacts of incorporation including services levels, operations, governance, and funding shortfalls.

Local planning services would initiate development of a land use planning contract between Salt Spring Island Municipality and the Islands Trust.

We would communicate with affected First Nations communities and partners regarding the outcome of the referendum.

If Salt Spring votes 'NO:"

The Chair of the Islands Trust will provide a statement to the media.

Senior management will meet with staff and Salt Spring Island staff.

As part of our communications strategy we would confirm the outcome with affected First Nations communities.

As described in the Transition Plan Trust Council may wish to investigate options if Salt Spring votes not. If so directed, we would start preparation of reporting for Trust Council regarding identification of any governance or operational changes that could be adopted in order improve service delivery and to limit the challenges of recurring incorporation votes.

Prepared By: Russ Hotsenpiller

Reviewed By: Chief Administration Officer

Date: August 22, 2017

BRIEFING

To: Executive Committee to Trust Council **For the Meeting of:** August 30, 2017

From: Russ Hotsenpiller **File No.:**

SUBJECT: **IDENTIFICATION OF A PROCESS FOR LEGISLATIVE CHANGE**

DESCRIPTION OF ISSUE:

To develop a process for Trust Council to identify preferred amendments to the *Islands Trust Act*.

BACKGROUND:

At their June meeting Trust Council directed that a process be developed to identify potential amendments to the *Islands Trust Act*.

Over the last 10 years a number of amendments to the *Act* have been identified and requested of the Ministry across a number of business areas. Sources of potential amendments have come from Trustees, staff and members of the public. At present there are approximately 20 potential amendments that Trust Council could consider as it moves to amend the *Act*.

Trust Council has identified that in order to realize the future of the Trust Area, the Islands Trust needs legislative changes in a variety of areas. It is unrealistic to request 20 changes to the *Act*, or to request any and all of the changes we would like to see on an ad hoc basis. We will be more successful by prioritizing potential amendments and developing a strong business case around an identified theme of what we wish to accomplish. For instance key themes upon which changes are requested could be: *modernization of the tools to achieve the object of the trust, independence and local decision making, integration of services, environmental protection, sustainability and climate change and cooperation and relationships with First Nations.* These areas of focus are derived from the vision for the Trust area, the object of the Trust and the policy statement.

There are challenges with engaging with Trust Council on an amendment by amendment basis given that each potential amendment needs to be accompanied by a business case or rationale and opinions could vary. Rather it is suggested that Executive Committee oversee a process of identification of themes or bundles of amendments that support the mission, object and vision of the Islands Trust and that these be presented to Trust Council for further consideration.

1. **Assumption(s):**
    i. Amendment to the *Act* does not contemplate changes to Section 3, the Object of the Trust. Accordingly any proposed changes to the act would support the Object.
2. **Proposed process:**
    i. Staff to vette, or provide a strengths, weakness, opportunities and threats (SWOT) analysis for relevant, potential amendments to the *Act*;
    ii. Staff to group these into strategic themes or groups that are relatable and logically consistent;

iii. That Executive Committee review these outcomes and recommend a strategic direction or package of amendments to Trust Council for analysis and recommendation; and

iv. That an extensive and organized process of deliberation be implemented for Trust Council that would include a variety of means of interaction including pre-council request for Trustee comments/input, presentations, open meeting technique, etc.

3. Timing

i. That Executive Committee receives update reports at subsequent meetings; that Trust Council be updated on the process in September; and that engagement occur in December/March 2018 Trust Council. This timing allows for the Trust to respond to the impacts of the potential Salt Spring incorporation with a considered approach. As an introductory action, it is recommended that the Chair of the Trust write to the Minister in September indicating that it is the wish of Council to amend the *Act*.

ATTACHMENT:

Attachment 1 - Project Charter for Legislative Changes

AVAILABLE OPTIONS: There are a variety of approaches that could be used to identify and prioritize appropriate legislative amendments to the Act.

FOLLOW-UP: Staff will continue to support Executive Committee as they select a preferred process to amend the Act.

Prepared By: Russ Hotsenpiller

Reviewed By: Chief Administration Officer

Date: **August 23, 2017**

Changes to Islands Trust Act - Project Charter

[Executive Committee] Date: July13, 2017

Purpose

To develop and implement a process of selected changes to the *Islands Trust Act*

Background

In December 2016, Trust Council approved a recommendation to review the *Islands Trust Act*, to add investigation of *Act* amendments to the Strategic Plan and directed that this project be the first priority for Executive Committee.

Objectives

- To amend or revise the *Islands Trust Act*
- To achieve amendments that reflect the current vision of the organization and island communities
- To provide better tools to achieve the 'Object of the Trust'

In Scope

- Identifying and implementing a process for amendments
- Analyzing impacts of changes to Islands Trust and others, SWOT analysis
- Preparing a submission to the Ministry
- Meeting with MLAs
- Use of contractor(s) to develop strategy

Out of Scope

- Extensive public engagement prior to Ministry comment
- Identification of preferred options prior to the Salt Spring referendum
- Amending or modifying the 'Object' clause in the *Act*

Workplan Overview

Deliverable/Milestone	Date
Notify the Ministry and Province of intention to apply for legislative changes	September 2017
Develop a process for selection of amendments	July—September 2017
Seek input from First Nations, provincial ministries, the public and others	September—December 2017
Advance a set of amendments to the Ministry for review	March 2018

Project Team

Russ Hotsenpiller	Project Manager
Emma Restall	*Administration*

Budget

Budget Source: not currently funded

Fiscal	Item	Cost
	consultant	10,000
	Total	10,000

RPM Approval:

N/A

Date:

LTC Endorsement:

Resolution #: N/A

Date:

	PROJECT CHARTER WORK PLAN OVERVIEW		
Meeting	**Deliverable/Milestone**	**Target Date**	**Cost**
TOTAL			**$**

REQUEST FOR DECISION

To: Trust Council **For the Meeting of:** September 12, 2017

From: Executive Committee **Date:** August 22, 2017

SUBJECT: REVIEW OF ISLANDS TRUST COUNCIL COMMITTEES

RECOMMENDATION: That Trust Council requests the Executive Committee to consider a review of current Council Committees in terms of mandate, organization, resourcing and function.

CHIEF ADMINISTRATIVE OFFICER COMMENTS: Over the last 18 months there has been discussion regarding the role of Committees at the Islands Trust in terms of mandate and function. Recently there have been some changes to committee membership and continued discussion regarding the development of select committees. Given these developments, this may be an appropriate time to review how the Islands Trust uses committees to further its work and to consider alternatives. There is no current direction by Trust Council to undertake this work and the above recommendation is offered for consideration.

IMPLICATIONS OF RECOMMENDATION

ORGANIZATIONAL: An initial review of the Council Committee structure would have little impact on the organization. If however there was any change to how Committees operated, there may be significant organizational change.

FINANCIAL: There are limited financial impacts at this time.

POLICY: There is specific policy that describes the makeup, role and terms of reference for the standing committees. Any changes to committee structure would require amendment of these policies.

Policy 2.3.i. General policies for Committees
http://www.islandstrust.bc.ca/media/331963/23i-councilcomsystem.pdf

Governance Structure:
http://www.islandstrust.bc.ca/media/58189/2.1.v%20legislativestructure.pdf

Terms of Reference for the three standing committees:
LPC http://www.islandstrust.bc.ca/media/308065/23iilpctermsofrefernce.pdf
FPC http://www.islandstrust.bc.ca/media/331978/23iii-fpctermsofreference.pdf
TPC http://www.islandstrust.bc.ca/media/58237/2.3.iv%20tpctermsofreference.pdf

IMPLEMENTATION/COMMUNICATIONS: No communications needs are required at this time.

OTHER: N/A

BACKGROUND

Current Council Committees: Trust Programs Committee, Financial Planning Committee and Local Planning Committee, are standing operational committees of the Islands Trust. They are based upon the

two core functional authorities of the organization, land use planning and advocacy and our financial responsibility under the ITA and other senior legislation.

There has also been the intermittent use of the creation of a Select Committee to undertake subject specific work on behalf of Trust Council. The most recent example was the Select Committee on the location of the Victoria Administrative Offices.

There have been a number of changes in Committee membership over the last 12 months, including some resignations, as well as challenges with resourcing Committees to the degree that would maximize their output. There has also been anecdotal discussion regarding the establishment of special purpose Committees, such as a Marine Committee to investigate issues more deeply than the current system allows.

Given the issues described, this may be an appropriate time to investigate the specific workings of the current Committees and to consider any alternatives.

KEY ISSUE(S)/CONCEPT(S): To consider a review of current Council Committees.

RELEVANT POLICY: n/a

DESIRED OUTCOME: Direction to undertake a Council Committee review or confirmation that the current system is adequate.

RESPONSE OPTIONS

Recommended: That Trust Council requests the Executive Committee to consider a review of current Council Committees in terms of mandate, organization, resourcing and function.

Alternative: To not review Trust Council Committees.

Prepared By: Russ Hotsenpiller

Reviewed By/Date: August 22, 2017

Local Planning Services
REPORT
June 2017 to August 2017

Date: 21/08/2017

1. General

During this period, planners transitioned to recording their hours on a project-by-project basis. Previously, planners had only recorded that they worked on a project, but not the specific project. This change is part of a larger change in management of local trust committee projects begin in April 2018. The new approach will include consideration of staff resources required, in addition to dollar budgets, when developing the project charters and work plans for each specific project. Tracking the hours on a project-by-project basis will allow us to measure the actual against the estimate, and provide data to make better estimates on future projects.

During this period we were unsuccessful in recruiting a bylaw enforcement officer for the Salt Spring Office. The candidate declined on the basis that the position did not pay enough given their research into the estimated cost of living on salt Spring Island. We will be undertaking another recruitment process in September 2017. In the interim, the Bylaw Enforcement Manager will redeploy resources as necessary to continue to respond to enforcement issues on Salt Spring.

A review of local planning services is underway. A discussion was held with the Local Planning Committee on August 17, 2017 around what works and what could be different in relation to services provided by Local Planning Services. The Director is in the process of meeting one-on-one with Local Planning Services Staff to gain feedback, and a consultant has been retained to do the same during September and early October. The consultant will provide a summary of themes that will be used to assist in determining any adjustments to Local Planning Services.

2. Northern Region

The Northern Team has maintained its commitment to providing a high level of service to the public and local trust committees, benefiting from the recent appointment of a new Planner II (internal promotion) and support from a contract planner, co-op student planner, and additional administrative support over the summer months.

In addition to managing a steady stream of development applications, referrals and public enquiries, the Northern Team has been actively working on local trust committee projects including Gabriola housing policy and regulatory amendments, Lasqueti shoreline protection and aging at home, Denman Farm Plan implementation, and marine/foreshore protection, Gambier *Riparian Areas Regulation* (RAR) implementation (Gambier, Keats, South Thormanby, Anvil and Bowyer) and a review of the Gambier Island OCP, Hornby vacation rental review, Thetis - Ruxton private moorage regulations and Thetis Island RAR implementation.

The Northern Team was pleased to provide orientation to three new Advisory Planning Commissions (Denman, Hornby and Gabriola). Furthermore, the Team continues to support First Nations relationship building initiatives with community outreach occurring on Denman and Hornby in early June, engagement with K'omoks First Nation on Denman and Hornby and July, and further community outreach on Mudge in July. The Northern Team also continues to manage Species at Risk Act (SARA) referrals on behalf of Local Planning Services, and to support the work of Trust Area Services in the areas of groundwater protection and marine advocacy.

3. Salt Spring Region

The Salt Spring Team has experienced significant staffing changes including the promotion of our Planner 2 to a temporary Island Planner position (shared with the southern team), the extension of a Planner 1 in a temporary Planner 2 position, hiring of a Planner 1 to cover maternity leave, hiring of a student planner for the summer months and the award of a service contract to a planning consultant to assist with processing applications.

The Salt Spring office has over 50 open applications, 15 of which are rezoning applications. The local trust committee's top priorities continue to advance with the Industrial Land Use project receiving first reading and bylaw referrals coming to a conclusion, recommendations have been received from the agriculture in rural watersheds working group, discussions remain ongoing with upland owners regarding the Harbour walk, and the Salt Spring Island Watershed Protection Authority continues to develop an integrated watershed management plan for Salt Spring Island.

4. Southern Region

The Southern Team continues to work with the Salt Spring Planning team, providing Island Planner support from three senior planners based on the Southern Team. These senior staff provides part-time support on specific projects or applications to Salt Spring, and also bring their experience and support to the staff in the Salt Spring office. Staff from the Southern Team support the Local Planning Committee work program and have offered orientation and support to the new Senior Freshwater Specialist as part of the Salt Spring Island Watershed Management work program.

The Southern Team planners also worked closely with the Trust Area Services to support the Well Owner's Workshop hosted throughout the Trust Area. In addition to supporting these wider organizational goals, the Southern Planning Team is advancing a number of projects throughout the region, including Galiano Island's telecommunication strategy, its affordable housing strategy, and its dock review. Planning staff assigned to Mayne Island are continuing working towards the RAR implementation program, the fallow deer eradication project, and the Mayne Island commercial land use review. North Pender Island planning staff are working on land use planning for waste management, housing, and First Nation's interests, while on South Pender staff have been conducting a land use bylaw review and a First Nations reconciliation project. Saturna Island planning staff are also working on building relationships with First Nations and a technical review of the Land Use Bylaw.

Applications remain steady with 27 applications received in the first quarter of 2017.

5. Bylaw Enforcement

The bylaw enforcement team started proactively enforcing Short Term Vacation Rental (STVR) violations on Galiano and North Pender and presented plans to do the same on Salt Spring Island and Gabriola.

The Salt Spring Island based bylaw enforcement officer resigned in June and as of September efforts continue to try to recruit a replacement.

6. Grants Administration

The Grants Manager continues to monitor grants and update the grants tracking and grants database as required. Work continues on a webinar process to provide more information on the Grants Program. A review of the grants data base is delayed but expected to begin soon. Funding approved and pending for Galliano, Lasqueti. Denman/Hornby and Gabriola LTCs for C2C forum events.

7. First Nations Engagement

Work on First Nations engagement continues; however, the focus for the Senior Intergovernmental Policy Advisor is shifting towards providing more time and advice in regards to the Island Trust Policy Statement Review Project. Work will also be increased on entering information into the First Nations database, as well as development of written procedures for local planning First Nations engagement, and use, update and maintenance of the First Nations database.

8. Freshwater

The Freshwater Specialist began working with the Islands Trust on June 30, 2017. The position is funded to March 31, 2018. During the last couple of months, the Freshwater Specialist has been focussed on attending community workshops on Freshwater, and managing a pilot well monitoring program on Salt Spring Island.

Islands Trust

Top Priorities

Local Planning Committee

No.	Description	Activity	R/Initiated	Responsibility	Target Date
1	Community Housing Needs	**Current:** Housing Needs Assessment - Southern LTCs **Planned:** Housing Needs Assessment - Northern LTCs	18-Nov-2016	Justine Starke	01-Feb-2018
2	Shoreline Marine Planning	**Current:** Est. a Project Charter **Planned:** To be determined by the Local Planning Committee	03-Mar-2016		
3	Land Use Consultation for Radio Communication Towers	**Current:** Develop model consultation process (work being undertaken by consultant) **Planned:** Report with recommendations to Trust Council	24-May-2017	Justine Starke	01-Feb-2018

Projects

Local Planning Committee

Description	Activity	R/Initiated
Development Approval Information Model Bylaw	Staff to draft amendments to Trust Council Policy 2.1 viii in order to develop a Development Approval Information Model Bylaw.	03-Mar-2016
Letter of Agreement with the Ministry of Transportation and Infrastructure - including discussion around access to water bodies.	Staff working with the MOTI to address the Letter of Agreement; next meeting planned for May 17, 2016. Local Planning Committee is monitoring the process.	03-Mar-2016
Domestic Wind Power	Update report as required.	03-Mar-2016
Blue Dot Campaign	Consideration of this proposal (added per resolution May 2015)	03-Mar-2016

Local Planning Committee

No.	Description	Activity	R/Initiated	Responsibility	Target Date
	Alternative Ways of Measuring Density	Bring forward a thorough analysis of alternative ways of measuring density and how to manage any corresponding impacts before consideration of requesting model bylaws be developed for local trust committees.			25-Aug-2016
	Appropriate Economic Development	To be determined by the Local Planning Committee			18-Nov-2016
	Protect Coastal-Douglas Fir and Associated Ecosystems	Trust Council - strategic plan item			24-May-2017
	Develop tool kit to assist LTCs and island municipalities to reduce ecological footprint.	Trust Council - strategic plan			17-Aug-2017

BRIEFING

To: Trust Council **For the Meeting of:** September 2017

From: Local Planning Committee **Date:** August 16, 2017

SUBJECT: RIPARIAN AREAS REGULATION IMPLEMENTATION UPDATE

DESCRIPTION OF ISSUE:

To update the Islands Trust Council, through the Local Planning Committee, on the status of implementation of the *Riparian Areas Regulation* (RAR) in the Islands Trust Area.

BACKGROUND:

The Ministry of Forests, Lands and Natural Resource Operations, West Coast Region, Resource Stewardship Division, issued a letter dated July 20, 2011 to the Islands Trust confirming the verified and unverified watershed categories on all the major islands, with the exception of Gambier Island Local Trust Area.

On two islands (Lasqueti and Hornby) the Ministry has introduced a temporary category of "unverified" for several watersheds until such time as they are able to confirm whether these watersheds fall under the Riparian Areas Regulation. This designation has also been applied to Gambier.

Section 1 - Status of Local Trust Committee Bylaws

Local trust committees are in the process of reviewing their bylaws and assessing the options available to them to reach compliance with Section 12 of the *Fish Protection Act* (commonly referred to as being compliant with RAR).

Currently Gambier, Mayne and Thetis are working on bringing their bylaws into compliance with the Riparian Areas Regulation. Once these local trust committee bylaws have been updated, the majority of bylaws in the trust area will be compliant with the Riparian Areas Regulation. The remaining bylaws indicated in red in the table below (Ballenas/Winchelsea, Mudge, DeCourcey, Piers, Secretary/Wallace, and Valdes) do not have any streams identified as potentially fish bearing. As planning processes unfold for these islands, there may be future amendments to these bylaws in relation to the Riparian Area Regulation; however, none are specifically planned.

Staff plans to present one more update to this report in March 2018 at which time we expect Gambier, Mayne and Thetis to be largely completed.

The following chart indicates the status of compliance with the Riparian Areas Regulation (**Bold** indicates changes since the last report).

Local Trust Area	Regulatory Bylaw No.	Comments	Compliance with RAR
Denman	OCP No. 185 LUB No. 186	Bylaws 212 and 213 adopted on May 17, 2016	Yes
Executive (Winchelsea/Bellenas)	OCP No. 27 LUB No. 28	No streams as defined by the Riparian Areas Regulation identified.	Not applicable
Gabriola	OCP No. 166 (Gabriola) LUB No. 177 (Gabriola)	Completed.	Yes
	OCP No. 227 (Mudge) LUB No. 228 (Mudge)	No streams as defined by the Riparian Areas Regulation identified on Mudge Island. Further work may be required.	May require further work.
	OCP No. 16 (De Courcey) Zoning No. 44 (De Courcey)	No streams as defined by the Riparian Areas Regulation on De Courcey Island. Further work may be required.	May require further work
Galiano	OCP No. 108 LUB No. 127	Completed.	Yes
Gambier	**OCP No. 73 (Gambier) LUB No. 86 (Gambier)**	**Bylaws 140 OCP and 141 - adopted April 2017; amendments required to correct discrepancies in LUB**	**Yes**
	OCP No. 77 (Keats) LUB No. 78 (Keats)	**Bylaws 129 OCP and 130 received Executive Committee approval; Bylaw 129 awaiting ministerial approval.**	**Yes**
	OCP No. 109 (Associated Islands) LUB No. 120 (Associated Islands) LUB No. 114 (Bowyer and Passage)	**Bylaw 131 OCP (Anvil and South Thormanby) received Executive Committee approval; awaiting ministerial approval Bylaw 132 Anvil and South Thormanby) received Executive Committee approval; Bylaw 133 (Bowyer and Passage islands) not proceeding Bylaw 145 OCP for associated islands at First Reading (Bowyer Island) Bylaw 146 (Bowyer and Passage LUB) to be considered for First Reading September 2017**	**In Progress**
Hornby	OCP No. 104 LUB No. 86	Bylaws 151 and 152 adopted on June 10, 2016.	Yes
Lasqueti	OCP No. 77 LUB No. 78	Bylaw 90 adopted on June 9, 2016	Yes
Mayne	**OCP No. 144 LUB No. 146**	**Project charter in place. Stream mapping assessment complete, bylaws drafted, consideration of first reading scheduled for September 2017.**	**In Progress**
North Pender	OCP No. 171 LUB No. 103	Completed.	Yes
	OCP No. 147 (Associated) LUB No. 148 (Associated)	Completed.	Yes
Saturna	OCP No. 70 LUB No. 78	Completed.	Yes

Salt Spring	OCP No. 434 (Salt Spring) LUB No. 355 (Salt Spring)	Completed.	Yes
	OCP No. 51 (Piers) LUB No. 373 (Piers)	No streams as defined by the Riparian Areas Regulation identified.	Not applicable
	CRD Zoning 103 (Prevost)	Completed.	Yes
	Zoning 123 (Secretary, Wallace, Outer Islands)	No streams as defined by the Riparian Areas Regulation identified.	Not applicable
South Pender	OCP No. 91 LUB No. 107	Completed.	Yes
Thetis	**OCP No. 50 (Thetis)** **LUB No. 56 (Thetis)**	**RAR implementation is an LTC Top Priority; community information meeting August 2017**	**In progress**
	OCP/LUB No. 42 (Valdes)	No streams as defined by the Riparian Areas Regulation.	May require further work
	OCP No. 93 (Associated Islands) LUB No. 94 (Associated)	Bylaw 93 and 94 adopted March 7, 2016	Yes

ATTACHMENT:
None

FOLLOW-UP: DLPS will continue to monitor and report upon the completion RAR bylaws in the Trust Area.

Prepared By: David Marlor, Director of Local Planning Services

Reviewed By/Date: Executive Committee /August 30, 2017
Russ Hotsenpiller, Chief Administrative Officer

BRIEFING

To: Trust Council

For the Meeting of: September 2017

From: David Marlor, MCIP, RPP
Director of Local Planning Services

Date prepared: August 22, 2017

File No.: LTC Projects

SUBJECT: LOCAL TRUST COMMITTEE PROJECTS – STATUS UPDATE

DESCRIPTION OF ISSUE:
The purpose of this briefing note is to provide Trust Council with an update on the use of funds allocated to local trust committee projects for the 2017/18 fiscal year.

BACKGROUND:

2017/18 Fiscal Year Projects
In the summer of 2016 local trust committees were asked to provide budget estimates for projects they were planning to undertake in the 2017/18 fiscal year. The total amount of all of these projects for the 13 local trust areas that was approved by Trust Council was $172,000.

Most of the funds are allocated for public process expenses, such as advertising, community meetings and public hearings, as well as legal reviews that usually come later in the process.

Of the $172,000:

- As of June 20, 2017 $5,200 (3%) has been spent.
- There is a high probability that an additional $81,000 (total of $86,200, 51%) will be spent before the end of the fiscal year.
- There is a medium probability that an additional $29,000 (total of $115,200, 68%) will be spent before the end of the fiscal year.
- There is low probability that an additional $56,800 (total of $172,000, 100%) will be spent by the end of the fiscal year.

Those indicated as high probability are projects that are a top priority of the local trust committee and are expected to be completed by the end of the fiscal year; or projects in which a contract has been issued, or will be issued with completion expected before the end of the fiscal year.

Those indicated as medium probability are projects that have not yet been started, or may take longer than the end of the fiscal year. Completion will depend on priority of the local trust committee in relation to other issues.

Those indicated as low probability either have not been started and have little chance of work being undertaken this fiscal year due to the project not being a priority, or the project has been abandoned or delayed by the local trust committee. In these instances, staff will be providing recommendations to the local trust committees on alternative projects that the funds could be used to undertake. Local trust

committees are encouraged to reallocate the funds for low probability projects to support completion of priority projects.

ATTACHMENTS:

- Project budgets identified as high probability.
- Project budgets identified as medium probability.
- Project budgets identified as low probability.

FOLLOW-UP:
Staff will work with LTC to ensure funds are allocated and used to achieve LTC project goals during this fiscal year.

Prepared By: David Marlor, Director of Local Planning Services

Reviewed By/Date: Cindy Shelest, Director of Administrative Services/August 22, 2017
Russ Hotsenpiller, Chief Administrative Officer/August 31, 2017

Projects with high probability that budgets will be used by March 31, 2018

**hours collected between April 1st and July 2nd are best estimates based on allocation of general LTC project hours to specific projects.*

LTC	Region	Project Name	LTC Top Priority Y/N	Status	Project Number	Budget	Spent to June 30/17	Budget Remaining	Budgeted Hours	Planner Hours spent to date in 2017/18	Hours Remaining	Probability of spending budget by end of fiscal (Low, Med, High)	Comments
DE	Northern	OCP/LUB -Housekeeping	Y	Legislative	2017	$1,500	$378.10	$1,121.90		42.5	(42.5)	High	OCP Bylaw awaiting ministerial approval.
DE	Northern	OCP/LUB – Marine Issues	Y	Legislative	2017					28	(28.0)	High	Bylaws given 1st reading and referred; public hearing 2018
DE	Northern	Comm Design Charrette	Y									High	Supporting work of VIU students. Not currently funded, requires $5000. Staff will recommend transferring $2500 from the farm plan
DE	Northern	First Nations	Y	On-going	4062	$1,000	$415.04	$584.96		17	(17.0)	High	C2C Forum held July 14th; further community engagement anticipated; total does not include SIPA time
DE	Northern	Farm Plan Implementation	Y	Consultation	4011	$3,500	0	$3,500.00		4	(4.0)	High	Project transferred to S. Zupanec; Staff will recommend that $2500 be transferred to the design charette
GB	Northern	Housing Options	Y	Legislative	4064	$2,500	$1,868.98	$631.02		84	(84.0)	High	2nd reading/public hearing pending LTC decision ; public hearing fall 2017
GB	Northern	First Nations	Y	Consultation	4063	$1,000	0	$1,000.00		10	(10.0)	High	Community meetings planned for August and September; C2C forum anticipated during this fiscal
HO	Northern	STVR	Y	Identification	4083	$500	0	$500.00		42.5	(42.5)	High	Project underway. LTC added an additional $500 from Special Projects to this project.
HO	Northern	LUB Community Housing Amendments	N	Legislative	4084	$1,000	0	$1,000.00		0	0.0	High	Budget is for public hearing expected by end of the fiscal year.
HO	Northern	First Nations	Y	On-going	4067	$500	$591	($90.97)		6	(6.0)	Done	C2C forum held July 14, 2017
LA	Northern	First Nations	Y	On-going	4085	$1,000	0	$1,000.00		4	(4.0)	High	C2C forum planned
TH	Northern	Thetis Ruxton Island Private Moorage	Y	Consultation	4090	$3,500	0	$3,500.00		35	(35.0)	High	Community meeting expenses anticipated fall 2017; public hearing 2018. $2,000 reallocated from OCP/LUB targeted review
TH	Northern	RAR Implementation	Y	Consultation	3008	$1,500	0	$1,500.00		7	(7.0)	High	Meeting expenses anticipated fall 2017
EX	Northern	Crown Islet Advocacy	Y		4079	$500	0	$500.00		24	(24.0)	High	Mailout and preparation of brocures this fiscal.
GL	Southern	Dock Review	Y	Consultation	4065	$4,500	0	$4,500.00		10	(10.0)	High	First Nations engagement, community consultation in fall and early 2018
NP	Southern	Waste Management	Y	Legislative	4054	$7,000	0	$7,000.00		50	(50.0)	High	Legal review, CIM and public hearing in fall 2017/early 2018
NP	Southern	Housing	Y	Consultation	4086	$5,000		$5,000.00		50	(50.0)	High	Hours include STVR implementation. Secondary suite consultation, CIM(s), public hearing anticipated in fall 2017 and early 2018
SA	Southern	First Nations Relationship	Y	On-going	4077	$2,000	0	$2,000.00		5	(5.0)	High	Public hearing for OCP amendment in fall or early 2018
SA	Southern	LUB Technical Review	Y	Bylaw Drafting	4069	$6,000	$160	$5,840.00		20	(20.0)	High	Special meeting(s), CIM and public hearing in fall and early 2018
SS	Salt Spring	Ganges Village Planning - Harbourwalk	Y		4020	$4,000	0	$4,000.00		375	(375.0)	high	Work underway
SS	Salt Spring	Industrial Land Use Bylaw	Y		4015	$3,000	0	$3,000.00		153.5		high	legal review of complex draft bylaws to occur in fall/winter
SS	Salt Spring	Watershed Management (exclusive of delegated authority 4045)	Y		4014	$20,000	0	$20,000.00		244.75		High	$18,500 of the $20,000 has been allocated and will be spent. Unsure about the remaining $1,500
SS	Salt Spring	Bylaw Review - Procedural Updates	N		2007	$16,500	0	$16,500.00		0	100.0	high	service contract requested

Projects with medium probability that budgets will be used by March 31, 2018

**hours collected between April 1st and July 2nd are best estimates based on allocation of general LTC project hours to specific projects.*

LTC	Region	Project Name	LTC Top Priority Y/N	Status	Project Number	Budget	Spent to June 30/17	Budget Remaining	Budgeted Hours	Planner Hours spent to date in 2017/18	Hours Remaining	Probability of spending budget by end of fiscal (Low, Med, High)	Comments
GM	Northern	Foreshore Protection & Stewardship	Y	Identification	4024	$8,000	0	$8,000.00		8.5	(8.5)	Medium	Renamed "Keats Island Docks Review". Project Charter to LTC in October. Funds may be required for consultant work this fiscal.
GM	Northern	First Nations	N	On-going	4066	$500	0	$500.00		4	(4.0)	Medium	This is now part of the Gambier OCP/LUB project.
EX	Northern	First Nations	Y	On-going	4078	$500	0	$500.00		2	(2.0)	Medium	Engagement activity planned for this fiscal
GL	Southern	Telecommunications	Y	Consultation	4081	$5,000	0	$5,000.00		20	(20.0)	Medium	Special APC costs in fall
GL	Southern	Affordable Housing - OCP/LUB	Y	Scoping	2002	$5,000	0	$5,000.00		5	(5.0)	Medium	Special APC costs in fall and early 2018
MA	Southern	Riparian Areas Regulation	Y	Legislative	3005	$5,000	0	$5,000.00		60	(60.0)	Medium	Further consultant work no longer required, public hearing anticipated in fall
SS	Salt Spring	Affordable Rental Housing: Cottages	Y		4088	$4,000	0	$4,000.00		0		medium	
SS	Salt Spring	First Nations Heritage Conservation	N		4058	$1,000	0	$1,000.00		0		medium	SIPA has report pending

Projects with low probability that budgets will be used by March 31, 2018

**hours collected between April 1st and July 2nd are best estimates based on allocation of general LTC project hours to specific projects.*

LTC	Region	Project Name	LTC Top Priority Y/N	Status	Project Number	Budget	Spent to June 30/17	Budget Remaining	Budgeted Hours	Planner Hours spent to date in 2017/18	Hours Remaining	Probability of spending budget by end of fiscal (Low, Med, High)	Comments
GB	Northern	Housing Needs Assessment	Y	Identification	4080	$5,000	0	$5,000.00		0	0.0	Low	Pending substantial completion of Northern Region assessment. Could potentially be used to supplement Gabriola consultation for housing needs assessment.
GM	Northern	Gambier OCP/LUB	Y	Consultation	2016	$5,000		$5,000.00		7	(7.0)	Low	Working beginning. $3500 required. Staff will recommend $1500 be transferred to RAR.
GM	Northern	DAI	N	Identification	4082	$1,500	0	$1,500.00		0	0.0	Low	No work undertaken. Likely will not begin until next fiscal.
LA	Northern	OCP/LUB - Shoreline	Y	Consultation	2015	$7,000	$77	$6,923.00		156	(156.0)	Low	Project has involved extensive legislative review and consultation; waiting for LTC direction to advance bylaws; public hearing expenses anticipated
LA	Northern	OCP/LUB – Age Friendly	Y	Consultation	2015					51	(51.0)	Low	Public hearing expenses anticipated
TH	Northern	First Nations	N	On-going	4072	$500	0	$500.00		0	0.0	Low	Not expected to be spent
TH	Northern	Thetis OCP/LUB			2009	$1,500		$1,500.00				Low	
MA	Southern	Commercial Land Use Review	Y	Analysis	4059	$4,500	0	$4,500.00		60	(60.0)	Low	Community/landowner consultation scheduled for fall
NP	Southern	Housing Needs Assessment	Y		4087	$2,000		$2,000.00				Low	
NP	Southern	OCP/LUB	N		2006	$5,000		$5,000.00				Low	
SP	Southern	LUB Amendments	N		4091	$6,000	0	$6,000.00				Low	
SP	Southern	LUB Review	Y	Legislative	2011	$2,500	$1,714	$785.95		25	(25.0)	Low	No further expenses anticipated
SS	Salt Spring	Land Uses in Rural Watersheds	Y		4075	$3,000	0	$3,000.00		375		low	
SS	Salt Spring	TUP's for secondary Suites and Cottages (Bylaw 471)	N		4021	$2,000	0	$2,000.00		0		low	
SS	Salt Spring	Integrated Community Sustainability Plan	N		4068	$5,500	0	$5,500.00		0		low	
SS	Salt Spring	Marine Environment Protection	N		4089	$1,000	0	$1,000.00		0	0.0	low	

BRIEFING

To: Trust Council

For the Meeting of: September 2017

From: David Marlor, MCIP, RPP
Director of Local Planning Services

Date prepared: August 22, 2017

File No.: LTC Projects

SUBJECT: **LOCAL TRUST COMMITTEE PROJECTS – NEW APPROACH TO BUDGETING AND PROJECT MANAGEMENT**

DESCRIPTION OF ISSUE:
The purpose of this briefing note is to provide Trust Council with an update on a proposed new approach to budgeting and project managing local trust committee projects.

BACKGROUND:

New Approach to Local Trust Committee Project Budgets

Staff is proposing through the Financial Planning Committee (FPC) the establishment of a specific reserve fund for the purpose of funding local trust committee projects. This approach would simplify the approach to budgeting for local trust committee projects and be more in line with best management practices.

Staff believes the new approach is in the best interests of all local trust committees and Trust Council.

Three reasons why this new approach is beneficial are:

1. It will eliminate the current process where local trust committees make specific budget requests for projects up to 18 months in advance of when the project may be undertaken.
2. It will be more responsive to the needs of the local trust committee by allowing the local trust committee to quickly prioritise an issue and begin work on it in a timely manner.
3. It is more flexible and will eliminate the need to reallocate funding and the need to advise FPC of the reallocation.

To implement this new approach to local trust committee project budget and project management, the following process is proposed:

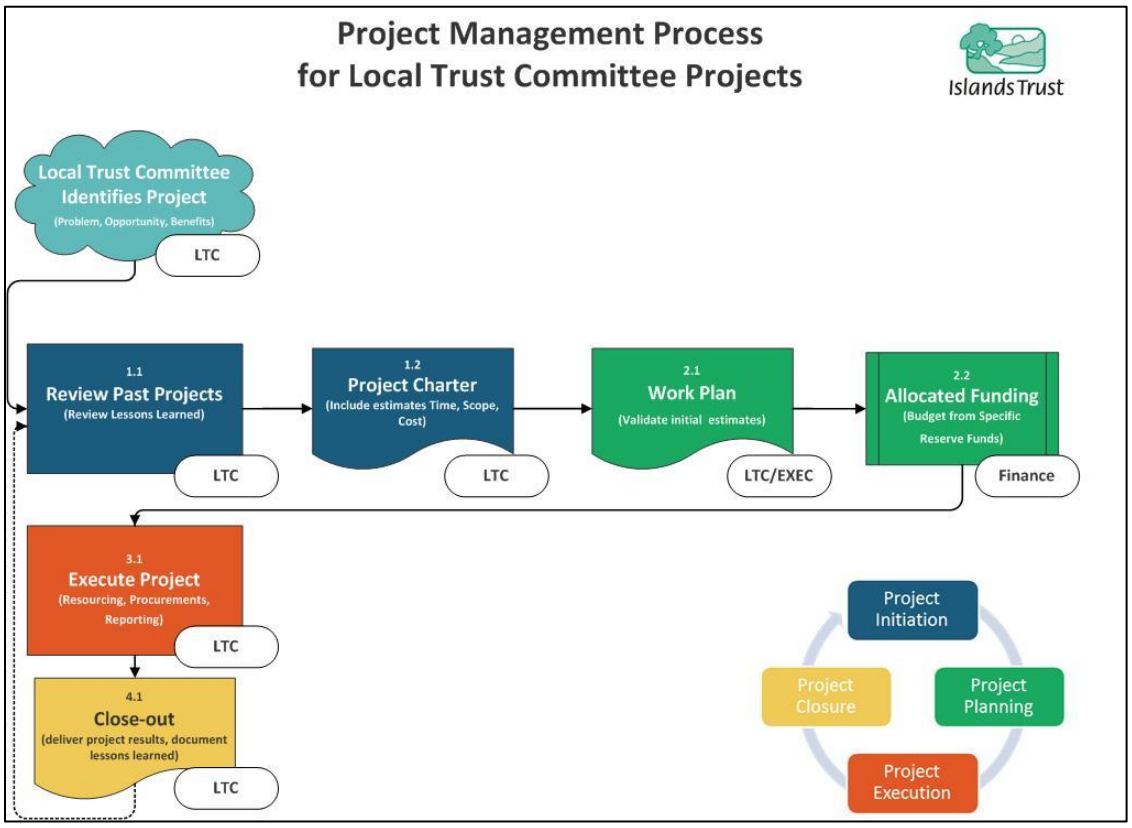
- Local trust committee identifies a projects
- Staff develops a basic project charter with a scope, an estimate of staff time allocation, budget requirements, and timeline.
- The local trust committee endorses the project charter and adds the project as a top priority to its work program.
- Staff develop a detailed work plan and confirm the staff resource requirements (and consider availability of resources for the duration of the project), detailed budget breakdown and timeline. Staff request funds for the project be released from the local trust committee project reserve fund.
- Staff undertake the work as per the work plan.
- On completion, staff undertakes a review of the project and records “lessons learned”; these lessons are then used to inform future similar projects.

Staff has recommended to FPC that for projects under $20,000 the Director of Administrative Services approve the funding from the LTC Project Specific Reserve Fund, and for projects of $20,000 or more, the Executive Committee approve the funding from the LTC Project Specific Reserve Fund. For small projects that can be covered by the local trust committee special projects budget, this process is not required.

New Approach to Local Trust Committee Project Management

In addition to the new budget process for local trust committee projects, staff will implement a new approach to project managing local trust committee projects. This will involve the steps listed above for budget approval, in addition to consideration of staff resources (hours) in the project charter and work plan. This will allow us to consider whether or not we have sufficient staff resources available to undertake the work as planned and to ensure that resources are available for all projects being undertaken by local trust committees. Each project will have an estimate of planner hours. The planners will record their hours for each project. This will allow us to measure actual hours vs budgeted hours.

Management has developed procedures for this new approach using project management best practices. The new approach, illustrated in the flow chart below, will be implemented beginning April 1, 2018.



Drawing 1: Overall new approach to project management of local trust committee projects.

FOLLOW-UP:

Staff will provide information to staff and trustees in advance of the start of using this approach beginning in April 2018.

Prepared By: David Marlor, Director of Local Planning Services

Reviewed By/Date: Cindy Shelest, Director of Administrative Services/August 22, 2017
Russ Hotsenpiller, Chief Administrative Officer/August 31, 2017

Administrative Services Report
July 2017 to August 2017

Date: 24/08/2017

1. Director

Supported the Financial Planning Committee (FPC) and Trust Fund Board with completion of the 2016/17 financial audit,

An FPC meeting was held on August 23, 2017. The next FPC meetings are October 18 and November 19, 2017 with the focus being preparation of the first draft of the 2018/19 budget. In addition the 2016/17 Allocated Financial Statements will be provided to FPC for their review at that time.

Review of two procedures will be before FPC before the end of the year; the Procurement Policy (formerly Purchasing Procedure) and the Municipal Contribution Calculation.

Began planning related to the Victoria office space renovations. A Request for Proposals has been published to proceed to contract for services for office space design and build plans. The lease of the Salt Spring Island Office is up for renewal in January of next year. Once the results of the Salt Spring Island referendum are known, negotiations with the landlord will be initiated.

The Administrative Services Team is committed to updating Operational procedures before the end of 2017 and to supporting the Electronic Data Management system implementation.

2. Employee Services

The OHS Committee completed the purchase of Automated External Defibrillators (AED) for the offices. Updates to the Working Alone Policy, the OHS Committee Terms of Reference, the Safety Manual and the Safety Orientation Checklist are all in progress.

Implementation of the PSA's myPerformance (an automated performance planning system) is planned for the fall of 2017.

A quarterly staff meeting was held on June 28, 2017. A staff trip to one of the islands is being arranged for September of 2017.

3. Finance

Our Finance Officer has also devoted significant effort to the creation of Spending Commitment and Signing Authority matrixes for inclusion in Trust Council's Procurement Policy (scheduled to proceed to Financial Planning Committee in October).

The Statement of Financial Information has been completed and will be forwarded to the Ministry prior to the September 30, 2017 reporting deadline.

Budget planning for 2018/19 has begun including discussions with Local Planning Services regarding the creation of a new procedure for managing LTC projects and the use of a Specific Reserve Fund to support the initiative.

4. Information Services

Information Services' top priority project this is year is an upgrade to the standard of electronic meetings for Islands Trust Council and Committees. Equipment has been installed in the Gabriola office with installation in Salt Spring planned for the fall. The final phase of the solution is planned for implementation in conjunction with Victoria office renovations.

Discussions are underway with eScribe exploring cloud-based services as opposed to the current (Islands Trust) site-managed installation. This upgrade has the potential to reduce Islands Trust resource demands, and vastly improve version management which will ultimately improve overall supportability of the site.

TAPIS Info and MapIT improvements continue as Mapping strives to improve usability while expanding utility. Mapping is also actively scanning our digital base bylaw inventory of current and repealed maps, continuing the transition from hardcopy to digital archives.

Work is nearing completion on the Information Services Strategic Plan.

5. Project Management

Project management resources are being leveraged trust-wide and providing practical and logistical support to a variety of initiatives within the Trust.

The Project Management Analyst has been providing project support to; Trust Area Services, future website development; Local Planning Services, developing project procedures; Legislative Services, project management for the Electronic Document Management; as well Finance, upgrade of the corporate finance systems.

Islands Trust

Top Priorities

Financial Planning Committee

No.	Description	Activity	R/Initiated	Responsibility	Target Date
1	First draft of the 2018/19 Budget	**Current:** Review budget assumptions and principles at FPC meeting August 23, 2017. **Planned:** Review first drafts with FPC at October 18 and November 15 meetings. Prepare first draft of budget for December Trust Council.	31-May-2017	Cindy Shelest	15-Nov-2017
2	Complete review of Purchasing Procedure Policy 6.5.iii.	Complete review of the existing Purchasing Procedure Policy 6.5.iii and recommend any changes in light of present practice to FPC at their October 18, 2017 meeting.	21-Oct-2015	Cindy Shelest	18-Oct-2017
3	Consider revisions to Trust Council Policy 7.2 vi Municipal Tax Requisition Calculation.	Recommended revisions will be provided to FPC at their October 18, 2017 meeting as part of the 2018/19 budget cycle.	27-Jan-2017	Cindy Shelest	18-Oct-2017

REQUEST FOR DECISION

To: Trust Council **For the Meeting of:** September 12-14, 2017

From: Financial Planning Committee **Date Prepared:** August 23, 2017

SUBJECT: **JUNE 30, 2017 QUARTERLY FINANCIAL REPORT**

RECOMMENDATION: That the Islands Trust Council approve the June 30, 2017 Quarterly Financial Report as presented.

CHIEF ADMINISTRATIVE OFFICER COMMENTS: The financial report indicates that Islands Trust is generally following the financial plan for 2017/18.

IMPLICATIONS OF RECOMMENDATION

ORGANIZATIONAL: There are no organizational implications to the recommendation.

FINANCIAL: Expenditures to June 30, 2017 are within approved budgets.

POLICY: There are no implications for existing policy.

IMPLEMENTATION/COMMUNICATIONS: Managers and Directors will receive ongoing reporting throughout the year.

OTHER: None.

BACKGROUND

Islands Trust Policy 2.3.iii. Financial Planning Committee Terms of Reference requires the Financial Planning Committee to report to Trust Council regarding the organization's financial management practices.

REPORT/DOCUMENT: Islands Trust Statement of Net Financial Position (Balance Sheet) and Consolidated Statement of Revenue and Expenditure to June 30, 2017 attached.

KEY ISSUE(S)/CONCEPT(S):

Statement of Net Financial Position
Differences are due to timing of expenditures, receipt of revenues, and reversal of accruals following fiscal year end.

Consolidated Statement of Revenue and Expenditure
The benchmark for revenues and expenditures after three months (first quarter) of operations is 25% of the annual budget. The revenue and expense areas that vary significantly from the 25% benchmark include:

REVENUE

- Fees and Sales are slightly higher than budget in the first quarter of this year primarily due to an increase in zoning amendment applications received in the first quarter of this year.
- The general property, special property and Bowen Island property tax requisitions will be received in the second quarter
- Investment income is below budget expectations due to draw down of invested funds. Interest will increase in the second quarter as the property tax requisition will be received and invested to maximize the interest income.
- Other Revenues are lower as projects have not yet been started where grant revenue will be recognized.

EXPENSES

Council Expenses

- Trust Council expenses are lower than budget due to underspending on Trust Council meetings where expenditures are expected to be higher for meetings later in the fiscal period.
- Trust Area Services expenses are lower than budget due to underspending of the Policy Statement Review Project which will occur later in the fiscal year.

Local Planning Services

- Local Trust Committee and Projects are lower than budget due to timing of projects anticipated to occur later in the fiscal year, as LTCs advance their project work.

Trust Fund

- Board expenses are lower than budget due to the timing of meetings which will occur later in the fiscal year.
- Property management expenses are higher than budget due to the timing of property monitoring which occurs early in the fiscal period when weather allows.

Administration

- Admin Services expenses are lower than budget due to timing of expenditures for contract services which will occur later in the year.
- Office Operations are lower than budget due to timing of expenditures which will occur later in the year.
- Computer, Furniture & Equipment purchases are higher than budget due to the timing of purchases made at the beginning of the fiscal year to achieve the benefit of new equipment and technology solutions for the full fiscal period.

FINANCIAL PROJECTIONS TO March 31, 2018 FISCAL YEAR-END

A detailed forecast of the 2017/18 year-end results will be conducted in the fall for presentation to the Financial Planning Committee and to December Trust Council.

RELEVANT POLICY: Bylaw No. 167, Islands Trust Financial Plan Bylaw 2017/18

DESIRED OUTCOME: Approval of the June 30, 2017 Quarterly Financial Report.

RESPONSE OPTIONS

Recommended: That the Islands Trust Council approve the June 30, 2017 Quarterly Financial Report as presented.

Alternative: None identified.

PREPARED BY: Nancy Roggers, Finance Officer

REVIEWED BY: Cindy Shelest, Director, Administrative Services
Financial Planning Committee, August 23, 2017
Executive Committee, August 30, 2017

Russ Hotsenpiller, Chief Administrative Officer

Islands Trust
Statement of Net Financial Position
June 30, 2017

	June 30 2017	June 30 2016
Financial Assets		
Cash & Short-term Investments	2,899,226	2,261,031
Accounts Receivable	54,143	122,630
Total Financial Assets	2,953,369	2,383,661
Liabilities		
Wages & benefits payable	1,140,378	1,071,222
Accounts payable & accrued liabilities	202,073	195,146
Development Application Deposits	213,074	42,038
Deferred Revenue	54,983	42,918
Employee Benefit Obligations	138,864	105,443
Capital Lease Obligations	46,852	82,569
Cost Recovery Deposits	10,706	5,977
Total Liabilities	1,806,930	1,545,312
Net financial assets	**1,146,438**	**838,349**
Non-Financial Assets:		
Tangible Capital Assets	106,250	121,738
Prepaid Expenses	51,653	97,288
Total Non-Financial Assets	**157,903**	**219,025**
General Revenue Surplus Fund	**1,304,341**	**1,057,374**

Islands Trust

Statement of Revenue and Expenditure
For The 3 Months Ending June 30, 2017

	Description	Prior YTD Actual	YTD Actual	Annual Budget	% of Budget
Revenue:					
	Fees & Sales	45,778	31,212	110,000	28%
	Provincial Grant	177,880	180,000	180,000	100%
	Property Tax Levy General	0	0	6,312,330	0%
	Special Property Tax Requisition	0	0	98,500	0%
	Property Tax Levy Bowen	0	0	242,680	0%
	Investment Income	735	10,500	50,000	21%
	Other Revenues	2,561	(378)	150,000	0%
Total Revenue		226,954	221,334	7,143,510	3%
Expenses					
Council					
	Trust Council	67,785	66,157	319,942	21%
	Executive Committee	28,277	27,888	103,560	27%
	Trust Area Services	92,187	94,914	462,518	21%
	General Admin Allocation - 17%	76,740	89,416	294,450	30%
Total Council Expenses		264,989	278,375	1,180,470	24%
Local Planning Services					
	Local Trust Committees	188,705	159,747	729,782	22%
	Projects	37,107	31,262	470,500	7%
	Planning Staff	563,132	629,130	2,525,215	25%
	LPS Facilities	80,886	84,319	357,750	24%
	Bylaw Enforcement	75,692	79,809	307,826	26%
	General Admin Allocation - 74%	334,046	389,224	1,459,279	27%
Total Local Planning Services Expenses		1,279,569	1,373,492	5,850,352	23%
Trust Fund					
	Board	3,615	4,227	20,000	21%
	Operations	85,565	110,343	450,683	24%
	Property Management	14,934	23,706	83,000	29%
	General Admin Allocation - 9%	40,627	47,338	184,005	26%
Total Trust Fund Expenses		144,741	185,614	737,688	25%
General Admin					
	Executive Office	90,409	93,671	369,979	25%
	Admin Services	175,398	135,758	578,139	23%
	Office Operations	85,660	75,802	333,750	23%
	Information Systems	59,314	134,229	459,366	29%
	Computer/Furniture & Equipment	24,974	69,658	131,500	53%
	Amortization Expense	15,659	16,861	65,000	26%
	General Admin Recovery	(451,414)	(525,979)	(1,937,734)	27%
Total General Admin Expenses		0	0	0	0%
Less Non-Cash Expenditures - Amortization				(65,000)	
Transfer from General Revenue Surplus Fund				(560,000)	
Total Expenses		1,689,299	1,837,480	7,143,510	26%
Surplus (Deficit) to date		(1,462,345)	(1,616,145)	0	
Transfer from Speical Property tax requisition general revenue surplus fund		7,106			
General Revenue Surplus Fund, beginning of the period		2,512,613	2,920,487		
General Revenue Surplus Fund, end of the period		1,057,374	1,304,342		

BRIEFING

To: Trust Council **For the Meeting of:** Sept. 12-14, 2017

From: Financial Planning Committee **Date prepared:** August 23, 2017

SUBJECT: STATEMENT OF FINANCIAL INFORMATION (SOFI)

DESCRIPTION OF ISSUE:

The 2016/17 Statement of Financial Information (SOFI) is provided to Trust Council for information.

BACKGROUND:

In June of each year, Trust Council receives the audited Financial Statements for the Islands Trust. These are subsequently included in Islands Trust's Annual Report and forwarded to the Ministry.

The Statement of Financial Information is an associated financial report that provides more detailed information with respect to expenditures included in the financial statements. The SOFI report components are defined in Financial Information Regulation (B.C. Reg. 371/93, including amendments to B.C. Reg. 249/2002 approved September 6, 2002); Schedule 1, sections 1 to 4, which requires that:

> For consistency with the Budget Transparency and Accountability Act respecting Public Accounts reporting, the FIA states that corporations must prepare …..
>
> > within six (6) months after the corporation's fiscal year end, a statement of financial information which includes:
> >
> > - a schedule showing remuneration and expenses paid to or on behalf of employees; and
> > - a schedule showing payments for suppliers of goods or services.

Under the direction of the Director of Administrative Services, Islands Trust's Finance Officer prepares this financial information annually and submits the Statement of Financial Information (SOFI) report to the Ministry.

It has been the practice at Islands Trust to provide the report to Trust Council prior to submitting the report by September 30.

ATTACHMENT(S):

2016/17 Statement of Financial Information.

AVAILABLE OPTIONS:

Request additional clarification from staff.
Receive for information.

FOLLOW-UP:

The Director of Administrative Services will forward the complete Statement of Financial Information report to the Ministry by September 30, 2017.

Prepared By: Cindy Shelest, Director Administrative Services

Reviewed By/Date: Russ Hotsenpiller, Chief Administrative Officer/August 17, 2017
Financial Planning Committee/August 23, 2017
Executive Committee/August 30, 2017



SCHEDULE OF REMUNERATION & EXPENSES FOR EMPLOYEES

APRIL 1, 2016 TO MARCH 31, 2017

Employees whose remuneration exceeds $75,000 (in alphabetical order)	POSITION	REMUNERATION including taxable benefits	EXPENSES
Beeston, David	Information Systems Coordinator	$77,608.76	$1,953.93
Brzozowski, Aleksandra	Island Planner	$76,161.47	$5,981.62
Cermak, Stefan	Regional Planning Manager	$94,013.87	$5,324.87
Drew, Miles	Bylaw Enforcement Manager	$70,500.67	$15,174.23
Eggen, Marnie	Island Planner	$72,646.92	$2,877.37
Frater, Clare	Trust Area Policy Analyst/Director of Trust Area Services	$91,763.73	$6,482.32
Gordon, Lisa	Director of Trust Area Services	$87,703.86	$1,929.15
Hotsenpiller, Russel	Chief Administrative Officer	$162,066.38	$7,723.59
Kjerulf, Ann	Regional Planning Manager	$90,515.66	$8,266.49
Kojima, Robert	Regional Planning Manager	$95,554.92	$3,865.61
Marlor, David	Director of Local Planning Services	$109,200.98	$10,995.02
Milne, Robert	Island Planner	$82,374.42	$6,847.78
Richardson, Gary	Island Planner	$80,069.05	$5,652.80
Shelest, Cindy	Director of Administative Services	$107,850.53	$5,329.62
Starke, Justine	Island Planner	$79,252.08	$7,960.76
Thiel, Carmen	Legislative Services Manager	$92,738.31	$3,162.08
Zupanec, Sonja	Island Planner	$81,493.04	$4,012.07
TOTAL		**$1,551,514.65**	**$103,539.31**
All Other Employees		**$1,813,004.95**	**$87,702.75**
TOTAL		**$3,364,519.60**	**$191,242.06**

RECONCILIATION

Total Remuneration - Employees	3,322,890.60
Plus taxable benefits	41,629.00
Subtotal	3,364,519.60
Plus non-taxable benefits	773,383.40
Total	4,137,903.00
Total per Statement of Revenue & Expenditure - Salaries & Benefits	4,137,903.00
Unreconciled Variance	0.00



SCHEDULE OF PAYMENTS TO SUPPLIERS

APRIL 1, 2016 TO MARCH 31, 2017

SUPPLIERS OVER $25,000	Aggregate amount paid to Supplier
AON REED STENHOUSE	$106,997.00
BC HYDRO CAD	$52,946.16
BLACKMAN SUPPORT SERVICES	$78,306.43
CHRISTINE FERRIS	$28,267.00
COLLIERS MACAULEY NICOLLS	$265,853.06
DRIFTWOOD PUBLISHING LTD	$30,666.17
LINDA PROWSE	$32,502.80
MEADOWWOOD VILLAGE DEVELOPMENT	$42,063.00
MINISTER OF FINANCE - Employee Benefits	$815,012.40
MINISTER OF FINANCE - Trustee MSP	$31,845.60
MONK OFFICE SUPPLY LTD	$26,009.10
PACIFIC BLUE CROSS	$40,416.06
PEOPLE POWER PRODUCTIONS INC (SSIWPA Coordination)	$106,228.59
RECEIVER GENERAL - Trustee Remunerations	$88,583.71
SHI CANADA ULC	$26,965.50
SHAW BUSINESS SOLUTIONS	$27,606.05
SOFTCHOICE	$26,956.87
TELUS	$29,580.54
TELUS MOBILITY	$30,040.82
YOUNG ANDERSON	$261,683.90
Total Aggregate Amount Paid to Suppliers over $25,000	**$2,148,530.76**

Total Consolidated Payments of $25,000 or less	**$167,187.47**

Total Expenditures for Goods & Services	**$2,315,718.23**

RECONCILIATION

Total Expenditures by Object per Financial Statements	6,588,536.00
Less: Amortization	(67,668.00)
salaries and benefits	(4,137,903.00)
expenses paid to or on behalf of employees this fiscal year	(191,242.06)
expenses paid to or on behalf of trustees this fiscal year	(91,980.61)
Add: Revenues offset against expenditures	215,975.90
Net expenditures to Suppliers	2,315,718.23

Islands Trust

SCHEDULE OF REMUNERATION & EXPENSES FOR TRUSTEES

APRIL 1, 2016 TO MARCH 31, 2017

LAST NAME	FIRST NAME	POSITION	REMUNERATION including taxable benefits	TOTAL EXPENSES
Allen	Alexander	Trustee	$11,960.76	$1,998.57
Barber	Diane	Trustee	$14,950.20	$783.00
Bertrand	Ronald	TFB	$750.00	$2,019.66
Brent	Paul	Trustee	$10,504.56	$717.18
Busheikin	Laura	Trustee/Vice Chair	$44,502.60	$17,100.97
Critchley	David	Trustee	$11,782.92	$1,805.34
Crumblehulme	Brian	Trustee	$12,847.56	$707.94
Dodds	Jeanine	Trustee	$12,847.56	$742.13
Fast	Sue Ellen	Trustee	$3,267.60	$1,091.67
Grams	George	Trustee/Vice Chair	$64,170.84	$9,428.80
Grove	Peter	Trustee	$31,434.36	$1,730.55
Harris	George	Trustee	$12,357.60	$959.88
Harrison	Richard	TFB	$450.00	$399.14
Hunter	Kenneth	Trustee	$10,718.28	$321.85
Law	Tony	Trustee/TFB Chair	$12,311.16	$6,596.19
Luckham	Peter	Trustee/TFB/Vice Chair/Council Chair	$51,764.76	$10,548.44
Mamoser	Melanie	Trustee	$19,008.48	$2,276.26
Masselink	Derek	Trustee	$15,076.20	$173.60
McConchie	Bruce	Trustee	$9,941.76	$637.56
Middleton	Lee	Trustee	$10,630.56	$963.84
Morrison	Susan	Trustee/TFB/Vice Chair	$43,400.64	$17,768.46
Morse	Alison	Trustee	$3,267.60	$2,458.05
O'Sullivan	Heather	Trustee	$19,808.52	$1,017.07
Peterson	Timothy	Trustee	$9,664.20	$1,684.69
Pottle	Sandy	Trustee	$12,007.56	$1,377.40
Rogers	Dan	Trustee	$11,067.72	$2,647.51
Scholefield	Wendy	Trustee	$9,941.76	$732.04
Stamford	Kate-Louise	Trustee/TFB	$12,767.76	$3,292.82
TOTAL 2016/17			**$483,203.52**	**$91,980.61**
TOTAL 2015/16			**$476,437.24**	**$100,575.02**

RECONCILIATION

Total Remuneration - Elected Officials	483,203.52
Reconciling Items - non-remuneration Council Services	587,803.48
Subtotal	1,071,007.00
Total per Statement of Operations - Council Services	1,071,007.00
Variance	0.00

Note: Trustee expenses and Trustee remuneration are paid in accordance with Islands Trust policies (7.2.i. Trustee Remuneration and 7.2.iii Trustee Travel). The amount of expenses incurred reflects the number of activities a Trustee is involved in (eg: Executive Committee Member, Executive Chairs of Local Trust Committee, Committee involvement such as Financial Planning Committee, Local Planning Committee and Trust Programs Committee) and the distance traveled to attend Islands Trust activities. Expenses for travel vary year to year based on the locations of Executive Committee and quarterly Trust Council meetings. Remuneration includes taxable benefits.

BRIEFING

To: Trust Council **For the Meeting of:** September 12-14, 2017

From: Financial Planning Committee **Date prepared:** **August 23, 2017**

SUBJECT: **DRAFT BUDGET ASSUMPTIONS AND PRINCIPLES 2018/19 BUDGET PROCESS**

DESCRIPTION OF ISSUE: Each year, budget assumptions and principles are developed for the next budget cycle. The assumptions and principles provide the underlying basis for developing many of the individual revenue and expense budget lines.

BACKGROUND: Policy 6.3.i Budget Process Policy, section C.2.d states "Budget Principles and Assumptions shall be addressed in December of each year". However, the issues are introduced in September to inform Trustees of the preliminary draft assumptions and principles that staff and the Financial Planning Committee will use in developing the first draft of the 2018/19 budget.

In some cases the assumptions are well-defined and unlikely to change during the budget development process. Other assumptions are less certain at this point, and will likely be amended during the budget development process.

ATTACHMENT(S):

Draft Budget Assumptions and Principles for the 2018/19 Budget Process
Budget Timelines 2018/19

AVAILABLE OPTIONS:

Modify the assumptions and principles as presented.

FOLLOW-UP:

In an iterative process, as more information becomes available, the budget assumptions and principles will be updated and presented to the December 2017 Trust Council.

Prepared By: Cindy Shelest, Director Administrative Services

Reviewed By/Date: Russ Hotsenpiller, Chief Administrative Officer/August 17, 2017
Financial Planning Committee/August 23, 2017
Executive Committee/August 30, 2017

ISLANDS TRUST
2018/19 FINANCIAL PLAN
DRAFT ASSUMPTIONS AND PRINCIPLES – September 2017

PROCESS: Each line of the Detailed Budget is reviewed on a needs-basis by the responsible manager, giving consideration to previous years' spending and future work programs and services (including Trust Council's Strategic Plan initiatives). Planning staff review project needs with Local Trust Committees and identify top priorities. The Trust Fund Board requests budget changes to support the goals in its Regional Conservation Plan. Directors review their respective Committee work programs to ensure work plan activities are appropriately funded. The Director of Administrative Services reviews the detailed spending and projects costs on behalf of the organization with respect to completeness and accuracy and compiles the Detailed Budget for the year. The overall Detailed Budget is reviewed by Islands Trust Management Team prior to being submitted to the Financial Planning Committee for review and consideration. A first draft of the budget is forwarded to Trust Council in December.

A. Inflation

Assumption/Principle

- Where applicable, estimated general growth in expenditures will be based on the Consumer Price Index (CPI) for Victoria, as reported by Statistics Canada.

Status

- The proposed Detailed Budget for 2018/19 presented to Trust Council in December 2017 will reflect estimated growth in CPI based on Statistics Canada reported Victoria CPI.

B. Non-market Growth in Property Taxes

Assumption/Principle

- The property tax base within the Islands Trust Area will grow by 1.0% due to new development activity.
- The Islands Trust uses a report from BC Assessment on non-market growth for the Southern Gulf Islands and Salt Spring to estimate the non-market growth for the Islands Trust Area as a whole, since the assessment value of this area represents approximately 65% of the total for the Islands Trust Area.

Status

- BC Assessment will provide the report on non-market growth for the Southern Gulf Islands in December 2017. Once received, data in the report will be used to adjust assumptions about non-market growth.

C. Alternate Funding Through Grants

Assumption/Principle

- The Grants Administrator monitors grant programs to seek opportunities to obtain funding for local trust committees to cover the expense of their program items.
- Management provides the Grants Administrator with an outline of local trust committee proposed projects so specific funding opportunities can be explored.
- Funding of local trust committee programs by grants reduces the requirement for funding through other sources of revenue.
- The annual budget normally includes an estimated amount of contingent grant revenue, to allow for revenue not yet identified. This amount is offset by an equal expense budget for contingent grant expenses. The result is no net effect on the bottom line.

Status

- The Grants Administrator position is a .4 FTE and is focused on LTC projects only. As in previous years', the draft 2018/19 budget will include $50,000 in contingent grant revenue and offsetting expenses.

D. Staffing Levels

Assumption/Principle

- In most cases, current staffing levels are appropriate to carry out the existing level of services and functions provided by the Islands Trust.
- Decreased staffing levels would result in a reduced level of services or functions.
- New functions or services may require either additional staffing or the deletion of some existing functions or service levels.

Status

- The funding for two temporary positions approved by Trust Council (a full-time Senior Intergovernmental Policy Advisor and a Senior Freshwater Specialist) end as of March 31, 2018. Management is currently reviewing the status of the work funded in these programs and determining if any budget requests will be developed to continue the work.

E. Staffing Costs

Assumption/Principle

- In accordance with the *Islands Trust Act*, staff members at the Islands Trust are appointed subject to the *Public Services Act* and the *Public Service Labour Relations Act*. Unionized staff members at the Islands Trust are members of the BCGEU. Their compensation and benefits are subject to union contracts negotiated between the Public Services Agency and BCGEU.

- Excluded (non-union) management staff members are also subject to the *Public Service Act.* They are compensated according to a salary grid approved by the Executive Committee and consistent with the Public Service Agency Policy on Salary Administration for Management Employees. Benefits and related costs are also defined by the Public Service Agency.

Status

- A BCGEU agreement for the period April 1, 2014 to March 31, 2019 is currently in effect. During the fiscal year 2018/19 two wage reviews are applicable: one on April 1, 2018 (0.5% increase) and a further increase on February 3, 2019 (1% increase). Further there is an additional potential for payment related to the Economic Stability Dividend effective February 3, 2019 (historically have been less than .5%).
- BCGEU contract employees are also eligible for "step" increases as they progress in their positions. A review of eligibility will be undertaken and estimates provided within the budget (in most cases it is assumed that existing staff will have reached the top step during the 2018/19 budget cycle).
- Excluded staff within the Islands Trust received a wage increase in January 2017 of 2%. Some excluded staff also were eligible for salary range increases (not at the top of the scale for their position and achieved satisfactory performance). This budget includes a 1% provision for any increases during 2018/19.

F. Trustee Remuneration

Assumption/Principle

- Trust Council's Policy 7.2 Trustee Remuneration defines the process for determining the remuneration received by Trustees. As per Section C.2. remuneration is calculated based on four factors.
- The defined annual compensation amounts and the methodology for making adjustments are incorporated into a Trust Council Remuneration Bylaw.
- Section C.4. provides for increases based on the receipt of updated census information (population and folios).
- Section C.5. provides for adjustment of defined compensation amounts on an annual basis, coinciding with the fiscal year, based on the annual change in the Victoria Consumer Price Index as reported by Statistics Canada in December.

Status

- No new census information is anticipated during the fiscal year 2018/19.
- Compensation amounts will be adjusted once the Consumer Price Index for Victoria is known for this budget cycle (see Section A).

G. Office facilities

Assumption/Principle

- The Islands Trust maintains office facilities for staff in Victoria, and on Salt Spring and Gabriola islands.
- The Islands Trust will continue to lease office space for trustees on Denman, Galiano and North Pender, subject to trustee needs, and subject to Policy 7.4.iv (On-Island Trustee Offices).
- No further increase in space requirements is anticipated at this time.

Status

- Trust Council has adopted the Select Committee to Review the Victoria Office Location's recommendation that a satellite office for the Southern Planning Team be considered by management.
- The Victoria Office location is scheduled for an upgrade in the fall of 2017. As a result of recent office lease negotiations a significant amount of funding is being provided by the lessor. Any additional funding required to complete the project will take the form of a budget request.
- Should Salt Spring Island vote to incorporate, the Islands Trust expects to contract with the new municipality to provide planning services until 2020. The Salt Spring office lease term expires in February 2018. Future lease decisions will be guided by the Islands Trust Adaptation Strategy, should incorporation proceed.

H. Reserves and Surplus

Assumption/Principle

- Trust Council's policy 6.5.i, section D.6, recommends a minimum level of General Revenue Surplus as "three months of expenses net of three months of revenue, excluding revenue from property taxes or the provincial grant".
- The Islands Trust receives annual property tax funds in August of each year.

Status

- Based on the 2017/18 budget, the General Revenue Fund Surplus balance would be $2.03 million at March 31, 2018 (110% of the recommended balance).
- Islands Trust has not had to borrow funds in the last five years to fund operations prior to receiving the annual property tax funds.
- At its June 2017 meeting, Trust Council passed a resolution that the Financial Planning Committee consider the creation of a specific reserve fund for Local Trust Committee Projects during the 2018/19 budget cycle.

I. Provincial Funding

Assumption/Principle

- The provincial government provides annual funding grants to the Islands Trust, consistent with funding levels provided to other small local governments

Status

- Similar to previous years, the 2018/2019 budget includes an estimated grant amount provided by the Ministry of Municipal Affairs and Housing of $180,000.

J. Local Planning Services

Assumption/Principle

- The Islands Trust Council provides sufficient funding for LTCs to carry out their primarily function, which is land use planning and regulatory activities within their local trust area as permitted by the *Islands Trust Act* and consistent with Islands Trust Council Policy 5.9.1. These activities include the development of Official Community Plans and land use regulations and the processing of development applications and referrals from other agencies. Other activities may be undertaken where the Islands Trust Council has delegated additional powers to an LTC.
- LTC development application fees are intended to partially fund the costs of development application processing.
- Local Planning Services' Planner positions are fully staffed to the levels approved by the Islands Trust Council following the 2007 Local Planning Services Review. The budget process may propose new or modified positions.
- Local Planning Services' Bylaw Enforcement positions are fully staffed to the levels approved by the Islands Trust Council following the 2008 Bylaw Enforcement Function Review. The budget process may propose new or modified positions.
- OCP and land use planning project budgets over the long-term will be distributed between LTCs based on their relative percentage of assessed value, per the resource allocation model.

Status

- All Local Planning Services positions will be fully staffed, with some minor fluctuations due to normal levels of turnover, leaves and workload variations.
- Local Planning Services is currently undertaking a review of how planning services are provided to Local Trust Committees. Any recommendations approved from that review will be included in the 2018/19 budget.

K. Planner Resource Allocation

Assumption/Principle

- The current work program system which allocates planner time to LTCs will be maintained.
- Resources will continue to be fairly evenly distributed between the three planning regions (North, South, Salt Spring)

Status

- No updates at this time.

L. Strategic Plan Projects Budget

Assumption/Principle

- The Strategic Plan provides a framework to guide the overall direction of activities for the Islands Trust, to focus finite resources, and to achieve efficiencies where there are common LTC projects.
- Trust Council adopted a new Strategic Plan in September 2015. Estimated budget implications related to these strategies will be reviewed in the fall of 2017 for inclusion in the proposed 2018/19 budget.
- LTCs have the option of requesting a Special Tax Requisition to raise funds for land use planning activities (or activities related to delegated powers) within their Local Trust Area that were not approved within the general Trust Council budget (see Trust Council Policy 6.3.ii).

Status

- It is anticipated that a Special Property Tax Requisition request will be received from the Salt Spring Island Local Trust Committee related to the delegated authority to coordinate watershed management through the Salt Spring Island Watershed Protection Authority.

M. Salt Spring Island Incorporation

Assumption/Principle

- After several years of review, in March 2017 the Minister of Community, Sport and Cultural Development announced his decision to order a vote of Salt Spring Island electors on the question of municipal incorporation of that island. The vote is to be held on September 9, 2017.
- Minister Fassbender further informed Islands Trust of his commitment to fund up to $125,000 for the Islands Trust as follows:
  - ✓ $50,000 for completion of a full Adaptation Strategy for the organization;
  - ✓ $60,000 to help support the cost of a dedicated transition manager; and,
  - ✓ $15,000 to help offset any unanticipated costs in the devolution of the local trust committee.
- Should Salt Spring Island vote in favour of incorporation, the transitional period of land use planning services provided by the Islands Trust to a new municipality would be four full years because incorporation would not be expected to proceed until 2018.
- Should Salt Spring Island vote against incorporation, Trust Council may wish to allocate funds towards a Governance/Service Review.

Status

- A Transition Plan has been prepared by the Chief Administrative Officer of the Trust Council. Should Salt Spring Island vote in favour of incorporation, the elements of the plan would be put into action and any necessary changes anticipated to the 2018/19 budget would be updated prior to December Trust Council.

ISLANDS TRUST

TIMELINE FOR 2018/19 BUDGET PROCESS

Date	Activity
July-Aug/17	LTCs discuss 2018/19 top priorities and work programs with planning staff
Wed Aug 23/17	FPC reviews draft budget assumptions and principles
Fri Aug 25/17	Budget documents distributed to all Managers for development of departmental budgets. Managers review requests with staff for input and feedback into the budget process. Director Admin Services begins consultation with Bowen Island and Trust Fund Board.
Wed Sept 27/17	**All budget requests forwarded to Director, Admin Services**
Thurs Oct 5/17	Management finalizes budget recommendation to FPC
Wed Oct 11/17	Draft 1 of Budget forwarded to FPC
Wed Oct 18/17	**FPC reviews and discusses first draft of the Budget**
Oct 19-Nov 7/17	Staff make revisions to draft budget as directed by FPC
Wed Nov 15/17	**FPC approves the Draft Budget and budget principles to be submitted to December Trust Council**
Nov 2017	Continued research and planning to improve estimates for proposed operational changes Planning staff develop "additional operations" budget proposals on behalf of LTCs to go to December Trust Council; preparation for potential local tax requisitions for individual LTCs (see policy 6.3.ii Special Property Tax Requisition)
Fri Nov 24/17	Draft Budget distributed to Trust Council Trustees
Tues Dec 6/17	**Trust Council endorses budget principles and preliminary budget after debate**
	Budget debate includes consideration of "additional operations" budgets from LTCs Trust Council approves public consultation process
January 2018	Consultation with Bowen Island and Trust Fund Board Further refinement of 2018/19 Budget Public consultation on proposed budget conducted LTCs who want to fund "additional operations" from special tax requisition pass a resolution to do so
February 2018	LTCs proposing a special tax requisition hold public consultation meetings Executive and FPC review of Proposed Budget and Program List FPC recommendations on Property Tax Requistion and Bowen Island Municipality Tax Levy and LTC special tax requisitions Review public suggestions/comments regarding the budget
March 2018	Trust Council approval of Budget along with approval of bylaw for Property Tax Requisition, Bowen Municipality Tax Levy and LTC special tax requisitions Forward Budget Bylaw to the Minister Budget information posted to website and news release prepared

Trust Area Services
Report
June 2017 to August 2017

Date: 23/08/2017

General:

The summer of 2017 has been a busy but productive time for Trust Area Services. Shelley Miller finished her temporary assignment with the Trust Area Services team at the end of July and is now a proud mother to baby Max. During the last quarter, the TAS team was focused on the following initiatives:

Wells and Groundwater workshop series: From June to August a primary focus of the Trust Area Services team was the successful delivery of the Wells and Groundwater workshop series, which involved significant staff time associated with logistics, communications and attendance. The final and 11th workshop was held on Gambier Island on August 11, 2017. The workshops were well attended and feedback has been very positive. Staff have updated and consolidated the water-related pages on the Islands Trust website and included a link to the Bowen Island workshop so islanders who couldn't attend can still learn the material. Staff have prepared letters of thanks to the Ministry of Forests, Lands and Natural Resource Operations and Rural Development and to Vancouver Island Health Authority and Vancouver Coastal Health Authority for partnering with the Islands Trust.

Community Stewardship Awards program: Trust Area Services staff also continued delivery of the Community Stewardship Awards program. Staff issued a news release about the recipients and developed certificates for the recipients. Through the fall, staff will support on-island presentations of the certificates in an island-made custom wood frame.

Policy Statement Amendment project: There has been significant discussion about the best approach to First Nations and community engagement about the Policy Statement amendments. Staff have been assessing the risks and benefits associated with different approaches and the opportunity to use the project to further develop relationships with First Nations. Staff continue to work on an engagement plan for Executive Committee approval. Staff expect that completion and implementation of the engagement plan will be a significant focus of the TAS team for the next quarter.

Agency Liaison and Advocacy:

BC Timber Sales Forest Stewardship Plan for Bowen Island: On July 6 staff received a referral about a forest stewardship plan for Bowen Island. Staff invested more than a week of effort in researching the potential impacts of the plan, speaking with staff with BC Timber Sales, Forest Lands and Natural Resource Operations and Rural Development, and Bowen Island Municipality, and responding to enquiries from the . Staff developed a map showing the proposed timber harvesting areas relative to protected areas and prepared speaking notes for the Islands Trust Chair to use to respond to public and media enquiries. In response to concerns raised by the Bowen Island Municipality and community, BC Timber Sales announced on July 26 that they had decided to remove Bowen Island from its current Forest Stewardship Plan proposal.

BC Hydro Woodpole Test and Treat Letter of Understanding:

Staff completed research associated with BC Hydro's proposed changes to their woodpole test and treat program and prepared a Request for Decision for Trust Council and provided briefing materials to Bowen Island municipal staff.

Crown Land Agreements project:

Due to other priorities, staff made little progress this quarter on negotiating amendments to agreements with the Ministry of Forests, Lands and Natural Resource Operations and Rural Development in partnership with Bowen Island Municipality. This project will be a priority for the next quarter.

UBCM Meeting requests to Ministers:

Staff supported the Executive Committee by preparing advocacy requests for the Minister of Municipal Affairs and Housing, Minister of Forests, Lands and Natural Resource Operations and Rural Development, Minister of Transportation and Infrastructure and the Minister of Environment and Climate Change.

Derelict and abandoned vessels:

Staff participated in the launch of the Abandoned Boat Program by Transport Canada, the newly announced federal Abandoned Boats Program, which will fund the removal of abandoned vessels until March 31, 2022. Staff also participated in a webinar on the program by TC staff. Staff attended a meeting on Salt Spring that gathered stakeholders and Islands Trust staff and Trustee Grams to discuss ways to best implement the Abandoned Boat Program on Salt Spring and throughout the Islands Trust Area. Staff also attended a meeting hosted by the Capital Regional District on the program At the request of the Executive Committee, staff will be undertaking research into which agencies plan to apply for funding to remove vessels in the Trust Area as well as developing a fact sheet on powers and responsibilities of various agencies with regard to issues relating to abandoned vessels, barges and docks and boat licensing**.**

Potential geoduck aquaculture impact research:

The Senior Policy Advisor has been researching potential impacts from subtidal and intertidal geoduck aquaculture in the Trust Area. This has involved reviewing academic articles, speaking with DFO, provincial staff, industry representative and community members. The Senior Policy Advisor travelled to Denman Island to meet with members of the Association of Denman Island Marine Stewards and both the Policy Advisor and Director met with a Fisheries Advisor with the Ministry of Agriculture. This topic has emerged as the most complex research area undertaken by Trust Area Services. Part 2 of the research will include strategies for limiting harmful impacts including legal advice.

Communications:

Salt Spring Island Incorporation

At the request of the Executive Committee, staff updated the webpage about Frequently Asked Questions about Salt Spring Island's Potential Incorporation. Staff are also been responding to public

enquiries on various topics related to the incorporation vote and are working on messages for public and staff to respond to the outcome of the September 9 vote.

Annual Report

The annual report is in final production stages with proofreading complete and graphic design underway.

Media relations, issues management and communications planning

Staff issued two news releases and provided issues management and communications support for a number of initiatives and issues, including Salt Spring Island incorporation discussion, Wells and Groundwater workshops, court case regarding Denman bylaw, BC Timber Sales Forest Stewardship Plan, Community Stewardship Awards program and STVRs on Salt Spring and other islands.

Visual Identity

Trust Area Services continues to implement the new visual identity in Islands Trust publications. The annual report will incorporate the new visual identity. There is also an emphasis on incorporating the new visual identity into operational documents produced by staff, as well as new PowerPoint templates for presentations.

Internal communications

Staff are providing ongoing communications support for the Electronic Document Management project. This will be focus for TAS, and indeed the organization in the next quarter.

Website improvements:

With support from Administrative Services staff, the website's colours and fonts have been updated to reflect the Islands Trust's new visual identity. Staff are working with Administrative Services and Islands Trust Fund staff to consider a business case for additional website improvements.

Communications Strategy

Staff continue to work on developing a comprehensive, multi-year communications strategy to help staff and elected officials improve engagement and participation in Islands Trust operations. This includes consideration of a social media strategy to use social media tools to better reach and engage with our community. The power of social media has been evident during the recent discussions around the September 9th incorporation vote for Salt Spring Island. This will be another area of significant focus for Trust Area Services into the next quarter.

Public Notice Improvements

Staff continue to work with Local Planning Services to develop user-friendly and plain language templates for public hearing notices and improving internal processes. Once these are finalized, work will begin on notices about development variances, temporary use permits and community information meetings.

Indicator Program:

Staff did not work on the indicator program this quarter. Staff will be contracting support for this project through the fall.

Trust Council sessions:

TAS staff have invested significant effort in preparing an advocacy session for the September Trust Council meeting. Staff have also received confirmation that Transport Canada staff are available to present at the December Trust Council meeting about the federal Ocean Protection Plan. During the next quarter TAS staff will work with Transport Canada staff to prepare a session focused on Ocean Protection Plan implications for the Islands Trust Area.

Islands Trust

Top Priorities

Trust Programs Committee

No.	Description	Activity	R/Initiated	Responsibility	Target Date
1	Protect Quality and Quantity of Water Resources (Strategic Plan 4.3)	Deliver water education workshops and related education, advocacy (Phase 2 project charter).		Clare Frater William Shulba Pamela Hafey	
2	Amend Crown Land Cooperation Agreements (Strategi c Plan 8.1)	Engage Bowen Island Municipality and the Province of B.C. in updating and consolidating existing agreements into one. Consider implications for First Nations relationships.		Clare Frater	
3	Review the Islands Trust Policy Statement (Strategic Plan 9.1)	a) State of the Islands project b) Support First Nations and public engagement related to this project		Clare Frater Karen Hurley Fiona MacRaild Pamela Hafey	

Projects

Trust Programs Committee

Description	Activity	R/Initiated
Enhance (protect / restore) community character, socio-economic diversity and economic sustainability	Develop advocacy program for sustainable, appropriate agriculture Facilitate exploration of intra and inter-island transportation routes	
Strengthen relations with First Nations	Improve protection of archaeological and First Nations cultural resources	

Trust Programs Committee

No.	Description	Activity	R/Initiated	Responsibility	Target Date
	Improve cooperation and integration with other levels of government	Explore opportunities and benefits of cooperating with First Nations and others to seek nominations of the Trust Area as a UN Biosphere Reserve.			
	Marine advocacy/education project	Undertake a project using funds from the $25,000 Water/Marine project budget for 2017/18.			

TRUST FUND BOARD
REPORT TO TRUST COUNCIL
2nd Quarter 2017-2018

COMPLETED SINCE LAST REPORT	PLANNED FOR NEXT QUARTER
1. STRATEGIC PLANNING/ADMINISTRATION	
Developed draft goals for 2018-2027 Regional Conservation Plan and shared with Executive Committee in annual liaison meeting Completed Terrestrial Ecosystem Mapping/Sensitive Ecosystem Mapping updates Implemented an internal Securement Strategy for TFB acquisitions and covenants	Review TFB Meeting Procedure Bylaws and consider updated provisions for electronic meeting attendance Complete first draft of the 2018-2027 Regional Conservation Plan and seek feedback from LTCs and BIM Update Sensitive Ecosystem Maps for LTAs and BIM and run statistical analysis of change Approve Islands Trust Fund Five Year Plan 2018-2022, refer to LTCs and send to Minister of Municipal Affairs and Housing for approval Develop naming protocol for nature reserves and covenants, and revise policy as necessary Consider follow up from feasibility assessment of a working landscape conservation program Hold TFB retreat to consider RCP directions and funding challenges and opportunities
2. COVENANT AND PROPERTY ACQUISITIONS	
Registered 2.15 ha covenant on Isabella Point (Salt Spring)	Continue to negotiate six covenants (Link, South Pender, Galiano, Salt Spring, Keats & Lasqueti) Complete purchase 16 hectare Fairyslipper Forest (Thetis) Facilitate donation of 2.5 hectares to be added to Valens Brook Nature Reserve (Denman) Facilitate transfer of Sandy Beach Nature Reserve (Keats)

As of September 2017 the Trust Fund Board protects 101 conservation properties, 27 nature reserves and 74 covenants (of which 24 have NAPTEP certificates)

3. COVENANT AND PROPERTY MANAGEMENT	
Completed annual monitoring site visits of all TFB properties and covenants; no significant issues identified Surveyed Cyril Cunningham Nature Reserve for species at risk (two species at risk confirmed)	Finalize design and initiate construction of boardwalk at Elder Cedar Nature Reserve (Gabriola) Survey McFadden Creek Nature Sanctuary for species at risk (Salt Spring) Initiate management planning for nature reserve on Moore Hill (Thetis) Issue monitoring letters to all covenant landowners and partners
4. COMMUNICATIONS	
Released summer Heron newsletter; 302 print copies mailed and 655 e-mailed Posted mapping of forage fish habitat for Lasqueti, Galiano, Salt Spring, Wallace and Valdes Islands to ITF website, MapIT and TAPIS (internal mapping site) Issued news release and organized an on-site celebration/media event for a new Salt Spring covenant, resulting in three media articles Issued e-newsletter to all conservancy partners Updated Protected Area statistics and maps on ITF website	Develop monthly e-newsletter for local conservancies Complete mobile (phone/tablet) responsive design for ITF website Develop media plan for Fairyslipper Forest completion Work with Trust Area Services and Administrative Services to consider a business case for website improvements.
5. FUNDRAISING AND CONSERVANCY SUPPORT	
Submitted final report to Real Estate Foundation of BC grant for CDFCP work with local governments and Gambier Island OCP Processed high volume of donations towards purchase of Fairyslipper Forest after pledges were called in (Thetis)	Organize and host TD volunteers at the fall Elder Cedar Nature Reserve boardwalk celebration and volunteer event (Gabriola) to fulfill funding requirements Continue to identify grant opportunities from foundations and corporations for TFB projects Process final donations towards purchase of Fairyslipper Forest (Thetis)

As of September 2017 the Trust Fund Board protects 101 conservation properties, 27 nature reserves and 74 covenants (of which 24 have NAPTEP certificates)

BRIEFING

To:	**Trust Council**	**For the Meeting of:**	September 12-14, 2017
From:	**Trust Fund Board**	**Date prepared:**	August 10, 2017

SUBJECT: AUDITED FINANCIAL STATEMENTS OF THE ISLANDS TRUST FUND FOR 2016-17

DESCRIPTION OF ISSUE: The audited financial statements of the Islands Trust Fund for the year ended March 31, 2017 were reviewed and accepted by the Trust Fund Board at their July 18, 2017 meeting and are being provided here for information.

BACKGROUND: The *Islands Trust Act* Section 46 requires the Trust Fund Board to prepare and submit to Trust Council a report respecting the previous fiscal year that includes an audited balance sheet, a statement of revenue and expenditures and a schedule of all assets held in trust, with their valuation.

ATTACHMENT(S): Financial Statements of the Islands Trust Fund, Year Ended March 31, 2017

FOLLOW-UP: The Audited Financial Statements of the Islands Trust Fund are included in the Islands Trust 2016-17 Annual Report and have been posted to the islands Trust Fund website.

Prepared By: Jennifer Eliason, Manager, Islands Trust Fund

Reviewed By/Date: Clare Frater, Director of Trust Area Services, August 11, 2017
Executive Committee, August 30, 2017

Financial Statements of

THE ISLANDS TRUST FUND

Year ended March 31, 2017

KPMG LLP
St. Andrew's Square II
800-730 View Street
Victoria BC V8W 3Y7
Canada
Telephone 250-480-3500
Fax 250-480-3539

INDEPENDENT AUDITORS' REPORT

To the Trustees of the Islands Trust Fund Board, the Trustees of the Islands Trust Council and the Minister of Community, Sport and Cultural Development

We have audited the accompanying financial statements of The Islands Trust Fund, which comprise the statement of financial position as at March 31, 2017, the statements of operations, changes in fund balances and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

KPMG LLP is a Canadian limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. KPMG Canada provides services to KPMG LLP.

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

Basis for Qualified Opinion

In common with many charitable organizations, The Islands Trust Fund derives revenue from donations, the completeness of which is not susceptible to satisfactory audit verification. Accordingly, verification of these revenues was limited to the amounts recorded in the records of The Islands Trust Fund. Therefore, we were not able to determine whether as at March 31, 2017 and for the years ended March 31, 2017 and March 31, 2016, any adjustments might be necessary to revenue and excess of revenue over expenses reported in the statement of operations, statement of cash flows, statement of changes in fund balances and assets and fund balances reported in the statement of financial position as at March 31, 2017. This caused us to qualify our audit opinion on the financial statements as at and for the year ended March 31, 2016.

Qualified Opinion

In our opinion, except for the possible effects of the matter described in the Basis for Qualified Opinion paragraph, the financial statements present fairly, in all material respects, the financial position of The Islands Trust Fund as at March 31, 2017, its results of operations and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

KPMG LLP

Chartered Professional Accountants

July 18, 2017
Victoria, Canada

THE ISLANDS TRUST FUND

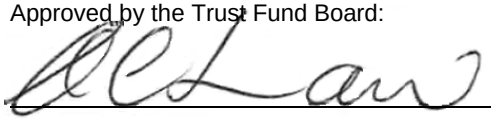
Statement of Financial Position

March 31, 2017, with comparative information for 2016

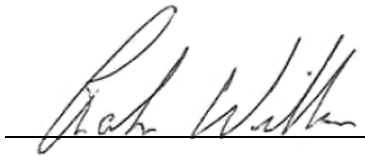
	Opportunity Fund	Restricted Fund	Capital Fund	Endowment Fund	2017 Total	2016 Total
						(Schedule 1)
Assets:						
Current assets:						
Cash	$ 34,144	$ 215,212	$ -	$ -	$ 249,356	$ 360,330
Short-term investments (note 2)	-	165,452	-	88,000	253,452	239,785
Accounts receivable	-	-	-	27,300	27,300	-
Inventory of fundraising items	1,342	-	-	-	1,342	1,612
	35,486	380,664		115,300	531,450	601,727
Investments (note 3)	-	64,870	-	-	64,870	63,257
Land (notes 4 and 6)	-	-	7,073,903	6,176,601	13,250,504	12,470,504
	$ 35,486	$ 445,534	$ 7,073,903	$ 6,291,901	$ 13,846,824	$ 13,135,488
Liabilities:						
Current liabilities:						
Property tax payable	$ -	$ 498	$ -	$ -	$ 498	$ -
Due to Islands Trust	2,995	(74)	-	-	2,921	-
Deferred revenue	541	-	-	-	541	-
	3,536	424	-	-	3,960	-
Fund Balances:						
Unrestricted	31,950	-	-	-	31,950	36,113
Investment in land (note 4)	-	-	7,073,903	-	7,073,903	7,073,903
Internally restricted (note 5)	-	24,327	-	-	24,327	24,320
Externally restricted (note 5)	-	420,783	-	-	420,783	516,551
Restricted for endowment purposes (note 6)	-	-	-	6,291,901	6,291,901	5,484,601
	31,950	445,110	7,073,903	6,291,901	13,842,864	13,135,488
	$ 35,486	$ 445,534	$ 7,073,903	$ 6,291,901	$ 13,846,824	$ 13,135,488

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

Approved by the Trust Fund Board:



Board member



Board member

THE ISLANDS TRUST FUND

Statement of Operations

Year ended March 31, 2017, with comparative information for 2016

	Opportunity Fund	Restricted Fund	Capital Fund	Endowment Fund	2017 Total	2016 Total
						(Schedule 2)
Revenue:						
Donations:						
Cash	$ 2,480	$ 258,244	$ -	$ -	$ 260,724	$ 114,647
Land	-	-	-	156,000	156,000	-
Grants	2,959	5,412	-	273,000	281,371	5,053
Rental income	-	10,200	-	-	10,200	10,200
Investment income (loss)	21	16,068	-	-	16,089	(3,407)
Sale of fundraising items	133	-	-	-	133	150
	5,593	289,924	-	429,000	724,517	126,643
Expenses:						
Repairs and maintenance - Alton property	-	1,181	-	-	1,181	11,286
Cost of sales of fundraising items	270	-	-	-	270	173
Bank charges	31	204	-	-	235	149
Donations to conservancy groups	6,460	-	-	-	6,460	-
Consultant fees	2,995	6,000	-	-	8,995	8,400
	9,756	7,385	-	-	17,141	20,008
Excess (deficiency) of revenue over expenses	$ (4,163)	$ 282,539	$ -	$ 429,000	$ 707,376	$ 106,635

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

THE ISLANDS TRUST FUND

Statement of Changes in Fund Balances

Year ended March 31, 2017, with comparative information for 2016

	Opportunity Fund	Restricted Fund	Capital Fund	Endowment Fund	Total
Fund balances, March 31, 2015	$ 33,295	$ 437,054	$ 7,073,903	$ 5,484,601	$ 13,028,853
Excess of revenue over expenses	2,818	103,817	-	-	106,635
Fund balances, March 31, 2016	36,113	540,871	7,073,903	5,484,601	13,135,488
Excess of revenue over expenses	(4,163)	282,539	-	429,000	707,376
Interfund transfer	-	(378,300)	-	378,300	-
Fund balances, March 31, 2017	$ 31,950	$ 445,110	$ 7,073,903	$ 6,291,901	$ 13,842,864

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

THE ISLANDS TRUST FUND

Statement of Cash Flows

Year ended March 31, 2017, with comparative information for 2016

	2017	2016
Cash provided by (used in):		
Operating activities:		
Excess of revenue over expenses	$ 707,376	$ 106,635
Item not involving cash:		
Donation of land	(156,000)	-
Changes in non-cash operating working capital:		
Inventory of fundraising items	270	173
Accounts receivable	(27,300)	-
Accounts payable	-	(1,024)
Property tax payable	498	-
Due to Islands Trust	2,921	-
Deferred revenue	541	-
	528,306	105,784
Capital activities:		
Cash paid to acquire land	(624,000)	-
Investing activities:		
Increase (decrease) in short-term investments	(13,667)	6,868
Increase in long-term investments	(1,613)	(3,045)
	(15,280)	3,823
Increase (decrease) in cash	(110,974)	109,607
Cash, beginning of year	360,330	250,723
Cash, end of year	$ 249,356	$ 360,330

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

The Islands Trust (the "Trust") is incorporated under The Islands Trust Act of British Columbia (as amended). The objectives of the Trust are to preserve and protect the Trust area and its unique amenities and environment for the benefit of the residents of the Trust area and of the Province generally.

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

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

1. Significant accounting policies:

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

(a) Fund accounting:

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

The Opportunity Fund reports unrestricted resources.

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

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

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

(b) Financial instruments:

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

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

1. Significant accounting policies (continued):

(b) Financial instruments (continued):

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

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

(c) Land:

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

(d) Revenue recognition:

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

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

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

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

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

1. Significant accounting policies (continued):

(e) Liability for contaminated sites:

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

(i) an environmental standard exists;

(ii) contamination exceeds the environmental standard;

(iii) the Trust Fund is directly responsible or accepts responsibility;

(iv) it is expected that future economic benefits will be given up; and

(v) a reasonable estimate of the amount can be made.

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

(f) Use of estimates:

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

2. Short-term investments:

Short-term investments consist of an endowment fund with the Victoria Foundation and Municipal Finance Authority of British Columbia (“MFA”) Bond and Money Market Funds. Investments in MFA Funds are recorded at cost plus earnings reinvested in the funds.

3. Investments:

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

4. Land:

	Acquisition date	2017	2016
Inner Island Nature Reserve, Denman Island	1992	$ 70,000	$ 70,000
Coats Millstone Reserve, Gabriola Island	1994	100,000	100,000
Medicine Beach Nature Sanctuary, North Pender Island	1996	477,000	477,000
Cunningham Reserve, Salt Spring Island	1994	265,000	265,000
Deep Ridge Reserve, Salt Spring Island	1992	255,000	255,000
Lower Mt. Erskine Nature Reserve, Salt Spring Island	1996	284,000	284,000
Kwel Nature Sanctuary, Lasqueti Island	1997	195,497	195,497
Singing Woods Nature Reserve, Bowen Island	1999	157,000	157,000
Trincomali Nature Sanctuary, Galiano Island	2001	242,406	242,406
Horton Bayviary Nature Reserve, Mayne Island	2002	210,000	210,000
Morrison Marsh Nature Reserve, Denman Island	2006	438,000	438,000
Brigade Bay Bluffs Nature Reserve, Gambier Island	2006	150,000	150,000
Long Bay Wetland Nature Reserve, Gambier Island	2006	305,000	305,000
Elder Cedar Nature Reserve, Gabriola Island	2007	658,000	658,000
Mount Artaban Nature Reserve, Gambier Island	2009	1,177,000	1,177,000
Fairy Fen Nature Reserve, Bowen Island	2011	1,817,000	1,817,000
Laughlin Lake Nature Reserve, Galiano Island	2013	56,000	56,000
Vanilla Leaf Land Nature Reserve, Galiano Island	2014	217,000	217,000
		$ 7,073,903	$ 7,073,903

5. Restricted Fund balances:

	2017	2016
Internally restricted:		
McFadden Creek management fund	$ 24,327	$ 24,320
Externally restricted:		
Alton Nature Reserve - maintenance fund	102,043	76,394
Morrison Fund	20,062	20,057
Covenant Defense Fund	103,824	100,197
Lasqueti Acquisition Fund	33,344	32,533
Gambier Acquisition Fund	116,891	115,173
Thetis Island Acquisition Fund	44,619	172,197
	420,783	516,551
	$ 445,110	$ 540,871

6. Restricted for endowment purposes:

	Acquisition date	2017	2016
Land:			
Lindsay Dickson Nature Reserve, Denman Island	2001	$ 2,200,000	$ 2,200,000
Alton Nature Reserve, Salt Spring Island	2002	454,000	454,000
McFadden Creek Nature Sanctuary, Salt Spring Island	2015	422,601	422,601
Properties acquired under the Federal Government Ecological Gifts program:			
Mt. Trematon Nature Reserve, Lasqueti Island	2006	320,000	320,000
David Otter Nature Reserve, Bowen Island	2007	620,000	620,000
John Osland Nature Reserve, Lasqueti Island	2012	890,000	890,000
Valens Brook Nature Reserve, Denman Island	2013	280,000	280,000
Burren's Acres Nature Reserve, Gabriola Island	2014	210,000	210,000
Moore Hill Nature Reserve, Thetis Island	2017	780,000	-
		$ 6,176,601	$ 5,396,601

Investment gains (losses) on endowment funds for the year of $12,306 (2016 - ($6,966)) have been recorded in the Restricted Fund.

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

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

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

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

7. Interfund transfer:

During the year, there were interfund transfers of $378,300 (2016 - nil) from the Restricted Fund to the Endowment Fund, representing cash paid to acquire the Moore Hill Nature Reserve on Thetis Island.

8. Related party:

The Trust is related to the Trust Fund through the composition of the Trust Fund's Board. The Trust Fund's Board is comprised of three members from the Trust's Council and up to three members appointed by the Minister of Community, Sport and Cultural Development.

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

	2017	2016
Operations	$ 495,775	$ 432,813
Board	15,566	15,155
Administration	154,286	156,306
	$ 665,627	$ 604,274

For the year ended March 31, 2017, amounts payable to Islands Trust were $2,921 (2016 - nil).

9. Financial risks and concentration of risk:

The Trust Fund's financial instruments consist of cash, short-term investments, accounts receivable, investments, property tax payable and due to Islands Trust. It is management's opinion that the Trust Fund is not exposed to significant interest, currency or credit risk arising from these financial instruments. The maximum exposure to credit risk at March 31, 2017 is the carrying value of cash, accounts receivable, short-term investments and investments. The Trust Fund deals with creditworthy counterparties to mitigate credit risk. The Trust Fund manages its liquidity risk by monitoring its operating requirements. Interest rate risk is not significant due to the short term nature of investments held. There have been no significant changes to risk exposure in the years presented.

THE ISLANDS TRUST FUND

Statement of Financial Position

Schedule 1

March 31, 2016

	Opportunity Fund	Restricted Fund	Capital Fund	Endowment Fund	2016 Total
Assets:					
Current assets:					
Cash	$ 34,501	$ 325,829	$ -	$ -	$ 360,330
Short-term investments		151,785	-	88,000	239,785
Inventory of fundraising items	1,612	-	-	-	1,612
	36,113	477,614	-	88,000	601,727
Investments (note 3)	-	63,257	-	-	63,257
Land (notes 4 and 6)	-	-	7,073,903	5,396,601	12,470,504
	$ 36,113	$ 540,871	$ 7,073,903	$ 5,484,601	$ 13,135,488
Liabilities					
Current liabilities:					
Accounts payable	$ -	$ -	$ -	$ -	$ -
Fund Balances					
Unrestricted	36,113	-	-	-	36,113
Investment in land (note 4)	-	-	7,073,903	-	7,073,903
Internally restricted (note 5)	-	24,320	-	-	24,320
Externally restricted (note 5)	-	516,551	-	-	516,551
Restricted for endowment purposes (note 6)	-	-	-	5,484,601	5,484,601
	36,113	540,871	7,073,903	5,484,601	13,135,488
	$ 36,113	$ 540,871	$ 7,073,903	$ 5,484,601	$ 13,135,488

THE ISLANDS TRUST FUND

Statement of Operations

Schedule 2

Year ended March 31, 2016

	Opportunity Fund	Restricted Fund	Capital Fund	Endowment Fund	2016 Total
Revenue:					
Donations:					
Cash	$ 2,895	$ 111,752	$ -	$ -	$ 114,647
Land	-	-	-	-	-
Grants	-	5,053	-	-	5,053
Rental income	-	10,200	-	-	10,200
Investment income	23	(3,430)	-	-	(3,407)
Sale of fundraising items	150	-	-	-	150
	3,068	123,575	-	-	126,643
Expenses:					
Repairs and maintenance - Alton property	-	11,286	-	-	11,286
Cost of sales of fundraising items	173	-	-	-	173
Bank charges	77	72	-	-	149
Donations to conservancy groups	-	-	-	-	-
Consultant fees	-	8,400	-	-	8,400
	250	19,758	-	-	20,008
Excess of revenue over expenses	$ 2,818	$ 103,817	$ -	$ -	$ 106,635

REQUEST FOR DECISION

To: Trust Council **For the Meeting of:** September 12-14, 2017

From: Executive Committee **Date:** July 18, 2017

SUBJECT: **CANCELLATION OF LETTER OF UNDERSTANDING WITH BC HYDRO FOR WOODPOLE TEST AND TREATMENT PROGRAM**

RECOMMENDATION: That Trust Council agrees to the cancellation of the Letter of Understanding [LOU] between BC Hydro and Islands Trust and Bowen Island Municipal Council Concerning Pesticide Use During the BC Hydro Woodpole Test and Treat Program.

CHIEF ADMINISTRATIVE OFFICER COMMENTS: This agreement was established as a result of concerns about the use of liquid pesticides in the Trust Area. As BC Hydro has moved to a solid treatment product that is excluded from the BC *Integrated Pest Management Act* the process established through the letter of understanding is no longer warranted.

IMPLICATIONS OF RECOMMENDATION

ORGANIZATIONAL: Cancelling the letter of understanding would result in increased staff time available each fall in Trust Area Services, mapping and affected local trust areas/Bowen Island Municipality. Implementing measure associated with cancelling the agreement is expected to take 1-2 days of Trust Area Services staff time.

FINANCIAL: None.

POLICY: The LOU was put in place in support of Islands Trust Policy 3.3.1 to protect Freshwater and Wetland Ecosystems, but is no longer needed because BC Hydro has demonstrated that the treatment product poses low risk to the environment as BC Hydro will no longer be using a liquid product that poses a spill risk and because the new product is excluded from the BC Integrated Pest Management Act and Regulations.

IMPLEMENTATION/COMMUNICATIONS:

If the LOU is cancelled, staff will:

- remove the agreement from the website and amend internal procedures.
- suggest that BC Hydro explain in their newspaper advertisements that no pesticides or liquid sprays are used in treating the woodpoles.
- advise BC Hydro staff that Bowen Island Municipality and Islands Trust would appreciate being notified annually in advance of when BC Hydro will be conducting the woodpole treatments.

OTHER: N/A

BACKGROUND

The BC Hydro woodpole test and treat program occurs on different islands in the Trust Area every year, typically returning to each area on an eight-year cycle.

In a September 23, 2003 Letter of Understanding, Islands Trust Council, Bowen Island Municipality and BC Hydro agreed to an ongoing consultative process to communicate regarding *pesticide* use during BC Hydro's woodpole test and treatment program. Section 5.10 states that the letter of understanding may be amended by agreement, in writing, by the Parties, but does not does establish a process for cancellation of the agreement.

Implementation of the process outlined in the agreement typically required about a week of Trust Area Services time each fall, and a few hours of mapping staff time. It generally caused local trustees and planning/municipal staff to become involved in helping the public understand the program and supply materials for the public to flag sensitive areas near woodpoles scheduled to be treated.

In November 2016, the Executive Committee considered a letter from BC Hydro staff advising that BC Hydro has changed its provincial woodpole maintenance program to rely on a solid boron/copper rod and a boron/copper paste to preserve the poles rather that the previously used liquid wood presevative fumigant. The letter advised that the advantages of using boron/copper products included:

- Improvement in the safety of contractors and BC Hydro employees.
- Reduction in environmental risks.
- Extension of the maintenance cycle from 8 to 10 years.
- Excluded from the BC Integrated Pest Management Act and Regulations.
- Due to the environmental safety, there are no restrictions on use near water .
- The products cannot be spilled.
- There are no special requirements for personal protective equipment other than gloves.

In the letter, BC Hydro requested that the existing framework of consultation and communication be either eliminated or adjusted to reflect the reduction of risks to human health and environment.

On November 9, 2016, the Executive Committee directed staff to advise BC Hydro that it is acceptable to proceed with the planned woodpole treatment plan in 2016/17 using boron/copper products only if BC Hydro advertised the program on the affected islands, and requested staff to work with BC Hydro and Bowen Island Municipality to prepare a briefing regarding potential cancellation of the Letter of Understanding Concerning the Use of Pesticides during the BC Hydro Woodpole Test and Treat Program.

After requesting additional information from BC Hydro about the offset distances to be used when using boron rods near aquatic environments (one metre from fish bearing body of water/stream or water well, and one metre upslope from point of diversion for a water intake) staff are comfortable recommending that the LOU be cancelled. Further, BC Hydro will continue to have provisions in their woodpole maintenance contracts regarding groundwater source identification and BC Hydro environmental specialists will review with its contractors the methods of identifying fish bearing streams, wells and other water sources and the appropriate actions to take.

Bowen Island Municipal Council will consider a staff recommendation to cancel the Letter of Understanding on September 11, 2017.

REPORT/DOCUMENT:

1. November 1, 2016 letter from Richard Poland, BC Hydro re Proposed Woodpole Maintenance Schedule (2016/17) and Change to Letter of Understanding between Islands Trust, Municipality of Bowen Island and BC Hydro
2. Letter of Understanding [LOU] between BC Hydro and Islands Trust and Bowen Island Municipal Council Concerning Pesticide Use During the BC Hydro Woodpole Test and Treat Program.

KEY ISSUE(S)/CONCEPT(S): Effective, efficient use of resources; protection of freshwater and wetland ecosystems

RELEVANT POLICY: 2.1.iv Coordination Agreement Process

DESIRED OUTCOME: That Trust Council cancel the Letter of Understanding between BC Hydro and Islands Trust and Bowen Island Municipal Council Concerning Pesticide Use During the BC Hydro Woodpole Test and Treat Program.

RESPONSE OPTIONS:

Recommended:

That Trust Council agrees to the cancellation of the Letter of Understanding [LOU] between BC Hydro and Islands Trust and Bowen Island Municipal Council Concerning Pesticide Use During the BC Hydro Woodpole Test and Treat Program.

Alternative:

Request that Islands Trust staff negotiate amendments to the Letter of Understanding [LOU] between BC Hydro and Islands Trust and Bowen Island Municipal Council Concerning Pesticide Use During the BC Hydro Woodpole Test and Treat Program.

Prepared By:	Karen Hurley, Senior Policy Advisor, Trust Area Services, July 18, 2017
Reviewed By/Date:	Clare Frater, Director, Trust Area Services, August 3, 2017 Russ Hotsenpiller, CAO, August 8, 2017

BC Hydro
Power smart

Richard Poland
4400 West Saanich Rd
Victoria, BC
V8Z 3E9

1 November 2016

Lisa Gordon
Director, Islands Trust Services

Dear: Lisa Gordon

Re: Proposed Woodpole Maintenance Schedule (2016/17) and Change to Letter of Understanding between Islands Trust, Municipality of Bowen Island and BC Hydro

In a September 23, 2003 Letter of Understanding, Islands Trust Council, Bowen Island Municipality and BC Hydro agreed to an ongoing consultative process to communicate regarding pesticide use during BC Hydro's Woodpole Test and Treatment.
(http://islandstrust.bc.ca/tc/pdf/orgagrsep232003oth.pdf)

The process is generally as follows:

1) Two months prior to beginning its Woodpole Test and Treat Program on any island, BC Hydro notifies Islands Trust of its plans, of the areas where wood poles will be tested and treated, and of the Pest Management Plan conditions that will cover sensitive areas within the operational areas.

2) Trust Area Services staff forward this information to the relevant local trust committee or island municipality, relevant planning staff and staff at the Islands Trust Fund, with a draft response for consideration by the relevant local trust committee or island municipality.

3) After the relevant local trust committee or island municipality consider a briefing on the planned test and treat program, Trust Area Services staff send a reply to BC Hydro staff, incorporating any comments or suggestions from the local trust committee or island municipality.

4) BC Hydro considers the advice or suggestions offered by the local trust committee or island municipality and supplies information provided by the Islands Trust or island municipality to the professionally-trained woodpole test and treat contractors who will be completing the current program. Where possible, the information is placed onto BC Hydro's pole maps so that those conducting the Woodpole Test and Treat program are aware of any areas where caution should be taken or where further contact may be required with selected landowners.

This process has been effective in developing some confidence in the program with the Islands Trust and Bowen Municipal staff as well as residents of the islands. We feel it is a good time to revise our process due to some major changes in our test and treat program described below.

Evolution in the use of wood preservatives

BC Hydro has been doing research on the use of boron as a wood preservative since 1996. It was known to be a much safer alternative to the fumigant, metam sodium, but its field performance was unproven. After in-house scientific research and consultations with scientists and utilities employing boron, it was determined that it would be a superior replacement to the fumigant. This spring, BC Hydro changed its provincial woodpole maintenance program and now relies on a solid boron/copper rod and a boron/copper paste to preserve the poles. The maintenance cycle has now increased from 8 years to 10 years as research has indicated these products will protect poles for longer periods of time than previous materials.

Some important advantages of using boron/copper products:

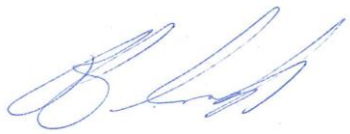
- Improvement in the safety of contractors and BC Hydro employees.
- Reduction in environmental risks.
- Extension of the maintenance cycle from 8 to 10 years.
- Excluded from the BC Integrated Pest Management Act and Regulations.
- Due to the environmental safety, there are no restrictions on use near water.
- The products cannot be spilled.
- There are no special requirements for personal protective equipment other than gloves.

Our 2016/2017 program in your area is focussed on high risk poles (Appendix 1.). These are lodgepole pine poles which have not performed as well as the Western redcedar poles in our system. It would be advantageous for the signatories of the memorandum to come to a consensus in the near future, as this maintenance program will commence shortly.

As a result of these significant changes to the program and reduction of risks to human health and environment BC Hydro is recommending that the existing framework of consultation and communication be either eliminated or adjusted to reflect these changes. Our current process is a demanding one and places a strain on resources for all the signatories of the memorandum.

Please feel free to discuss this recommendation with me. I would be pleased to coordinate a meeting or conference call if that would be useful.

Yours truly,



Richard Poland, Work Program Manager

cc: Tara McCormick, Contracts Manager, BC Hydro
Rene Roddick, Vegetation/Pest Biologist, BC Hydro
Clare Frater, Islands Trust

Appendix 1. Gulf Islands Pole Treatment 2016/2017

Island	# Poles (approx.)
Denman	6
Hornby	2
Gabriola	80
Mudge	75
Thetis	10
Galiano	12
Saltspring	60
Mayne	10
Pender	8
Saturna	16

LETTER OF UNDERSTANDING
between
BC Hydro
and
ISLANDS TRUST COUNCIL and BOWEN ISLAND MUNICIPAL COUNCIL
Concerning
PESTICIDE USE DURING
THE BC HYDRO WOODPOLE TEST AND TREAT PROGRAM

This agreement develops an ongoing consultative process between the Islands Trust Council and Bowen Island Municipal Council with BC Hydro to communicate regarding pesticide use during BC Hydro's Woodpole Test and Treat Program.

1.0 PURPOSES

1.1 To establish a process for communications.

1.2 To maximize protection of the natural environment by sharing information prior to implementation of the Woodpole Test and Treat program in the Islands Trust Area.

2.0 PRINCIPLES

2.1 It is acknowledged that the Islands Trust has a provincial mandate to preserve and protect the natural environment and unique amenities of the Islands Trust Area, and a responsibility to provide leadership for this purpose.

2.2 It is acknowledged that BC Hydro has a mandate to provide an efficient and environmentally-sound supply of electricity to the province and that to fulfil this mandate in island communities, it must maintain the woodpoles used for its distribution lines.

2.3 It is acknowledged that Bowen Island Municipality is an island municipality with a responsibility to deliver municipal services and carry out the object of the *Islands Trust Act* within its area of jurisdiction.

2.4 It is recognized that the sharing of information about sensitive environments can minimize any potential impacts of woodpole maintenance.

3.0 BACKGROUND

3.1 BC Hydro has a Remedial Woodpole Test and Treat Program to maintain and prolong the life of the woodpoles used on its distribution lines.

3.2 Woodpoles are pressure-treated with a wood preservative prior to installation in order to extend their service life. The groundline region of a woodpole, which is prone to fungal and insect attack, requires retreatment after a period of years in service due to natural degradation properties of wood and wood preservatives.

3.3 Wood preservatives extend pole life, reduce replacement costs and service outages, ensure public and worker safety and reduce the cutting of trees for new poles. The use of preservatives extends the service life of woodpoles up to five times (from 10 to 15 years to 35 to 70 years).

3.4 The use of woodpole preservatives must adhere strictly to corporate and government regulations to ensure safety and protection of the natural environment.

4.0 INFORMATION NEEDS

4.1 Government regulations require that woodpole preservatives not be used within prescribed distances of natural waterbodies and drinking water sources.

4.2 Prior to initiating a woodpole test and treat program, BC Hydro consults with a variety of information sources to identify waterbodies and drinking water sources. Once a waterbody or drinking water source is identified, BC Hydro pole maintenance inspectors ensure that preservatives are used in accordance with regulations. In most cases, this means that preservatives are not used on woodpoles near waterbodies or drinking water supplies.

4.3 Local communities can assist in the advance identification of waterbodies and drinking water sources, providing a greater level of protection of these resources during the Woodpole Test and Treat Program.

5.0 CONSULTATIVE PROCESS

5.1 On an annual basis, BC Hydro will notify the Islands Trust of the proposed schedule for its Woodpole Test and Treat Program in the Islands Trust Area. Islands Trust staff will ensure that the relevant Local Trust Committees (LTCs) or Bowen Island Municipality (BIM) are aware of the proposed program.

5.2 Two months prior to beginning its Woodpole Test and Treat Program on any island BC Hydro will notify Islands Trust of its plans, of the woodpoles to be test and treated , and of any the Pest Management Plan conditions that will cover sensitive areas within the operational areas. Islands Trust staff will forward this information to the relevant LTC or BIM, relevant planning staff and staff of the Islands Trust Fund with a request for additional information about the location of waterbodies, drinking water sources and environmentally sensitive areas in the vicinity of woodpoles to be tested.

5.3 No later than one month prior to the start of the Woodpole Test and Treat Program, planning staff for the relevant LTC or BIM will provide any additional information they may have available regarding the location of waterbodies, drinking water sources or other environmentally sensitive areas in the vicinity of woodpoles to be tested.

5.4 BC Hydro will supply information provided by the Islands Trust or BIM to the professionally trained woodpole test and treat contractors who will be completing the current Program. Where possible, the information will be placed onto BC Hydro's pole maps so that those conducting the Woodpole Test and Treat program are aware of any areas where caution should be taken or where further contact may be required with selective landowners.

5.5 BC Hydro will place information from the Islands Trust or BIM onto its mapping data base for future reference.

5.6 Responsibility for the coordination of this Agreement by the respective Parties is assigned to the BC Hydro Manager or delegate of the Lower Mainland/Vancouver Island Test and Treat Program, the Islands Trust Director of Trust Area Services and the Chief Administrative Officer of Bowen Island Municipality.

5.7 A meeting of respective staff to review any current issues or Agreement matters may be arranged at the request of the responsible staff of either Party.

5.8 Where anything is required or permitted to be delivered, or otherwise sent to the Parties, it will be delivered to:

Islands Trust
#200 - 1627 Fort Street
Victoria BC V8R 1H8
Attention: Director of Trust Area Services

BC Hydro (Vancouver Island Region)
400 Madsen Road
Nanaimo, BC V9R 5M3
Attention: Ray Read Regional Vegetation/Pest Biologist, Vancouver Island

and

BC Hydro (Lower Mainland Region)
12322 88 Avenue
Surrey, B.C.
V3W 3J6
Attention: Rene Roddick Regional Vegetation/Pest Biologist, Lower Mainland

Bowen Island Municipality
981 Artisan Lane
Box 279
Bowen Island, B.C.
V0N 1G0
Attention: Chief Administrative Officer

5.9 All Parties will bear the full cost of their own requirements to implement this Agreement unless otherwise provided for in this Agreement or otherwise agreed to, in writing, by all Parties.

5.10 This Agreement may be amended by agreement, in writing, by the Parties.

6.0 TERMS OF AGREEMENT

6.1 It is recognized that all parties will provide reasonable effort within the limits of their resources to implement this agreement on the basis that no party may assign responsibilities to the other.

APPROVALS

APPROVED BY THE EXECUTIVE DIRECTOR OF THE ISLANDS TRUST
THIS DAY OF , 2003

Gordon McIntosh
Executive Director
Islands Trust

APPROVED BY THE CHIEF ADMINISTRATIVE OFFICER OF BOWEN ISLAND MUNICIPALITY
THIS 5th DAY OF August ,2003

Isabell Hadford
Chief Administrative Officer
Bowen Island Municipality

APPROVED BY THE DISTRIBUTION MAINTENANCE PROCESS FOR BC HYDRO
THIS 23 DAY OF SEPTEMBER , 2003

D. Jim Papadoulis
Distribution Maintenance Process
BC HYDRO

G:\EXEC\Council\2003\March\RFD-Briefing\attach BCHYDRO LOU.doc

BRIEFING

To:	**Trust Council**	**For the Meeting of:**	September 12-14, 2017
From:	Trust Programs Committee	**Date prepared:**	August 13, 2017

SUBJECT: WELLS AND GROUNDWATER WORKSHOPS PROJECT UPDATE

DESCRIPTION OF ISSUE: This briefing provides an overview of the Wells and Groundwater Workshops series offered during summer 2017.

BACKGROUND:

In February 2017, the Trust Programs Committee approved a project charter for a Water Conservation Advocacy and Education project. The project activities were outlined as follows:

- Develop/collect/provide education materials on water conservation options and technologies
- Co-organize and deliver 11-12 well owner education workshops with MFLNRO, local groups
- Update water info on website
- Liaise with new Freshwater Specialist
- Advocacy re water conservation via Executive Committee

In March 2017, the Islands Trust Council approved the 2017-2018 budget that included $25,000 for the Trust Programs Committee to undertake water and marine initiatives.

To support successful delivery of this project and others, Shelley Miller, Planner 1 was seconded from the Salt Spring office to Trust Area Services, from mid-March to mid-July. Her duties included arranging for speakers from FLNRO and Health Authorities; securing educational materials on groundwater, water conservation, and rainwater harvesting from federal, provincial and regional governments; booked halls; organizing staff attendance and travel; and many other administrative and logistical details.

As requested by TPC, staff prepared a brochure (attached) called *Our Water, Our Responsibility*, with a focus on water conserving technologies. These brochures have been well received and one workshop participant advised that that they will share the brochure with guests who are unaccustomed to conserving water.

One week before each event, staff put out notices on event pages for each island (i.e. Salt Spring Exchange, Gabriola Sounder). The only formal ad was for Hornby Island Newspaper ($71), therefore, communications costs were kept to a minimal. On most islands, trustees assisted in getting the word out about the workshops through emails to their networks and postings on social media.

The workshop budget included funds for refreshments: tea, coffee, muffins or banana bread, sometimes also cookies and fruit. A key lesson learned during delivery of the workshops is that refreshments are greatly appreciated by the workshop participants, and important to successful delivery of the two and half hour workshop.

The average number of workshop participants was 27, with a high of 47 on Gabriola Island and low of 21 on Salt Spring Island. The workshops attracted islanders beyond those normally seen at Islands Trust events.

The number of staff at the event ranged from one to three. Newly hired Senior Freshwater Specialist William Shulba, attended many of the workshops and introduced broad concepts on the relationships between groundwater, surface water and watersheds prior to the more well focused presentations by FLNRO and Health Authority staff. He also had conversations at the break and after the workshop with islanders who wanted more detailed information or who had knowledge to share with Islands Trust.

Each workshop was attended by one or two trustees.

Feedback forms were/are given out at each workshop (except Hornby Island due to set-up challenges caused by ferry delay). The feedback has been consistently positive, with a very few exceptions. Workshop participants generally expressed appreciation that the Islands Trust was proactively providing information on a topic that people care about.

At the time of writing, staff have not yet analyzed the feedback forms from the Bowen Island and Gambier Island workshops (August 10/11), but the themes from the previous workshop participants included:

- Approximately 70% were not aware of the provincial Groundwater Protection requirements for wells under the new *Water Sustainability Act* until the workshop.
- Almost all participants (90%+) said that they would be making some change to their well set-up or groundwater use as a result of the workshop, including: water testing; well maintenance; and getting registered or a license.
- What participants appreciated included: the knowledge, variety and accessibility of the speakers (many said speakers were excellent); lots of information and handouts; seeing their trustees there; and the refreshments.
- What people did not like is inconclusive – some said the workshop was too long while some said too short; most like the presentation format while some said it was too dry; some suggested that an evening or weekend event would be better attended.
- Respondents provided ideas for improving the presentations including: more information/focus on water conservation, rainwater harvesting, or greywater use; provide map of wells to local libraries; and more discussion related to climate change.
- Almost 100% of participants said that they would like Islands Trust to offer additional educational workshops and suggested the following topics: sewer/septic systems; advanced well maintenance such as abandoned well transitioning; greywater and rainwater harvesting; fire prevention; stewardship; and general information about the Islands Trust.

Staff has updated the water related information on the Islands Trust website by consolidating numerous webpages and updating the content. Bowen Island Municipality plans to post a recording of the August 10 workshop to their website. Staff will link to that recording from the Islands Trust website when it is available.

While final costs are still begin entered Staff anticipates that the overall project will be delivered slightly under the $7,000 budget, not including staff salaries.

Staff is documenting the learning that has occurred during delivery of the workshop series by developing an "Organizing a Workshop Series in the Trust Area" procedure for the staff operations manual.

ATTACHMENT(S):

1. Project Charter
2. *Our Water, Our Responsibility* brochure

FOLLOW-UP: Staff will continue to implement the Trust Programs Committee's "Water conservation advocacy and education, phase 2 project charter" which includes working with the Senior Freshwater Specialist advocacy messages and strategies related to freshwater conservation.

Prepared By: Karen Hurley, Senior Policy Advisor

Reviewed By/Date: Clare Frater, Director, Trust Area Services, August 14, 2017
Trust Programs Committee, August 21, 2017

Water conservation advocacy and education, phase 2 project charter

Purpose

Deliver water conservation advocacy and education on behalf of Trust Council.

Background

The Strategic Plan includes strategy 4.3 "T.4.3.2 Develop project charter for water conservation advocacy and education". Subject to budget approval . TPC approved a phase 1 project charter in February 2016, which informed the development of Phase 2 activities.

Objectives

- Increase island residents' understanding of water conservation issues in the Islands Trust Area.
- Influence senior government actions that affect water conservation in the Trust Area

In Scope

- Develop/collect/provide education materials on water conservation options and technologies
- Co-organize and deliver 11-12 well owner education workshops with MFLNRO, local groups
- Update water info on website
- Liaise with new Freshwater Specialist (likely to start in June)
- Advocacy re water conservation via Executive Committee

Out of Scope

- Advice on land use planning tools
- Organizing Trust Council session on *Water Sustainability Act* (although connected)
- Honoraria for workshop presenters

Workplan Overview

Deliverable/Milestone	Date
Project staff learn about water conservation issues and projects within the Trust Area and book workshops (facilities, trustees, presenters, IT staff, local groups)	March-April 2017
Project staff team develop /collect educational materials and update website	April –May 2017
Deliver workshops and make educational materials available, and advocacy	Late-May 2017—August 2017
Final report to Trust Programs Committee in August	August 21, 2017

Project Team

TPC	Project Champion
Clare Frater	Project Manager
Staff/contractor	Coordinator/researcher
Pamela Hafey	Communications

Approved by:

Clare Frater, Director-
Date: Feb 14, 2016

Endorsement:

Resolution: TPC-2017-01

Date: Feb. 20, 2017

Budget 2015/16

Budget Source: TPC program budget

Item	Cost
Workshop costs (ads, venue, food, travel)	$5,000
Educational material	$2,000
Total activity costs:	$7,000
Staff/contractor time	Up to $12,000 from TPC program budget

Outside the home

Gardening
Plant drought-resistant species, landscape with native plants, and use mulch to retain moisture. Water early in the morning and water the plant roots instead of the leaves.

Lawns
Let your grass go golden is the summertime — it will go green again in the fall.

Raingardens
Visit crd.bc.ca/education/low-impact-development/rain-gardens to learn how you can build these landscape features that collect water and recharge groundwater aquifers.



Did you know?
Native plants are adapted to local conditions, are easy to maintain, and help improve biodiversity.

Less is more

Consider alternative technologies for efficient water use at home.

Well monitors tell you if you're using more water than you have by measuring the amount and rate of flow of water into your well, and how much you are pumping out. Well monitors help you see the trend of how much water is in your well and how the static level changes over time. It is an early warning signal of critical low water levels.

Well pump timers, when used with a cistern, let you set pump intervals to slowly draw water out of your well at pre-set times and store it in a cistern. This water stored in a cistern can be used on-demand. These devices help people with low-producing wells by maximizing the amount of water from a well, without overdrawing it.

Rainwater harvesting is a way to collect and use water for your plants, outdoor cleaning, and even for household use and drinking. Learn more about rainwater harvesting at rdn.bc.ca/events/attachments/evID6235evattID1344.pdf



Get your well tested regularly for signs of contamination.

Greywater recycling systems can relieve demand on your well, cistern and septic system. Use a two-pipe system to collect water from your sinks, laundry, showers and bathtubs for re-use at home. Contact your local building inspector, health authority and a qualified plumber for more information.

Composting toilets may be acceptable as an "alternative solution" in some cases if the toilet and greywater treatment comply with provincial regulations. Please contact your local health authority before considering this option.

Islanders are already doing a lot to conserve groundwater supplies and protect aquifer water quality. Share water conservation ideas with your friends and visitors.

Learn more about water conservation at islandstrust.bc.ca/water

Our groundwater, our responsibility!



Islands Trust

information@islandstrust.bc.ca

June 2017

Why care?

Groundwater is the main source of drinking water on our islands.

All groundwater begins as precipitation and makes its way through the soils and into fractures in the bedrock on each island. Only about 20% of precipitation is stored in these bedrock aquifers.

Groundwater is a renewable, but finite, resource. We all have a responsibility to be good stewards of this resource to ensure it is available to all — today and in the future.

Coastal well owners have a special concern. When well owners deplete groundwater, hydraulic pressure pulls seawater into freshwater aquifers. This saltwater intrusion can result in long-term impacts on drinking water and local ecosystems.

There are many actions we can take to sustain our groundwater.



Development pressures and climate change are negatively affecting our surface and groundwater.

Be a water saver!

In the home — reduce, repair, retrofit

Our daily activities affect our groundwater.

Toilets
Use low-flush toilets.

Showers and baths
Use low-flow showerheads and take short showers.

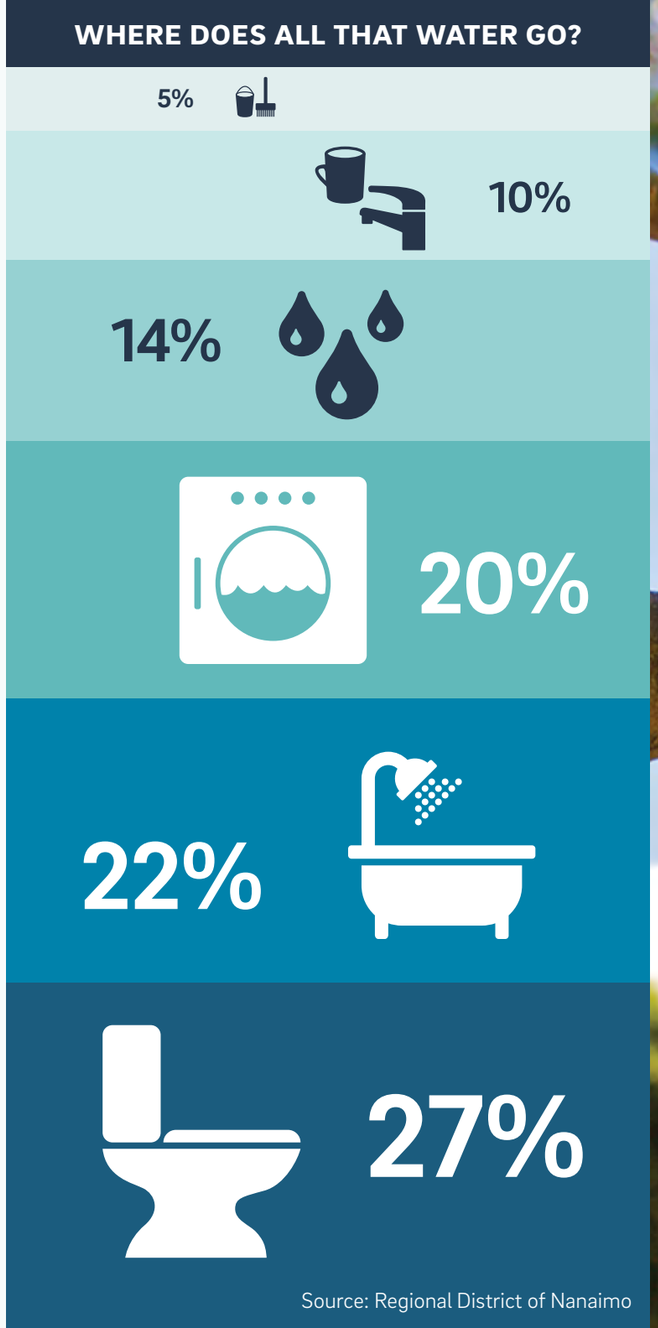
Laundry
Use high efficiency machines — you could use up to 50% less water. Do full loads.

Check for leaks
Fix leaky faucets, showerheads, toilets and irrigation systems — you could save thousands of litres of water a month.

Kitchen
Use a basin to wash and rinse dishes and vegetables/fruit and dispose of the water on plants. Don't run the water constantly while washing dishes. Use high efficiency dishwashers.

Cleaning
Use a pail rather than running water.

WHERE DOES ALL THAT WATER GO?



Source: Regional District of Nanaimo



Did you know? You can reduce your water consumption by using greywater to flush your toilet.

September 2017 Islands Trust Council

BC Ferries Session Outline

12:00 p.m. - 12:30 p.m. Wednesday, September 13, 2017

Purpose: To provide information about the BC Ferries Terminal Development Plans for Denman East and Hornby Island terminals.

Resources:
Rob Seitz, Superintendent Terminal Development
Brian Green, Terminal Development Manager
Ivan Leung, Assistant Manager, Terminal Development

Clare Frater, Director of Trust Area Services

TIME	TOPIC	WHO
12:00	**BC Ferries Terminal Development Plans**	Rob Seitz
12:15	**Questions/Discussion**	All

Denman East/Hornby Terminal Development Plan –Islands Trust Council Meeting

Brian Green MCIP, RPP, MRTPI
Manager, Terminal Development

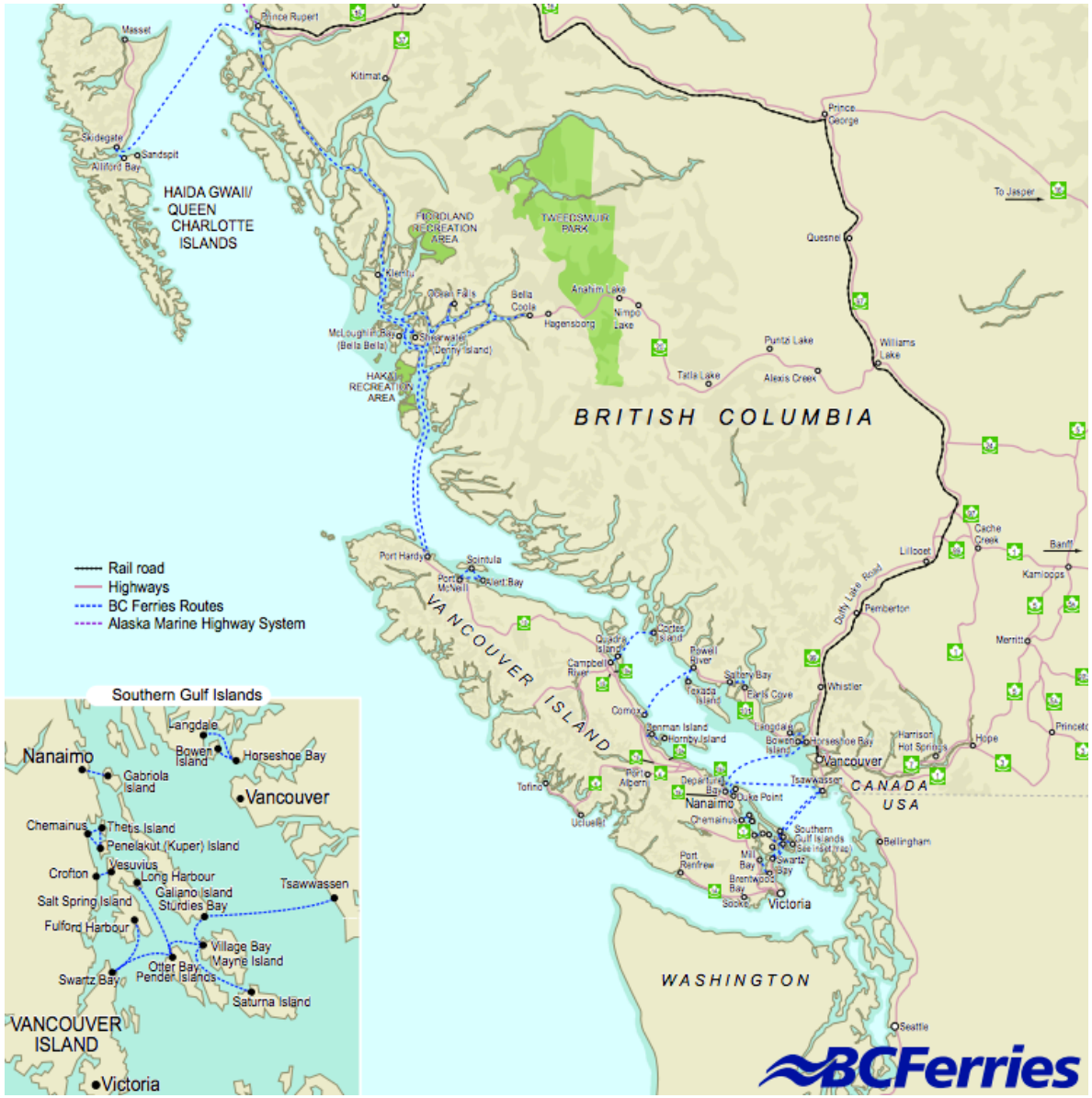
Meeting Agenda

- Introductions
- Background
- TDP Process
- Denman East/Hornby TDP
- Next Steps
- Questions



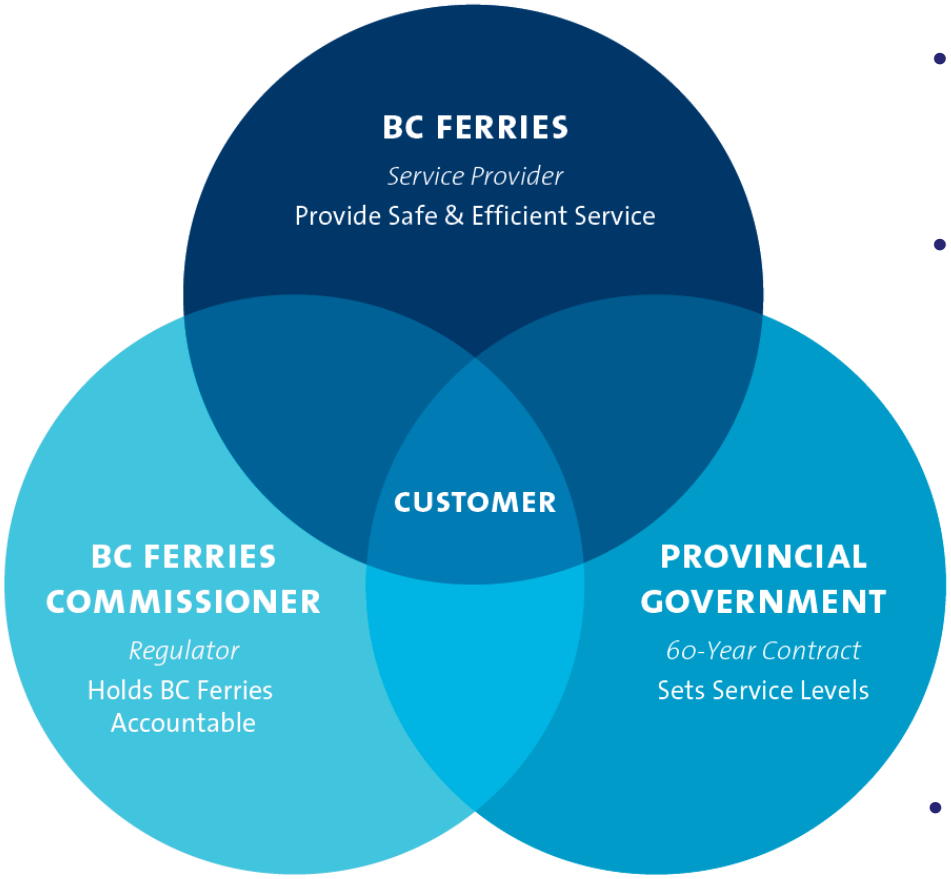


BC Ferries in Numbers



- 21.0 million passengers
- 8.3 million vehicles
- 25 routes
- 47 terminals
- 37 vessels
- 4,500 employees
- $859m annual revenue
- $578m annual op costs
- $2.0b in total assets
- $2.5b+ infrastructure spending since 2003
- $3.0b+ of infrastructure 2017-2029

BC Ferries Structure



Coastal Ferry Services Contract

- Between the Province of B.C. and BC Ferries - establishes routes, service levels and service fees
- 60-year agreement, with service levels and fees negotiated every four years
  - Province provides $155M annually in service fees
  - Additional support for medical and school-related travel
  - *Federal subsidy of $29M per year (increases at CPI in perpetuity)*
- Province retains ownership of ferry terminals and has long-term leases with BC Ferries

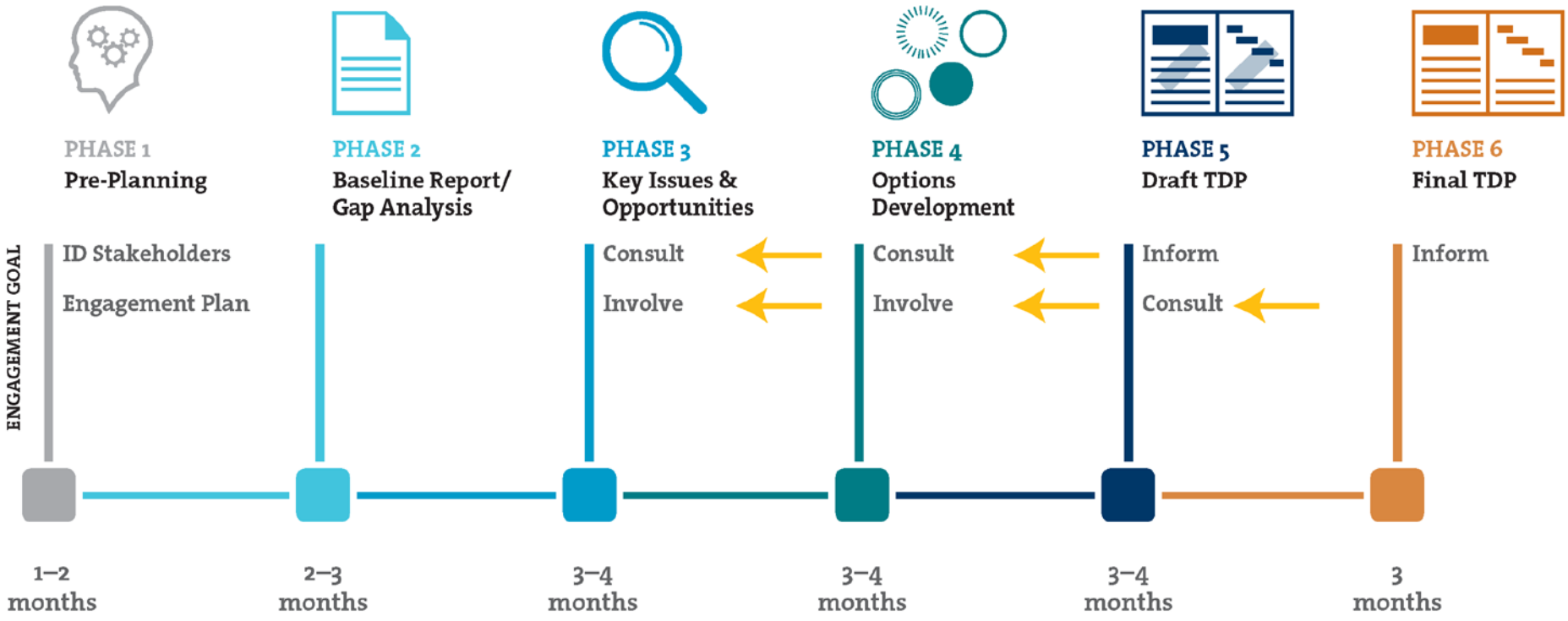
BC Ferries' Strategic Drivers



TDP Process

- What is a TDP?
  - A concept plan that provides the framework for the phased implementation of strategies and actions to accommodate functional needs for the terminal over the next 20 years
  - Develop options to address current and future and functional needs
- Why do a TDP?
  - Ensure better asset management/strategic planning
  - Implement projects in a cost effective, organized and efficient way
  - Create preliminary capital and operating and budgets to provide for coordinated and predictable capital planning
  - Ensure affordability

Process


PHASE 1
Pre-Planning
PHASE 2
Baseline Report/
Gap Analysis
PHASE 3
Key Issues &
Opportunities
PHASE 4
Options
Development
PHASE 5
Draft TDP
PHASE 6
Final TDP
ENGAGEMENT GOAL
ID Stakeholders
Engagement Plan
Consult
Involve
Consult
Involve
Inform
Consult
Inform
1–2
months
2–3
months
3–4
months
3–4
months
3–4
months
3
months

Denman East









Denman East Terminal



Hornby Island









Hornby Terminal



What's happened so far?

- Identification of key Issues
  - Internal Working Group meetings
  - Meeting with Islands Trust staff
  - Meeting with MOTI
  - Meeting with GLID
  - FAC Workshop
  - Sounding board with terminal and vessel staff

Hornby Island Terminal

200 Passenger Capacity
(Maximum includes crew)

6 Crew Size

21 Vessel Vehicle Capacity



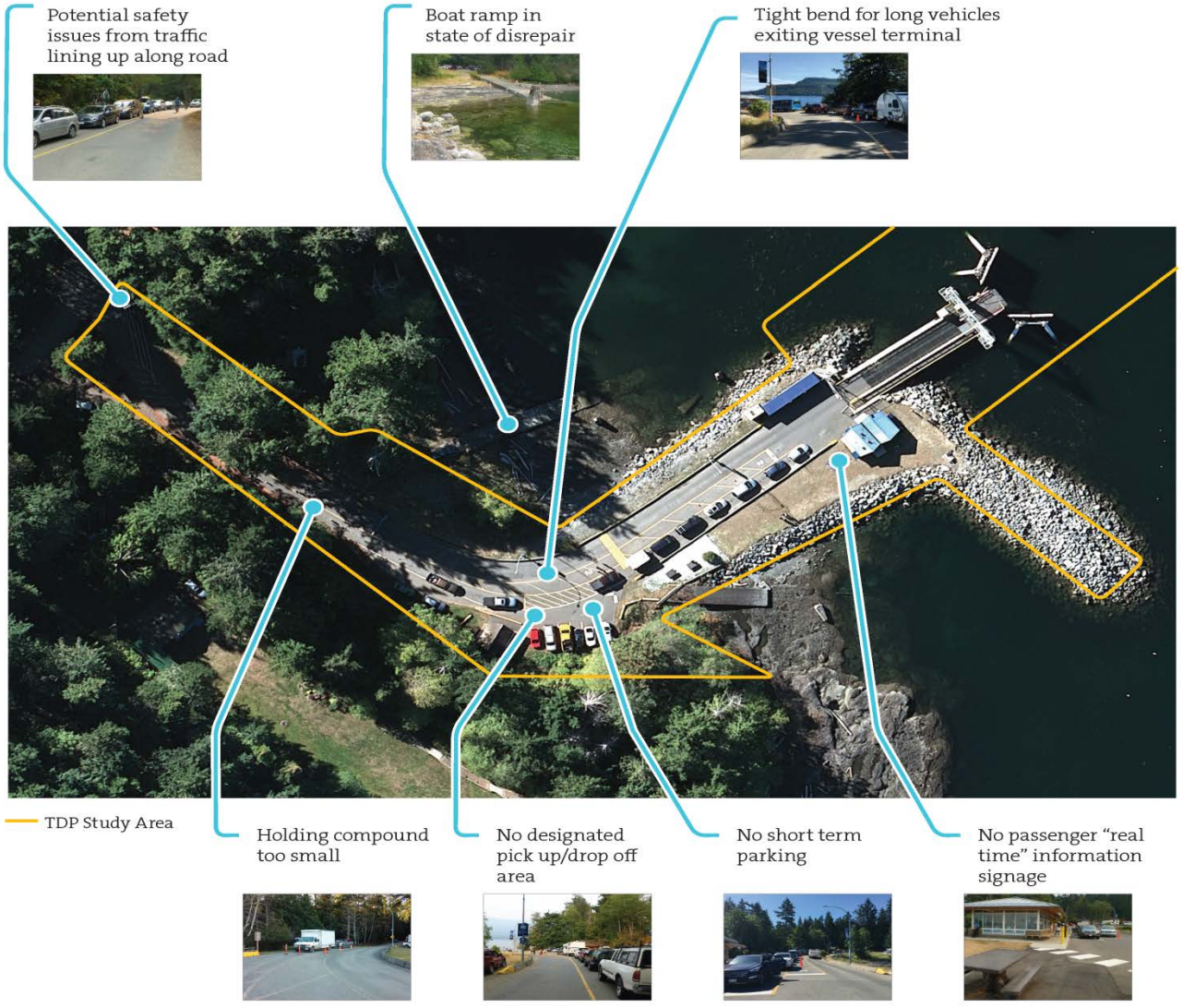
Kahloke

Passenger lounge located on the car deck

Denman East Terminal

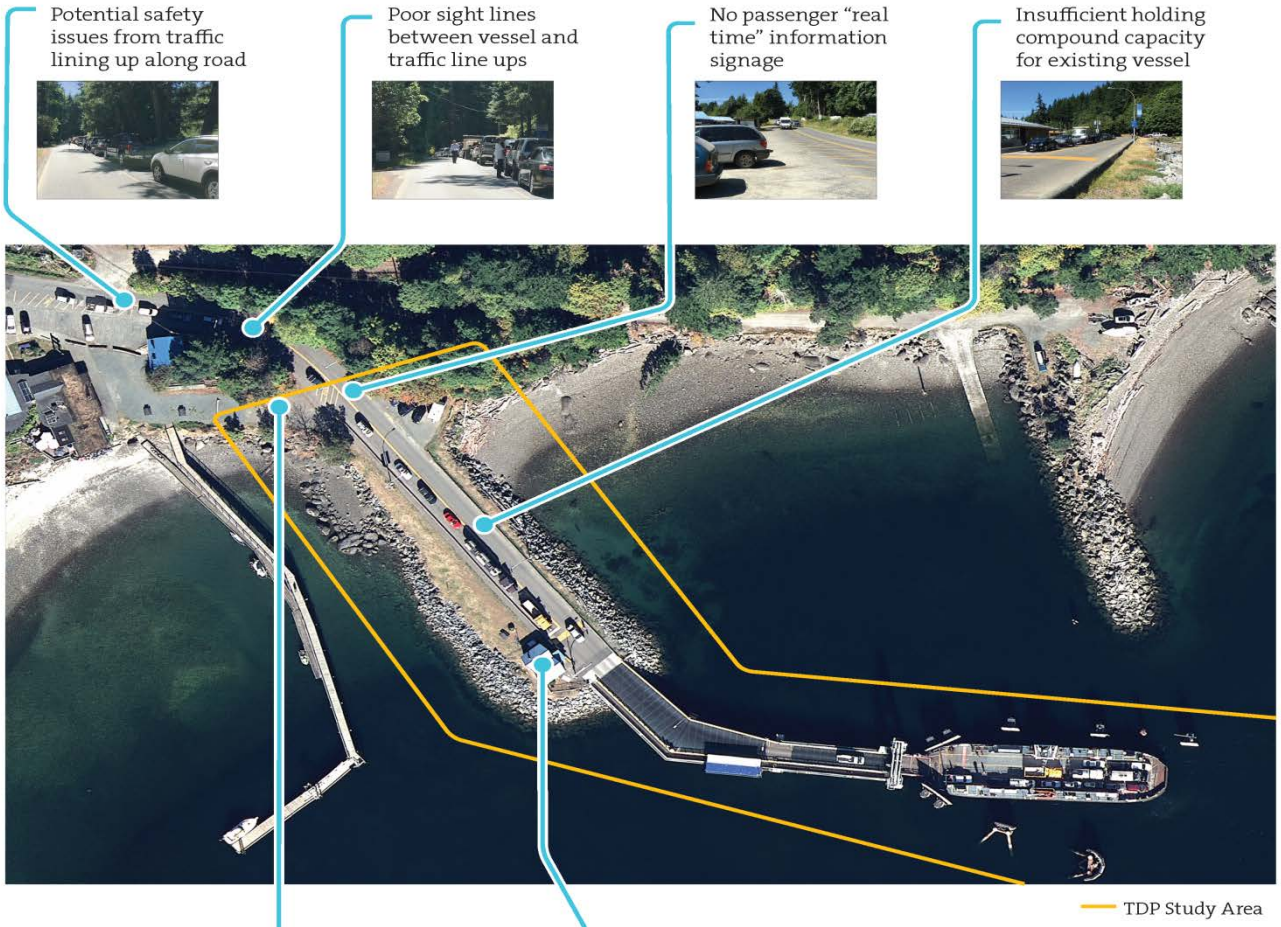
Key Issues – Denman East

Denman East Key Issues & Opportunities



Key Issues – Hornby

Hornby Island Key Issues & Opportunities



Next Steps

- Engagement events on key issues and draft concepts
- Meetings with key stakeholders
- Meetings with First Nations
- Refine draft concepts
- Draft TDP
- TDP Webpage
  www.bcferries.com/publicconsultation

Thank You

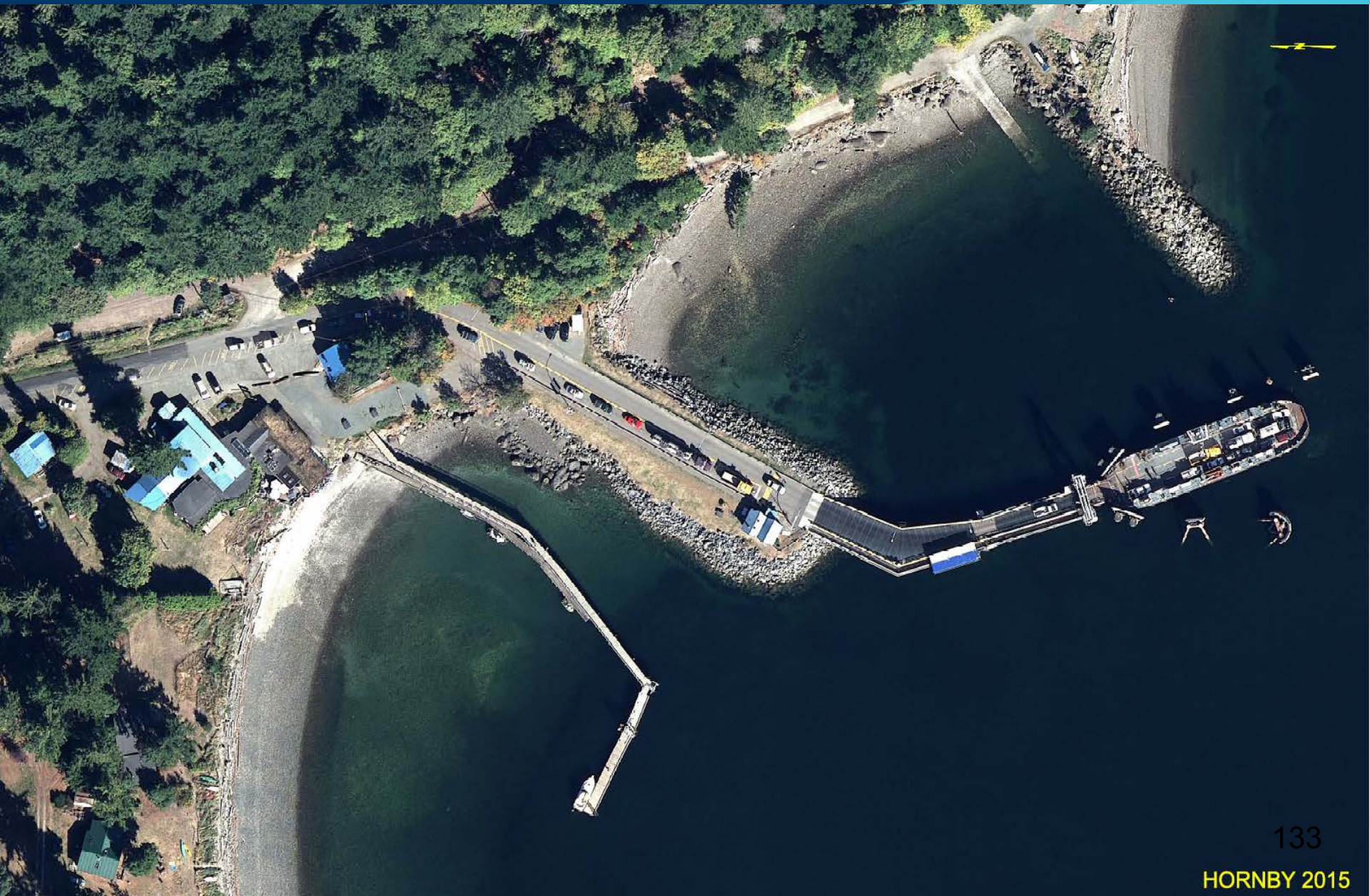
- Questions

Brian Green MCIP, RPP, MRTPI
Manager, Terminal Development
E: Brian.green@bcferries.com
P: 250 978 1479

Denman East



Hornby

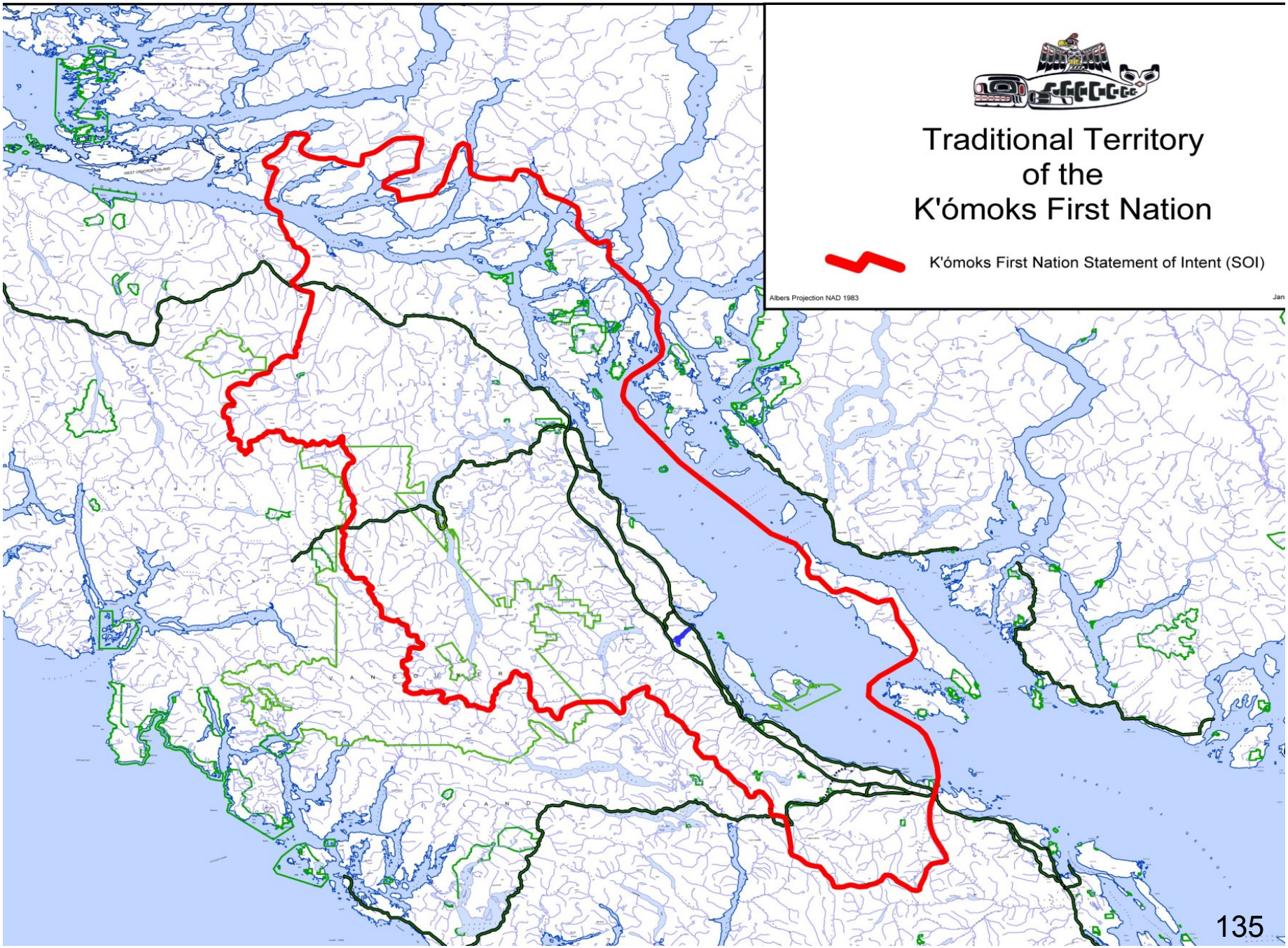




The Association for Denman Island Marine Stewards

Community Presentation to Islands Trust Council

September 13, 2017


Traditional Territory
of the
K'ómoks First Nation
K'ómoks First Nation Statement of Intent (SOI)
Albers Projection NAD 1983
Jan
VANCOUVER
ISLAND



In the K'omoks language, this region translates into "Land of **Abundance**

It is still appropriate today as these waters host:

- Over 35% of all herring spawned on the Pacific Coast
- 15 salmonid bearing streams
- Vital nurseries for herring, salmon and forage fish.



An internationally recognized Important Bird Area (IBA)

Migratory and overwintering birds fatten up on the annual herring spawn before heading north to breeding and nursery grounds.



Home to a wide variety of marine mammals

including the sea lions, seals, whales, elephant seals and otters



But despite this abundance,

all is not well



Today, this ecosystem is a mere shadow of its former self.

Island “old- timers” remember when the blows of whales kept them awake at night, and when Orcas were so abundant that at times it was unsafe to cross Baynes Sound.



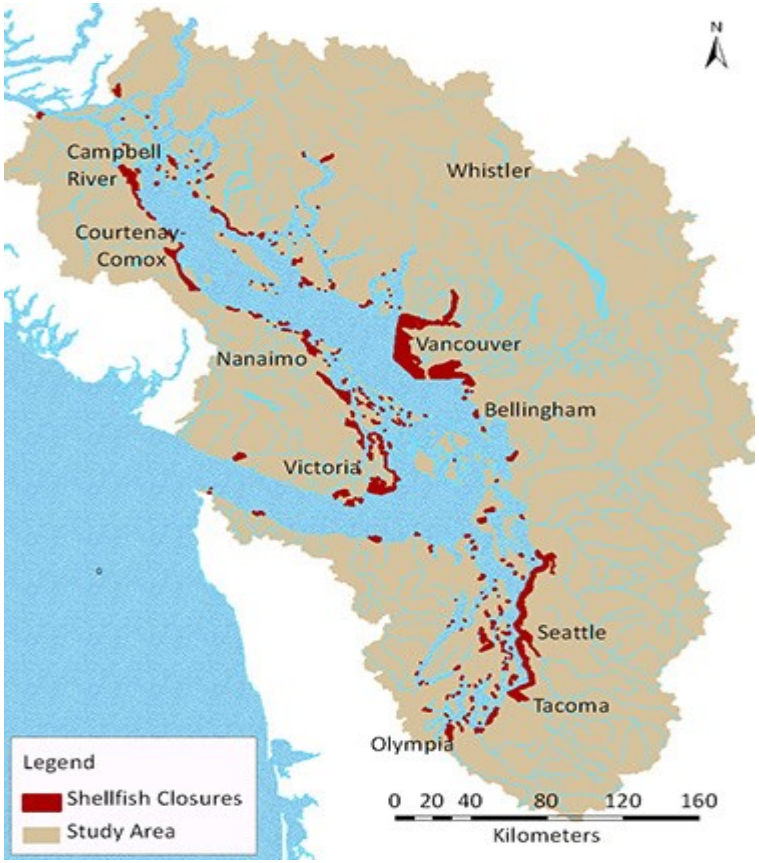
Death of this iconic species is all too common

Frequent, and often year-around closures to shellfish harvesting

Baynes Sound
shellfish closure sign



US Environmental Protection Agency
map, showing closures





Burgeoning collections of discarded and neglected aquaculture debris that endanger marine life, swimmers, birds, and tourists.



There is also shocking degradation of marine vegetation
That should be shelter for essential marine life,



Unregulated and unmonitored practices of shellfish tenures put our vital herring spawn, IBA, nurseries, and biologically important ecosystem at great risk. [145]

The 2017 Integrated Geoduck Management Framework (IGMF) introduces destructive, plastic-intensive aquaculture practices to the coast.

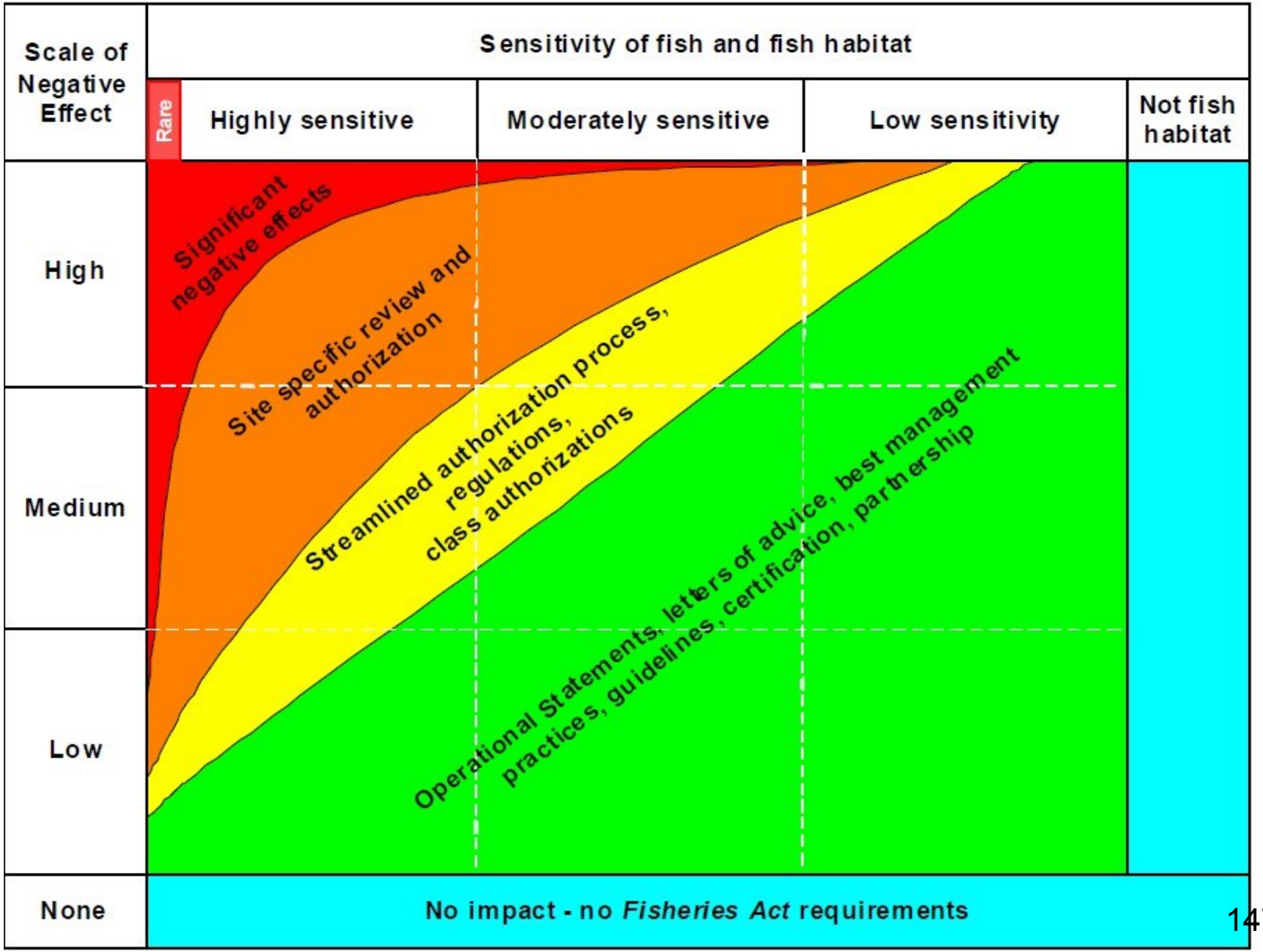
<u>There is no reference to:</u>

1. Independent scientific consultation or research
2. Cumulative environmental impact assessment of the habitat
3. The impact of vast amounts of microplastics, toxins and carcinogens into vital marine ecosystems





DFO's Risk Management Matrix



In 2004, DFO classified 60% of all activities in the marine as ***low risk.***

- Shellfish aquaculture was classified as low risk

But then DFO withdrew funding for monitoring and enforcement for all low risk activities.

So, shellfish aquaculture has had no funding for monitoring or enforcement since 2004

Intertidal Geoduck Aquaculture



All geoduck aquaculture is currently classified as a low risk activity by DFO.



Scientific knowledge about impacts on the ecosystem **depends on monitoring**.

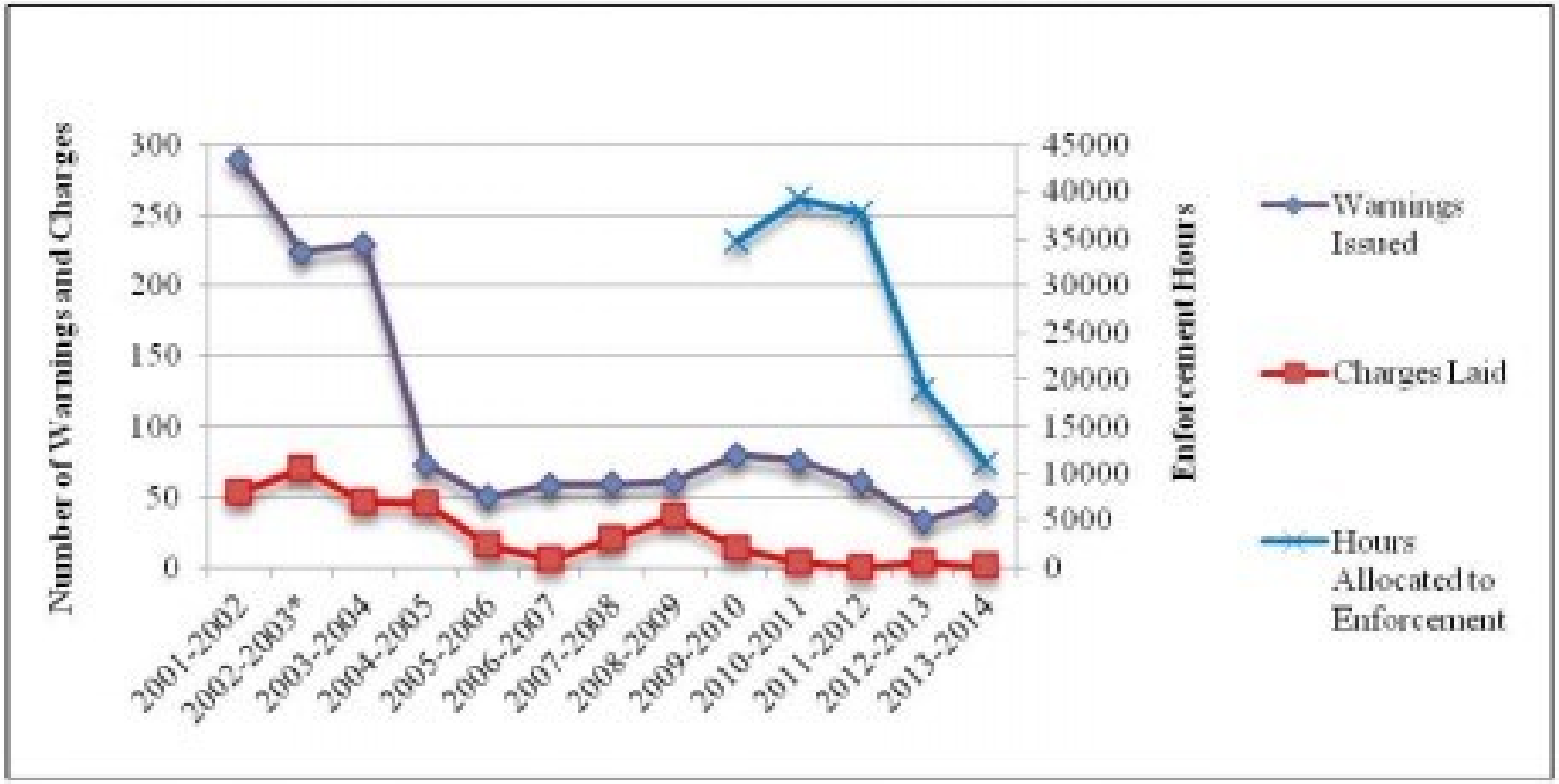
Identifying harms and correcting mistakes **depends on monitoring.**

Without monitoring, there is no reassessment of low risk activities.



The subtidal zone is the habitat used by Pacific sand lance for burying themselves

Habitat / Fisheries Enforcement Activities 2001-2014





Since 2012, aquaculture developments no longer require federal environmental assessments.

In the past, the introduction of geoduck aquaculture could have triggered an environmental impact assessment. But no more.

WE ARE ON OUR OWN



Microplastics change everything

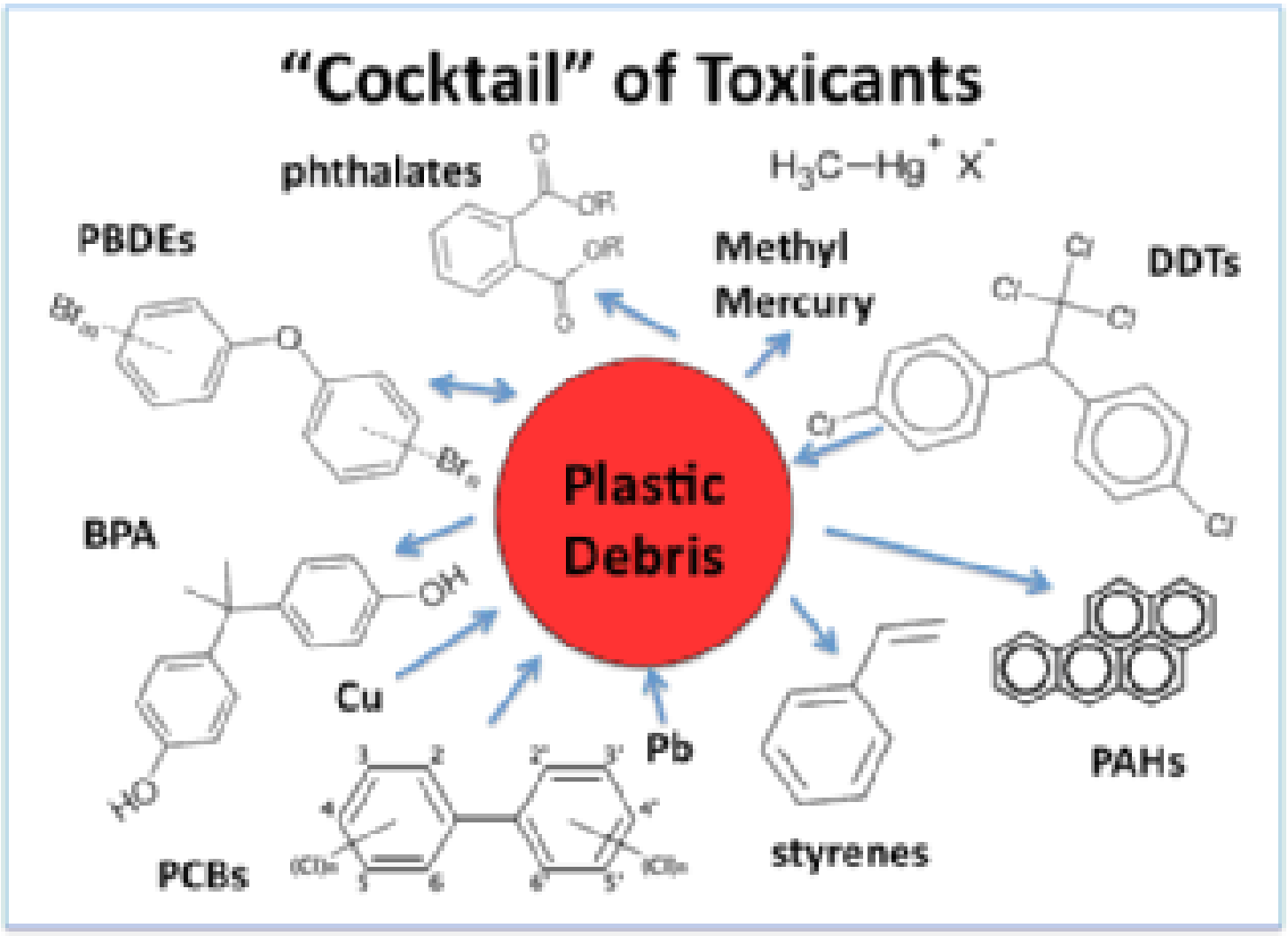
100,000 PVC pipes/hectare are installed in intertidal geoduck cultivation

light, oxygen, mechanical energy, abrasives
➔ break down PVC pipe ➔ particles <5mm

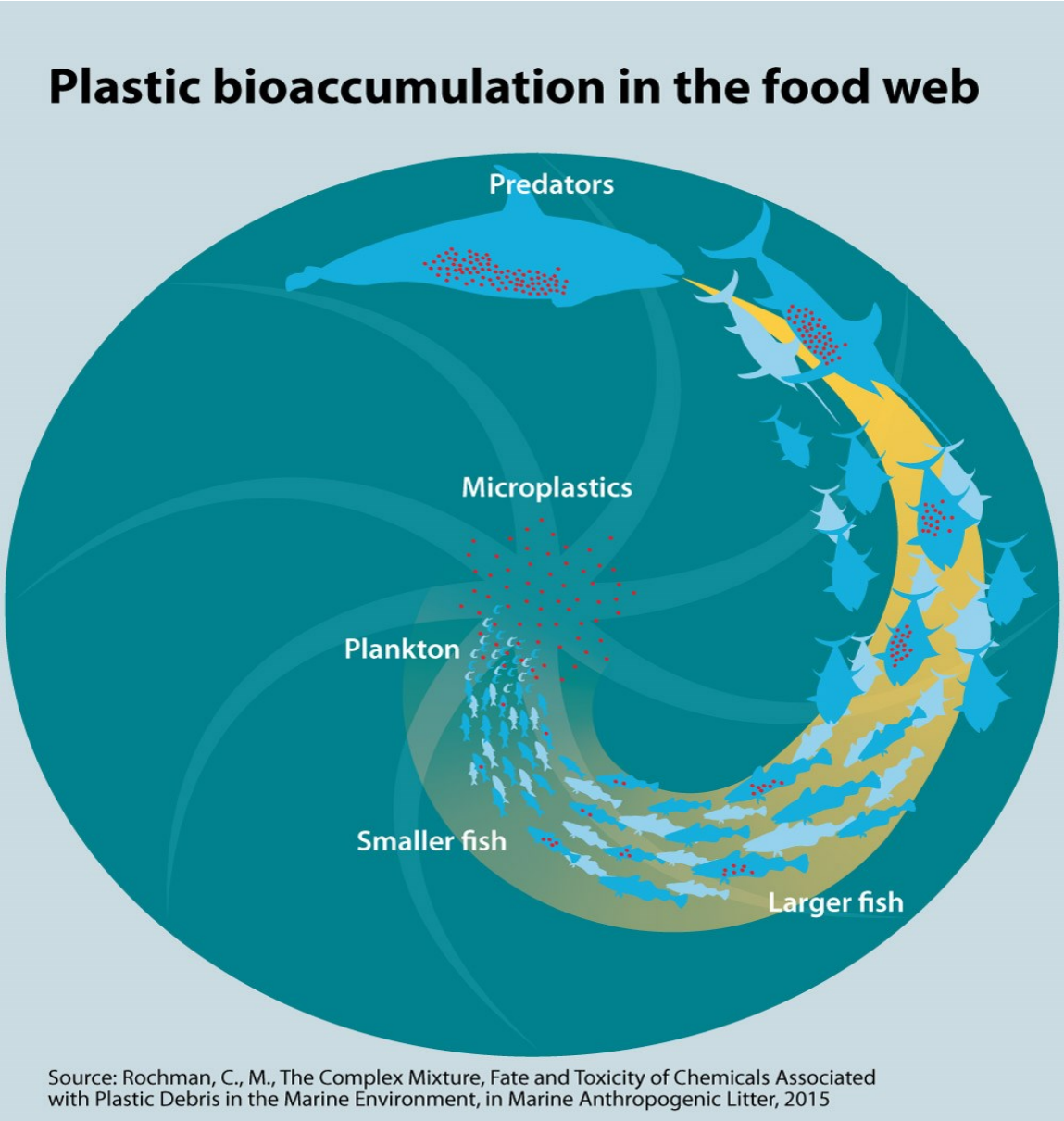
If weathering degrades 1% of the weight of 100,000 PVC pipes
➔ 334 kilograms (736 pounds)
of microplastics / hectare



DFO does not address microplastics in their Geoduck Framework



Microplastics absorb Persistent Organic Pollutants



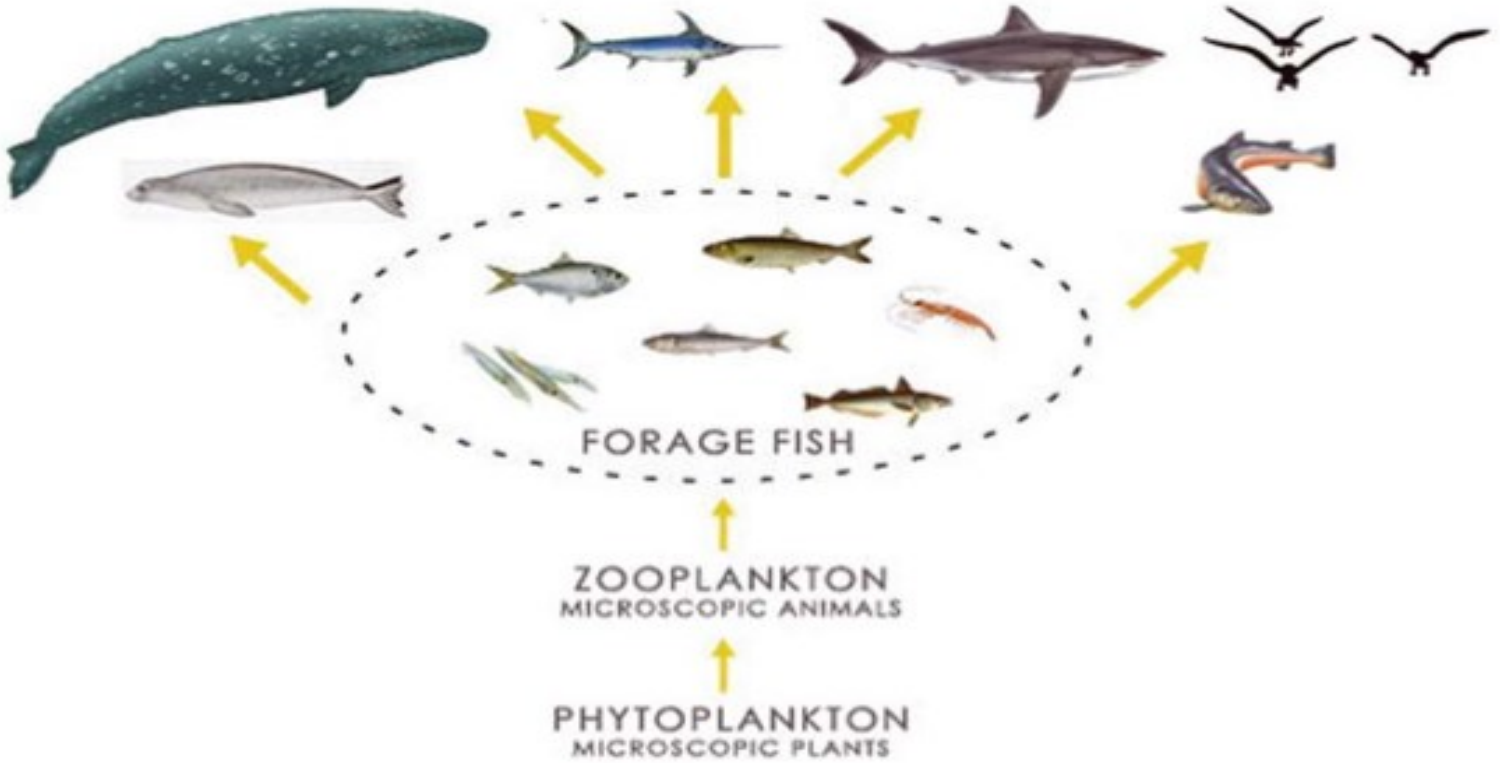
Microplastics
are
forever



Newly emerged herring larvae

What are microplastics doing to the herring larvae?

Forage Fish: The Vital Link of the Ocean Food Web



Herring are a forage fish. Food security of all marine mammals and salmon in the trust area depends on the herring spawned in this EBSA.

Intertidal and subtidal geoduck aquaculture are high risk to herring

DFO's Precautionary Principle

The precautionary principle recognizes that

in the absence of scientific certainty,

conservation measures can and should be taken

when there is knowledge of a risk

of serious or irreversible harm to the environment

using the best available information.

Conclusions

1. **DFO's plan for geoduck aquaculture is highly flawed and constitutes extreme risks to the health of marine life, humans, and the marine ecosystem.**

2. **DFO promotes marine industrial development at the expense of the marine environment.**

3. **DFO is not fulfilling its mandate to regulate aquaculture.**

4. **DFO has been unresponsive to valid concerns of the citizens and expert scientists familiar with this region.**

ASKS

1. **That Trust Council revisit their 2014 list of pre-implementation conditions for geoduck aquaculture**

2. **That Trust Council request a cumulative impact assessment of Baynes Sound and Lambert Channel, to be conducted by independent marine ecosystem experts.**

3. **That Trust Council request a firm ban on geoduck aquaculture until it has been proven to be safe.**

4. **That Trust Council actively support a multi-stakeholder round table to discuss ecosystem-based management of Baynes Sound EBSA.**


Thank you for your kind attention and commitment to our
Irreplaceable Marine Environment !

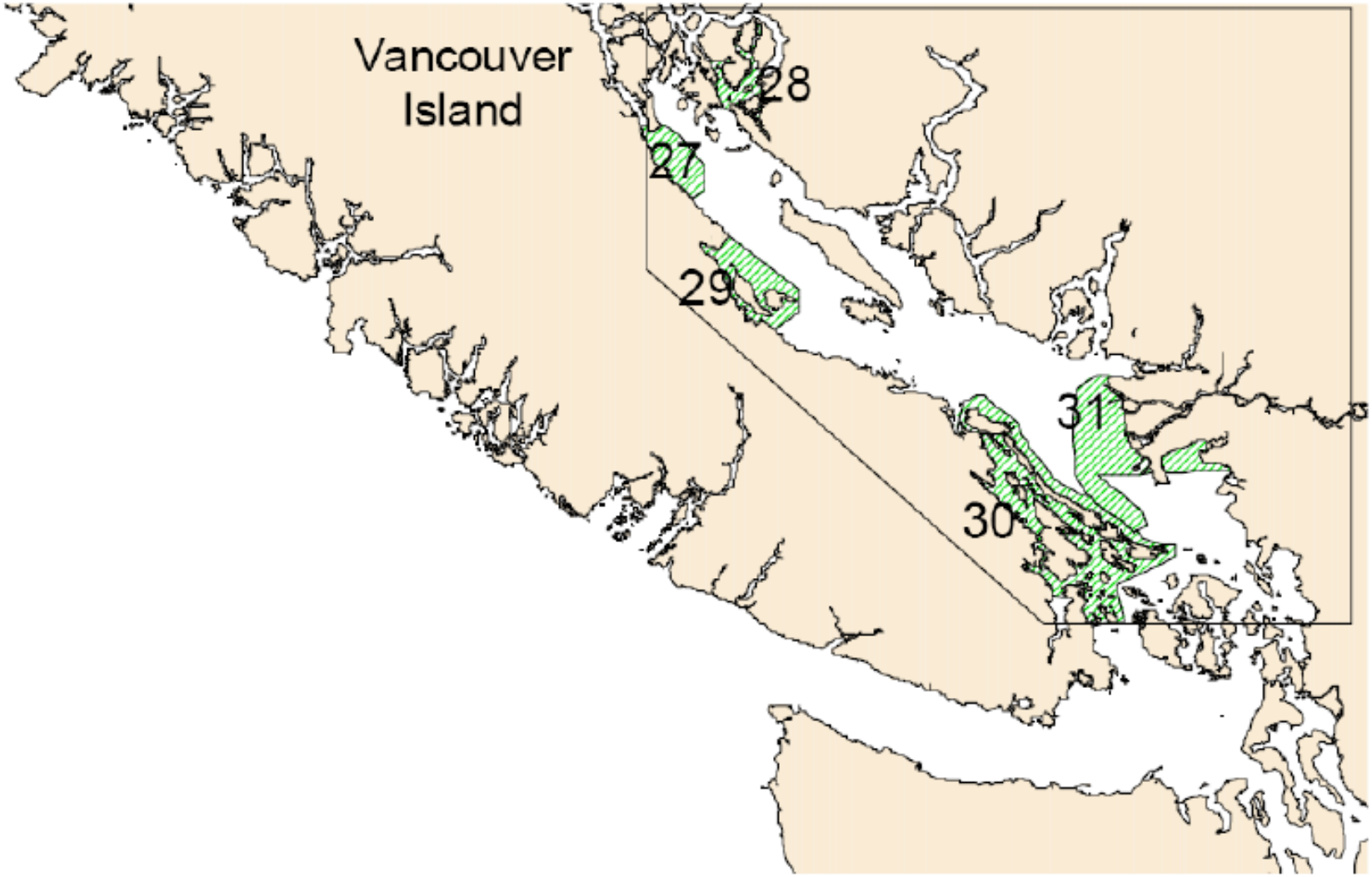


Table 3. Proposed ecologically and biologically significant areas (EBSAs) for the Strait of Georgia ecoregion, British Columbia.

EBSA		Physical feature	Uniqueness	Aggregation	Fitness consequences	Level of confidence
29	Baynes Sound	• thermally stratified waters; • soft substrate; • biological fronts	• key location for marine birds	• high density of butter clam	• staging area for marine birds (e.g. brant, harlequin ducks); • foraging area and haul out for Steller sea lion; • spawning and rearing area for herring	High

Association of Denman Island Marine Stewards

TC PRESENTATION REFERENCES

SEPT 13 2017

Alava, Juan Jose (May 2014) "Marine Mammal Habitat. An Overview on Contamination in Marine Mammals from British Columbia". Convener's Report on Management of Sensitive Marine Ecosystems. Simon Fraser University.

Axys et al 2002 Activities and Potential Environmental Effects Associated with Shellfish Aquaculture in Baynes Sound

Canadian Aquaculture Systems Inc. 2012, Financial Feasibility of Geoduck Aquaculture in BC Submitted to Aquaculture Policy Branch, Fisheries and Aquaculture Management Directorate Fisheries and Oceans Canada.

Cluzard M, Kazmiruk TN, Kazmiruk VD, Bendell LI, 2015 Intertidal Concentrations of Microplastics and Their Influence on Ammonium Cycling as Related to the Shellfish Industry

Desforges, Jean-Pierre W, Galbraith, Moira, Dangerfield, Neil, Ross, Peter S, 2014: Widespread distribution of microplastics in subsurface seawater in the NE Pacific Ocean

Feldman, D. 2002, Polymer Weathering Photo-Oxidation

Ferriss, Bridget E. Reum. Jonathan C P. McDonald P. Sean, Farrell Dara M. Harvey, Chris J. 2015: Evaluating trophic and non-trophic effects of shellfish aquaculture in a coastal estuarine foodweb

Hay, DE, 2013 letter of concern to FLNRO
https://adimsblog.files.wordpress.com/2013/12/aquaculture-impacts-on-herring-in-lambert-channel-letter.pdf

Hay, DE 2013 https://adimsblog.files.wordpress.com/2013/12/aquaculture-impacts-on-herring-in-lambert-channel-report.pdf

Jamieson, GS and Levesque, C. 2012 Evaluation of Proposed Ecologically and Biologically Significant Areas in Marine Waters of British Columbia, Canadian Science Advisory Report 2012/075 Pacific Region

Olsznski, Martin, Z P, 2015: From "Badly Wrong" to Worse: An Empirical Analysis of Canada's New Approach to Fish Habitat Protection Laws

https://www.ourcommons.ca/DocumentViewer/en/42-1/FOPO/meeting-31/evidence
Presentation to Parliamentary Standing Cttee on Fisheries and Oceans by Martin Olszynski regarding the Fisheries Act Review 2016

Robinson, Clifford LK, Hrynyk, Doug, Barrie, J Vaughn, Sweigert, Jake 2013: Identifying subtidal burying habitat of Pacific sand lance (Ammodytes hexapterus) in the Strait of Georgia, British Columbia, Canada

Final Report, Vol. One: 2007, Special Committee on Sustainable Aquaculture, Legislative assembly of British Columbia

Takada H.2013 Microplastics and the Threat to our Seafood 2013 http://www.oceanhealthindex.org/news/Microplastics

Van Cauwenberghe L and Janssen C 2014 Microplastics in Bivalves Cultured for Human Consumption

RESEARCH PENDING PUBLICATION

Bendell, L.I , P. Gallaugher and L. Wood. 2016. Stewarding the Sound; the challenge of managing sensitive ecosystems. Editors. Under review for Island Press.

Kazmiruk,T., Kazmiruk, V., L.I. Bendell. 2016. Microplastics as a sedimentary component that affect the geochemical cycles of trace metals; a paradigm shift on how we view the bioavailability of metals from oxic sediments. In preparation for PLOS ONE

Kazmiruk, T. Kazmiruk, V., K. I. Ashley, L.I. Bendell. 2016. Trace metals in urban estuaries;

LINKS

http://www.pac.dfo-mpo.gc.ca/science/species-especes/pelagic-pelagique/herring-hareng/herspawn/pages/beach7-eng.html

HERRING LARVEA DISPERSAL DFO

http://www.pac.dfo-mpo.gc.ca/science/species-especes/pelagic-pelagique/herring-hareng/herspawn/pages/project-eng.html

HERRING SPAWNING RECORDS DFO

http://www.dfo-mpo.gc.ca/oceans/networks-reseaux/principles-principes-eng.html

PRECAUTIONARY PRINCIPLE, DFO

http://www.pac.dfo-mpo.gc.ca/aquaculture/management-gestion/2017/geoduck-panope/geoduck-panope-igmf-cgip-2017-eng.html

INTEGRATED GEODUCK MANAGEMENT FRAMEWORK

http://www.pac.dfo-mpo.gc.ca/aquaculture/management-gestion/2017/geoduck-panope/maps-cartes-eng.html
IGMF/DFO MAPS

http://www.komoks.ca/sites/default/files/KFN%20Marine%20Plan%202012.pdf
K'omok Marine Management Plan

https://article.wn.com/view/2015/10/21/Gear_not_geoducks_impacts_ecosystem_if_farming_increases_Uni/

Gear not geoduck article from Washington state

http://www.climateactionprogramme.org/news/un_environment_launches_global_campaign_to_end_ocean_plastic

UN declaration of war on marine plastics

https://www.facebook.com/ProtectOurShoreline/

Protect our shoreline slide show (Puget Sound)

J Coast Conserv
DOI 10.1007/s11852-010-0101-8

Application of aerial photography in combination with GIS for coastal management at small spatial scales: a case study of shellfish aquaculture

Leah I. Bendell · Peter C. Y. Wan

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Abstract Coastal zones are among the planets most threatened ecosystems and effective management of these systems requires spatial tools at appropriate spatial scales. Here we apply aerial photography with Geographic Information Systems (GIS), to map the cumulative anthropogenic footprint of an industry in a spatially defined ecologically important region of the British Columbian coast. Resolution required for such an analysis was made possible through highly detailed aerial photography of the region taken at an elevation of 305 m, at a 1:3000 scale. The approach applied here was successful in accurately detailing the cumulative extent of the anthropogenic activity on the foreshore which could have not been achieved at a coarser resolution. Such information was then effectively applied to visualize and assess the potential impact of an industrial development of the foreshore on bird distribution within the spatially identified region. The degree of overlap between the anthropogenic footprint and small estuaries within the region was also successfully assessed. For ecologically important regions such as Marine Protected Areas, and other such designated sensitive coastal regions, detailed mapping through aerial photography and GIS can aid in first identifying the true extent of an anthropogenic activity and then secondly used to link to possible ecological consequences. This in turn greatly enhances our ability to best manage the region of interest such that conservation priorities can be met.

Keywords Aerial photography · GIS · Spatial analysis · Cumulative affects · Anthropogenic footprint

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Introduction

Coastal zones, the interface between land and ocean, are among the planets most threatened ecosystems. Ever increasing pressures from human population growth represents one of the greatest threats as this pressure can manifest itself in various cumulative ways including; increased inputs of pollution, urbanization, and, rates of erosion due to extreme weather events as a consequence of climatic warming. A recent report of Sale et al. (2008) noted that by 2050, 91% of the world's coastlines will have been impacted by development with this development poorly planned if planned at all. Coastal zones aside from their recreational and aesthetic value provide key ecosystem roles such as supporting various fisheries of economic importance, serving as habitat for wildlife, as well as have an important role in the cycling of essential nutrients such as nitrogen (Jickells and Rae 1997). Proper management of these critical ecosystems is essential.

Management of coastal regions however, presents unique challenges. Unlike terrestrial systems, the intertidal is a spatially complex, highly dynamic region constantly changing as a consequence of tidal and storm activity. Because of tidal action, and again, unlike terrestrial ecosystems, the intertidal is a region of environmental extremes with a gradient of physio-chemical conditions (e.g., temperature and salinity) which occur over small spatial scales, in some cases less than 100 m. This environmental gradient in turn supports a diverse number of habitat types and intertidal species which occur within this spatially confined region.

An approach for the management of spatially complex regions that has received ever increasing use is the application of Geographical Information Systems (GIS). For terrestrial systems, applications have ranged from

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predicting spatial aspects of human elephant conflict to predicting suitable rufous bristlebird (*Dasyornis broadbenti*) habitat (Sitati et al. 2003; Gibson et al. 2004). GIS has also been extensively used for coastal zone management to assess the intensity of anthropogenic marine activities. For example Ban and Alder (2008) through a GIS approach determined that 83% of the continental shelf and slope of British Columbia Canada was currently being used by humans. Low resolution photography coupled with GIS has also been used to successfully characterize and quantify habitat types (e.g., Sheppard et al. 2006; Higinbotham et al. 2004). However, as noted by Zharikov et al. (2005) current GIS applications for coastal zone management are designed for large spatial scales (10–1000 km). Management of key coastal habitats require much greater resolution. This is especially true where in some regions of the coast the foreshore region can be less than 100 meters in width, a spatial scale that requires a high resolution analysis. For example, Banks and Skilleter (2007) recently reported the importance of incorporating fine-scale habitat data into the design of an intertidal marine reserve system. These authors noted that surrogate measures most often based on broad-scale (100–1000's of km) bioregional frameworks that define general categories for intertidal systems (e.g., sandy beach, rocky shore) are inadequate when making decisions about conservation priorities at the local level (10–100's of m). To achieve conservation goals Banks and Skilleter (2007) conclude that use of finer-scale physical data is required. Winberg et al. (2007) also note the importance of fine spatial scale for their application in the conservation of tidal flat macrobenthos.

Here we apply high resolution aerial photography coupled with GIS to characterize a key ecological region on coastal British Columbia (BC), Canada, but, rather than habitat mapping (e.g., by Zharikov et al. 2005), our objectives were first to map in detail the cumulative impact of a specific anthropogenic use on a key type of foreshore habitat such that the spatial scale of the footprint could be visually assessed. We then apply this spatial assessment to evaluate the consequences of the anthropogenic activity on other ecological uses within the spatially defined region.

The case study presented here is unique in that the region under study is an Important Bird Area (IBA, defined as a site providing essential habitat for one or more species of breeding or non-breeding birds) of global significance (Booth 2001). The Baynes Sound region supports globally important populations of the Western Grebe (*Aechmophorus occidentalis*), the White-winged (*Melanitta fusca)* and Surf Scoter (*Melanitta perspicillata)* and the Pacific Loon (*Gavia pacifica*) (Booth 2001). It is one of BC's most ecological sensitive and important coastal regions. It also serves as a major centre for the BC shellfish aquaculture industry with half of the industries economies being generated from this region (British Columbia Ministry of Sustainable Resource Management (BCMSRM) 2002)). Bird use of the intertidal directly overlaps with the use of the intertidal for shellfish farming purposes. Hence this case study provides an excellent example of the fine-scale resolution required to spatially and visually access the degree of overlap between two conflicting uses of foreshore. Our objective is to work towards a tool that not only allows detailed characterizing of an impact, but also will aid in assessing the consequences of the impact such that effective conservation management decisions can be made.

Methods

Study area

On the west coast of BC, Canada, there has been attempt by industry and the federal and provincial governments to aggressively expand shellfish aquaculture, with the Manila clam (*Venerupis philippinarum*), and Pacific oyster (*Crassostrea gigas*), the main product farmed. The region of interest for the current case study is Baynes Sound (Fig. 1). Baynes Sound falls within the Regional District of Comox Strathcona and includes the foreshore of the City of Courtenay and the Town of Comox (Jamieson et al. 2001). This area is part of the Gulf Island Archipelago and, as such, forms a unique ecological region of Canada. The sound is approximately 25 km long and is 3.5 km wide at its widest point, with the average width being less than 2 km. Baynes Sound has over 9000 ha of shallow coastal channel fringed by protected bays, open foreshore, tidal estuaries, inshore marshes and adjacent forests (Jamieson et al. 2001). Comox Harbour is one of the largest low gradient deltaic deposits on the east coast of Vancouver Island (Fig. 1). This region has been ranked as the most important wetland complex on Vancouver Island and is internationally recognized as important for migratory water birds as well as providing habitat for at least 6 salmonid species (Jamieson et al. 2001). Birds that occur within this region in numbers that are of global significance include; the Pacific Loon, the Western Grebe, Brant (*Branta bernicla ssp. nigricans*), Black Turnstone (*Arenaria melanocephala*), Surf and White-winged Scoter, Harlequin Duck (*Histrionicus histrionicus*), Mew Gull (*Larus canus*), Glaucous-winged Gull (*Larus glaucescens*) and Thayer's Gull (*Larus thayeri*) (Booth 2001).

Baynes Sound has a long history of shellfish aquaculture dating back to the 1900's (BCMSRM 2002). Prior to 1984 oysters were the primary species farmed. The number of leases and the numbers of approved species for farming on the individual leases has greatly increased since 1984

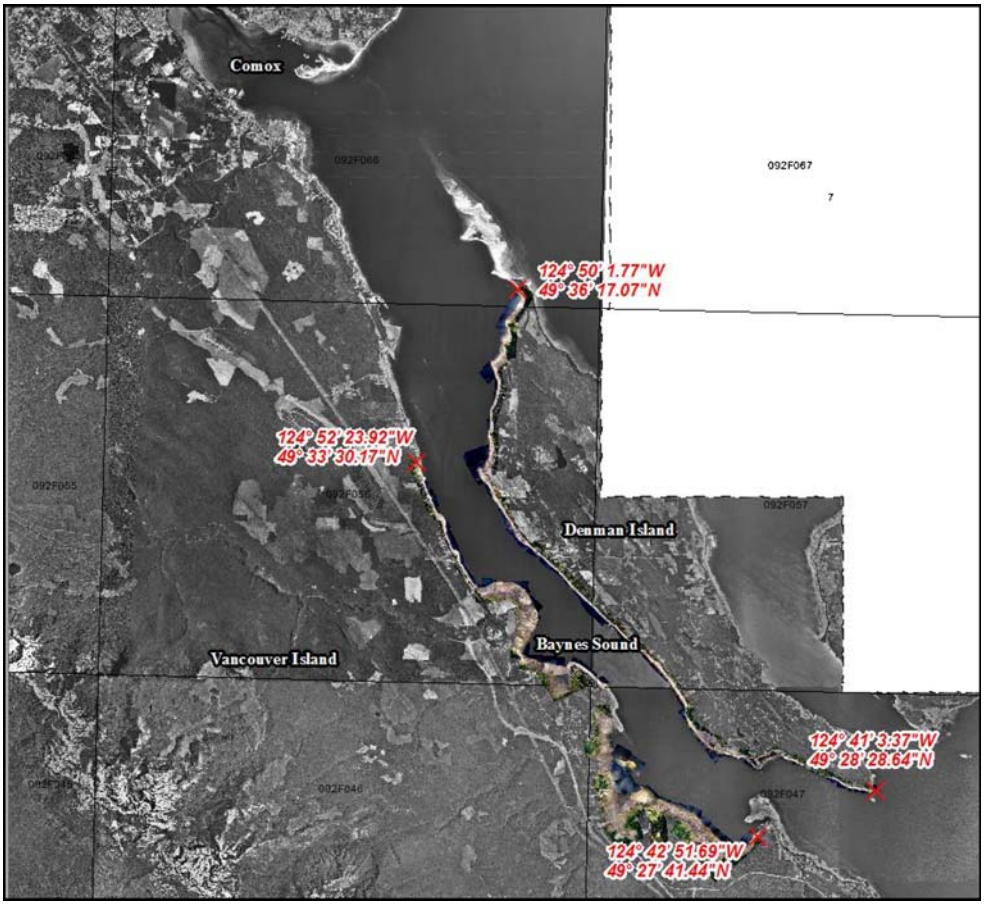


Fig. 1 Baynes Sound intertidal study area between eastern mainland Vancouver Island and Denman Island. Range of coverage of air photo on the Vancouver Island side and Denman Island side

(Fig. 2a and b). Dawe et al. (1998) provides a description of the foreshore of Baynes Sound obtained during their 1980 survey of bird within the Baynes Sound-Comox Habour region. The region at this time was relatively pristine and void of large expanses of shellfish aquaculture leases. In addition to shellfish aquaculture increasing urban development also results in habitat loss within this region. Martell (2008) notes during 1992 to 2002 at least 5% of the sensitive ecosystems were lost and 30% of modified ecosystems such as older second growth forests (60–100 yrs) and seasonally flooded agricultural fields disappeared (BC Ministry of Environment 2005). In addition to habitat loss from urbanization is direct loss of the foreshore due to intertidal shellfish aquaculture. Use of the foreshore exclusively for aquaculture purposes precludes the use of this region for ecologically important roles such as providing key habitat for spawning activities (e.g., the Pacific sand lance (*Ammodytes hexapterus*)), foraging by wildlife and as nurseries.

This stretch of shallow coastline is the most intensely farmed shellfish area in the province accounting for over half of the total production of shellfish in BC (BCMSRM 2002). An interesting aspect of why this region is so intensively farmed as compared to other regions of BC involves the nature of the shellfish tenure system and First Nations land claims. The province of BC owns the seabed and has the mandate under the Land Act through Lands and Water British Columbia Inc. to allocate and administer the use of these lands through tenures for aquaculture (BCMSRM 2002). However, much of First Nations traditional territories lie within provincial Crown Land. The granting of shellfish tenures may adversely impact First Nations interests (Deo 2002), by preventing access to the wild harvest on traditional lands. This in turn has hindered new development and expansion of this industry into other regions of the province. The Baynes Sound region lies within the traditional territories of the Comox and Qualicum First Nations. The Comox Band has identified areas with Baynes Sound for shellfish aquaculture and have also been advise that in the event that shellfish applications by Non-Comox Band proponents are made within Comox Nation Traditional Territories, they will be consulted to ensure that there is no infringements on aboriginal rights. Areas of interest to the Qualicum Band have already been alienated by current foreshore use (BCMSRM 2002). With First Nations aboriginal rights then partially resolved, in contrast to other regions of coastal BC, the province has aggressively expanded the industry within this region through the granting of new leases or the approval of new species to harvest.

Farming of the foreshore involves a number of invasive techniques which includes first clearing the beach of all surface and competing sub-surface species such as the native littleneck clam (*Protothaca staminea*), raking the area to be seeded, seeding, then laying anti-predator netting, a mesh with a net size of ca. 1 cm^2, used primarily to prevent loss of product due to foraging by clam eating sea ducks over the cleared and seeded area. Farming also includes the use of the intertidal for "oyster grow-out". Oysters which have been long-line cultured (suspended in the water column) are placed onto the foreshore and allowed to "harden" off for a period of 2–3 years to make the flesh more suitable for market. Large regions of the foreshore can be used for this purpose. Other industrial uses of the foreshore include the building of berms, equipment storage and the building of roads. All uses result in the loss of this one region of the foreshore with all practices being cumulative in nature. With the ever increasing expansion of this industry, and given the cumulative nature of the impacts and the need for effective management of such impacts, a question that arises is, is it possible to determine the spatial extent of these practices, i.e., the true anthropogenic footprint of the industrial activity, especially given the spatial resolution required (i.e., <50 m), to provide for accurate assessments? Secondly, if cumulative impacts can be assessed, can this information be used to evaluate the extent of ecological consequences such that effective management decisions can be made?

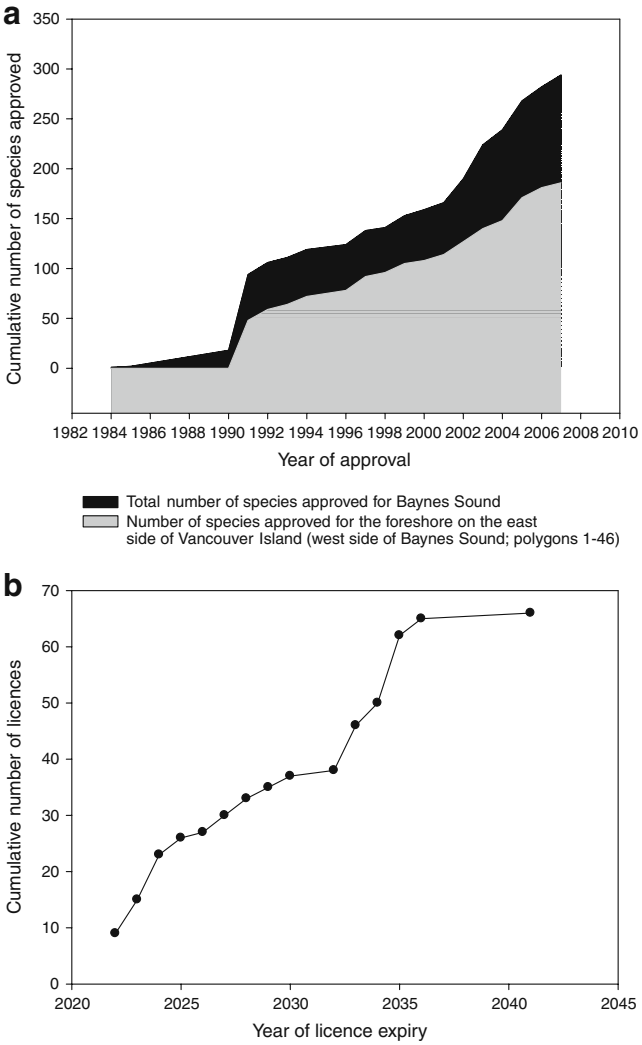


Fig. 2 **a** Cumulative number species approved versus date for the Baynes Sound study area, and the east side of Vancouver Island (polygons 2–46). One licence can have up to at least 7 species approved, hence this measure provides a more accurate estimate of use of the intertidal for shellfish farming. The primary approved species include; Pacific oyster, Manila clam, Varnish clam (*Nutallia obscurata*), Littleneck clam (*Prothacaca staminea*) and Geoducks (*Panope abrupt*). **b** Cumulative number of licences versus licence expiry date. The length of lease can vary to up to 35 years, hence this also provides in addition to farming intensity (2a), the planned duration of the farming intensity. Data from http://www.agf.gov.bc.ca/fisheries/Licences/cabinet/detailed_sf_sites.pdf. Accessed June 20th 2009

Air photo treatment

Three hundred and ten hardcopy air photos of Baynes Sound were purchased from the BC Ministry of Agriculture and Lands. Photos were taken of Baynes Sound at an elevation of 305 m between June 22 and 23, 2001 at a scale of 1:3000. All photos were taken during a series of extreme low-tides such that all intertidal areas were fully exposed. The set of 9″×9″ air photos were scanned by a Canon MP750 photo scanner at 2400×2400 dpi. As the original hardcopies of the photos were not ortho-rectified not all objects were truly vertical resulting in distortions of objects tilting away from vertical with respect to the photographic centre. To improve interpretative accuracy an extra treatment was applied to the photographs to lower the distortion effect. Each photograph had an 60% overlap, therefore each 9″×9″ photograph had 5.4″ also covered by the next adjacent photograph. Hence, any distortion on the edges of the first photograph was compensated by the 5.4″ optimal area of the next photograph. The entire set of scanned photographs was imported into ESRI's ArcGIS 9.0 ArcView software for further GIS analysis. In ArcGIS, each photo was labelled according to the photo number identified in the original hard copy set. Each photo was georeferenced (assigned a physical geographic location) by using the georeferencing tool in the software. The physical location of objects in the air photos were matched to fit the visible features on the 1:20,000 TRIM (Terrain Resource Inventory Maps) orthomosaic photo. The georeferencing tool in ArcGIS uses first order polynomial algorithms to correct for any remaining distortion by stretching and shrinking certain parts of each photo. By georeferencing the photoset one-by-one, the study area was digitally rubber-sheeted to form a photo mosaic along the entire Baynes Sound study area.

Air photo interpretation

Air photo interpretation involved four nested area identifications; 1) maximum intertidal or foreshore, 2) maximum viable habitat 3) region of viable habitat under netting and 4) region of viable habitat under oyster grow-out beds, both within and outside of maximum viable habitat.

Maximum intertidal

After the photo mosaic (1:3000) of Baynes Sound was formed, the intertidal area was identified. From the aerial imagery (Fig. 3a), approximate locations of the maximum extent on the shore when the tide was high was estimated by the water mark and vegetation-sand interface. The maximum intertidal area was digitized from where substrate (sand, rock, etc.) is first visible from the sea (water) side to the approximate area where the high water mark was. Importantly, estimation of maximum intertidal was done during the period of an extreme low tide, hence this area represents the absolute maximum amount of intertidal at one particular time of year that occurs during the summer solstice.

Viable habitat

In general the foreshore can be comprised of many types of substrates and habitat ranging from rock shelf to mudflats. Of the various types of foreshore habitats, the habitat of interest and of concern in regards to habitat loss is the region of the intertidal that is conducive to shellfish growth and hence is exclusively used by the shellfish farming industry. Bivalves such as the indigenous littleneck clam are found 0.9–2.4 m above the low water mark where high water mark is 5.3 m above the low water mark. This region in Baynes Sound is characterized by small cobble/gravel substrate with high secondary productivity. This region is also key habitat and serves a number of ecological roles such as nutrient cycling, providing habitat for nurseries, supporting numerous other intertidal species, plus serving to provide a primary food source for clam feeding sea ducks (Bendell-Young 2006; Whiteley and Bendell-Young 2007). This region is also important for shore birds such as the Dunlin (*Calidris alpina*) which by contrast forages on polychaetes within the intertidal (Dierschke et al. 1999; Shepherd and Lank 2004). Given these uses, relevant habitat was defined as that region 0.9–2.4 m above the low water mark, approximately two-thirds of the exposed

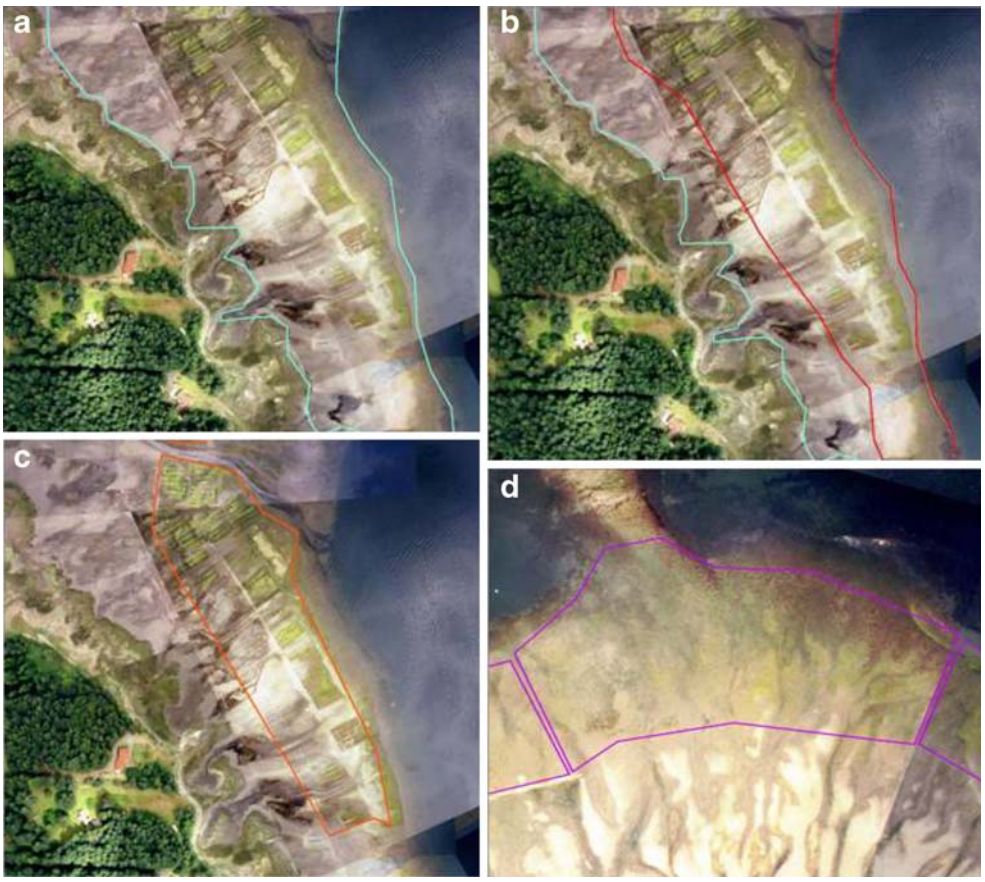


Fig. 3 **a** Maximum intertidal range at extreme low tide (*blue outline*). Maximum intertidal is identified by the low water mark and vegetation-sand and the high tide-line. **b** Viable intertidal as defined by 2/3 of maximum intertidal region (*red outline*). **c** Digitized anti-predator netting used for shellfish farming (*orange outline*). **d** Digitized oyster grow-out beds (*purple outline*)

intertidal and not the complete foreshore as exposed at extreme low tide. Reference to the maximum area exposed at extreme low tide would over estimate relevant habitat. Subsequently, a new shape file was digitized for the viable intertidal range based on the two-thirds intertidal approximation of viable intertidal habitat (Fig. 3b).

Area of viable intertidal under coverage by anti-predator netting

After the maximum and relevant intertidal were digitized, regions of the intertidal covered by anti-predator netting were determined. Depending on lighting, substrate type, and substrate wetness, netting appears either appears dark in colour over the substrate or light compared to the substrate. The process of digitization was done by tracing the outline of all nettings within the study area (Fig. 3c).

Area of intertidal used for oyster grow-out beds

Oyster grow-out beds include intertidal regions that are spotted anywhere without being covered by protective nettings and are being used for oyster grow-out operations (Fig. 3d).

Ground truthing

Three aspects of the spatial analysis were subject to ground truthing: 1) whether the two-thirds rule of estimating viable intertidal was valid 2) whether the polygons drawn around oyster grow-out beds were indeed oyster beds and 3) whether netting sites that existed in 2001 were still netting sites in 2006. Twenty-seven strategic locations were chosen along both the coast of the Vancouver Island side and the Denman Island side. At each location, Global Positioning Systems (Garmin eTrex and eTrax Venture © with 15 meter accuracy) were used to log the latitude and longitude location, and the site characteristic were recorded (e.g., presence of oyster beds, nettings, or both). Images of the site were also taken and compared to aerial photo interpretation for verification.

Spatial analysis

A multi-step analysis by GIS modelling was applied to the four layers (maximum intertidal, viable intertidal, anti-predator netting, and oyster grow-out beds) to determine that region of the foreshore not compromised by shellfish farming activities. A final additional supporting layer (ArcGIS shapefiles) required for the analysis was that region of the intertidal currently under shellfish lease, (a lease being that region of the foreshore delineated by the provincial government as a shellfish tenure and leased to the farmer for a defined period of time) but not necessarily being actively farmed. Areas of the intertidal under shellfish leases were obtained from Department of Fisheries and Ocean Canada (digitized in 2005). All operations were specific to ESRI's ArcMap-ArcInfo 9.1 software package. Three main overlay operations were used; 1) "Intersect" in which the software simply takes two specified layers of input (e.g. leased areas and viable intertidal areas) identifies their common features and creates a new "intersected" layer with only features that are common. 2) "Symmetrical Difference" which is essentially the opposite of "Intersect". This procedure examines two input layers and determines areas that do not overlap and creates these areas into a new output. 3) "Erase" which treats the first input layer as the base layer and the second as the erase layer.

Spatial analysis model

A schematic flow diagram of the GIS analysis model is presented in Fig. 4 with all steps in the analysis detailed. Application of and model outputs are presented in Fig. 5. The first step (1) in the model involves an intersection of the maximum intertidal range polygons and the lease area polygons. The output of this operation produces a new layer called "leased intertidal" which contains polygons that are leased within the intertidal range. The next step (2), intersects the viable intertidal range with the leased intertidal area to find the size and location of viable habitats within leases. The output of this intersect is "leased viable". By using the viable intertidal area, an operation (3) of symmetrical difference is executed with the shapefile containing the polygons of all netted sites. This is done with the sole purpose of estimating areas that are viable habitat not covered by netting and the output of this operation does not have a continuation within the model. Following this, the leased viable output is intersected (4) with the oyster grow-out beds polygon. This produced the layer "leased viable beds" which are oyster grow-out beds that are currently within viable intertidal leased zones. After this, the leased beds polygons are used to undertake a symmetrical difference operation with the oyster grow-out beds (5). This essentially creates the opposite of (4) and the output shapefile (non-lease viable beds) contains polygons that are not leased and are still oyster grow-out beds. "Non-lease viable beds" is very close to the final product of this model. However, the model so far has been based upon viable intertidal ranges where some lease areas are actually classified out-side of the viable intertidal areas, and some marginal bed areas are also within these non-viable leases. Therefore, as a cleanup and tidying procedure, the model incorporated an "Erase" operation (6) creating the layer

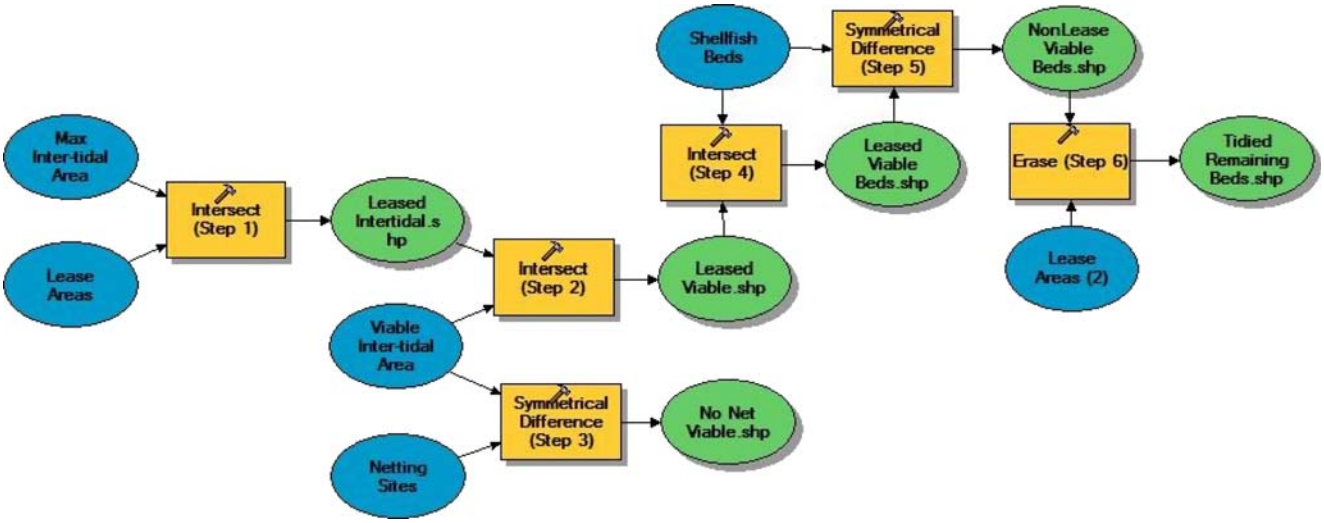


Fig. 4 A full schematic of the spatial analysis model. Blue ovals represent input layers, green ovals represent outputs, and yellow rectangles represent operations

"Tidied Remaining Beds" and is the final output of the model.

Assessment of the potential impact of the anthropogenic footprint on other ecological uses of the foreshore

Overlap of the anthropogenic footprint with sensitive ecosystems

One application of the spatial analysis was to determine overlap of the industry with key habitat types, in this case small estuaries. These regions provide a multitude of ecosystem services such as acting as nurseries for economically important fish species and providing key habitat for a number of semi-aquatic and aquatic species. To complete this analysis we obtained ArcGIS supporting layers from the Pacific Estuary Conservation Programme (PECP) which provided locations of estuaries within the study area. To determine the degree of overlap, the shellfish industry's footprint was overlayed with the presence of estuarine environments on the east side of the study area.

Overlap of the anthropogenic footprint on regions of high bird use and its influence on bird distribution

A major advantage of the combined use of high resolution aerial photography with GIS is that it can help visualise the true extent of an anthropogenic activity on a defined region of the foreshore. In this case, cumulative effects include the use of the foreshore for oyster grow-out as well as coverage with anti-predator netting. Both activities result in this region being inaccessible for other ecological roles such as for foraging by birds. Hence, the application; can we use the information obtained by spatially characterizing the anthropogenic footprint to assess its role in influencing the distribution of shore and water birds such as the dunlin, grebe and scoter, within this area?

To address this application, two data sets were accessed. First were historic bird counts in Baynes Sound-Comox Harbour conducted in 1980–1981 (Dawe et al. 1998). Data from these bird counts were used to provide a baseline to compare to recent observations of bird distribution. The second data set was obtained from the Canadian Wildlife Service, Pacific Yukon Region, British Columbia, Canada for birds counts from 2003–2005. For both data sets, survey data was collected spatially with bird observations linked to shoreline units or survey polygons (Fig. 6). For the 1980 bird counts, the study area was divided into 48 shoreline units to determine locations of high bird use. For the 2003–2005 surveys, these original 48 polygons were further subdivided into 73 polygons. For the purposes of comparison, bird counts for the subdivided polygons were totaled to represent total bird counts for one polygon as defined by the 1980 survey. For example, the number of birds counted in the 1980 survey for polygon 27 would be compared to the total number of birds surveyed in polygon 27A, 27B and 27C in the 2003–2005 survey (Fig. 6).

For the 1980 survey, bird counts were made during the year of October 1980–October 1981. For comparative purposes data for the winter (December, January and February) of 1980–1981, that is, the prime overwintering period for these migratory birds was used. Survey teams covered each polygon, and on a weekly basis, counted and recorded all birds observed. For the 2003–2005 survey's, counts were conducted on a biweekly basis from October to April 2002–2003 and 2003–2004 and monthly from

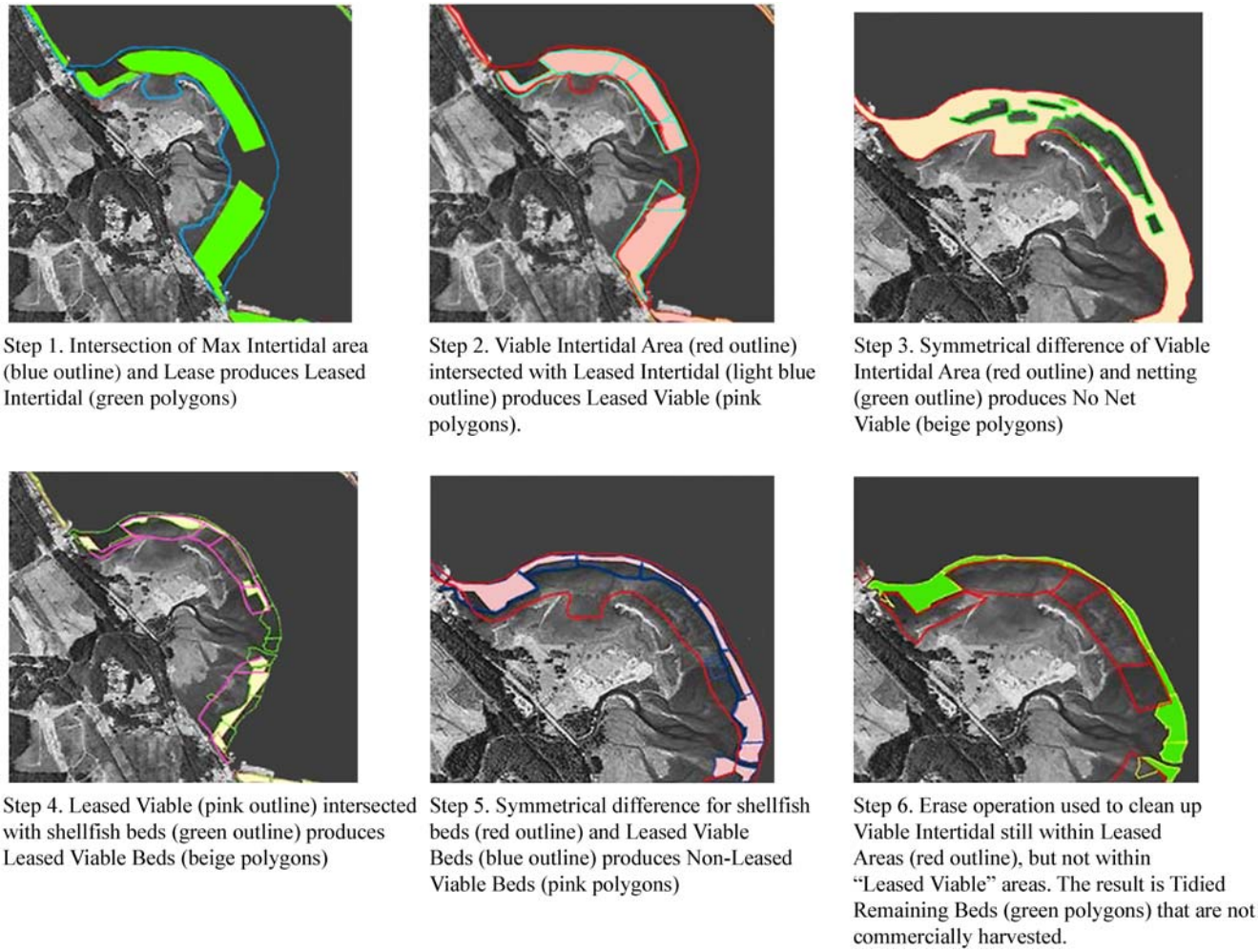


Fig. 5 Application of the spatial analysis model as outlined in Fig. 4

October to April 2004–2005. As with the 1980 survey, only data in the core wintering period (November–February, early March) was used for comparative purposes. As noted in (Žydelis et al. 2006) this time period excludes data from migration periods and also from the Pacific herring (*Clupea pallasi*) spawning period when birds can alter their distribution in response to this abundance food source. It is important to note, that given the different survey methods, numbers of birds are not directly comparable between the two data sets. What can be drawn from the two data sets is a comparison of the locations of high bird use in 1980 versus 2003–2005. Baynes Sound in 1980 was mostly in a relatively natural condition (Dawe et al. 1998), by contrast to present day where much of the sound is under intensive aquaculture use with the number of aquaculture leases dramatically increasing post 1990. Areas of high bird use in 1980 versus 2003–2005 were contrasted for 1) White-winged Scoter, 2) Surf Scoter, 3) Bufflehead, 4) Pacific Loon, 5) Western Grebe, and 6) Dunlin. All are dependent on the habitat of the foreshore in someway, e.g., for food such as mussels, clams, small fish, invertebrates and plants.

Results

Extent of the anthropogenic footprint

All 27 locations that were ground truthed were in agreement with aerial photo interpretation. Estimates of viable habitat proved to be accurate, as did areas of intertidal under predator netting and oyster beds. Aerial estimates from the model analysis are presented in Table 1. The maximum intertidal of the Baynes Sound study area is 8.4 km^2 and the viable intertidal area is 4.4 km^2, 52.4% of the maximum intertidal area. In Baynes Sound, netted areas area occupy 1.2 km^2, whereas oyster grow-out beds occupy 1.5 km^2, 27% and 34% of the intertidal area respectively. For just the viable intertidal region these areas are only slightly less; 1.0 km^2 (23%) is covered by anti-predator netting and 1.43 km^2 (33%) used for oyster grow-out. By summing netted areas and the areas used for oyster grow-out operations within the viable intertidal range, the amount of foreshore habitat in Baynes Sound used for shellfish farming is 2.43 km^2 which is 56% of the viable intertidal.

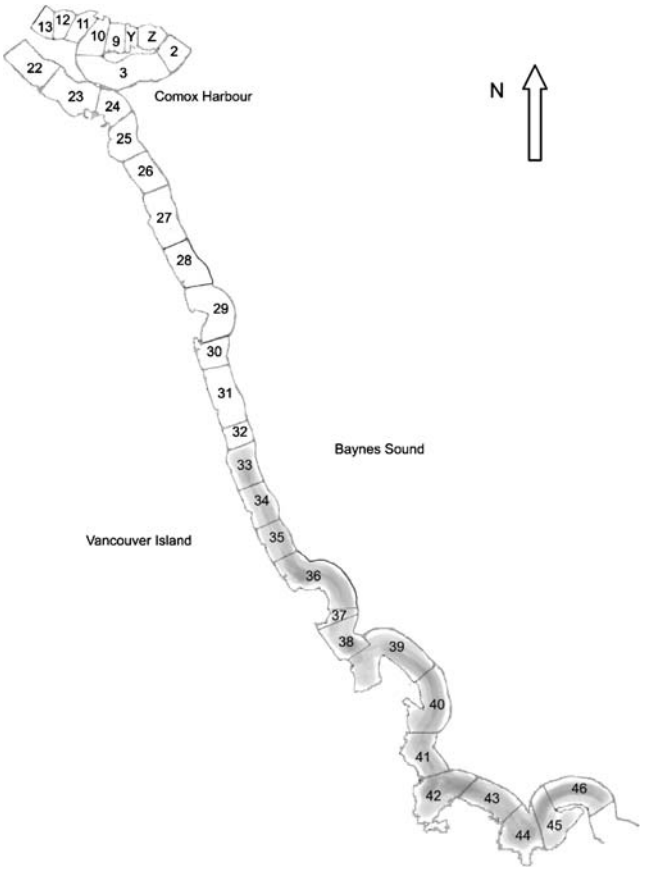


Fig. 6 Polygons used in 1980 and 2003–2005 bird surveys. Shaded regions are intensively farmed (see also Fig. 7)

Spatial overlap of shellfish farming activity with sensitive habitat

Overlaying the extent of the shellfish industry's footprint with the presence of estuarine environments on the east side of the study area indicated that shellfish farming activities occur regardless of the presence of this habitat type (Fig. 7).

Spatial overlap of shellfish farming activity with areas of high bird use

There were distinct differences in the locations of high bird use in 1980 as compared to 2003–2005 (Fig. 8a–f). Although 1980 represents only one sampling period, noteworthy is that regions of high birds use for the eight species were similar, polygons 36–46. Also of note, this region is a sensitive estuarine environment (Fig. 7). During 1980, Surf Scoters were generally distributed from polygons 2–46, with polygon 39 being the region of greatest use; in 2003–2005 polygons 2, 3, Y, 13 and 22 were locations of high use (Fig. 8a). White-winged Scoters were distributed along polygons 30–45 in 1980; in 2003–2005, as with the Surf Scoter, this use shifted to polygons 2–25 (Fig. 8b). Bufflehead were located in polygons 23 and 39–44 in 1980. In 2003–2005 birds were located all along the coastline, with no one particular region of high use (Fig. 8c). In 1980, Pacific Loons used polygons 43–46 exclusively. By contrast, low numbers of loons were

Table 1 Results of area calculations from mapped polygons. (Numbers may not add exactly due to rounding up to one decimal place)

	Area ID	Total Area (km^2)	% of maximum intertidal	% of viable intertidal	% total oyster bed
Maximum intertidal area	A	8.4	100.0	N/A	
Viable intertidal area	B	4.4	52.4	100	
Netted area	C	1.2	14.4	27.4	
Total oyster grow-out beds	D	1.5	17.4	33.1	
Leased intertidal	E	4.4	52.4	N/A	
Netted viable intertidal	F	1.0	11.9	22.7	
Non-netted viable intertidal	G	3.4	40.5	77.3	
Leased viable intertidal	H	3.0	36.1	68.9	
Leased viableoyster grow-out beds	I	0.9	11.2	21.4	60.0 I/D*100
Non-leased viable oyster grow-out beds	J	0.5	6.1	11.7	33.0 J/D*100
Tidied remaining beds	K	0.5	5.8	11.1	33.0 K/D*100
Sum of farming practices overall (C+D)	L	2.7	29.3	55.9	
Sum of all farming practices within viable intertidal (F+I+J))	M	2.4	23.1	44.2	
Area remaining	N	2.0			
% of viable intertidal used for shellfish farming (F+I+J)	O	55.0			
% of viable interdal remaining	P	45.0			

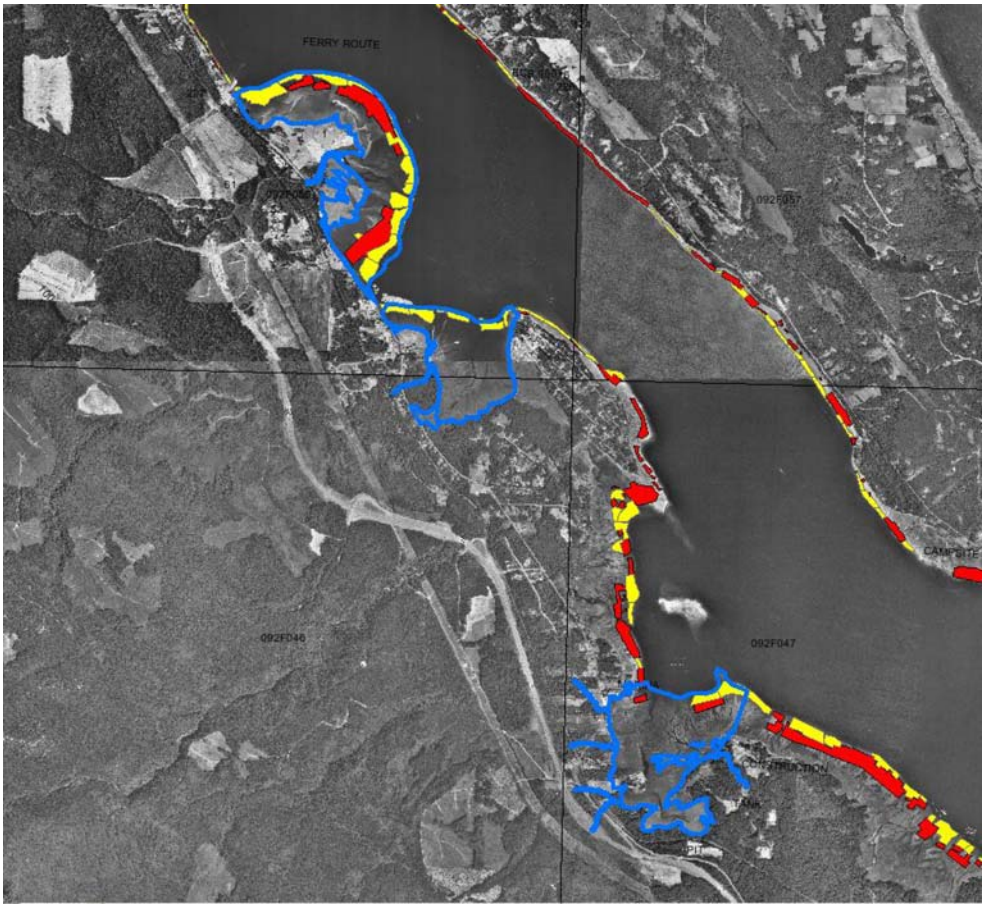


Fig. 7 Overlap of the anthropogenic footprint of the shellfish industry with estuarine habitat (*blue outline*). Red represents coverage due to oyster-grow-out, yellow due to anti-predator netting

distributed in all polygons in 2003–2005 (Fig. 8d). In 1980, the Western Grebe was located exclusively in polygons 40–42. In 2003–2005 only polygon 33 recorded important use by this bird (Fig. 8e). In 1980, Dunlin, a shore bird, was also located in polygons 41–44. In 2003–2005 high areas of bird use were polygons 2–25 and notably 28 (Fig. 8f).

Although numbers cannot be directly compared as counting techniques differed between the two surveys, differences in abundance for the Pacific Loon and Western note comment. For the Pacific Loon, in 1980, maximum counts of 400 were recorded for polygons 45. During 2003–2005 greatest average numbers of 50 were recorded for polygon 25. In 1980, maximum counts of 14000 for the Western Grebe were recorded for polygon 41. For 2003, 2004, 2005 the maximum average of 200 was recorded for polygon 33.

Discussion

Anthropogenic footprint

Based on our model estimate, the anthropogenic footprint of the shellfish industry is approximately 56% of the viable intertidal habitat. Of this, 23% is under anti-predator netting with 33% being used for oyster grow-out purposes; both practices preclude the use of this region for other purposes. Carswell et al. (2006) recently attempted to address the amount of foreshore within this same region that was exclusively under anti-predator netting. Using low-level high-resolution air photos taken during periods of extreme low tides combined with GIS these authors determined clam net coverages for each of Baynes Sound's major substrate types (e.g., coarse beach, mixed beach, rock platform, rock platform with beach veneer, sand beach, tidal flats, rock shelf, sandy beach). These authors concluded that only 3% of the foreshore was under anti-predator netting, a value in contrast to our estimates of close to 25% of the viable intertidal being under netting. There are two primary reasons for this large discrepancy; 1) the approach of Carswell et al. (2006) assumed that all exposed regions of the intertidal were viable habitat from extreme high tide to low tide and 2) all habitat types were included in the spatial analysis. The result of these two assumptions is that the amount of relevant habitat, i.e., that portion of the intertidal or foreshore that is considered viable habitat, is greatly overestimated. This is especially true if areas of available foreshore are based on that amount of intertidal exposed during extreme low and high tides, an event that happens once a year.

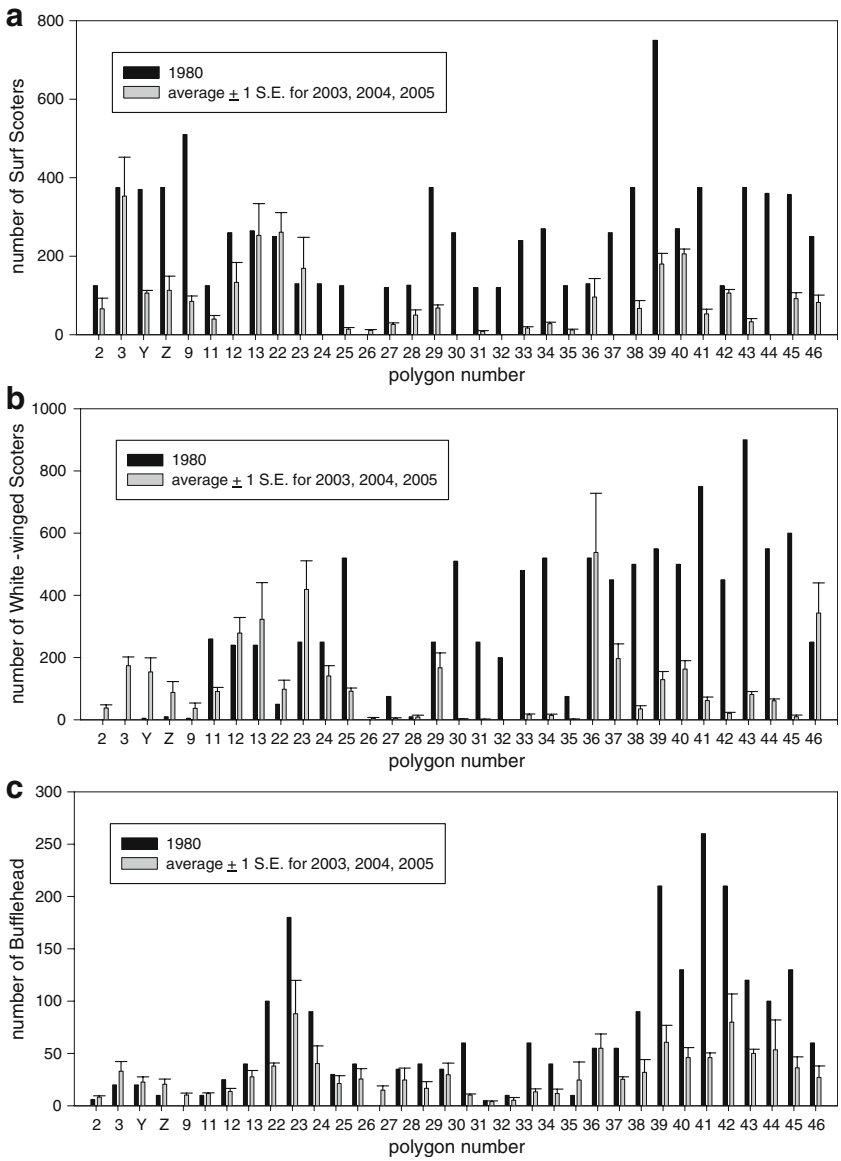


Fig. 8 Number of **a** Surf Scoters, **b** White-winged Scoters, **c** Bufflehead, **d** Pacific Loons, **e** Western Grebes, **f** Dunlin for each polygon as shown in Fig. 6 for 1980 versus 2003–2005

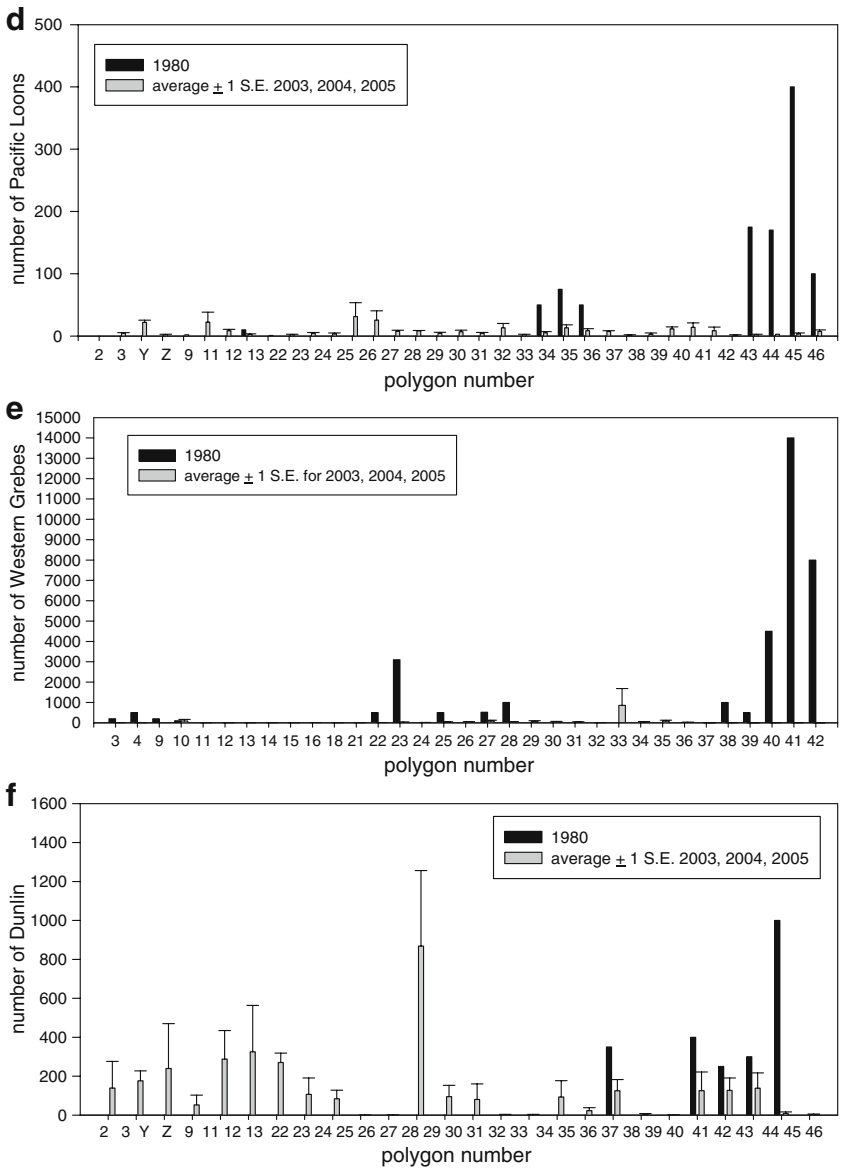
Management applications

In their approach to using aerial photography coupled with GIS, Zharikov et al. (2005) developed a thematic map of various coastal habitats across a gradient of shallow subtidal to terrestrial zones within a large estuarine system. Indeed thematic maps, for terrestrial and marine systems have been successfully applied in conservation biology for studies directed at understanding factors which determine plant and animal distribution and changes in distribution patterns over time (e.g., Sitati et al. 2003; Sheppard et al. 2006; Higinbotham et al. 2004). Application of thematic maps then need corresponding data on the abundance and distribution of the species of interest which would turn would aid in conservation and management decisions (Zharikov et al. 2005 and references therein). In our study, rather than developing a thematic map based on habitat type, we mapped and identified the extent of an anthropogenic footprint. We then applied this spatial data to visually assess the degree of overlap of the anthropogenic footprint with sensitive estuarine habitat as well as to help explain changes in bird distribution within the spatially defined area.

Overlap of the anthropogenic footprint with sensitive habitat

Application of aerial photography with GIS clearly demonstrated the extent of overlap of the anthropogenic footprint with sensitive habitats, in this case, small estuaries. Within the Baynes Sound region, 23 creek/river tidal estuary systems have been identified and their importance reported in Dawe et al. (1998). Nutrients and sediments from the surrounding

Fig. 8 (continued)



watersheds are provided by the rivers/creeks and are deposited onto the tidal flats creating rich environments that support a variety of species. Further, estuaries in combination with farmlands and freshwater wetlands form a wetland complex that supports hundreds of thousands of wintering birds. During periods of freezing when farmlands and freshwater marshes are no longer accessible, these estuaries become critical habitat for overwintering waterbirds (Dawe et al. 1998). With high resolution aerial photography and GIS, the location of these small estuaries and the extent that they have been altered could be visually assessed. This information could then be used for effective management of these regions for example, identification of and the removal of any industrial activity that occurs within keys parts of the estuary. Conversely, recommendations could be made as to where industrial activity could occur such that its impact would be minimized on these spatially small (< 500 m) but ecologically important and sensitive regions.

Bird distribution

Combining historical data on locations of high bird use with current day observations proved to be a powerful means to spatially reveal how sea duck and shore bird distribution within Baynes Sound has changed between the two periods. Prior to the development of the foreshore for aquaculture, regions of high bird used included polygons 2–23 (Comox Harbour) and 33–46. In 2003–2005 for Dunlin and the two scoter species, areas of high used shifted to polygons 2–23.

Of special note and concern are changes in bird distribution and in abundances for the Pacific Loon and

Western Grebe. Differences in survey methods between the two time periods precludes direct comparison of numbers. However, differences in abundance and distribution for these two species are so striking that some explanation is warranted. Recently, Martell (2008) reported on trends in bird populations in the Comox Valley, British Columbia from 1976 until 2006, a period of time coinciding with that of our study. Based on counts made during December of 17–24 (Christmas Bird Count), trends (% change in year) in numbers from 1976 to 2006 for the Surf and White-winged Scoter, Bufflehead, Pacific Loon, Western Grebe and Dunlin were 1.1, 0.7, 1.7**,−7.7*,−10.8*, and 7.2* respectively (* $p<0.05$ and ** $p<0.01$) . Hence, there was no trend detected for both scoter species, a positive trend for numbers of Bufflehead and Dunlin, whereas significant declines were noted for the Western Grebe and Pacific Loon. These trends support the observed distribution patterns in Fig. 8a–f and for those species in significant decline there are marked differences in numbers and use of the sound.

Martell (2008) suggests that declines in the Pacific Loon may be attributed more due to differences in winter distribution than to general changes in population. Reported declines in numbers of Western Grebe however are consistent with trends reported by the National Audubon Society (2007). Badzinski et al. 2008 has reported a recent increase in numbers however after a 90–95% decline in numbers for the past 30 years. Other surveys within the same geographic region, Puget Sound, south of Baynes Sound also note a 95% decline in numbers of Western Grebe (Nysewander et al. 2005). Such declines justify immediate conservation action for the protection of this species.

Within Baynes Sound, the primary change in intertidal use during this 30 year period has been the development of the foreshore within polygons 33–46 for aquaculture, with the true extent of its footprint determined by high resolution aerial photography coupled with GIS. This tool also shows that these polygons are located within a sensitive estuarine habitat which possibly contributes to the reason as to why, historically, this was a region of high bird use. As the majority of overwintering birds are now with found within the Courtenay River Estuary (Comox Harbour) or are distributed along the coastline with no one significant region of high bird use, it would appear that key habitat historically used by these species is no longer available.

Comparison of our outcomes with those of Žydelis et al. (2006) highlights the strength of a spatial approach in indentifying regions of conservation importance. Using multiple regression, Žydelis et al. (2006) attempted to assess the role of shellfish aquaculture in addition to various environmental attributes on densities of wintering Surf and White-winged Scoters within the same area as the current study. Nautical charts of 1:40,000 resolution were used to assess the intertidal zone, broad scale bioregional frameworks, as cautioned against by Banks and Skilleter (2007) were applied to describe intertidal substrate type and the percent of the intertidal covered by predator netting was visually estimated by observation. Beach coverage by oysters was expressed as a presence/absence variable in their model rather than actual area covered. Outcomes of this approach were that densities of wintering Surf and White-winged Scoters were related to intertidal area, clam density and sediment type with shellfish aquaculture variables being poor predictors of bird densities. These outcomes lead the authors to conclude that shellfish aquaculture and scoter densities could be mutually sustainable. Analysis of the distribution of both scoter species from polygon 2–45 possibly explains why this conclusion was reached, in that although scoters are still observed in polygons where farming occurs, they have also have been displaced from historic regions of high bird use and presumably high food availability to areas where food availability has not been compromised by the shellfish industry i.e., polygons 2–23. Variables that would describe these areas would be clam density and sediment type, which is co-correlated to clam density.

In contrast to the approach of Žydelis et al. (2006), aerial photography with GIS allows for a quantitative measure (km^2) of the amount of key habitat being used by the industry. Rather than a presence/absence and subjective estimates, the amount of intertidal area covered by oysters can be accurately measured as with the amount of intertidal covered by netting. This information coupled with historical and present areas of high bird use suggests a different outcome and hence conservation recommendation. Aerial photography with GIS identified that polygons 36–46 is under intense use by aquaculture. Prior to 1980 these regions were relatively unaltered and areas of high bird use. During 2003–2005 this was no longer the case with birds being displaced to Comox Harbour. If bird conservation is an important priority a management decision then, based on the shift in bird distribution and also identification of this region as estuarine habitat, would be to rehabilitate regions within polygons 36–46. Further, special attention to be given to the Comox Harbour as this region is now the primary important bird area within Baynes Sound and should be protected and carefully monitored for further degradation.

Conclusions

High resolution thematic mapping has as its first goal to characterize the region of interest. The next steps are to use this spatial visualization to determine what impact if any,

the activity will have habitat use within the spatially defined region. In our case study we mapped the extent of the anthropogenic footprint of the shellfish industry on an ecologically important region on the British Columbian coast. We then used this information to define the habitat put at risk due to this activity and then presented management recommendations such that these regions and their ecological uses would not be further compromised. Examples of other key areas at similar spatial scales that could benefit from such an analysis include regions designated as Marine Protected Areas and Marine Reserves and sensitive estuarine habitat. However, to make this approach effective, cumulative impacts must be recognized and links to the possible consequence the impacts may have on the habitat made.

Further, the degree of impact may not be simply a linear function of the spatial size of the anthropogenic activity. For example, an industrial activity such as anti-predator netting, may cover only 25% of the viable intertidal, however, this 25% may provide a key ecosystem service, such as food availability for sea ducks, not provided for in other parts of the foreshore. High resolution imagery is then needed to identify such regions of key habitat. Banks and Skilleter (2007) also conclude that use of finer-scale physical data is more likely to achieve representation at habitat and microhabitat levels, increasing the likelihood that conservation goals will be met. Finally, Baynes Sound is just one region of Pacific west coast that is undergoing intensive use by the shellfish industry. Information generated from this study could be added to other similar studies of regions undergoing the same anthropogenic activity such that true estimates of the loss of a particular type of key habitat can be made. Now, only general estimates are made and not linked to ecological outcomes. Aerial photography coupled with GIS then seems to be a effective tool, however rather than first assess the anthropogenic impact and then the consequences of the impact, ideally the coastal manager would first establish the importance of a region from an ecological perspective and the services the region provides, and then develop the coastal region such that these ecological roles remain unaltered.

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References

Badzinski S, Cannings RJ, Armenta TE, Komaromi J, Davidson PJA (2008) Monitoring coastal bird populations in BC: the first five years of the Coastal Waterbird Survey (1999–2004). B C Birds 17:1–35

Ban N, Alder J (2008) How wild is the ocean? Assessing the intensity of anthropogenic marine activities in British Columbia, Canada. Aquat Conserv 18:55–85

Banks SA, Skilleter GA (2007) The importance of incorporating fine-scale habitat data into the design of an intertidal marine reserve system. Biol Conserv 138:13–29

Bendell-Young LI (2006) Contrasting the community structure and select geochemical characteristics of three intertidal regions in relations to shellfish farming. Environ Conserv 33: 21–27

Booth BP (2001) Baynes Sound/Lambert Channel-Hornby island waters important bird ares conservation plan. Canadian Nature Federation, Federation of BC Naturalists, Wild Bird Trust of BC Important Bird Areas Program. 44 p. www.ibacanada.com

British Columbia Ministry of Environment. (2005) Report: Sensitive Ecosystems Inventory (SEI): east Vancouver Island and the Gulf Islands (includes 2002 disturbance mapping). http://www.env.gov.bc.ca/sei/index.html Accessed June 29th 2009

British Columbia Ministry of Sustainable Resource Management. (2002) Baynes Sound Coastal Plan for Shellfish Aquaculture. http://srmwww.gov.bc.ca/rmd/coastal/planning/south_island/baynes/docs/Baynes_Plan_Dec19_2002.pdf

Carswell B, Cheesman S, Anderson J (2006) The use of spatial analysis for environmental assessment of shellfish aquaculture in Baynes Sound, Vancouver Island, British Columbia, Canada. Aquaculture 253:408–414

Dawe NK, Buechert R, Trethewey DEC (1998) Bird use of Baynes Sound-Comox Harbour, Vancouver Island, British Columbia. 1980-1981. Technical Report Series No. 286. Canadian Wildlife Service, Pacific Yukon Region, British Columbia

Deo K (2002) First nations and shellfish aquaculture: consultation, accommodation and participation. Environmental Law Centre Society. University of Victoria, Victoria BC 22 p

Dierschke V, Kube J, Probst S, Brenning U (1999) Feeding ecology of dunlins *Calidris aplina* staging in the southern Baltic Sea, 1. Habitat use and food selection. J Sea Res 42:49–64

Gibson LA, Wilson BA, Cahill DM, Hill J (2004) Spatial prediction of rufous bristlebird habitat in a coastal heathland: a GIS-based approach. J Appl Ecol 41:213–223

Higinbotham CB, Alber M, Chalmers AG (2004) Analysis of tidal march vegetation patterns in two Georgia estuaries using aerial photography and GIS. Estuaries 4:670–683

Jamieson GS, Chew L, Gillespie G, Robinson A, Bendell-Young L, Heath W, Bravender B, Tompkins A, Nishimura D, Doucette P (2001) Phase 0 review of the environmental impacts of intertidal shellfish aquaculture in Baynes Sound. Canadian Science Advisory Secretariat Research Document 2001/125, ISSN 1480-4883, Canada [www document]. URL http://www.dfo-mpo.gc.ca/csas/

Jickells TD, Rae JE (1997) Biogeochemistry of intertidal sediments. Cambridge Environmental Chemistry Series, Cambridge University Press, Cambridge, pp 1–139

Martell AE (2008) Trends in bird populations in the Comox Valley, British Columbia, Canada, from 1976–2006. B C Birds 18: 2–14

National Audubon Society (2007) Common birds in decline. http://stateofthebirds.audubon.org/cbid/. Accessed June 27th 2009

Nysewander D, Evenson J, Murphie B, Cyra T (2005) Report of Marine Bird and Mammal component, Puget Sound Ambient Monitoring Program for July 1992 to December 1999. Final revision of 2001 MS. WDFW Wildlife Management Program

Sale PF, Butler MJ IV, Hooten AJ, Kritzer KP, Lindeman KC, Sadovy de Mitcheson YJ, Steneck RS, van Lavieren H (2008) Stemming decline of the coastal ocean: rethinking environmental management. UNU-INWEH, Hamilton

Shepherd PCF, Lank D (2004) Marine and agricultural habitat preferences of dunlin wintering in British Columbia. J Wildl Manage 68:61–73

Sheppard CRC, Matheson K, Bythell JC, Murphy P, Myers CB, Blake B (2006) Habitat mapping in the Caribbean for management and conservation: use and assessment of aerial photography. Aquat Conserv 4:277–298

Sitati NW, Walpole MJ, Smith RJ, Leader-Williams N (2003) Predicating spatial aspects of human-elephant conflict. J Appl Ecol 40:667–677

Whiteley JA, Bendell-Young LI (2007) Ecological implications of intertidal mariculture: observed differences in bivalve community structure between farm and reference sites. J Appl Ecol 44:495–505

Winberg PC, Lynch TP, Murray A, Jones AR, Davis AR (2007) The importance of spatial scale for the conservation of tidal flat macrobenthos: an example from New South Wales, Australia. Biol Conserv 134:310–320

Žydelis R, Esler D, Boyd WS, LaCroix DL, Kirk M (2006) Habitat use by wintering surf and white-winged scoters: effects of environmental attributes and shellfish aquaculture. J Wildl Manage 70:154–162

Zharikov Y, Skilleter GA, Loneragan NR, Taranto T, Cameron BE (2005) Mapping and characterizing subtropical estuarine landscapes using aerial photography and GIS for potential application in wildlife conservation and management. Biol Conserv 125:87–100

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Intertidal Concentrations of Microplastics and Their Influence on Ammonium Cycling as Related to the Shellfish Industry

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Abstract Microplastics are ubiquitous within the marine environment. The last 10 years have seen research directed at understanding the fate and effect of microplastics within the marine environment; however, no studies have yet addressed how concentrations of these particles could affect sedimentary processes such as nutrient cycling. Herein we first determine the concentration and spatial distribution of microplastics within Baynes Sound, a key shellfish-growing area within coastal British Columbia (BC). We also determined sediment grain size and % organic matter (OM) such that we could relate spatial patterns in sediment microplastic concentrations to sedimentary processes that determine zones of accretion and erosion. Using field-determined concentrations of microplastics, we applied laboratory microcosms studies, which manipulated sediment concentrations of microplastics, OM, and bivalves to determine the influence of sediment microplastics on ammonium cycling within intertidal sediments. Concentrations of microplastics determined within the intertidal sediment varied spatially and were similar to those found in other coastal regions of high urban use. Concentrations were independent of grain size and OM suggesting that physical processes other than those that govern natural sediment components determine the fate of microplastics within sediments. Under laboratory conditions, concentrations of ammonium were significantly greater in the overlying water of treatments with microplastics, clams, and OM compared with treatments without microplastics. These preliminary studies suggest that high concentrations of microplastics have the potential to alter key sedimentary processes such as ammonium flux. This could have serious implications, for example, contributing to eutrophication events in regions of the coast that are highly urbanized.

In 2004, the word "microplastics" was first introduced into the literature (Thompson et al. 2004). Ten years since has seen a growing body of literature showing the real threat these particles pose to marine ecosystems and those species including humans that rely on these ecosystems for their services and goods. Microplastics are considered to be <5 mm in diameter; however, the diversity of the types of microplastics, from fibers to spheres, makes it difficult to exactly quantify this contaminant by size alone. Current research has shown that microplastics occur in oceans worldwide and are ingested by marine species thereby providing a possible route for the entry of persistent organic pollutants, which adhere to the microplastics, into marine food webs (Andrady 2011). More recently, Ivar do Sul and Costa (2014) reported that microplastics can transport pollutants over large ocean areas and can contaminate marine biota when ingested. Perhaps of greater concern are the findings of Van Cauwenberghe and Janssen (2014) who determined that *Mytilus edulis* (the blue mussel) and *Crassostrea gigas* (Pacific oyster) contained on average 0.35 and 0.47 microplastics g ww^{-1}, respectively, which translates into an annual dietary exposure for European shellfish consumers of 11,000 microplastics/year. In a similar study, Mathalon and Hill (2014) determined that farmed mussels sampled from the Halifax Harbor, Nova Scotia, contained approximately 75 microplastics/mussel or 10 microplastics g ww^{-1} [assuming a mussel meat wet weight (ww) of 7 g] (Karayucel et al. 2010), which would translate into the

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ingestion of approximately 1700 microplastics/24 mussels (average restaurant serving).

Not yet studied is how microplastics influence key ecosystem processes such as nutrient cycling within surface sediments. Concentrations of microplastics that have been reported recently for coastal sediments include 390, 2000–8000, and 2175–6725 particles kg^{-1} of sediment for Belgium (Claessens et al. 2013), Nova Scotia (Mathalon and Hill 2014), and Lagoon of Venice, Italy (Vianello et al. 2013) coastal sediments, respectively.

Coastal zones are the most valued of earth ecosystems as a result of their role in the storage and cycling of nitrogen and phosphorus (Jickell 1998). Within the intertidal, bivalves, such as the Manila (*Venerupis philippinarum*) and varnish clam (*Nuttallia obscurata*), have been shown to be key agents in influencing the behaviour of nitrogen and phosphorus. Through both filter feeding from the overlying water column as well as deposit feeding, these ecosystem engineers serve to link overlying water and sedimentary processes, i.e., benthic–pelagic coupling providing nutrients to sediments directly through excretion or through biodeposits. Traditionally, sediments have been described by grain size, percent organic matter (OM), oxides, and manganese and iron with these major sedimentary components being key abiotic factors in influencing sediment processes such as nutrient cycling (e.g., Bendell et al. 2010) and metal availability to invertebrates (e.g., Bendell et al. 2002). Given the high concentrations of plastics that now occur within coastal sediments and the potential for these particulates to influence geochemical processes, sediments now must be viewed as being comprised not only of the classic geochemical parameters but also microplastics, which now make up a significant part of sediment. Indeed Holmes et al. (2014) has noted that microplastics should be regarded as a component of the suspended load of estuaries the role of which on contaminant transport requires further study.

Microplastics have been characterised into two groups: primary [plastics originally <5 mm, e.g., polyethylene microbeads used in cosmetic scrubs and pellets used to remove boat rust (Cole et al. 2011)] and secondary [microplastics whose origin is the degradation of larger plastic items, e.g., ropes used for shellfish aquaculture purposes such as antipredator netting, two-strand polypropylene rope (e.g., "oyster blue", and plastic trays and bags)]. There are at least two ways that the presence of microplastics could influence sedimentary geochemical processes: (1) increasing sediment porosity by the addition of "inert" sediment components thereby increasing rates of sediment nutrient flux; and (2) the presence of antibacterial compounds used in cosmetic scrubs could suppress sediment bacterial processes leading to altered cycles for nutrients, such as nitrogen, that are dependent on bacterial processes for conversion into biologically available forms.

Hence, the objectives of our study were twofold: (1) to determine the concentrations and spatial distribution of microplastics within Baynes Sound. Baynes Sound is home to British Columbia's (BC) shellfish industry with >50 % of production originating from this region; and (2) to assess the influence these particles have on the behaviour of ammonium within intertidal sediments through laboratory microcosms studies, in which sediment concentrations of microplastics are manipulated to concentrations determined in objective number 1. To our knowledge this is one of the first studies that has addressed the role of microplastics in altering nutrient fluxes within the intertidal sediments of coastal ecosystems.

Materials and Methods

Study Site

Sediment sampling took place June 12 through 14, 2014, at extreme low tide within Baynes Sound, BC. Shellfish farming within Baynes Sound dates back to the 1940s and is now home to 50 % of the provinces' shellfish industry with Manila clams and Pacific oysters being the main product farmed (Bendell et al. 2014b; Fig. 1a).

Concentrations and Distribution of Microplastics Within Baynes Sound: Field Sampling

Sediment Sampling

We sampled a total of 14 sites: 5 along the east coast of Vancouver Island, 7 along the west coast, and 2 along the east coast of Denman Island (Fig. 1b). Three cores at sites 1–5 and 1 core at sites 6–14 were taken at extreme low tide for microplastic analysis. At each site a corresponding core was also collected for grain size and OM content. A sediment corer (40-cm height and 6-cm internal diameter) was inserted to the maximum depth possible at each site (the deepest being 23 cm at Henry Bay) given the presence of underlying bed rock. Retrieved cores were sectioned into 1- to 2-cm sections in the field, placed into prelabeled zip-close bags, and placed in coolers for transportation back to the laboratory. Sediments were frozen until required for analysis.

Grain Size and Organic Matter

Sediments collected for grain size analysis were sieved through sequential sieves to separate out sediments based on sediment size >2, 2–0.25, 0.25–0.063, and <0.063 mm. OM on a dry-weight basis was determined on approximately 1 g of sediment by loss on ignition (500–550 °C for 10–14 h).

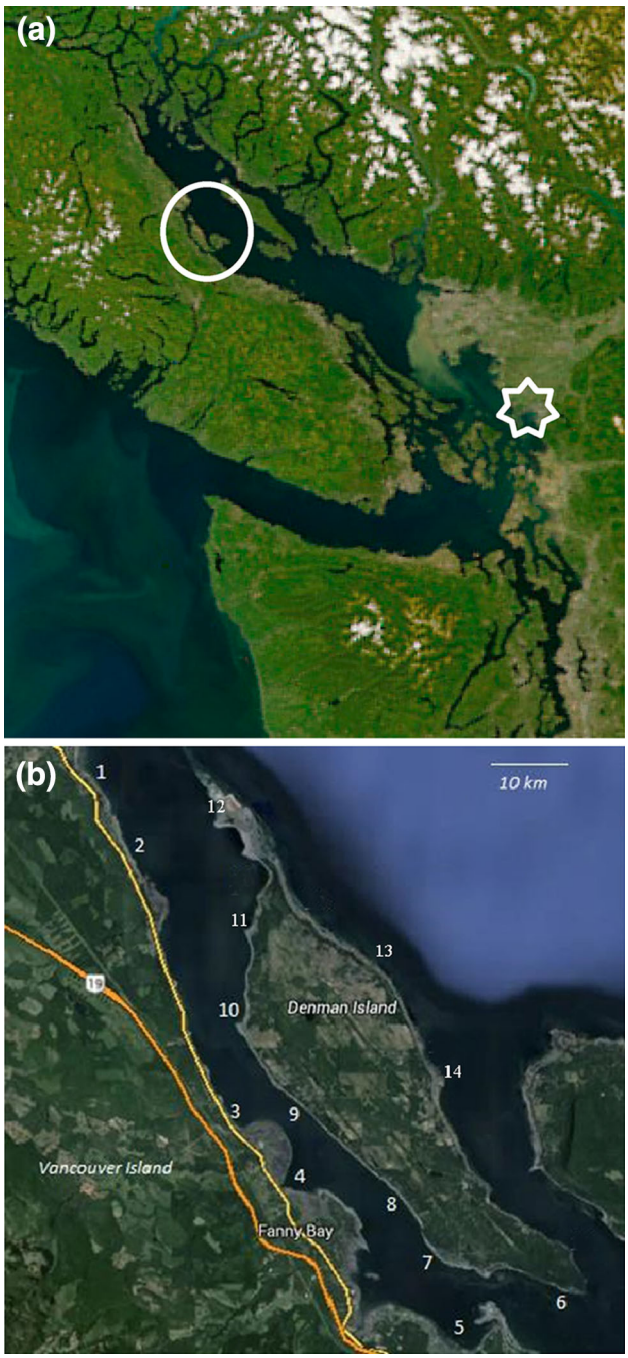


Fig. 1 Location of the study sites. **a** Salish Sea located on the west coast of BC and **b** Baynes Sound with the location of the 14 study sites. *Circled area* is Baynes Sound and Lambert Channel. *Asterisk* Vancouver, BC

Microplastic Recovery

Sectioned sediment was first sieved through a 1 mm aperture sieve to facilitate the recovery of all plastics >1–5 mm in diameter. Sieved sediments were then subjected to the "overflow/flotation" method (Claessens et al. 2013; Vianello et al. 2013; Mathalon and Hill 2014; Nuelle et al. 2014). Between 10 and 100 g of sediment was added to a concentrated sodium chloride solution (300 g L^{-1}) to enable low-density particulates, such as plastics, to separate from the sediment. The sediment–sodium chloride solution was stirred with microplastics decanted at 5 and 30 min. The procedure was repeated three times to ensure the collection of all plastics. To determine the efficiency of the floatation method, five microplastic beads were introduced into 30 g of plastic-free sediments originating from the previously treated sediment. The flotation method in triplicate was then applied as performed for field-collected sediments resulting in a 100 % recovery of the introduced beads. Recovered microplastics were identified at 10× to 12× magnification by microscope.

Influence of Microplastics on Ammonium Cycling Within Intertidal Sediments: Microcosm Studies

We used a microcosm approach based on that of Bendell et al. (2014a, b) to determine the influence of microplastics on ammonium within intertidal sediments. Six aquaria (12-cm long × 6-cm wide × 8-cm depth), three treatments, and three controls were prepared with 775 g of sediment collected from Fillongley Park [site 14 (Fig. 1b), Lambert Channel] and 400 mL of seawater. Microcosms were established for 3 days before manipulation and were constantly aerated throughout the duration of the experiment.

We used microbeads separated from facial scrub (Clearasil Ultra, Rapid Action Scrub) for the manipulations. Based on the product-listed ingredients, microbeads were comprised of polyethylene. The facial scrub was sieved through a 33-μm sieve to retain only the larger particles. Three of the six microcosms had microbeads added to them at the average concentrations found in the field sampling, i.e., 0.045 particles g (ww) sediment^{-1}. Before addition to the sediment, the beads were thoroughly rinsed with distilled deionized water with the intent to remove antibacterial properties.

Three sequential experiments were performed under artificially induced tidal conditions (Fig. 2). In the first set of experiments, only seawater and sediments were present in the microcosms. For the second set, we added OM to the sediment [2 g (dry weight) *Chlorella*]. In the final set of experiments, three Manila clams were added to each microcosm. Clams were purchased from a local seafood outlet and at time of purchase were 24 h postharvest. There were significant accumulations of ammonium in the water of sediment in the treatments with microplastics + OM + clam, which resulted in clam mortality on day 3 of the experiment. The dead clams were removed and fresh clams added for the remainder of the experiment. Tidal conditions were achieved according to the methods of Bendell et al. (2014a). Microcosms were "flooded" with seawater for

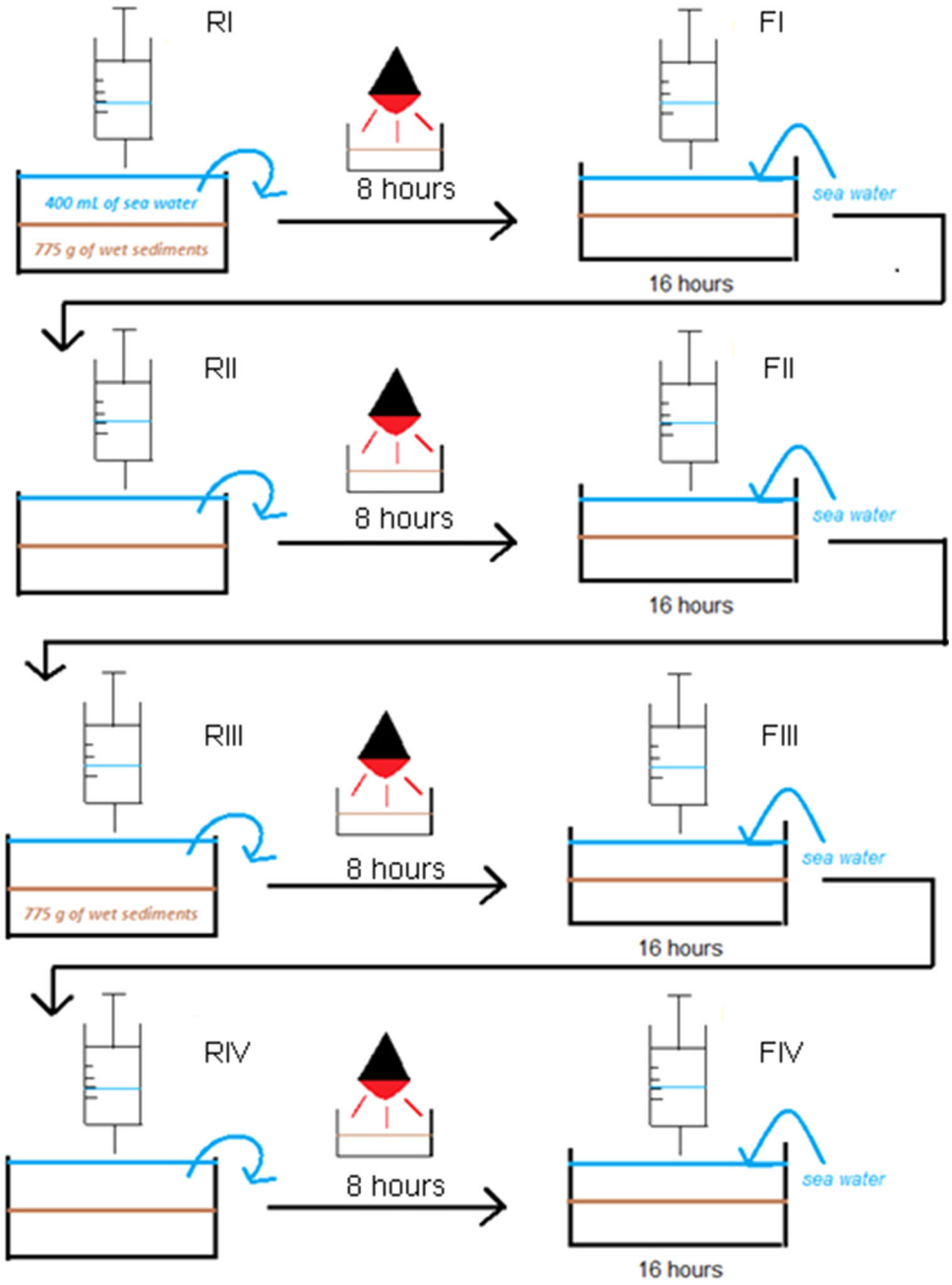


Fig. 2 Experimental protocol for the microcosm experiments

16 h, after which the seawater was removed by syringe and the microcosm then placed under a heat lamp to mimic warming conditions of the surface sediment at ebb tide. Sediment temperature reached 28–30 °C, which are values recorded under field conditions (Bendell et al. 2014a). Three millilitres of pore water and 45 mL of seawater were removed by syringe after 16 h of "inundation" just before removal of the water (R1, RII, RIII, and RIV) and just after the addition of fresh seawater to mimic "flood tide" conditions (FI, FII, FIII, FIV) (Fig. 2). Samples were stored frozen until ammonium analysis by fluorometry by way of an Aquafluor (Holmes et al. 1999).

Data Analysis

Software used to analyze the data included SigmaPlot12 (Systat), and PRIMER v6 (Clarke and Gorley 2006). Statistical significance was accepted at $P < 0.05$.

Organic Matter and Grain Size

The distribution of OM within Baynes Sound was determined by plotting % OM as a function of core depth and site. Data were plotted as sites 1–5 (east side of Vancouver Island), 6–12 (west side of Denman Island, and 13 and 14

(east side of Denman Island). Given the colinear nature of % grain size, we applied principle component analysis (PCA) on arcsine (% square root)—transformed data to determine grain size distribution within Baynes Sound.

Microplastics

We sampled sediment cores for plastics both spatially (site) and by sediment depth. However, the distribution of microplastics within the core was highly variable occurring in some but not all of the 2 cm-sectioned sediments. Therefore, to determine the spatial distribution of microplastics within the sound, we calculated the total weight of sediment within each core summing the dry weight of each section and summing all microplastics recovered within each core section to express the recovery as number of microplastics kg dry weight/sediment for each site. Because data failed the Shapiro–Wilk test for normality ($P < 0.05$), we applied one-way Kruskall–Wallis ANOVA on ranks on the number of microplastics kg dry weight/sediment recovered from sites 1 to 5 (east Vancouver Island), 6 to 8 (south west Denman Island), 9 to 12 (north west Denman Island), and 13 to 14 (east Denman Island). We applied Dunn's method of multiple-comparison procedure to determine the groups that differed from each other.

Microcosm Studies

Ammonium pore water and water column concentrations from the laboratory experiments passed the Shapiro–Wilk test for normality ($P > 0.05$); hence, we applied two way-ANOVA's general linear model (with no interactions) to determine if treatment (with or without plastics) or tide had an effect on water or pore water ammonium concentrations for each of the three experiments, i.e., sediment alone, sediment + OM, and sediment + OM + clams. Tide and treatment had effects for ammonium in the overlying water column; however, no effect was detected for ammonium in pore waters ($P > 0.05$). Hence, for pore water ammonium, all data were pooled across simulated tides, and Student's *t* test between treatments (sediment with plastics vs. sediment without plastics) was applied for the three experiments: sediment alone, for sediment + OM, and for sediment + OM + clams.

Results

OM and Grain Size

Three-dimensional profiling of % OM showed very distinct depositional patterns that were both site and depth dependent (Fig. 3). High concentrations were observed at site 5 at 4-cm depth, sites 8 through 10 at 8-cm depth, and throughout site 13. Depositional patterns determined at sites 8 through 10 suggest a historical source, whereas for site 13 high concentrations occurred throughout the core. Grain size analysis also separated the sites based primarily on particle sizes <2 mm and between 0.25 and 0.063 mm with the first PC accounting for 63.5 % of the variation (Fig. 4a). Sites 2, 9, and 14 were characterised by the

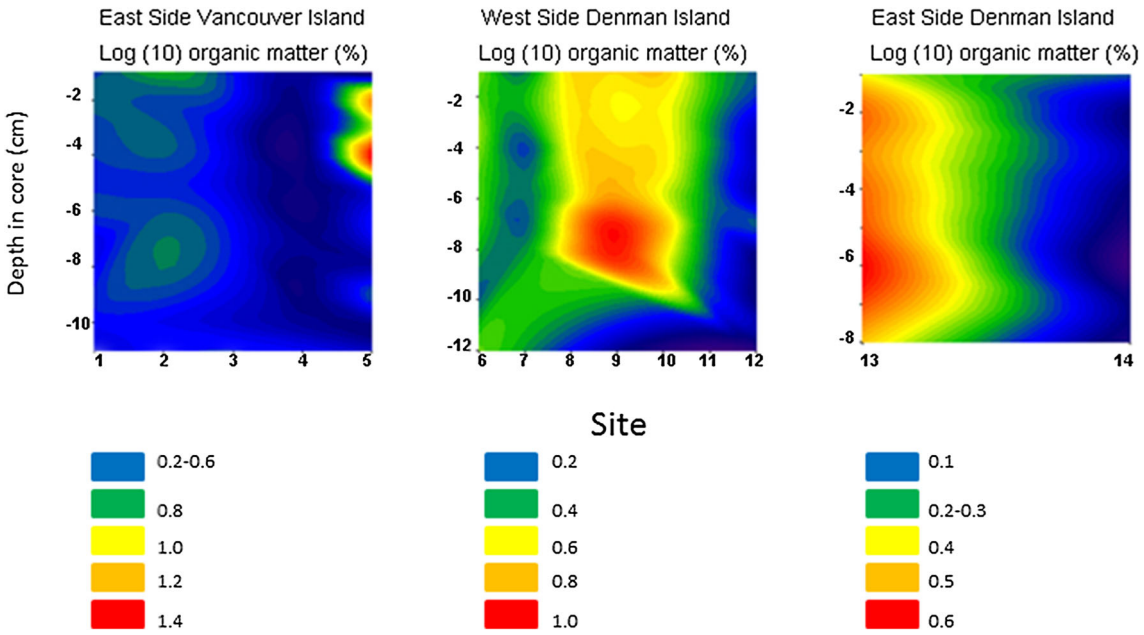


Fig. 3 Distribution of OM within Baynes Sound

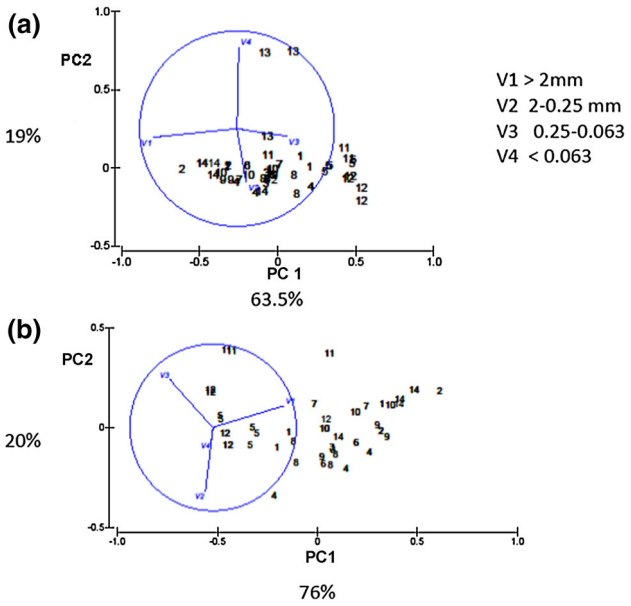


Fig. 4 PCAs of grain size for the 14 sites. **a** PCA with all sites. **b** PCA with site 13 removed

2-mm size fraction, whereas sites 1, 5, 8, 11, and 12 were characterised by a grain size between 0.25 and 0.063 mm. In agreement with the high concentration of OM found at site 13, this site also separated from all sites based on the <0.063-mm size fraction with the second PC accounting for 19 % of the variation in grain size among the 14 sites (Fig. 4a). A second PCA with site 13 removed separated sites 14, 10, 9, 8, 7, and 6 from all other sites based on the >2-mm grain size with the first PC accounting for 76 % of the variation (Fig. 4b). Site 11 separated based on the 0.2- to 0.063-mm grain size with the second PC accounting for 20 % of the overall variation (Fig. 4b).

Distribution of Microplastics

Several kinds of microplastics were recovered from sediments within Baynes Sound. Fibres and pieces of transparent plastics were positively identified, notably the presence of blue rope (Oyster Blue), which is used extensively by the oyster-farming industry (Fig. 5). The distribution of microplastics was spatially dependent (Fig. 6a) with greater numbers being recovered from the northeast end of Denman Island (i.e., sites 9 through 12) compared with all other sites ($P < 0.05$, Kruskall–Wallis one-way ANOVA on ranks; Fig. 6b). Median number of particles kg^{-1} dry weight of sediment for the four regions within Baynes Sound were 24.6, 33.8, 85, and 0 for east Vancouver Island, west Denman Island, northeast Denman Island, and southeast Denman Island, respectively.

Influence of Microplastics on Ammonium Cycling: Microcosm Studies

Ammonium concentrations in the overlying water column were tide dependent for the experiments comprising sediment only and sediment + OM and were treatment dependent for the treatment comprising sediment + OM + clam treatment (Fig. 7a–c; Table 1). No effect was detected for ammonium in pore waters (Fig. 8a–c). Pooled samples (i.e., tide effect removed) indicated that pore water ammonium in the sediment-only experiment significantly differed ($P < 0.05$; Student's t test) with greater concentrations being recovered from sediments with microbeads present compared with sediment without microbeads (Fig. 9).

Discussion

The accumulation of plastic debris within our marine environment is now recognized as being one of the greatest anthropogenic threats facing our ocean ecosystems (Ivar do Sul and Costa 2014). A review of 101 peered-reviewed articles concluded that all marine groups are at eminent risk of interacting with microplastics (Ivar do Sul and Costa 2014). Reviewed studies were grouped into four broad categories: (1) plankton samples, (2) sandy and muddy sediments, (3) vertebrates and invertebrate ingestion, and (4) chemical pollutant interactions. Here, we present the concentrations and distribution of plastics within Baynes Sound, a region that has experienced shellfish aquaculture since the 1940s. We also assessed the possible influence of microplastics on



Fig. 5 Polypropylene rope (*oyster blue*) and an example of microplastics recovered from sediment sampled from Baynes Sound (Color figure online)

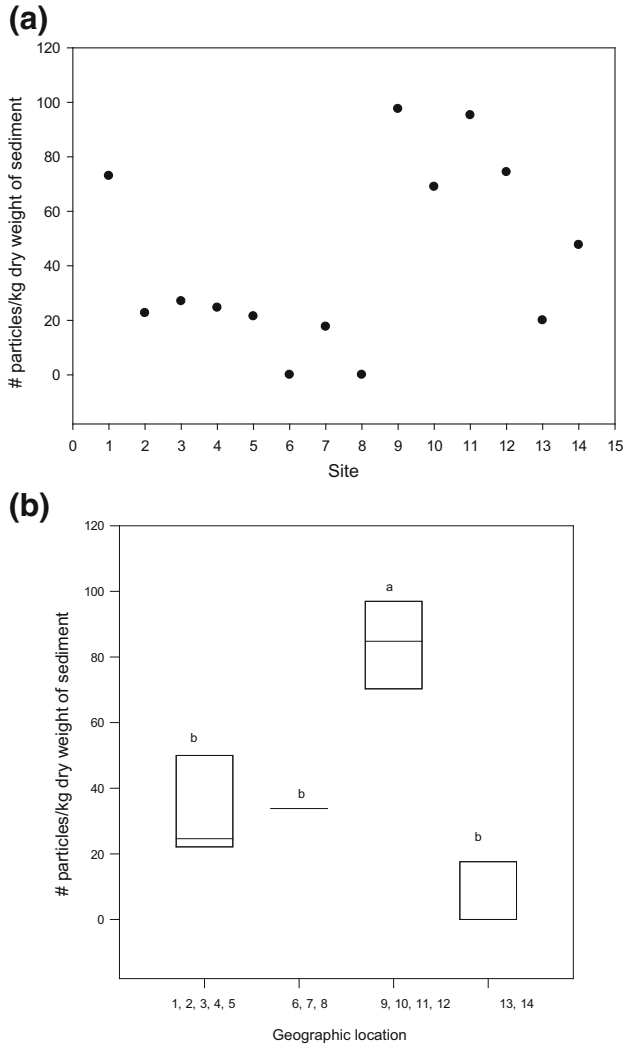


Fig. 6 Distributions of microplastics within the sound **a** by site and **b** by region. Values are ranges and medians. Kruskall–Wallis ANOVA on ranks on number of microplastics kg dry weight/sediment recovered from sites 1 to 5 (east Vancouver Island), 6 to 8 (southwest Denman Island), 9 to 12 (northwest Denman Island), and 13 to 14 (east Denman Island) indicates that sites 9 to 12 are significantly different from all others ($P < 0.05$; Dunn's method of multiple comparison)

the cycling of ammonium within intertidal sediment, and, to our knowledge, this is the first study to do so.

Distribution of Microplastics Within Baynes Sound

The overall average of microplastics determined in the intertidal sediments of Baynes Sound was 0.045 particles g (ww) sediment^{-1} or 76,500 particles m^{-3} [assuming a sediment density of 1.7 g cm^{3} (Tenzer and Gladkikh 2014)]. These values are similar to those reported for coastal sediments elsewhere in the world (Ivar do Sul and

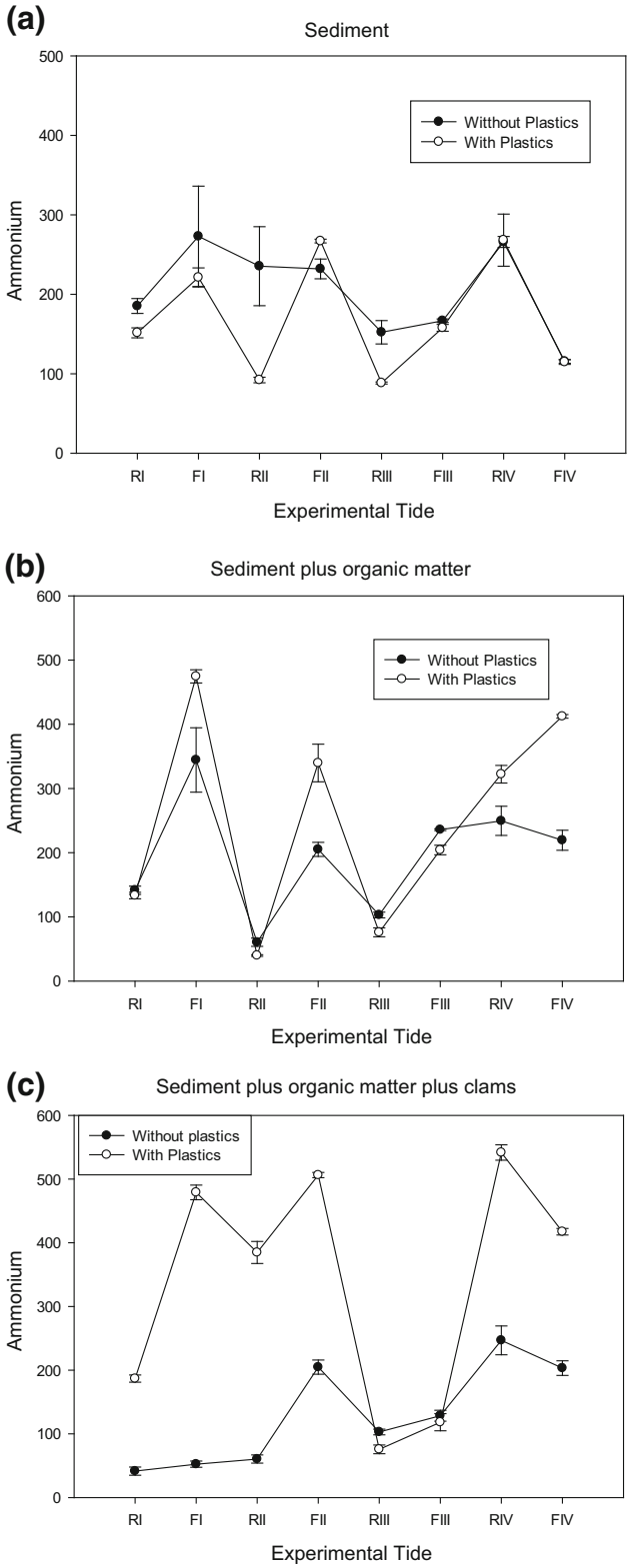


Fig. 7 Ammonium concentrations (μg L^{-1}) in overlying waters of the three microcosm experiments. **a** Sediment only. **b** Sediment + OM. **c** Sediment + OM + clams. Values are averages of $n = 3$ with SE

Table 1 Results of two-way ANOVA Kruskall–Wallace for overlying water ammonium concentrations for the three microcosm experiments

Factor	*F*	*P*
Sediment only		
Treatment	2.93	0.13
Tide	4.78	0.028
Sediment + OM		
Treatment	3.10	0.122
Tide	7.58	0.008
Sediment + OM + clams		
Treatment	13.21	0.008
Tide	2.056	0.181

Costa 2014) but lower than those recovered by Mathalon and Hill (2014). The distribution of the microplastics was region dependent with the greater number recovered from the northeast side of Denman Island. As also noted by Mathalon and Hill (2014), who found no relationship between microplastic concentrations and grain size, the region where the greatest number of particles were found (northeast Denman Island) coincided with those sites characterized by sediments of the largest grain size (2 mm; sites 9 though 11). Depositional zones with the smallest size fractions and greatest amounts of OM (sites 5 and 13) did not have the expected greater number of microplastics.

How microplastics physically interact with the sedimentary abiotic environment has yet to be understood. Given their highly diverse shapes and various physical properties, such as density and surface area, predicting where they will ultimately settle out within the intertidal sediment will be challenging. A general pattern would be expected based on tidal and wave energy where regions of high energy would be less prone to microplastics accumulation compared with those with low energy. Wave/tide energy could in part be the reason of no recovery of microplastics from sites 7 and 8, which are more prone to tidal and wave action compared with samples from other sites Mathalon and Hill (2014) also found that high microplastic concentrations were observed in protected tidal mud flats. These investigators further suggested that microplastics can become associated with microbial films, thus decreasing their ability to be washed from the tidal flat with the tides. Clearly, much study is needed on the physical fate of microplastics within intertidal sediments.

Influence of Microplastics on Cycling of Ammonium Within Intertidal Sediments

Microcosm manipulations indicated that the presence of microplastics (as microbeads) could have a profound effect

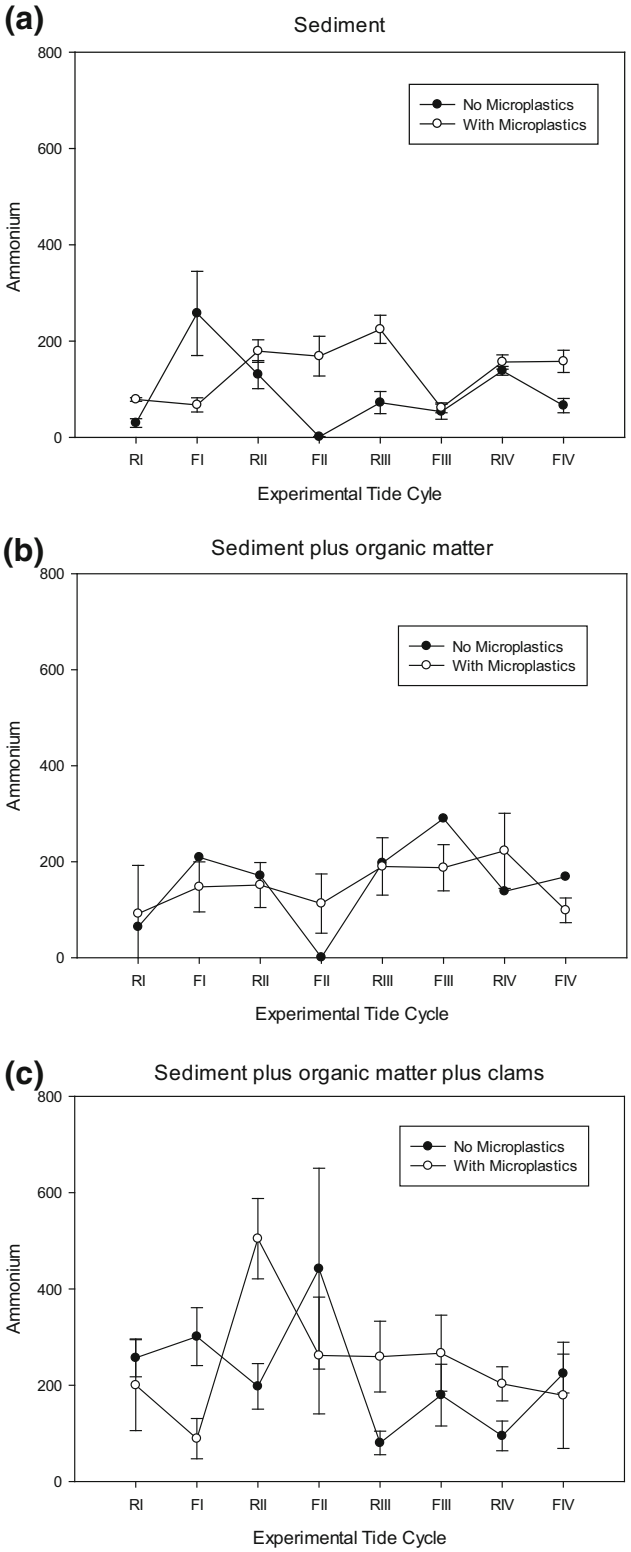


Fig. 8 Ammonium concentrations (μg L^{-1}) in pore waters of the three microcosm experiments. **a** Sediment only. **b** Sediment + OM. **c** Sediment + OM + clams. Values are averages of $n = 3$ with SE

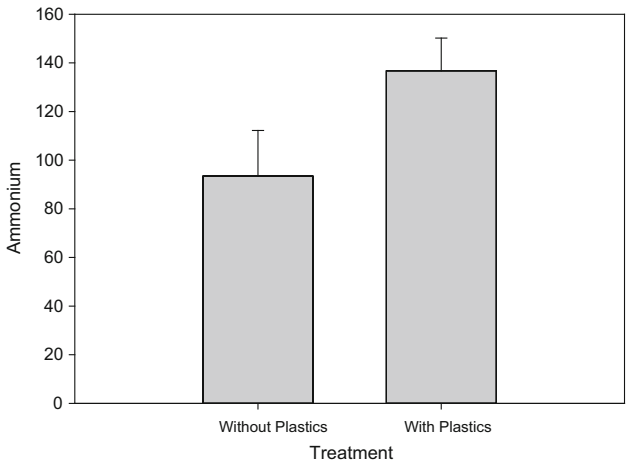


Fig. 9 Overall ammonium concentrations (μg L^{-1}) in sediment-only treatments with and without microplastics

on the cycling of ammonium within the intertidal. Simulated tide events also influenced the amounts of ammonium recovered in the surface water but not in pore water. The greatest amounts of ammonium in the overlying water were recovered after simulated "flood tide", i.e., after the 8-h exposure period. Bendell et al. (2014a) reported similar findings for ammonium sampled from intertidal sediments in which flood tides generally contained greater amounts of ammonium within interstitial waters compared with ebb tides. Bendell et al. (2014a) concluded that ammonium accumulated within the sediment during low tide is discharged to coastal seas as a "pulse" on flood tides. Findings of the current study support this conclusion as well.

Microcosms that were populated by bivalves rapidly accumulated ammonium within the overlying water compared with those without microplastics. Pore water ammonium concentrations also appeared to be influenced with greater recovery of ammonium in sediments with microplastics compared with those without. Ammonium cycling within sediments is bacteria dependent. Bivalves excrete ammonium directly as inorganic ammonium through urine, the composition of which can range from 60 to 100 % ammonium depending on the species of bivalve, and indirectly as organic ammonium (feces and pseudofeces) (Bendell et al. 2014a). The pool of ammonium within the sediment and overlying water will be determined by the rate of ammonification of the organic pool and the rate of nitrification of the inorganic pool. Ammonification will increase the pool, and nitrification will decrease the pool. Hence, accumulations of ammonium in pore water and overlying waters suggest that the bacterial process by which ammonium is removed through denitrification has been interrupted. A similar observation was reported by Bendell et al. (2014a) in their studies in which microcosms containing bivalves and sterile sediments had greater accumulations of ammonium in the overlying water compared with those with bivalves and unsterilized sediments.

The accumulations of ammonium in the microplastic-treated sediments could be a result of the combination of increased sediment porosity facilitating the fluxes of ammonium to pore waters and the overlying water (physical processes) and antibacterial properties of the microbeads suppressing bacterial processes (biological processes) required for the normal functioning of the nitrogen cycle. Carson et al. (2011) reported that the physical presence of small plastic debris changed water movement and heat transfer though beach sediments by increasing sediment porosity. Although the microbeads were thoroughly cleansed before addition to the sediment, accumulations of ammonium within the water suggest that not all of the antibacterial properties were removed.

Summary and Conclusions

Concentrations of microplastics determined in sediments from Baynes Sound, a key shellfish-growing region in BC, were comparable with those found in other urbanized coastal regions. Recent research on the distribution of microplastics in the subsurface seawater of the Pacific Northwest found that concentrations ranged from 8 to 9200 m^{-3}, with concentrations of approximately 4000–5000 m^{-3}, of which 80 % were fibrous occurring within Baynes Sound (Desforges et al. 2014). That fact the shellfish industry is a major source of plastics to the marine environment has been shown by Denman Island community groups, who have been conducting beach clean-ups within Baynes Sound for 10 years. Each year, 3–4 tonnes of debris are collected, 90 % of which are plastics and Styrofoam originating from the shellfish industry (Bendell et al. 2014b). Examples of plastics collected include "Oyster Blue" plastic rope, which likely contributes to the high fibrous composition of the microplastics as determined by Desforges et al. (2014), plastic net shell bags, and plastic oyster pouches and baskets. Based on the findings of previous studies (e.g., Mathalon and Hill 2014), shellfish farmed from this region are likely contaminated by the presence of these microplastics within their tissues. Microcosm studies suggest that microplastics, notably microbeads, have the potential to significantly alter the cycling of key nutrients, such as ammonium, within intertidal sediments. This could have significant consequences in that increased amounts of ammonium within the water column can lead to eutrophication events and could serve to trigger red tides. Highly urbanized regions where untreated effluent is directly discharged into the coastal environment could be particularly at risk.

Our study represents only a preliminary study to address the role of microplastics in altering sediment geochemical fluxes. Controlled laboratory experiments performed at the microcosm scale can only provide direction as to what may be occurring under field conditions. Clearly this is an area well deserving of much more attention.

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References

Andrady AL (2011) Microplastics in the marine environment. Mar Pollut Bull 62:1596–1605

Bendell LI, Thomas C, Stecko JRP (2002) Contrasting the geochemistry of oxic sediments across ecosystems: a synthesis. Appl Geochem 12:1563–1582

Bendell LI, Duckham C, L'Eserpence T, Whiteley J (2010) Changes in the geochemical attributes of the foreshore as a consequence of intertidal shellfish aquaculture. Mar Ecol Prog Ser 404:91–108

Bendell LI, Chan K, Crevecoeur S, Prigent C (2014a) Changes in ammonium and pH within intertidal sediments in relation to temperature and the occurrence of non-indigenous bivalves. Open J Mar Sci 4:151–162

Bendell LI, Birtwell I, Gallaugher P, McKeachie S (2014b) Stewarding the sound. Convener's report. http://www.sfu.ca/coastal/research-series/listing/BaynesSoundSolutions.html. Accessed Dec 2014

Carson HS, Colbert SL, Kaylor MJ, McDermid KJ (2011) Small plastic debris changes water movement and heat transfer through beach sediments. Mar Pollut Bull 62:1708–1713

Claessens M, Van Cauwenberghe L, Vandegehuchte MB, Janssen CR (2013) New techniques for the detection of microplastics in sediments and field collected organisms. Mar Pollut Bull 70:227–233

Clarke KR, Gorley RN (2006) PRIMER v6: User Manual/Tutorial. PRIMER-E, Plymouth. http://refhub.elsevier.com/S0044-8486(14)00322-6/rf0050. Accessed Dec 2014

Cole M, Lindeque P, Halsband C, Galloway TS (2011) Microplastics as contaminants in the marine environment: a review. Mar Pollut Bull 62:2588–2597

Desforges JPW, Galbraith M, Dangerfield N, Ross P (2014) Widespread distribution of microplastics in subsurface seawater in the NE Pacific Ocean. Mar Pollut Bull 79:94–99

Holmes R, Aminot A, Kérouel R, Hooker B, Peterson B (1999) A simple and precise method for measuring ammonium in marine and freshwater ecosystems. Can J Fish Aquat Sci 56:1801–1808

Holmes LA, Turner A, Thompson RC (2014) Interactions between trace metals and plastic production pellets under estuarine conditions. Mar Chem 167:25–33

Ivar Do Sul J, Costa MF (2014) The present and future of microplastic pollution in the marine environment. Environ Pollut 185:352–364

Jickell TD (1998) Nutrient biogeochemistry of the coastal zone. Science 281:217–222

Karayucel S, Celik MY, Karayucel I, Gokham E (2010) Growth and production of raft cultivated Mediterranean mussel (*Mytilus galloprovincialis* Lamrack, 1819) in Sinop, Black Sea. Turk J Fish Aquat Sci 10:9–17

Mathalon A, Hill P (2014) Microplastic fibers in the intertidal ecosystem surrounding Halifax Harbor, Nova Scotia. Mar Pollut Bull 81:69–79

Nuelle M-T, Dekiff JH, Remy D, Fries E (2014) A new analytical approach for monitoring microplastics in marine sediments. Environ Pollut 184:161–169

Tenzer R, Gladkikh V (2014) Assessment of density variations of marine sediments with ocean and sediment depths. Sci World J. doi:10.1155/2014/823296

Thompson RC, Olsen Y, Mitchell RP, Davis A, Rowland SJ, John AW, McGonigle D, Russell AE (2004) Lost at sea: where is all the plastic? Science 304(5672):838

Van Cauwenberghe L, Janssen CR (2014) Microplastics in bivalves cultured for human consumption. Environ Pollut 193:65–70

Vianello A, Boldrin A, Guerriero P, Moschino V, Rella R, Sturaro A, Da Ros L (2013) Microplastic particles in sediments of Lagoon of Venice, Italy: first observations on occurrence, spatial patterns and identification. Est Coast Shelf Sci 130:54–61

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Viewpoint

Favored use of anti-predator netting (APN) applied for the farming of clams leads to little benefits to industry while increasing nearshore impacts and plastics pollution

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ABSTRACT

An overview of the efficacy of anti-predator netting (APN) used by the shellfish industry is presented. There is little support that the currently favored APN effectively protects farmed clams from predators. Evidence does suggest that APN leads to impacts and pollution. APN is an attractant for predators, e.g., crabs, by providing a refuge within *Ulva* sp. which attaches onto the surface of APN. APN entrains silt and organic matter and increases sediment temperatures degrading habitat underneath the APN. APN present hazards to fish and wildlife and is a source of plastics to the marine environment. The continued use of ineffective APN does not serve either the environment or industry well, and many of these issues could be addressed through the alternate use of "ancient" technology used by aboriginal people to maintain clam gardens; building of rock walls optimizing the amount of clam habitat thereby increasing numbers without the use of APN.

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1. Introduction

The world's population is now at 7.2 billion and projected to reach 10.85 billion by 2100 (http://www.worldometers.info/world-population/). The recently released Global Ocean Commission Report (2104) clearly states that the high seas can no longer provide an ever growing population with a reliable source of protein. Hence, we look to finfish and shellfish aquaculture to meet that demand. At no time then, is it more important to establish environmentally sound aquaculture practices that will help meet the ever increasing demand for protein while maintaining healthy, functioning ecosystems.

Of the two, shellfish aquaculture takes a distance second to finfish aquaculture in terms of biomass produced. However, it still contributes significantly to the world's sources of protein through the farming of oysters, mussels and clams. Of the three bivalves, only the clam, *Vernerupis philippinarum* (*V. philippinarum* is also referred to as *Tapes philippinarum* and *Ruditapes philipiinarum* and goes by the common names of the Japanese carpet shell and Manila clam. Manila clam shall be used herein.) has seen a steady increase in production with global production nearly tripling from 2003 to 2011 and six fold since 1991 (FAO, 2014). By far the main producer of the Manila clam is China (97.4% in 2002). Korea, Italy, USA, France and Canada make up the remaining 2.6% (FAO, 2011). Hence, clam culture in North America is a small enterprise which contributes marginally to the global production of this source of protein. Despite this small contribution, the shellfish industry in both Canada and USA hope to increase production of the Manila clam and in doing so provide economic opportunities to the coastal communities within the Pacific Northwest coast.

The Manila clam is a subtropical to low boreal species of the western Pacific and is distributed in temperate areas of Europe (FAO, 2012). It has been farmed (or grown) intentionally for aquaculture purposes (e.g., Humphreys et al., 2007; Bendell, 2013) and unintentionally introduced to the North American Pacific and along the European coastline from the United Kingdom to the Mediterranean Basin (FAO, 2012). Concerns have since been raised as to the threat the Manila clam presents to local bivalve diversity as it continues to spread and increase in abundance (e.g., Bendell, 2013; Humphreys et al., 2007).

Production of the Manila clam is the spreading of clam "seed" when the clam is 10–15 mm in length onto the intertidal substrate at a density of 200–700/m^2 and then covering the seeded area with APN thought to protect the seed from excessive predation (FAO, 2012). APN is typically a plastic mesh of 1–2 cm aperture diameter. Correct husbandry practices include the cleaning of the nets to avoid fouling and siltation and monitoring for predators such as crabs. In China, where the majority of clams are produced, nets are not used. Nets are used however in France and Spain, on the

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Pacific Northwest of Canada, and the USA including Alaska ostensibly to prevent predation from clam eating sea ducks as well as invertebrates such as crabs (Toba et al., 1992).

Along the Pacific Northwest shellfish aquaculture is clustered in those regions that are conducive to farming activities. Thus, the quiescent bays and protected inland seas have mostly been developed for the farming of primarily oysters and clams, although now geoducks are becoming a major product farmed. Within coastal BC, arguably one of the most sensitive ecosystems along the coast (DFO, 2013; Bendell et al., 2014), Baynes Sound, is now subject to aggressive expansion of the industry, including extensive use of APN. Shellfish farming practices that include seeding and the application of APN have never been comprehensively evaluated for their effectiveness, a result of research not keeping pace with the rapid expansion of the industry along the Pacific Northwest.

Here I present an overview of the literature with respect to the use of APN for the purposes of decreasing predation of the Manila clam thereby increasing farm productivity with the objective of determining if there is evidence that supports the use of APN for this purpose. Although the focus is the Pacific Northwest, due to the paucity of studies available for the Pacific Northwest, this review draws on studies conducted in Europe and elsewhere to assess APN efficacy. The review is organized under the following headings; (1) the use of APN in shellfish aquaculture: net effectiveness, (2) influence of APN on intertidal biological attributes, (3) the influence of APN on intertidal geochemical/geophysical attributes, (4) other environmental impacts, (5) a sustainable alternative, clam gardens and (6) conclusions.

2. The use of APN in shellfish aquaculture: net effectiveness

APN is used as a standard aquaculture practice along the Pacific Northwest in regions such as Puget Sound, Baynes Sound and Alaska. Within these regions there can be extensive coverage. For example within Baynes Sound in 2001, 27% or 1.2 km^2 (ca. 225 American football fields) of the mid- intertidal area was covered by APN (Bendell and Wan, 2011). Despite its extensive use no studies have assessed net effectiveness at such large scales within the Pacific Northwest. Rather, the few studies that have assessed the effectiveness of APN for increasing clam productivity have been conducted at the experimental plot scale of m^2 (e.g., Miller, 1982; Anderson, 1982) rather than km^2 as currently practiced by the shellfish industry.

The first studies to assess APN effectiveness within the Pacific Northwest were those of Anderson (1982). Within 6 regions of Puget Sound, Anderson (1982) compared the survival of 2–4 mm Manila clam seed on netted versus non-netted plots. Nets used had an aperture of 0.25–0.5 in. Of the 6 sites, over two growing seasons, 3 showed greater survival under nets as compared to exposed, with one site having no difference, and a second with marginal increased survival. A third site had data for only one growing season. No measure of statistical variability was reported (in contrast to the studies of Smith (1996) reviewed below). These findings became the basis of a "manual" first published in 1982 by Anderson et al. (1982) and then by Toba et al. (1992), on how to farm Manila clams within Puget Sound and Washington State.

Smith (1996) determined the ability of raise Manila clams within shrimp-infested Mudflats in Yaquine Bay, Oregon. Rather than predation, the burrowing shrimp creates muddy substratum unsuitable for clam culture. Thesis objectives were to determine if using a combination of substrate modification (addition of oyster shell) and predatory exclusion devices (cages and netting) whether clam aquaculture would be feasible within Yaquina Bay. Unlike Anderson (1982), Smith (1996) found that predator netting was ineffective in protecting juvenile clams from predation and recommended the use of in-ground cages. No statistical difference was found among treatments which included the plots covered with 6.25 mm Vexar ® netting and unnetted plots. This was despite the anchoring of the nets with sand-filled PVC pipe and with mud applied to the perimeter of the nets. Smith (1996) concluded that densities of hairy shore crab (*Hemigrapsus oregonensis*) at Yaquine Bay would explain the high losses of Manila clam seed that occurred throughout the study plots (see also Bendell, 2014). Other reasons suggested for the loss of clam seed included the displacement of clams by wave and current action (passive movement), sedimentation and natural mortality.

Spencer et al. (1992) addressed the effectiveness of plastic APN in protecting Manila clam seed specifically against shore-crab predation and found that deploying nets of heavy weight (500 g plastic per square meter of net) was an effective means of preventing predation. However, considering the cost of the heavy APN material, the authors also recommended using double layers of cheaper lightweight nets to protect the clams. Double the work effort would be required to apply lighter nets and the cheap plastic nets would also be a source of plastics to the marine environment (see Section 4). Cigarria and Fernandez (2000) addressed the role of APN in the management of Manila clam beds in the Eo estuary of NW Spain. Over a 5 year period a significant effect of size on mortality in both protected and unprotected beds was observed; even with predator control, smaller seed showed poorer survival when planted in the field. As with Spencer et al. (1992) these authors note that in European clam culture, green crabs (*Carcinus maenas*) are one of the most significant predators on juvenile clams with these predators having a preference for smaller sized prey. Reasons for the observed mortality of protected beds included that the net on the intertidal surface is ineffective against infaunal predators such as nemertean worms or polychaetes, although their importance as predators is unknown and crab predation persists due to net inefficiency. Cigarria and Fernandez (2000) concluded that although smaller seed is less expensive, they are more vulnerable to predation. Larger seed would provide greater survival, but at a greater cost and less seed availability. Also recognized by Cigarria and Fernandez (2000) was the dearth of knowledge on the basic biology of the clam such as habitat selection, the effect of infaunal and epibenthic predators and the development of effective protective devices. Beal and Kraus (2002) assessed the interactive effects of initial size, stocking density and type of predator deterrent on the survival and growth of juveniles of the soft-shell clam in eastern Maine. They found that protecting clams <12 mm shell length with APN increased survival a modest 13% with no difference in survival found for clams planted at 15 mm shell length. In this case, no crab predation was observed; rather clam loss appeared to be caused by the spotted wrymouth eel (*Cryptacanthodes maculatus*).

While there are studies which have addressed the effectiveness of APN in the exclusion of crabs, there are few that have addressed the effectiveness of APN in preventing clam predation by sea ducks and shore birds. In Puget Sound, Taylor Shellfish report that significant losses would occur without the use of APN (Bill Dewey, pers comm. April 2014). But, the lines of evidence for Baynes Sound, BC and clam farming regions in Europe suggest differently.

Whiteley (2005) conducted a field scale experiment to examine any possible short term effects of APN on the intertidal bivalve community which included whether prey depletion by wintering shore birds occurred in non-netted control plots as compared to netted plots. The experimental design consisted of three paired (netted and non-netted) plots of 5 × 5 m (25 m^2) at three locations on the east side of Vancouver Island within Baynes Sound, BC. Each plot was sampled three times, time 0, prior to the application of the APN to set baseline, at 7 months and again at 9 months. Timing of sampling coincided with the arrival (fall) and departure (spring) of wintering sea ducks, such as the white winged or velvet scoter

(*Melanitta fusca*) which are thought to be the cause of the depletion of clam beds during the wintering stage of their lifecycle. Plots were sampled for infaunal densities as described in Whiteley (2005). Clam densities varied little through time and no decrease was observed even within the control plots where depletion was expected. Whiteley and Bendell-Young (2007) in a comparison of farmed and reference beaches from three regions of coastal BC found that despite seeding and APN, there was little difference in clam density between farmed and reference sites. This was contrary to what was expected in that it was thought that farming practices would significantly increase the abundance of clams within the intertidal relative to non-farmed intertidal sites.

Godet et al. (2009) assessed the effects of the degradation of a key diet item, *Lanice conchilega* by Manila clam farming on the spatial distribution of shorebirds, notably the Oystercatcher (*Haematopus ostralegus*) , in the Chausey archipelago (France). In this region of Europe clam production is done in 3 years and nets are applied only in the first year to prevent crab predation. Godet et al. (2009) note that potential predation of the Oystercatcher on Manila clams is size dependent with clams greater than 16 mm being preferred which occurs in the second year of production when no nets are present. Despite having access to the clam beds, Godet et al. (2009) did not find any differences between the three years in terms of attractiveness as forage sites for the birds, that is, no one year of the production cycle was more or less favorable. Lewis (2005) determined the foraging behavior and prey depletion by wintering shore birds in Baynes Sound, BC and found that despite the presence of nets, Baynes Sound remained a high-quality habitat for wintering scoters. Two factors, the recent invasion of the varnish clam increasing overall clam abundances within the region and the spread and spawning of aquaculture-planted Manila clams were suggested as reasons for the high-quality. Whiteley (2005) as previously noted addressed the role of predation on clam density and found no difference between his control and netted plots over three sampling periods, fall, prior to bird arrival, during wintering and spring, and after bird departure. Availability of high quality habitat elsewhere in the sound as suggested by Lewis (2005) could possibly explain the absence of any evidence of predator depletion.

Integrating the above studies, there is limited evidence in support of APN in combination with seeding increasing the density of Manila clams relative to regions of the intertidal that are not farmed. Possible explanations for this include;

(1) Nets do not effectively exclude epibenthic predators such as crabs and fish. Indeed the findings of Bendell (2014) indicate that seeding is acting as an attractant for bivalve predators such as small fish and crabs.
(2) Poor husbandry of the nets results in gaps in the APN allowing for predation. Nets are often in disarray and not firmly attached allowing easy access to clams by crabs and small fish (Fig. 1).
(3) Infaunal predation rates are high and infaunal predators would not be excluded by APN (e.g., Cigarria and Fernandez (2000)).
(4) Clam migration. Both Whiteley (2005) and Lewis (2005) have suggested that clams can migrate out from under the nets to other areas. Miller (1982) also notes that "clams do not always stay where you put them". Reasons for this mobile behavior are unknown but it could be related to density effects that is, clams are able to optimize their density to numbers that optimize food availability thereby reducing direct competition for the same food source.

As noted by Cigarria and Fernandez (2000) nearly 15 years ago, much more research is needed to understand the basic ecology of bivalves such that applied farming practices can be as effective as possible.

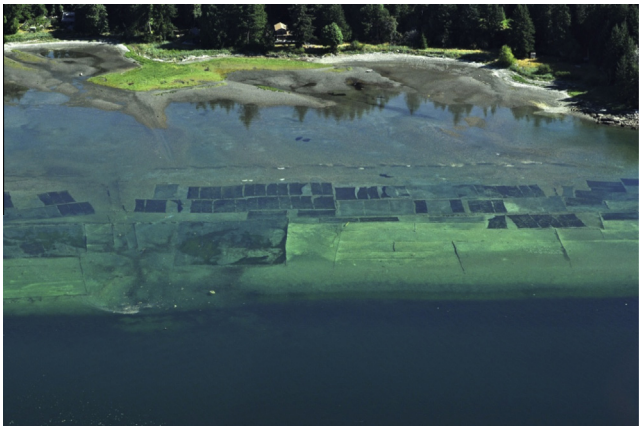


Fig. 1. Aerial photograph of APN on the intertidal region of Baynes Sound, BC. Photo Credit Janet Thomas.

3. Influence of APN on intertidal biological attributes

Although not effective as a predator deterrent, APN does change the nature of the intertidal coastline. As noted by McKindsey et al. (2007), APN can increase the three dimensional structure of the aquatic environment and hence the abundances and types of organisms. Such habitat modification has its most profound effect on regions of minimal habitat heterogeneity (e.g., flat sand substrate). In some cases then, shellfish aquaculture could in turn through the increase in three dimensional structures, also too provide an ecosystem service, rather than just capitalize on the existing functioning of an ecosystem. Powers et al. (2007) suggest that at local scales APN does serve to increase organism abundance and provides refuge and nurseries for small fish. Based on a comparison of two leased sites with a seagrass bed and a sandy beach, these authors concluded that the ecological role for structural habitat rising above clam aquaculture leases is consistent with a broader recognition that artificial reefs, plastic seagrass, oyster shell mounds, and other emergent bottom structures provide habitat services.

Recently Bendell (2014) assessed for possible impacts of shellfish aquaculture, specifically the use of APN in combination with seeding on intertidal community composition within coastal BC. Twenty-eight farm and reference sites from 3 geographically distinct regions of BC were surveyed in each of two years and their epibenthic, endobenthic and macroflora communities compared. The three regions differed in their intensity of industry from low (Barkley), medium (Desolation) to high (Baynes). Marked regional differences in intertidal community composition were observed. Of the three regions Baynes Sound which has 101 tenures, was the most altered with the greatest numbers of Batillaria sp_, an invasive species, and the shore crab, *H. oregonensis*. Of note was the finding that within Baynes Sound, the farming practice of seeding appeared to be acting as an attractant for crab predators with farm sites having on average 3-fold greater numbers as compared to reference sites. Farming practices which used APN were also found to encourage growth and biofouling of the intertidal with *Ulva* sp_ providing refuge for crab predators thereby facilitating increased numbers on the farmed site and hence increased predation rates. Powers et al. (2007) also note that nets with their coverage of algae provides refuge for mobile invertebrates and fish and it is likely that it is these organisms that prey upon small clams and other benthic invertebrates on netted sites. Hence rather than affording protection from predators, APN, especially when biofouled acts as a refuge for the very species it is supposed to exclude.

Walton et al. (2002) have shown the devastating impact that crabs can have on clam farming notably invasive species such as the green crab, *C. maenas* (also recognized by Cigarria and Fernandez (2000)). These authors experimentally determined the effect of the green crab on the stepped venerid clam, *Katelysia scalarina*, the basis of the beginning clam fishery in Tasmania, Australia. Among their findings was that the smallest size class of *K. scalarina* (6–12 mm shell length) was the preferred prey and that *C. maenas* had much higher predation rates that any native predator tested and that predations rates of *C. maenas* increased with increased densities of juvenile *K. scalarina*. These authors concluded that the invasion by *C. maenas* may reduce the average abundance of *K. scalarina*, potentially below the point of economic sustainability.

In addition to providing a refuge for predators, other changes in intertidal community composition include lower species richness (Beadman et al., 2004; Bendell-Young, 2006) and changes in species composition toward domination of netted regions of foreshore by deposit feeding worms (Kaiser et al., 1996; Spencer et al., 1997).

4. Geochemical and geophysical attributes

The physical presence of APN is associated with accumulation of fine silt and organic matter directly under the net (Simenstad et al., 1993; Spencer et al., 1997). The build-up of organic material in parts of the Sacca di Goro (Italy) subject to intense clam farming practices has led to dystrophic events causing anoxia and massive mollusk mortality in cultivated areas (Bartoli et al., 2001). Bartoli et al. (2001) recommended that shellfish farmers should carefully consider sustainable densities of clams (*T. philippinarum*) to prevent the risk of sedimentation and water anoxia, a recommendation relevant to farming practices currently practiced on the west coast of Canada.

More recently, Munroe and McKinley (2007) assessed the effects of APN on intertidal sediment characteristics within one region of coastal BC. While these authors did not observed a statistical difference in percent silt (although while not significant in the first year of study netted beaches all had greater levels of silt as compared to non-netted, in the second year of study 2 of 4 had greater levels), levels of organic matter were significantly higher on netted plots. A unique finding was increased temperature under the nets, the nets acting as an insulator keeping intertidal sediments warmer as compared to those intertidal regions without nets. Bendell et al. (2010) compared sediment characters of netted versus non-netted intertidal areas across three geographically distinct regions of BC. A total of 16 paired farm and reference sites were sampled for both surficial (0–3 cm) a bulk (0–10 cm) sediments and analyzed for % silt, organic matter, ammonium, phosphorus, iron and manganese. In agreement with the studies of Sorokin et al., 1999; Bartoli et al., 2001; Beadman et al., 2004 and Bendell-Young, 2006; Bendell et al. (2010) found that all geochemical attributes and ammonium sorption coefficients were greater in either surficial and/or bulk sediments of farmed as compared to reference beaches. A possible explanation for the different outcomes of the study by Munroe and McKinley (2007) is that the region they chose for field manipulation has been intensively used for shellfish farming since 1940. It is likely that beaches within this region have all been highly altered making it difficult to detect additional anthropogenic influences on sediment characteristics.

5. Other environmental interactions: a source of plastics to the oceans

The application of APN on intertidal regions on the Pacific Northwest has more far reaching effects than just altering intertidal community and sediment characteristics. They present real environmental hazards by providing a source of plastics to the marine environment. Recent research on the distribution of microplastics in the subsurface seawater of the Pacific Northwest found that concentrations ranged from 8 to 9200 m^{-3} with concentrations of approximately 4000–5000 m^{-3} of which 80% were fibrous occurring within Baynes Sound where 50% of British Columbia's shellfish industry is located (Desforges et al., 2014). That the shellfish industry is a major source of plastics to the marine environment has been demonstrated by local community groups who have been conducting beach clean-ups within Baynes Sound for 10 years. Each year 3–4 tonnes of debris are collected, 90% which are plastics and Styrofoam originating from the shellfish industry (Bendell et al., 2014). Examples of plastics collected include "oyster blue" plastic rope, which likely contributes to the high fibrous composition of the microplastics determined by Desforges et al. (2014), plastic net shell bags, and plastic oyster pouches and baskets (Fig. 2).

We are just beginning to appreciate the magnitude by which we have contaminated the oceans with plastic pollution. With that realization, the last 10 years has seen an increased research emphasis on the possible impacts of microplastics within the marine environment. A recent review of Ivar do Sul and Costa (2014) reports that microplastics can transport pollutants over large ocean areas and can contaminate marine biota when ingested. Perhaps of greater concern to the shellfish industry are the findings of Van Cauwenbeghe and Janssen (2014) who determined that *Mytilus edulis* (the blue mussel) and *Crassostrea gigas* (Pacific oyster) contained on average 0.35 and 0.47 particles of plastics g ww^{-1} respectively. Van Cauwenbeghe and Janssen (2014) estimated that this would translate into an annual dietary exposure for European shellfish consumers of 11,000 microplastics per year. In a similar study, Mathalon and Hill (2014) determined that farmed mussels sampled from Halifax Harbor, Nova Scotia contained ca. 75 microplastics $mussel^{-1}$ or 10 microplastics gww^{-1} (assuming a mussel meat wet weight of 7 g (Karayucel et al., 2010)) which would translate into the ingestion of ca. 1700 microplastics per average restaurant serving of 24 mussels. Hence, not only is the shellfish industry contributing to the global issue of marine plastic pollution, but also contaminating the very product they are farming. Further impacts include nets not being properly attached which then wash up on shore providing hazards to humans and wildlife alike (Fig. 3). APN also entrains wildlife and poses a real threat to forage fish such as herring which use the intertidal regions for spawning (Fig. 4).



Fig. 2. Examples of plastics collected during the annual beach clean-up within Baynes Sound. Between 3–4 tons of plastics attributed to the shellfish industry are collected within one day of clean-up. Photo credit ADIMS (Association of Denman Island Marine Stewards).

Of real concern is that as the shellfish industry continues to expand, it does not appear to be responsive to the role they play in contributing to plastics in the marine environment. The industry is now looking to the farming of geoducks (*Panopea generosa*) within the Pacific Northwest to meet demand from the Asian market for this product. The farming of geoducks involves the drilling of holes into the intertidal substrate and inserting approximately 18 inch polyvinylchloride (PVC) pipes into which the juvenile geoduck seed are placed. A typical one acre area of geoduck tenure within Puget Sound, Washington, USA, contains approximately 43,500 pipes or approximately 16.5 tons of plastics (Bendell et al., 2014). Cole et al. (2011) reviewed the role of microplastics as contaminants in the marine environment. These authors note that although plastics such as PVCs are considered "inert", plastic additives used to change the properties of the PVC (e.g., softening) may leach presenting hazardous chemicals to marine biota. The example provided by Cole et al. (2011) is the presence of phthalates which can comprise 50% of the plastics weight. Key knowledge gaps identified by Cole et al. (2011) included "determining the impact of leached plastic additives and adsorbed waterborne pollutants to biota, transferred via microplastics, on marine biota. Most worrisome is that the shellfish industry continues to expand without this knowledge.

6. An alternative approach to increasing clam productivity on the intertidal; Clam gardens

In 1995, unusual coastal features were identified in the intertidal zone of the Broughton Archipelago, BC (Harper et al., 2005). The features were boulder-cobble walls (ridges) parallel to the shoreline positioned at the low-water line. Harper et al. (2005) mapped the features on coastal BC and found over 500 spread along the BC coast from Bella Bella BC to Victoria BC. These researchers noted that clam gardens were a significant part of the natural landscape for aboriginal peoples and indicated that clam mariculture was wide-spread in the pre-contact cultures of BC. Williams (2006) also reports on the wide spread occurrence of clam gardens along coastal BC. In her book, *"Clam Gardens; Aboriginal Mariculture on Canada's West Coast"*, Williams recounts how first nations did clam mariculture first and better than as currently practiced by the BC shellfish industry. She notes that the basic structure of a clam garden is simple but elegant: a wall of stones and boulders set at low tide. The wall serves to retain sediment and nutrients that provide an environment conducive to bivalve growth. More recently Groesbeck et al. (2014) were able to experimentally demonstrate that clam gardens increased clam productivity by altering the slope of soft-sediment beaches, expanding optimal intertidal clam habitat thus enhancing growing conditions for clams. These authors found that juvenile *Leukoma staminea* grew 1.7 faster and occurred at twice the density within clam gardens as compared to those not within the modified intertidal regions.



Fig. 4. Hazards presented to wildlife and forage fish by APN within the intertidal region of Baynes Sound BC. Photo credit Liz Johnston.



Fig. 3. Unsecured APN on intertidal region of Baynes Sound BC. Photo credit Liz Johnston.

In contrast to netting, application of an ancient means of increasing bivalve productivity could provide an environmentally benign approach to shellfish aquaculture. Although some beach modification is required, i.e., the building of stone walls to create optimal habitat, negative attributes such as entrapment of wildlife, creation of anoxic conditions and the introduction of plastics into the marine environment caused by the presence of APN would not occur. The refuge created by the accumulation of *Ulva* sp. on the net would no longer occur possibly then leading to a decrease of clam predators, notably crabs that feed on the small seed.

A final consideration is the ever increasing threat of ocean acidification on the shellfish industry. Svanhill (2012) notes that seed security is critical for any aquaculture project with clam seed available from 3 hatcheries in BC, a few in Washington State and Hawaii. However hatcheries are having difficulty keeping up with demand and are also seeing increased mortality rates due to ocean acidification (Svanhill, 2012). Indeed, Narita et al. (2012) assessed the economic costs of ocean acidification on shellfish production and concluded that the costs for the world as a whole could be over 100 billion USD. Clam gardens may provide an alternative means of increasing productivity without having to rely on hatchery sources. By building up the lower region of the intertidal, the enclosed area would act as "larval settling basins" increasing numbers of clams without the need for purchasing seed.

7. Conclusions

Rather than being a means of increasing beach productivity APN provides a refuge for clam predators and degrades the intertidal sediment geochemical characteristics. The nets also present hazards to wildlife and humans alike. Ancient methods of clam farming, the building of rock walls which serve to expand and enhance the intertidal habitat such that it is conducive to clam productivity may provide an alternate approach. No hazards are presented, no plastics are introduced into the marine environment and no physical changes to the sediment need be made. In this time of climate uncertainty, finding alternate means of ensuring food security are international and national priorities. This is a unique opportunity in the development of shellfish aquaculture in the Pacific Northwest and it would be unfortunate if the shellfish industry does not embrace this opportunity.

References

Anderson, G.J., 1982. Intertidal culture of the Manila clam, *Tapes philippinarum*, using large netting enclosures in Puget Sound, Washington. M.Sc. thesis, University of Washington, Seattle, pp. 99.

Anderson, G.J., Miller, M.B., Chew, K.K., 1982. A guide to Manila clam aquaculture in Puget Sound. Washington Sea Grant Technical Report WSG 82-4, pp. 45.

Bartoli, M., Nissoli, D., Viaroli, P., Turolla, E., Castaldelli, G., Fano, A., Rossi, R., 2001. Impact of *Tapes philippinarum* farming on nutrient dynamics and benthic respiration in the Sacca di Goro. Hydrobiologia 455, 203–212.

Beadman, H.A., Kaiser, M.J., Galanidi, M., Shucksmith, R., Willows, R.I., 2004. Changes in species richness with stocking density of marine bivalves. J. Appl. Ecol. 41, 464–475.

Beal, B.F., Kraus, M.G., 2002. Interactive effects of initial size, stocking density, and type of predator deterrent netting on survival and growth of cultured juveniles of the soft-shell clam, *Mya arenaria* L., in eastern Maine. Aquaculture 208, 81–111.

Bendell, L.I., 2013. Evidence for the decline of the native littleneck as a consequence of the intentional introduction of the Manila clam for shellfish aquaculture. Estuar. Coasts. 37, 369–380. http://dx.doi.org/10.1007/s12237-013-9677-1.

Bendell, L.I., 2014. Community composition of the intertidal in relation to the shellfish aquaculture industry in coastal British Columbia, Canada. Aquaculture 433, 384–394.

Bendell, L.I., Wan, P., 2011. Use of aerial photography and GIS to estimate the extent of an anthropogenic footprint. J. Coast. Conserv. 15, 417–431. http://dx.doi.org/10.1007/s11852-010-0101-8.

Bendell, L.I., Duckham, C., L'Esperance, T., Whiteley, J.A., 2010. Changes in geochemical foreshore attributes as a consequence of intertidal shellfish aquaculture: a case study. Mar. Ecol. Progr. Ser. 404, 91–108.

Bendell, L.I., Birtwell, I., Gallaugher, P., McKeachie, S., 2014. Stewarding the Sound. Convener's Report. <http://www.sfu.ca/coastal/research-series/listing/BaynesSoundSolutions.html>.

Bendell-Young, L., 2006. Contrasting the community structure and select geochemical characteristics of three intertidal regions in relation to shellfish farming. Environ. Conserv. 33, 21–27.

Cigarria, J., Fernandez, J.M., 2000. Management of Manila clam beds I. Influence of seed size, type of substratum and protection on initial mortality. Aquaculture 182, 173–182.

Cole, M., Lindeque, P., Halsband, C., Galloway, T.S., 2011. Microplastics as contaminants in the marine environment: a review. Mar. Pollut. Bull. 62, 2588–2597.

Desforges, J.P.W., Galbraith, M., Dangerfield, N., Ross, P.S., 2014. Widespread distribution of microplastics in subsurface seawater in the NE Pacific Ocean. Mar. Pollut. Bull. 79, 94–99.

DFO, 2013. Evaluation of proposed ecologically and biologically significant areas in marine waters of British Columbia. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2012/075.

FAO, 2011. FAO yearbook. Fishery and Aquaculture Statistics. 2011/FAO.

FAO, 2012. Cultured Aquatic Species Information Programme. *Ruditapes philippinarum* (Adams and Reeve, 1850).

FAO, 2014. The State of the World Fisheries and Aquaculture. Opportunities and challenges. 2014/FAO.

Global Ocean Commission ,2014. From Decline to Recovery-A rescue Package for the Global Ocean. pp. 92.

Godet, L., Toupoint, N., Fournier, J., Le Mao, P., Retiere, C., Olivier, F., 2009. Clam farmers and Oystercatchers: effects of the degradation of *Lanice conchilega* beds by shellfish farming on the spatial distribution of shorebirds. Mar. Pollut. Bull. 58, 589–595.

Groesbeck, A.S., Rowell, K., Lepofsky, D., Salomon, A.K., 2014. Ancient clam gardens increased shellfish production: Adaptive strategies from the past can inform food security today. PLoS ONE 9(3): e91235. Doc10.1371/journal.pone.0091235.

Harper, J., Dick, A., Mitchell, D., Sewid-Smith, D., Bouchard, R., Kennedy, D., Morris, M., Recalma-Clutesi, K., 2005. Clam Gardens of British Columbia, Canadian Archaeological Association. Conference Paper, Nanaimo BC (2005).

Humphreys, J., Caldow, R.W.G., McGorty, S., West, A.D., Jensen, A.C., 2007. Population dynamics of naturalized Manila clams *Ruditapes philippinarum* in British Coastal waters. Mar. Biol. 151, 2255–2270.

Ivar do Sul, J.A., Costa, M.F., 2014. The present and future of microplastic pollution in the marine environment. Environ. Pollut. 185, 352–364.

Kaiser, M.J., Edwards, D.B., Spencer, B.E., 1996. Infaunal community changes as a result of commercial clam cultivation and harvesting. Aqua. Living Resour. 9, 57–63.

Karayucel, S., Celik, M.Y., Karayucel, I., Gokham, E., 2010. Growth and production of raft cultivated Mediterranean Mussel (*Mytilus galloprovincialis* Lamrack, 1819) in Sinop, Black Sea. Turkish J. Fisher. Aquat. Sci. 10, 9–17.

Lewis, T.L., 2005. Foraging Behaviours and Prey Depletion by Wintering Scoters in Baynes Sound, British Columbia: Inferring Food Availability and Habitat Quality. MSc. Simon Fraser University, pp. 125.

Mathalon, A., Hill, P., 2014. Microplastic fibers in the intertidal ecosystem surrounding Halifax Harbor, Nova Scotia. Mar. Pollut. Bull. 81, 69–79. http://dx.doi.org/10.1016/j.marpolbul.2014.02.018.

McKindsey, C.W., Landry, T., O'Beirn, F.X., Davis, I.M., 2007. Bivalve aquaculture and exotic species: a review of ecological considerations and management issues. J. Shellfish Res. 26, 281–294.

Miller, M.B., 1982. Recovery and growth of hatchery-produced juvenile Manila clams, Venerupis japonica (Deshayes), planted on several beaches in Puget Sound, Washington. Ph.D dissertation, University of Washington, Seattle. pp. 250.

Munroe, D., McKinley, R.S., 2007. Commercial Manila clam (*Tapes philippinarum*) culture in British Columbia, Canada: The effects of predator netting on intertidal sediment characteristics. Estuar., Coast. Shelf Sci. 72, 319–328.

Narita, D., Rehdeanz, K., Tol, R.S., 2012. Economic costs of ocean acidification: a look into the impacts on shellfish production. Clim. Change 113, 1049–1063.

Powers, M., Peterson, C.H., Summerson, H., Powers, S., 2007. Macroalgal growth on bivalve aquaculture netting enhances nursery habitat for mobile invertebrates and juvenile fishes. Mar. Ecol. Progr. Ser. 339, 109–122.

Simenstad, C.A., Weitkamp, L.A., Cordell, J.R., 1993. Effects of substrate modification on littoral flat epibenthos: assemblage structure changes associated with predator exclusion nets FRI-UW-9310. Fisheries Research Institute, University of Washington, Seattle, WA, USA.

Smith, M.D., 1996. Manila Clam Aquaculture in Shrimp-infested Mudflats. Oregon State University, Oregon, MSc in Fisheries, pp. 109.

Sorokin, I., Giovanardi, O., Pranovi, F., Sorokin, P., 1999. Need for restricting bivalve culture in the southern basin of the Lagoon of Venice. Hydrobiologia 400, 141–149.

Spencer, B.E., Edwards, D.B., Millican, P.F., 1992. Protecting Manila clam (Tapes philippinarum) beds with plastic netting. Aquaculture 105, 251–268.

Spencer, B.E., Kaiser, J., Edwards, D.B., 1997. Ecological effects of intertidal Manila Clam cultivation: observations at the end of the cultivation phase. J. Appl. Ecol. 2, 444–452.

Svanhill, J., 2012. A guide to the intertidal clam aquaculture business in British Columbia. ISIS, Sauder School Of Business, University of British Columbia in partnership with the Nanwakols Council, pp. 13.
Toba, D.R., Thompson, D.S., Chew, K.K., Anderson, G.J., Miller, M.B., 1992. Guide to Manila Clam Culture in Washington. Washington Sea Grant Program. University of Washington, ISBN 0-934539, pp. 88.
Van Cauwenberghe, L., Janssen, C.R., 2014. Microplastics in bivalves cultured for human consumption. Environ. Pollut. 193, 65–70.
Walton, W.C., MacKinnon, C., Rodriguez, L.F., Proctor, C., Ruiz, G., 2002. Effect of an invasive crab upon a marine fishery: green crab, *Carcinus maenas*, predation upon a venerid clam, *Katelysia scalarine*, in Tasmania (Australia). J. Exp. Mar. Biol. Ecol. 272, 171–189.
Whiteley, J.A., 2005. Macroinvertebrate community response to clam aquaculture practices in British Columbia, Canada. MSc Thesis. Simon Fraser University, pp. 134.
Whiteley, J.A., Bendell-Young, L., 2007. Ecological implications of intertidal mariculture: observed differences in bivalve community structure between farm and reference sites. J. Appl. Ecol. 44, 495–505.
Williams, J., 2006. Clam Garden: aboriginal mariculture on Canada's west coast. New Star/Transmontanus. ISBN-10: 1554200237, pp. 128.

September 2017 Islands Trust Council

Delegations and Town Hall Session

2:00 p.m. – 3:00 p.m., Wednesday, September 13, 2017

Chair: **Peter Luckham, Chair, Islands Trust Council**

1. **Edina Johnson of Denman Island Residents Association Marine Guardians re Marine Environment Damage**
2. **Zdenek Brich of Anchorages Concern Thetis re freighter anchorages around Thetis**
3. **Harlene Holm of Denman Community Land Trust Association re affordable housing initiatives**
4. **Sheila Malcolmson re abandoned vessels legislation**
5. **Graham Brazier of Gulf Island Alliance re marine stewardship and planning**

Emma Restall

From: Edina Johnston <edijohnston@gmail.com>
Sent: Sunday, July 09, 2017 7:22 PM
To: Emma Restall
Subject: delegation request for Sept. Trust Council meeting on Denman Island

Dear Ms. Restall: The Denman Island Residents Assoc. (DIRA) Marine Guardians would appreciate the opportunity to be a delegation at the Trust Council quarterly meeting on Denman Island in September. We would like to address the serious issue of damage being done to the marine environment in ours and other gulf island waters. Thank you for your time and consideration.

Edi Johnston
DIRA MG chair
250 335-2689
5271 Chrisman Rd.
Denman Island, BC
V0R 1T0

Moving from Anarchic Destruction to Sustainable Management of our Beaches



Please help us manage them sustainably for ALL people of BC

Our local regulatory vacuum is part of BC's broken system of environmental management

- As in other places, "regulatory capture" by short-sighted industry results in weak/absent enforcement by federal (DFO), provincial (FLNRO), FN or local governments

- IT relinquishes control over beaches where tenures are controlled by mostly off-island shellfish growers who decide "Normal Farm Practices" = nets, rebar states, high berms, 5 ton trucks on beaches, abandoned derelict equipment, etc.

Our local regulatory vacuum is part of the BC's broken system of environmental management

- DFO does not enforce Conditions of License or Fisheries Act.
- Province accepts no responsibility for Crown Land issues.
- IT is powerless over tenures

How does it (not) work on Denman?

- IT jurisdiction to high water on VI; but LTC often trumped by DFO
- Foreshore (btwn high & low tides) mostly administered by province
- "Harmonised" aquaculture licensing = province assigns tenure + feds issue license
- Local govts (e.g., IT) regulate land use, including offshore, foreshore and nearshore areas within their zoning boundaries

How does it (not) work on Denman?

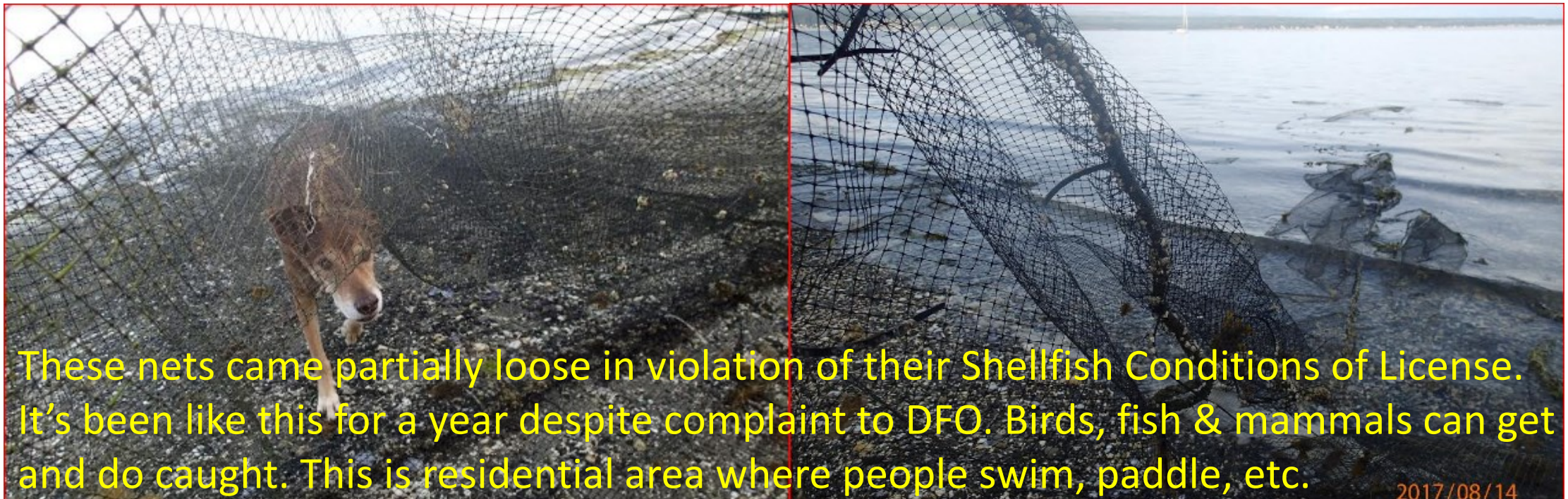
- Ignoring Denman zoning, province is processing new shellfish applications
- Referrals go out & if no LTC objections then tenure & license awarded
- Referrals don't always reach LTC





How does it (not) work on Denman?

- Misleading or incorrect applications accepted and approved
- Province does not inspect or control tenure boundaries
- DFO doesn't have capacity to enforce conditions of license



What happens in our regulatory vacuum?

- Anything/everything goes (especially during winter storms). Once beach or offshore area is tenured, IT has NO CONTROL, locals are at mercy of off-island tenure holders, sometimes foreign owners, numbered companies



More plastic waste on beaches in the wake of winter storms

What happens in (y)our regulatory vacuum?

- Overuse and abuse of plastics in aquaculture add to micro-plastics crisis
- Rocks moved to create berms = navigational hazards + destruction of fish habitat



Styrofoam breaks off rafts and crumbles on beaches, especially after storms,

What happens in (y)our regulatory vacuum?

- Nets over clams, proven ineffective, often come loose & now extending to oysters = threat to swimmers, death traps for fish, birds + more plastic waste
- Rebar spikes + plastic fences = lethal threats to swimmers, boaters, marine life
- DFO & FLNRO know but don't act—Do boaters/paddlers/swimmers have to drown or be impaled before gov't acts?








(Y)OUR REGULATORY VACUUM =
AN INDUSTRY OUT OF CONTROL
2017/08/16

WE ARE DOING WHAT WE CAN BUT WE CANNOT DO IT ALONE. Islands Trust PLEASE GET INVOLVED



Denman Island Beach Clean up 2012



Denman Island Beach Clean up 2016. For over a decade we've removed 3-4 tons of mostly plastic waste from shellfish industry each year.



What are we asking you for?

Acknowledge our crisis and get involved in solving it. Here are some ways:

- Moratorium on approval of shellfish applications until current problems are solved

- Use and enforce IT zoning to roll back this anarchic & destructive industrialization of shores & adjacent waters

What are we asking you for?

Acknowledge our crisis and get involved in solving it. Here are some ways:

- IT require FLNRO to ensure zoning regulations are met before tenures assigned (as in the past), ensuring respect of islanders Riparian Rights

- Focus IT expertise on addressing marine conservation issues, **not** on promoting shellfish industry and **not** simply deferring to FN who have not created these problems and do not have capacity to deal with them

What are we asking you for? (in handout, not in presentation)

IT mobilise help to protect/restore foreshore through, for example:

- IT ensure tenure boundaries are respected (by FLNRO spot checks)
- FLNRO “Sponsored Crown Grant” for parcels of land to protect (y)our foreshore
- FLNRO “Service Plan” to “Increase (foreshore) ecosystem health by working …with multi-sector partner groups and FN to restore degraded ecosystems,” e.g., ecosystem restoration, remediation, best management practices”
- FLNRO “Partnership Agreements” in Recreation Sites and Trails BC to implement beach trails under local partnership agreements


THANK YOU & GOOD LUCK TO ALL OF US

Emma Restall

From: Gok Sarioglu <goksenin46@gmail.com>
Sent: Friday, August 04, 2017 7:47 AM
To: Emma Restall
Cc: Joanzdenek; alanasdelong@gmail.com; Robert Spencer; steen@island.net
Subject: Anchorages Concern Thetis (ACT) presentation

Dear Ms Restall, Anchorages Concern Thetis (ACT)would like to be put on the agenda for the next Trust Council meeting September 12-14 2017. Act will be doing a presentation about our concerns around freighter anchorages in Trincomali Channel and waters surrounding Thetis in the Salish Sea. The presenter will be Zdenek Brich-198 Pilkey Point Road, Box 17-0, Thetis Island joanzdenek@yahoo.com.
Thank you for your attention
Suzanne Sarioglu

Sent from my iPad



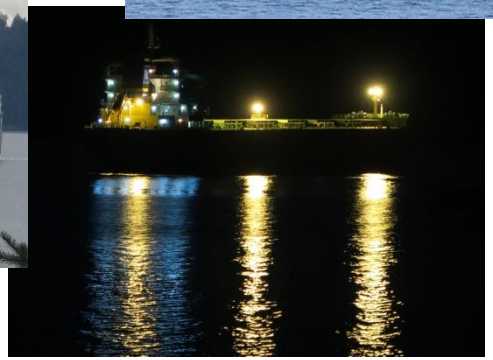
Anchorages Concern Thetis















Topics of today's presentation

1. Who is ACT?
2. Environmental impact of anchorages.
3. Social impact of anchorages.
4. Economic impact of anchorages.
5. How can Islands Trust help?



1. Who is ACT?

- ACT is a group of concerned residents who formed to deal with the issue of freighter anchorages in waters surrounding Thetis Island.

- Its goal is to keep waters surrounding Thetis Island free of freighter anchorages



2. Environmental Impact

- Marine reserve areas Reid Island/Wallace Island/Secretary Island/Bird Islands are in or at proximity of the vessels routes.
- Scouring of the sea floor by anchor chains => disturbance of habitat, sedimentation and turbidity.
- Underwater sound generated by ships => interference with echolocation for resident and transient killer whales and other species => livelihood of marine animals.
- NO_x, SO_x, CO_2 – uncontrolled emissions => increase of air pollution => creation of double standard (controlled local population versus uncontrolled vessels).
- Ballast water => introduction of potentially invasive species and/or elimination of local species.
- Sewage, oil spills and fuel leaks



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- Ballast water => introduction of potentially invasive species and/or elimination of local species.
- Sewage, oil spills and fuel leaks

No data No control



3. Social impact

Dynamics: A more than 40x increase in anchoring days in comparison with 2010, average length of anchorage – 17.6 from 1.7 days in 2010

- Safety: the waters around Thetis Island are intensively used by pleasure crafts. Small craft, sailboats, kayaks and canoes all risk a collision with these larger and harder to negotiate freighters => accidents only a question of time!
- Bright lights shining throughout the night, many directly into residential windows.
- Noise from diesel engines running 24 hours a day and from ship maintenance.
- Visual disturbance-huge ships parked in our rural neighborhood and tranquil seas.
- Negative impact on recreation and tourism, essential elements of our social environment and local economy. Confirmation from commercial outlets of complaints from guests this year about the freighters.



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- Negative impact on recreation and tourism, essential elements of our social environment and local economy. Confirmation from commercial units of complaints from guests this year about the freighters.

Living in the middle of an industrial park



4. Economic impact

Cost to Canadian economy:

- Demurrage costs about 8700$/day (Business Vancouver, March 28, 2017) => 2017/2 months window in Trincomali channel => **1,940,100 CDN**
- Additional cost of pilotage – 'moving' vessel from Trincomali channel to Vancouver harbour about **10,000 CDN** (info ISS)
- Moving vessel slower to arrive 'just in time' save substantial amount of fuel. From 25=>15.7kn/h this amounts to 60% of fuel reduction (Wojciech Gorski&all, Scientific Journals, Maritime University of Szczecin, 2013)
- Remediation costs for pollution related impact

https://www.google.ca/search?rlz=1C1RFPM_enCA712CA712&q=wojciech+gorski+scientific+journals+2013&oq=wojciech+gorski+scientific+journals+2013&gs_l=psy-ab.3...6994.13312.0.14775.12.12.0.0.0.0.1153.2708.6-2j1.3.0....0...1.1.64



4. Economic impact

Cost to Local Economy:

- Trincomali is one of the premier sailing destinations in the world. The presence of freighters detracts from the experience.
- The Cowichan Valley is developing a vibrant tourist economy. There have been a number of negative comments from visiting tourists about the unsightliness of the freighters in the Channel.



5. How can Islands Trust Help?

Island Trust can assist ACT by taking a firm position about anchorages => <u>no freighter anchorages in Southern Gulf Islands</u>

Such a position

1. would be in-line with the Trust Act mandate to preserve and protect the area for which it is responsible
2. would support goals of the majority of Anchorages related advocacy groups

From: harlene holm [mailto:ananke@uniserve.com]
Sent: Thursday, August 10, 2017 12:10 PM
To: Emma Restall
Cc: Louise Bell
Subject: Re: September 12-14 Trust Council meeting delegation

Hi Emma,

Sorry to be late getting back to you. There is a great deal going on right now.

I will be giving the presentation on behalf of the Denman Community Land Trust Association (DCLTA). My address is 3900 Lacon Road, Denman Island, BC V0R 1T0.

I am working with Louise Bell on the written document and will email you a copy in time for inclusion in the Trust Council agenda package.

Thanks for the reminder □

Harlene

-------- Original Message --------
From: harlene holm <ananke@uniserve.com>
Sent: Monday, July 24, 2017 04:10 PM
To: Executive Admin <execadmin@islandstrust.bc.ca>
Subject: September 12-14 Trust Council meeting delegation
CC: David Marlor <dmarlor@islandstrust.bc.ca>,Louise Bell <louise.bell@telus.net>,Laura Busheikin <lbusheikin@islandstrust.bc.ca>,David Critchley <dcritchley@islandstrust.bc.ca>

Hello,

Please add Denman Community Land Trust Association(DCLTA) to those delegations scheduled as part of the Trust Council meeting on Denman Island. Our delegation focus will be affordable housing initiatives and the role of the Trust.

Harlene Holm

Denman Community Land Trust Association Delegation to Trust Council
September 13, 2017

Thank you for providing Denman Community Land Trust Association (DCLTA) with this opportunity. To learn more about us and our work to create affordable housing for low-income residents on Denman Island, visit our website at denmanaffordablehousing.org.

My presentation will ask the Trust Council to take two specific steps to help shift affordable housing from talk to action. One is to expand the Islands Trust Policy Statement to address affordable housing and the other is to create a model policy for LTCs wanting to move an affordable housing proposal to fruition.

The Trust has a history of examining the need for affordable housing on the islands. The following are important investigations:

a) January 2010 – Islands Trust Community Housing "Tool Kit." Among many significant recommendations (attached), the Trust was urged to amend the Islands Policy Statement, "giving affordable housing a greater profile for its role in sustainable communities" and to adopt an Affordable Housing First policy at the Local Trust Committee (LTC) level.

b) June 13, 2016 – Islands Trust Forum on Community Housing.

c) June 2016 – *Baseline Report Affordable Housing in the Islands Trust Area,* followed by the *Final Report Community Housing in the Trust Area.* Both of these documents reiterate a key recommendation from the Tool Kit, namely:

THAT Trust Council review the Islands Trust Policy Statement to ensure that it:

a) includes clear and well-thought out definition of 'affordability'

b) includes clearly articulated vision, goal and objectives for affordable housing

c) gives affordable housing a greater profile for its role in sustainable communities

d) includes a reference to affordable housing in its policy direction to LTCs and municipalities

All well and good. However, neither of the 2016 reports includes the further Tool Kit recommendation that LTCs adopt an Affordable Housing First policy. According to the Tool Kit, an Affordable Housing First policy could facilitate fast tracking the amendment process, enhance cooperation within the process, shrink time lags and reduce fees and minimize requirements for non-profits initiating affordable housing projects.

Today's Council meeting has the power to initiate a Policy Statement review to address affordable housing. Last week, DCLTA applied for a bylaw amendment for its Seniors'Affordable Housing proposal. In preparing the application, we found ample support in our OCP but nothing in the Policy Statement beyond a vague reference to "diversity."

We realize that amending the Policy Statement is a politically sensitive undertaking as well as a demanding and lengthy process. However, with a new provincial government, the time has come to start the process and thus implement a recommendation which spans nearly a decade.

In addition, this Council meeting has the power to create an affordable housing first policy to be placed in the Trust Council Policies and Procedures Manual as a model for LTCs wanting to assist community groups undertaking the development of affordable housing.

The following recommendations from the 2010 Tool Kit provide a start:

> *THAT Local Trust Committees adopt an 'affordable housing first' policy for applications, giving priority in the application queue.*
>
> *That Local Trust Committees direct staff to take all opportunities to process (or assist applicants to process) multiple functions in parallel (page 44 for details).*

Given our experience with DCLTA's pilot project, we suggest that an affordable housing first policy should also include the recommendation that LTCs direct staff to work with the community group to enhance cooperation and communication within the process. Trustee Critchley can speak to the costly and time-consuming communication glitches in the drafting of this pilot project's Housing Agreement.

Across the Trust Area, Salt Spring Island appears to be the only LTC that has reduced the application fees for bylaw amendments that address affordable housing. Further, to our knowledge no LTC has adopted an affordable housing first policy – perhaps because there is no model. Drawing on the collective experience of the 26 local trustees, the Trust Council could provide a model policy, advice for its adoption and technical support for its implementation, thus avoiding future time-consuming glitches such as we experienced.

It is time to translate community housing ideas from reports, committee work and forums into a review of the Trust Policy Statement to promote sustainable communities and the creation of a model affordable housing first policy for use across the Trust Area.

Harlene Holm on behalf of DCLTA
3900 Lacon Road, Denman Island

Islands Trust Community Housing "Tool Kit"

A Guide to Tools Available to Support the Development of Affordable Housing in the Trust Area

Presented by JG Consulting Services Ltd.

January 2010

The Islands Trust Area Affordable Housing Continuum

Emergency / Cold Weather Shelter	Housing for the Homeless and/or Special Needs	Housing for those at Risk of Homelessness	Housing with Rental Assistance	Entry-level Ownership Opportunities or Market Rentals

Islands Trust Community Housing "Tool Kit"

A Guide to Tools Available to Support the Development of Affordable Housing in the Trust Area

January 2010

Presented by JG Consulting Services Ltd.

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Salt Spring Island, BC
V8K 1Z7
Phone 250-653-0041
Fax 866-878-4916 (toll free)
janisgauthier@shaw.ca

This report is submitted to the Islands Trust in response to specified terms of reference. The opinions and recommendations contained in this report are those of the consultant, JG Consulting Services Ltd.

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APPENDIX D – *Sample Sustainability Checklist*
APPENDIX E – *Tool Kit At-A-Glance Menu*

A Guide to Tools Available to Support the Development of Affordable Housing in the Trust Area

1.0 INTRODUCTION

1.1 Purpose of this Report

This report is a 'Tool Kit', intended to summarize the various mechanisms available to assist the Islands Trust in the development and implementation of policies and procedures that will encourage and support the development of affordable housing in the Trust Area. This document summarizes some of the more commonly used techniques that have proven successful in other jurisdictions, and that are available to the Islands Trust under their mandate and legislative authority.

1.2 Studies Reviewed

For the purposes of this report, the Islands Trust provided a number of research documents and studies that it has collected that were undertaken to assist communities and local governments in their efforts to increase the supply of affordable housing.

These studies were reviewed by the Consultant, with the goal of identifying obstacles to the development of affordable housing, and opportunities and potential solutions for the affordability problems in the Trust Area. The primary focus was to identify what Local Trust Committees can do to within its existing legislative authority in the areas of land use planning, Official Community Plan (OCP) and Land Use Bylaw (LUB) amendments, community consultations and application processing. A chart briefly summarizing the content of these studies is included as ***Appendix A***.

1.3 Obstacles or Barriers

The focus of most of the studies reviewed was on solutions that have been effective in other jurisdictions, with some limited identification of specific barriers. Many barriers that were taken into consideration during the analysis for this report were revealed in the November 2009 Community Housing Task Force Workshop and/or those experienced or known by the Consultant through affordable housing development in the Trust area.

Obstacles identified were categorized according to the nature of the perceived problem; process, policy, funding/cost, regulatory (inside or outside Trust control), affordability maintenance, educational and NIMBY (Not In My Back Yard). While this report is not organized according to these obstacles, the solutions proposed could go a long way to addressing many of these concerns.

2.0 STUDIES REVIEWED

2.1 Overview of Studies Reviewed

The studies were a collection of documents provided by Islands Trust staff, which were undertaken for the purposes of assisting communities and local governments in their efforts to increase the supply of affordable housing. The studies were all BC-based, many directed specifically to the Islands Trust area. They included several general policy directed reports, several Housing Needs Assessments (from the Trust Area and other nearby communities), regional Affordable Housing Strategies, and some Trust Area special reports.

General and Policy	
Planning for Housing 2004	2004
Housing Affordability in BC - BC Stats	2005
Local Government Guide for improving Market Housing Affordability	2005
Secondary Suites - A Guide for Local Governments	2005
Review of Best Practices in Affordable Housing - Smart Growth BC	2007
Regional Housing Affordability Strategy for the Capital Regional District	2007
Municipal World Magazine - Affordable Housing 10 Secrets	2008
Creating Market and Non-Market Affordable Housing - Smart Growth BC	2008
Affordable Housing - Making sense of new trends	2009
Housing Needs Assessments	
North Saanich Housing Needs Assessment	2007
Housing Needs on Hornby and Denman Islands	2008
North Pender Island Affordable Housing Task Force Report	2008
Islands Trust Housing Needs Assessment - Salt Spring Island	2009
Affordable Housing Strategies	
Salt Spring Community Housing Background Report & Recommendations	2005
CRD housing strategy	2006
Metro Vancouver Affordable Housing Strategy - 2007	2007
UBCM Affordable Housing and Homeless Strategy	2008
Special Trust Area Studies	
Seniors Housing in Island Communities-Heron Rocks Friendship Society	1990
Salt Spring Island Task Force - 1994 Draft Report - Affordable Housing	1994
Supportive Housing For Seniors	1999
Crisis in Paradise-Accelerating the Provision of Affordable Housing on SSI	2002
Options for Affordable Housing - Normanby Daniels	2003
Hornby Island Advisory Housing Committee Report	2004
CHTF Comments on SSI OCP Review 2006-2007	2006
Housing Agreements - Quattrocchi	2006
Housing Solutions for Small Communities - April 2007 conference report	2007
SSI Housing Focus Group Report April 2007 - OCP Review	2007
Secondary Accommodation Units - A housing option for Gulf Islands	2008

2.2 General Findings

There was great variety in the collection of studies, which were undertaken by Provincial Government ministries, Regional District departments, Local Trust Committees, community organizations and volunteer groups. All were well done, providing up-to-date and relevant information on affordable housing issues – histories and causes of affordability problems, policy issues, community-specific profiles and needs, strategies and approaches, and successful tools and techniques used in jurisdictions across BC and Canada.

It should be noted that Gabriola and Bowen Islands have also recently undertaken affordable housing research and published reports. Unfortunately, those documents were not available at the time the research for this Tool Kit report was undertaken, and accordingly the findings were not included in the analysis. The consultant understands that the findings of these reports provide valuable input to the discussion, and the reader may wish to also obtain and review those documents as work on affordable housing in their community proceeds.

Given the unique governance model in most of the Islands Trust area (with the exception of Bowen Island, which is a municipality), not all tools used in some BC jurisdictions were applicable. However, most of the successful approaches featured relate to land use planning tools that are available to the Islands Trust.

Obstacles or Barriers

It was interesting to note that there was great commonality in the problems and obstacles faced by other communities in BC, many of which were reflected in the presentations made at the Community Housing Task Force workshop in November 2009. For the purposes of proposing solutions, the obstacles identified were categorized as follows:

Types of Obstacles Identified

Process
Policy
Funding/cost
Regulatory (within and outside Trust control)
Affordability maintenance
NIMBY(Not In My Back Yard)
Affects on Rural/Neighbourhood character

Solutions

Proposed solutions, likewise, had many common elements between the various communities, and also within a given community over time (e.g. Salt Spring Island reports from as far back as 1994 recommend the legalization of secondary suites). Findings, recommendations and descriptions of 'tools' have been organized into approaches as listed below.

Approaches for Potential Tools

Regulatory Framework
How to Encourage Affordable Housing
Land Use/Zoning Strategies and Tools
Planning / Strategy Tools
Other Important Considerations
Financial Challenges and Solutions
Working with the Community
Community Engagement

3.0 REGULATORY FRAMEWORK

3.1 Islands Trust Land Use Authority

All land use powers are delegated from the Federal Government to the Provincial Government, who in turn delegates these authorities to Local Governments. The Islands Trust receives its land use authority from Part 26 of the Local Government Act (LGA) and the Islands Trust Act (ITA).

The Islands Trust Act outlines the organization of the Trust, which includes a Trust Council, an Executive Committee, Local Trust Committees and a Trust Fund Board, whose roles are to carry out the object of the Trust (see p. 9). For the purposes of this Tool Kit, the focus will be on the roles that Trust Council and the Local Trust Committees can take to encourage the development of affordable housing.

The primary role of ***Trust Council*** is to establish the general policies for carrying out the object of the trust and to be responsible for the financial management of the trust. Trust Council (and the Trust Fund Board) can acquire and dispose of property for the purpose of carrying out the object of the Trust. While this land has traditionally be for conservation purposes, there may be a valid argument to make that the object of the Islands Trust (as further elaborated in its Policy Statement with regard to affordable housing as a component of a sustainable community) could include holding land for this purpose.

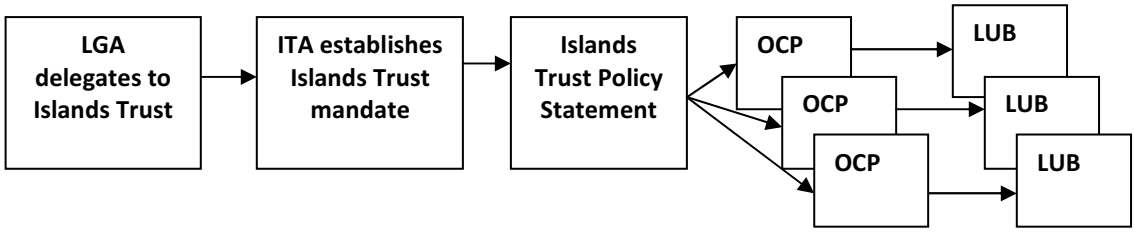
The Islands Trust Act also allows Trust Council to delegate is powers to acquire and dispose of land to Local Trust Committees (LTA s.10). This concept and any possibilities for affordable housing are further explored later in this document.

Local Trust Committees regulate the development and use of land in their local trust area by exercising powers conferred by the Islands Trust Act, including powers that would otherwise belong to the regional district for each area. There are limits to this authority, in that any decisions must conform to current BC Building code. Local Trust Committees (LTCs) can regulate land use and density, building sitings, as well as exterior form and character of building through Development Permit Area provisions in their Official Community Plans (OCPs). They can not, however, administer the BC Building Code or regulate the interior of buildings, nor do they have any jurisdiction over roads.

The zoning authorities that are given to Local Trust Committees are powerful tools that can influence the development of affordable housing, and are the main subjects of this Tool Kit.

Below is a representation of the hierarchy of this legislation. The Local Government Act (LGA) delegates authority to the Islands Trust Act (ITA), whose mandate directs the Islands Trust Policy Statement, which in turn directs each Local Trust Committee's (LTC) Official Community Plan (OCP) policy development.

Each LTC's Land Use Bylaw (LUB) regulations must be supported by OCP policy. The result is that Land Use Bylaws should not be in conflict with OCPs, which should not be in conflict with the Policy Statement, and in turn with the Islands Trust Act.



Hierarchy of Islands Trust land use legislation

3.2 *Islands Trust Mandate and Policy Statement*

The Islands Trust mandate as defined by the Islands Trust Act is as follows:

> *The object of the trust is to preserve and protect the trust area and its unique amenities and environment for the benefit of the residents of the trust area and of British Columbia generally, in cooperation with municipalities, regional districts, improvement districts, other persons and organizations and the government of British Columbia.*

The Islands Trust Policy Statement provides the vision for the Trust Area. It includes policies of philosophy of Trust Council, policies that direct Local Trust Committees (LTC) and municipalities in the formulation of their Official Community Plans (OCP) and regulatory bylaws, and policies for recommendations to other parties.

The Policy Statement was approved by the Minister of Municipal Affairs and adopted via Bylaw No. 17 in 1994 after extensive input from individuals and groups in the community and other government agencies. Any further amendments must likewise receive Ministry approval (now Ministry of Community Development).

Support for affordable housing in the Policy Statement is in Part V: Sustainable Communities, whose goal is 'to sustain island character and healthy communities'. The Policy Statement defines sustainable communities as 'human communities that have achieved a balance between environmental, economic and social systems and which respect the carrying capacity of the supporting environment'.

Specific reference to affordable housing is the recognition that community health is influenced by (amongst other factors) the availability of 'such necessities as educational and social services, transportation, affordable food and housing'. The challenge is to support the development of affordable housing, without compromising the natural environment or over-utilizing resources, while still maintaining the valued rural character of the islands.

The policy direction to LTCs and municipalities with respect to housing does not specifically refer to affordability, but rather directs them to 'address their community's current and projected housing requirements…' in their OCPs and Land Use Bylaws.

Recommendation:
THAT Trust Council review the Islands Trust Policy statement and give consideration to:

- *giving affordable housing a greater profile for its role in sustainable communities*
- *including a reference to <u>affordable</u> housing in its policy direction to LTCs and municipalities*

3.3 Official Community Plan (OCP) Requirements

Each of the Islands Trust's Local Trust Committees (LTC) and municipalities are responsible to develop an OCP, which must be approved by the Executive Committee of Trust Council and the Ministry of Community Development.

An OCP contains broad goals, objectives for particular land uses, specific and general policies, advocacy policies, maps and development permit area guidelines; it does not contain regulations or detailed prescriptions. The Trust Policy statement does not stipulate any specific policies or regulations because the social and environmental characteristics of each community differ. However, OCP policies must not be at variance with the Trust Policy Statement.

The Local Government Act (LGA) outlines the adoption process and content of OCPs. Sections 877 (1) and (2) specifically states that it must include map designations for "the approximate location, amount, type and density of residential development required to meet anticipated housing needs over a period of at least 5 years" and "housing policies of the local government respecting affordable housing, rental housing and special needs housing".

Besides meeting the regulatory requirements of the LGA, consideration and discussion in the community about the housing needs and local policy that surrounds an OCP review process will raise awareness and can be expected to help increase acceptance and support for affordable housing

Recommendation:
THAT Local Trust Committees review their OCPs to ensure that they include:

- *the required map designations to meet anticipated housing needs*
- *robust policy statements regarding affordable housing, rental housing and special needs housing*

3.4 Official Community Plans in the Islands Trust Area

Separate Official Community Plans (OCPs) are in place for each of the Islands (or group of islands) listed below. They are located in several different Regional Districts, each of which may have affordable housing policies through Regional Growth and/or Affordable Housing Strategies.

While these strategies may not apply directly to the Islands Trust, they may contain relevant information and be useful for reference and guidance if the Islands Trust chooses to develop their own strategy documents.

	Local Trust Committee Area	***Regional District***
1	North Pender	Capital
2	South Pender	Capital
3	Salt Spring	Capital (Cowichan Valley for Shoal Island)
4	Saturna	Capital
5	Mayne	Capital
6	Galiano	Capital
7	Thetis	Cowichan Valley
8	Gabriola (*DeCourcy, Mudge)	Nanaimo
9	Gambier (*Keats)	Sunshine Coast and Squamish-Lillooet (Metro Vancouver for Bowyer and Passage)
10	Executive **	Nanaimo
11	Lasqueti	Powell River
12	Hornby	Comox Valley
13	Denman	Comox Valley
	Bowen ***	Metro Vancouver

* Separate OCPs

** No OCP for Executive Islands

*** Bowen is a Municipality

OCP policies that support the provision of affordable housing are key to effectively encouraging solutions. While outside the mandate of this assignment to perform a detailed review of the Trust Area OCPs, a brief review of those listed above was undertaken to gain a general appreciation of how the subject was approached.

This brief review of OCPs in the Trust Area revealed a very wide range of general policy directions about affordable housing, including vision statements, broad community and more specific land use objectives, general residential and more specific affordable, special needs, social and/or seniors' housing objectives and policies. Some OCPs have very specific and detailed policies, containing many of the land use policies and tools that will be described on the following pages; other OCPs have quite limited references to affordable housing, perhaps only meeting the minimum legislative requirements.

Policies and tools described in this report are those that are most commonly used and have proven successful in other jurisdictions, recognizing that these provisions are already included and in use in some Trust Area communities. These existing Trust Area examples and experiences may prove to be helpful models for any community considering adopting similar policies.

Recommendation:
THAT Local Trust Committees summarize and share the affordable housing related provisions in their OCP to enable other Local Trust Areas to benefit from efforts already taken and successes achieved in other communities.

4.0 HOW THE ISLANDS TRUST CAN ENCOURAGE AFFORDABLE HOUSING

As described in the previous section of this report, there is a clearly defined regulatory framework that the Islands Trust must operate under to enable or encourage development of affordable housing in the Trust Area. Working within that framework, there is a logical progression of steps that can be taken to ensure that all tools available to Trust Council and Local Trust Committees can be effectively be utilized where the situation warrants.

Following is high level outline of the key steps that Trust Council and Local Trust Committees can take to encourage and support the development of affordable housing in the Trust Area. These key steps are further detailed on the following pages.

Step 1: Trust Council's Policy Statement – amend to ensure that the importance of affordable housing is strongly emphasized and that direction to Local Trust Committees reflects the expectation that affordable housing is a priority in their OCPs.

Step 2: Support in Local Trust Committees' OCPs – amend to ensure that the importance of affordable housing is strongly supported and that direction is given to pursue affordable housing through a variety of planning tools (many options will be featured in this Tool Kit report).

Step 3: Conduct a Housing Needs Assessment – objectively quantify housing need to help establishing community goals, assist individual projects in securing funding and/or community support, and help both proponents and LTCs target resources towards identified priorities. This can be undertaken on individual LTCs basis, or coordinated by Trust Council.

Step 4: Create an Affordable Housing Strategy – focus should be on the needs identified in the Housing Needs Assessment, but provide flexibility to allow a community to take advantage of any opportunities that may arise. It should include regular reporting to monitor effectiveness and periodic evaluations to allow for changes as required. This can be undertaken on individual LTCs basis, or coordinated by Trust Council.

Step 5: OCP Amendments – to specifically enable the implementation of the recommendations from the Housing Needs Assessment and Affordable Housing Strategy.

Step 6: LUB Amendments – to support the policy direction of the OCP and enable the implementation of the Affordable Housing Strategy.

4.1 Amend the Trust Council's Policy Statement

The starting point for effectively encouraging the development of affordable housing is a Trust-wide policy that provides leadership and guidance in its commitment to affordable housing, and emphasizes the importance it plays in a sustainable community.

4.1.1 Vision, Goals, Objectives

Clearly articulated visions, goals and objectives are the cornerstone to an effective affordable housing strategy, and could be incorporated into both the Trust Policy Statement and Official Community Plans. These should be reviewed periodically and revised as necessary, as circumstances change and as new information comes to light.

4.1.2 Affordability

TC Strategy:
Provide Policy Support for Affordable Housing

Tools:
Definition of affordability, greater profile, strong direction to LTC in Policy Statement

A clear and well-thought out definition of 'affordability' should be developed. This can be defined on either a Trust Council or at the Local Trust Committee level. Defining affordability within the context of a given community is not always easy and traditional definitions may not always be appropriate.

Measuring affordability involves comparing total shelter costs to a household's ability to meet them, given their level of income. Shelter costs are generally considered to include basic utilities, and (for homeowners) taxes and insurance. For affordability calculations, housing is generally characterized as 'acceptable' if it is in good condition and adequate size for the family size and composition.

While this can be a somewhat subjective measure, Canada Mortgage and Housing Corporation (CMHC) defines acceptable housing as having three key features:

- **Adequate** condition (not needing major repairs)
- **Suitable** size (given the size and composition of the household members)
- **Affordable** (shelter costs no greater than 30% of before-tax household income)

Three other measures of housing affordability that have been traditionally used and should be considered when developing a definition include:

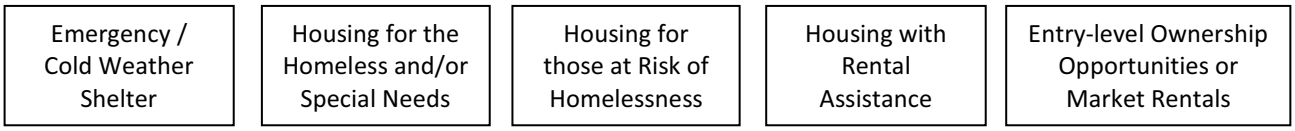
- Core Need – those households that are unable to secure 'acceptable" housing (adequate, suitable and affordable) within 30% of their income.
- At Risk of Homelessness – those paying > 50% of their income on shelter costs.
- Homeless – a continuum ranging from 'relative' (insecure, unsafe or inadequate) to 'absolute' homelessness (also known as 'living rough').

4.1.3 Affordable Housing Continuum

An approach to defining affordability and housing objectives that has emerged in recent years takes into consideration the 'continuum' of housing needs, which reflects a range of housing from emergency shelters through to entry-level homeownership.

The studies reviewed had many examples of vision statements, goals, objectives, definitions and descriptions of continuums upon which to draw. For information, the continuum presented on the cover page of this document is the model currently in use by BC Housing; it is repeated below for reference:

The Islands Trust Area Affordable Housing Continuum



Included in ***Appendix B*** are examples of other communities' definitions of affordability, goals and objectives for affordable housing for reference.

Recommendation:
THAT Trust Council review the Islands Trust Policy statement to ensure that it:

- *includes clear and well-thought out definition of 'affordability'*
- *includes clearly articulated vision, goal and objectives for affordable housing*
- *gives affordable housing a greater profile for its role in sustainable communities*
- *includes a reference to affordable housing in its policy direction to LTCs and municipalities*

4.2 Support in Local Trust Committees' OCPs

An Official Community Plan (OCP) guides decision making on the community's broad goals and objectives for particular land uses, including affordable housing. OCP policies that support affordable housing will then direct Local Trust Committees (LTCs) on decisions regarding Land Use Bylaw amendments and provide guidance on how to consider rezoning applications for affordable housing. Also, proponents of affordable housing applications can enter into rezoning applications with the confidence that their plans have OCP support.

LTCs should review their OCPs to ensure that the importance of affordable housing is clearly stated and strongly supported, and that direction is given to pursue affordable housing through a variety of planning tools (many options will be featured in this Tool Kit report).

In addition to including statements of policy support, LTCs should ensure that the OCP does not contain any provisions that are in conflict with the creation of affordable housing. It should also include direction for LTCs to support affordable housing applications. If an OCP sets growth limits to restrict additional densities, affordable housing should be made an exception, under certain conditions such as site suitability, environmental compatibility, and water and septic capacity.

OCPs also set Development Permit Areas (DPAs) which can be used to protect environmentally sensitive areas and guide the form and character of new buildings (among other things such as addressing hazardous conditions). In the context of affordable housing, DPAs can be used to mitigate the neighbourhood and environmental impacts of increasing the supply of affordable housing.

LTC Strategy:
Provide Policy Support for Affordable Housing

Tools:
Definition of affordability, vision, objectives, goals, statements of support, no conflicts in OCP

As detailed on the following pages, the OCP should also give direction to LTCs to take the necessary steps to undertake regular Housing Needs assessments and develop and implement Affordable Housing Strategies.

Recommendation:
THAT Local Trust Committees review their OCPs to ensure that they include:

- *a clear and well-thought out definition of 'affordability'*
- *clearly articulated vision, goal and objectives for affordable housing*
- *broad direction to support affordable housing applications for rezoning*
- *specific direction for LTCs to amend LUB requirements in order to encourage affordable housing.*
- *no provisions that conflict with the development of affordable housing*

4.3 Conduct a Housing Needs Assessment

The importance of conducting a Housing Needs Assessment was stressed throughout the studies reviewed. Objectively quantifying need can be very useful in establishing community goals, assisting projects in securing funding and/or community support, and help both proponents and LTCs in targeting their scarce resources towards the identified priorities. A Housing Needs Assessment is intended to be a snap shot of the housing situation and needs, and should be reviewed and updated regularly over the years in order to assist LTCs in directing strategies and land use decisions to give priority and incentives to the most critical housing needs identified.

Ideally, there would be ongoing monitoring of affordable housing and the regular update of relevant aspects of the Housing Needs Assessment in order to measure the success of the housing strategy, and/or make any required modifications if the intended improvement in affordability is not achieved.

LTC Strategy:
Provide Policy Support for Affordable Housing

Tools:
Housing Needs Assessment to guide policy development

Typically, housing needs assessments will contain the following key elements:

- analysis of population demographics
- identification of housing costs that are affordable to this population
- analysis of current housing supply
- identification of 'gaps' in housing supply
- identification of greatest needs or priorities

The results should be presented to the community for feedback and input to help ensure that any policies that evolve from the findings have broad support. Input can be sought through presentations, workshops, focus groups and/or task force reviews.

It was noted that many of the Trust Committee Areas have initiated Housing Needs Assessments, with this requirement noted in some Official Community Plans. An effective and efficient way for other communities to undertake Needs Assessments (or to update existing studies over time) is for the development of a template or methodology that can be utilized by each community, as well as then consolidated on a Trust-wide basis.

Recommendation:
THAT Local Trust Committees review their OCPs to ensure that they include the direction to carry out and regularly update a Housing Needs Assessment that identifies priorities and guides affordable housing policies and land use decisions.

THAT Trust Council consider a coordination role for Housing Needs Assessments between the various Local Trust Areas to achieve efficiencies, compatibility, and allow for consolidation.

4.4 Create an Affordable Housing Strategy

Many of the studies reviewed recognized the changing roles of Local Governments in affordable housing issues. Until recent years, the federal government played a key role and provided significant funding. With a significant reduction in their involvement, many communities are facing serious housing affordability problems. The development of a local Affordable Housing Strategy is an important mechanism for Local Governments to support the creation of much-needed housing.

Strategies can be either 'focused' or 'comprehensive'. Focused strategies are appropriate in communities where a single important issue requires urgent and immediate attention (e.g. homelessness or seniors' housing) or in response to a time-limited senior government funding program. Comprehensive strategies focus on a systematic framework of analysis, implementation and monitoring, with a goal of addressing the full range of affordability issues faced by a community. Emphasized throughout the literature was recognition that there is a diversity of affordability needs that will require a diversity of approaches.

LTC Strategy:
Provide Policy Support for Affordable Housing

Tools:
Affordable Housing Strategy to develop and monitor Actions Plans

Development and implementation of an Affordable Housing Strategy will require that resources be committed. Roles must be clearly defined and tasks and responsibilities assigned to maintain momentum and progress.

The focus of the strategy should be to address the needs identified in the Housing Needs Assessment, but provide flexibility to allow a community to take advantage of any opportunities that may arise (e.g. targeted government funding program). It should also have provisions that require regular reporting to monitor effectiveness in achieving its goals. It should include mechanism for periodic evaluations of the strategy itself, to allow for changes as required.

Public participation is key throughout the development process to gather valuable input and insight and to gain 'buy-in' to the solutions and actions developed. An important means for gaining community support is to demonstrate commitment on the part of the Islands Trust through the immediate implementation of at least one or two policies.

Recommendation:
THAT Trust Council consider initiating a Trust-wide Affordable Housing Strategy, with direction to LTCs to develop Local Trust Area-specific components; or

THAT each LTC undertake the development and implementation of an Affordable Housing Strategy.

4.5 Amend the Official Community Plans

An Official Community Plan (OCP) is a living document, and as such it is reviewed and updated regularly to reflect the vision and social and environmental priorities of the community.

A community's circumstances and needs do change over time, including needs and priorities related to affordable housing. These will be reflected in the Housing Needs Assessment, its updates, and in actions plans for that are presented in the Affordable Housing Strategy.

The OCPs, in turn, should be amended periodically to reflect any changes, and give specific direction to Local Trust Committees (LTCs) to implement the recommendations of both the Housing Needs Assessment and the Affordable Housing Strategy.

LTC Strategy:
Provide Specific Policy Direction for Affordable Housing

Tools:
OCP amendments to reflect Housing Needs Assessment and Strategy

Recommendation:
THAT each LTC undertake a review of their OCP to ensure that it gives direction for the implementation of the recommendations in the Housing Needs Assessment and the Affordable Housing Strategy.

4.6 Amend the Land Use Bylaws

Each Local Trust Area (LTA) adopts and administers its own Land Use Bylaw (LUB). Land Use Bylaws include zoning schedules and are the principle tool used to implement land use plans. LUBs set the use and density of a given parcel of land and contain the detailed regulations that govern the permitted uses in particular zones, including setbacks, height restrictions, parking requirements, signage restrictions, drainage restrictions, lot coverage, floor area restrictions, and subdivision requirements.

LTC Strategy:
Provide Regulations for Affordable Housing

Tools:
LUB amendments to reflect Housing Strategy

LUBs work to implement Official Community Plans (OCP) by providing the detailed land use regulations for each zone according to the policies and land use designations identified in the OCP. For example, an OCP can encourage affordable housing by permitting boarding houses to be considered as home based businesses and operated in residential zones. The LUB would then regulate features of home based business such as maximum total floor area, or perhaps prohibit or restrict their siting in watershed or other sensitive zones.

Local Trust Committee (LTCs) should amend their LUBs to reflect the affordable housing policies outlined in the OCPs and to ensure consistency. This will also help a greater degree of certainty to proponents of affordable housing projects.

Recommendation:
THAT each LTC undertake a review of their LUB to ensure that the regulations are consistent with the affordable housing policy directions in the OCP.

LTCs can also relax LUB requirements in response to a Development Variance Permit application from landowners. This can provide some relaxations to LUB regulations to support affordable housing on a case by case basis. This tool available to LTCs can not be used to vary use or density of a property, but can be utilized to vary setbacks or parking, for example. These applications must be referred to adjacent land owners for comment before a decision is made.

Recommendation:
THAT LTCs give favourable consideration to Development Variance Permit applications when the proposed relaxation will support affordable housing applications.

5. LAND USE / ZONING TOOLS

Zoning bylaws are the most effective regulatory tools that the Local Trust Committees can use to help create affordable housing. In order to facilitate opportunities for more affordable housing in the Trust Area, additional densities can be transferred from one location to another, or additional densities can be allowed outright, or granted in exchange for providing the amenity of affordable housing.

The challenge for the Islands Trust is to accommodate the extra densities needed to address affordable housing without compromising environmental protection and while still meeting the preserve and protect mandate. This can be achieved through OCP policies that require protection of environmental values be a condition of all efforts to increase the supply of affordable housing. Tools such as Development Permit Areas can also be used to provide specific guidelines that can be applied on individual projects.

As mentioned previously, there was much commonality in the use of certain tools amongst the jurisdictions featured in the studies. The most commonly employed zoning-based tools, or those that seemed most relevant to the Islands Trust Area, are summarized below.

A distinction should be made between Local Trust Committee initiated strategies and associated tools, and those that are driven by proponents of affordable housing in applications to rezone.

Local Trust Committee Initiated Strategies and Tools
Provided there is OCP support for these strategies, Local Trust Committees can amend their Land Use Bylaws in a variety of ways to support and facilitate the development of Affordable Housing. The key mechanisms that are featured in this Tool Kit include:

1. Legalize Secondary Accommodation (suites and cottages)
2. Provide Density Bonus
3. Create Mixed-Use Zones
4. Create Small-Lot Zones
5. Relaxations
6. Pilot Projects

Applications to Rezone
Again provided there is support for affordable housing in a Local Trust Committee's OCP, there are a variety of tools available to support rezoning applications from landowners for affordable housing. Some of these key tools include:

1. Amenity Zoning
2. Inclusionary Zoning
3. Density Transfer

5.1 Local Trust Committee Initiated Strategies and Tools

5.1.1 Secondary Accommodation (Suites and Cottages)

The legalization of secondary accommodations was **the single most often cited tool** throughout all the studies reviewed, identified as one of the most readily available and inexpensive sources of affordable rental housing. Secondary accommodation can take the form of suites located within (or attached to) existing residences, cottages, carriage house, granny flats (usually removable), cabins or mobile homes.

Key benefits include the provision of affordable rental housing, assistance with ownership affordability (i.e. as a 'mortgage helper'), and family support to allow aging in place. In addition, this type of housing has the advantage of producing limited development pressure on the land, requires only limited increases in infrastructure, and impacts on neighbourhood character can be minimized. There may be CMHC RRAP (Residential Rehabilitation Assistance Program) funding available to assist with the cost. It should be noted that RRAP assistance is only available if the accommodation is legal. However for those units that are currently not operating legally, the availability of upgrade funding could be an additional incentive to go through the process to upgrade and legalize the unit.

LTC Strategy:
Increase the Supply of Affordable Housing

Tool:
Legalize Secondary Units

A number of valid concerns have been raised, including the potential diversion for use as short-term vacation rentals. Anecdotally and in the community consultations associated with the Salt Spring Island Housing Needs Assessments, there were many reports of sub-standard and unsafe conditions in illegal secondary accommodation, in spite of relatively high rental rates.

Other common concerns expressed were related to potable water supply, septic capacity (and costs to upgrade), and the perception that it would result in changes to the character of the community. Also, barriers to legalization may include the cost of the requirements for upgrade to building code.

It is recognized that septic requirements are under the jurisdiction of the Health Regions. The only influence that the Islands Trust could have in is in any lobbying efforts they may choose to undertake to encourage the Health Region to consider alternative waste water treatments (e.g. composting toilets, grey water systems). The Islands Trust could take an educative role, however, and assist homeowners evaluate the options available by disseminating a summary of the Health Region requirements and the various types of septic systems available (and cost ranges).

Building code requirements have also been cited as an obstacle to the construction or legalization of secondary suites. In 1995, the provincial government updated the B.C. Building Code (s9.36) to encourage the construction of safe, affordable secondary accommodation within existing homes. These standards are designed to be somewhat more forgiving than otherwise required, while not compromising the basic safety of residents.

Section 9.36 provides flexibility in non-safety related features, for example by allowing lower ceiling heights and reducing sound control requirements. To qualify for these code relaxations, a unit must meet specific conditions to be defined as a secondary suite and qualify for use of the relaxations. Islands Trust definitions of 'secondary accommodation should be consistent with those outlined in the building code to ensure homeowners have access to these provisions. The Building Code defines secondary accommodation as having:

- Maximum floor space square metres (968 square feet)
- floor space less than 40 percent of building
- located within a building containing only one other dwelling unit
- located only in single detached homes (i.e. not apartment or building strata)

The Islands Trust could also take an educative role to encourage homeowners to provide secondary accommodation in their homes by disseminating information about these building code relaxations.

Key to success is a mechanism to ensure that both existing and new units have controls to ensure they remain affordable. Solutions proposed for affordability centred on the use of housing agreements, however, there was concern expressed that the associated administrative requirements and costs would prove to be a disincentive.

Recommendation:
THAT *Local Trust Committees review their OCPs and LUBs to ensure that they include provisions that allow and encourage the legal use of secondary accommodation in appropriate locations.*

Recommendation:
THAT *Local Trust Committees take an educative role in disseminating information about Health Region septic requirements and system options, and Building Code flexibilities for secondary accommodation.*

5.1.2 Density Bonus (Amenity Zoning)

The use of a Density Bonus (or Amenity Zoning) to achieve affordable housing was **another of the most commonly cited tools** available to the Local Trust Committees, and can be applied to either larger projects or smaller developments such as duplex/triplex situations, second dwellings, garden cottages, etc. Its effectiveness lies in the more efficient use of high cost land in the Trust Area, which has been cited as one of the main barriers to developing affordable housing.

Local governments can provide a density bonus specifically for the provision of affordable, rental or special needs housing. This power granted to the Local Trust Committees (LTCs) through the Islands Trust Act (s.29) and the Local Government Act (s.904). Section 904 gives LTCs the ability to generally allow (permit outright) increased density for certain zones in the Land Use Bylaw (LUB). It also allows LTCs to make increased density in these zones conditional upon, for example, the use of a Housing Agreement, and water and septic capacity and eco-system protections controlled by a Development Permit Area.

LTC Strategy:
Increase the Supply of Affordable Housing

Tools:
Density Bonus

In addition to employing this mechanism through land use bylaw regulations as described above, it can be applied with discretion on an application-by-application basis, as discussed later on.

Local Trust Committees should ensure that their OCPS reflect clear policy support for the application of bonus density for affordable housing, and that the zoning regulations in the LUB clearly outline the conditions under which the bonus is available. In this context, the condition for allowing a property owner to realize a density bonus would be the provision of affordable housing (or land for affordable housing).

Environmental factors such as the adequacy of the potable water supply or septic capacity can be addressed as additional conditions to the density bonus, employed through the Land Use Bylaw. This approach provides the greatest certainty and consistency in the development process. As long as the conditions are met, the bonus must be granted.

In combination with the use of Development Permit Areas to ensure protection of vegetation, sensitive ecosystems, or riparian areas, this tool would be effective for the development of clustered or cottage-type housing that is of appropriate scale and character for the community. Assurance that the units will be maintained for their intended use, and affordability maintained over time, can be provided by combining this tool with the use of Housing Agreements.

Density bonusing can be used as an incentive for developers to build affordable housing or include affordable units within their projects. The advantage is found in improved financial feasibility; increasing the number of units on a given parcel of land has the effect of reducing the per unit land cost, a savings that can be passed on to the owner or tenant.

It is important for the community, however, that the benefits of density increases accrue to the community (i.e. that the cost savings are in fact passed on to owners or tenants). This may be stating the obvious in the case of non-profit housing, but does raise some complexities when the private development industry is, for example, developing mixed market and affordable housing. Quantifying the 'value' of increased density may be difficult in some circumstances, and will likely need to be done on a case-by-case basis.

There are valuation models that have been applied in other communities that the Islands Trust could evaluate and use or modify. The general rule of thumb is that the benefit should be (roughly) equally shared between the land owner and the community. At minimum, policies that permit increased density should include a principle that acknowledges that there is a 'value' or 'benefit' that accrues to a landowner when additional density is increased, and that this benefit should accrue (in whole or in part) to the community.

Concerns arise in every community when contemplating increases in density, and are very prominent in the Trust Area because of the rural nature of communities, the unique nature of the environment, sensitive eco-systems, and limited water and other resources. These are all very valid concerns, and the land's carrying capacity should always be the starting point for considering higher density.

Recommendation:
THAT Local Trust Committee policies that allow increased density for affordable housing include a well defined valuation model to ensure that resulting benefits accrue to the community.

5.1.3 Mixed Use Zoning

Another **commonly used tool** in some communities is a zone defined to allow for a mix of uses. It usually combines commercial with residential uses, with small residential units located above commercial buildings or retail shops in village settings. This tool could be made available to encourage commercial business owners to create affordable rental housing. Alternatively, it could be a requirement that new construction must include affordable employee rental housing on upper floors.

This could potentially create affordable rental opportunities for business owners or staff, and there may be CMHC RRAP (Canada Mortgage and Housing Corporation's Residential Rehabilitation Assistance Program) funding available for upgrades or conversions.

LTC Strategy:
Increase the Opportunities for Affordable Housing

Tools:
Mixed Use and Small Lot zonings

While the most immediate and cost effective opportunities may be in existing buildings, the Local Trust Committees may wish to consider relaxing height restrictions (in the appropriate settings) in buildings that include top-floor affordable residential units.

5.1.4 Small Lot Zoning

Small lot zoning can improve affordability by permitting large single family home lots to be developed into smaller lots for single family homes, or semi-attached dwellings (duplexes, etc.), provided adequate water and sewerage infrastructure is in place to accommodate the increased use. This type of zoning is particularly useful for cluster and cottage-style housing, which determines density by establishing a maximum floor area (instead of by number of units), and encourages small compact housing.

This tool also has the potential to help provide affordable homeownership. By clustering the buildings, affordability can be further enhanced by reducing servicing costs, and has the added benefit of avoiding sprawl. This could be implemented via the establishment of intensive residential Development Permit Areas that regulate form and character.

Recommendation:
THAT Local Trust Committees review their OCPs and LUBs to ensure that they include provisions that allow increased density for affordable housing in appropriate locations and circumstances, with well defined valuation models using:

- *bonus density*
- *mixed use zoning*
- *small lot zoning*

5.1.5 Land Use Bylaw Relaxations

There are many building and site regulations that could be relaxed for affordable housing projects to assist with affordability in some circumstances, and in some locations. Some of the mostly commonly mentioned are parking requirements, minimum set-backs, and height limits. No doubt there are others; the Local Trust Committees could review all provisions in the Land Use Bylaws (LUBs) with the eye for possible relaxations for affordable housing applications.

> ***Recommendation:***
> *THAT Local Trust Committees review their LUBs with the intent of identifying any regulations that could be relaxed for affordable housing in some circumstances and/or locations.*

5.1.6 Pilot Projects

The use of Pilot Projects is often a good mechanism to test the practicality and effectiveness of a new policy, regulation or housing form before widespread adoption. It has been suggested that certain building design flexibilities that can enhance affordability should be encouraged, with alternative waste water designs (e.g. composting toilets) and water supplies (e.g. water catchment) being common suggestions. While these applications are outside the Trust's jurisdiction, encouragement to the relevant regulatory agency could prove successful.

LTC Strategy:
Increase Opportunities for Affordable Housing

Tools:
LUB Relaxations, Pilot Projects

> ***Recommendation:***
> *THAT Local Trust Committees review their OCPs to ensure that they include policy support to encourage creative or alternative solutions of affordable housing in the way of Pilot Projects.*

> ***Recommendation:***
> *THAT Local Trust Committees advocate, where appropriate, to other regulatory agencies to permit alternative solutions for affordable housing pilot projects.*

5.2 Applications to Rezone

5.2.1 Density Bonus (Amenity Zoning) Applications

As mentioned previously, amenity zoning is an **often used tool** to encourage the development of affordable housing. Its use is permitted by the Islands Trust by the Local Government Act (s.904), and permits added densities in exchange for the provision of some community amenity that advances a community's Official Community Plan objectives.

While amenities are often defined as non-housing benefits (e.g. protection of environmentally sensitive areas, heritage restorations, land for community services), the legislation specifically contemplated affordable or special needs housing. The difficulty in establishing a value for an amenity is sometimes an obstacle to the effective use of Amenity Zoning. Regulatory provisions should provide clear guidance on an appropriate valuation method to avoid this concern.

If a Local Trust Committee has enacted an amenity zoning bylaw (i.e. permitted outright or with conditions in the LUB) in which the zoning provides additional density in exchange for an affordable housing amenity, the landowner would need to ensure all conditions of the additional density have been met. The landowner will not need to apply to rezone, but would need to provide the affordable housing.

Alternatively, a landowner could make application for additional density on a property that is not properly zoned, and provided there is OCP support for the concept, LTCs could consider applications for OCP amendments on a case-by-case discretionary basis.

5.2.2 Inclusionary Zoning Applications

Inclusionary zoning was **a very frequently mentioned tool** used as an incentive to encourage affordable housing that is also permitted under the Local Government Act (s.904). It also requires specific OCP policy support, but differs from Amenity Zoning, in that it is not based on pre-determined densities or conditions for zones identified in the Land Use Bylaw (LUB). OCP support can be based on, for example, location criteria, or other conditions that meet community objectives.

Applicant Strategy: Encourage Applicants to Build Affordable Housing

Tools: Amenity and Inclusionary Zonings

This mechanism is a 'classic' rezoning, in response to applications that seek to increase density on a site-specific basis, with a lot or portion of a lot being rezoned to a higher density that contains affordable housing. This results in a LUB amendment that creates a site-specific zone, tailored to the specific application and circumstances with densities and conditions reached through negotiation between the land owner and the Local Trust Committee.

OCP policies should direct that, as a condition of the rezoning process that increases density, applicants include some number or percentage of affordable units (most examples ranged from 15-20%); this can be on a unit count basis or a floor space basis.

In some cases there is a cash-in-lieu provision with funding ear-marked for non-profit housing. Affordable housing can be developed on-site, along with the (typically) market units, or in some other location. According to the literature, inclusionary zoning tends to be most effective in larger developments in denser, high-growth areas. In such cases, inclusionary provisions can be accomplished through rezoning to a comprehensive development zone, which is a site-specific customized zoning scheme.

Inclusionary and Amenity Zoning, as tools to achieve affordable housing through density increases, carries the same neighbourhood and resource concerns as described in the Bonus Density section of this report. It is also important to have a mechanism to quantify and allocate the value of the benefit, and another to ensure that the affordable housing is built first.

Recommendation:
THAT LTCs review their OCPs and LUBs to ensure that they include provisions that allow clustering of density to encourage affordable housing in appropriate locations and circumstances.

5.2.3 Density Transfer Applications

The purpose of a 'density transfer' is generally to achieve land conservation objectives by transferring development potential away from an environmentally sensitive area to another area where clustered development is more appropriate. It can also be applied to discourage development in areas of cultural, historical or agricultural significance. Usually donor properties are down-zoned and covenanted to ensure that there is a clear and enforceable agreement that transferred development rights cannot be exercised in the future.

Applicant Strategy: Encourage Applicants to Build Affordable Housing

Tools: Density Transfers, Other Housing Types

The transfer of density from the 'donor' property to the 'receiving' property can either be done simultaneously, or densities from donor properties can be banked for later transfer to appropriate locations in response to affordable housing applications. Either technique can be used to encourage affordable housing on receiving properties.

OCPs should provide support for the concept of density transfers for affordable housing, as well as the identification and mapping of appropriate donor and receiving areas.

Recommendation:
THAT Local Trust Committees review their OCPs to ensure that they include provisions that allow for density transfer in appropriate locations for affordable housing.

5.2.4 Other Types of Housing Applications

A number of non-traditional, and non-conforming (or illegal) housing forms are frequently used my members of the community for lifestyle or affordability reasons. Common and often controversial are ***Liveaboards,*** with residents mooring their boats on docks or 'on the hook' in bays and inlets. This issue is not highlighted in any of the literature reviewed and was not analysed as part of this study. However, it does have the potential to provide affordable housing that may be appropriate for some residents.

It is a complex issue, with overlapping and unclear jurisdictions. It is controversial because of the perceptions of 'unsightliness' and unfairness due to the boat owners' non-contributions to the property tax base. There are also very valid concerns over waste disposal and safety issues.

5.3 Other Types of Zoning

A number of other zoning techniques were **mentioned occasionally** in the studies reviewed, although they were not as frequently used, and may not be the most appropriate techniques for smaller rural communities in the Islands Trust Area.

Comprehensive Development Zones
Comprehensive development zoning is a customized, site-specific zone that can give flexibility in allocating density and specifying use. It usually changes and mixes categories of zones, for example by including commercial and/or institutional uses within a residential zone. Negotiation for increased densities can result in a number of features that include and/or support affordable housing, such as secondary accommodations, use of housing agreements, rental or supportive housing, or any other amenity that can support housing (e.g. day care, community gardens, etc.).

Multi-family Zones
Multi-family zoning can be applied to certain parcels or areas to encourage denser development in appropriate areas. This can be applied to either traditional multi-family developments (i.e. multiple attached units) or simply to permit more than one single family dwelling on a lot without subdivision. Certain building types or conditions can be required to further enhance affordability, such as two-storey townhouses, size limits or a mixture of owned and rental units. Design guidelines can be applied to ensure a good fit within the neighbourhood, including limits on size and/or height.

Affordable Housing Zones
Affordable Housing zoning could be implemented in a similar fashion, perhaps with consideration for higher densities in exchange for more affordable units, special needs housing, a mix includes some of the units for very low income residents, or other features that provide enhanced affordability targeted to the priority needs in the community. Best practice, however, usually recommend that affordable housing be integrated in all neighbourhoods. Affordable housing zones can be problematic due to potential social stigmatisation, with the risk (and fears) of concentrating affordable housing (and thus, “poor” people) in a single zone.

6.0 PLANNING/STRATEGY TOOLS

6.1 Housing Agreements

Maintenance of affordability over time was a key concern cited in many of the studies reviewed. The use of housing agreements was **the second most often cited tool** used, with its primary strength being it can ensure that affordability is maintained over the long-term (or in perpetuity) by restricting rental rates or resale prices. It is often used in cases where affordable housing units are developed by granting bonus density.

The Local Government Act allows Local Trust Committees to enter into housing agreements for the purposes of affordable and special needs housing (s.905). This is a powerful tool that allows the Local Trust Committees to control certain features of a housing project (or unit) that would not otherwise be enforceable under other legislation. These features include tenure (e.g. rental, leasehold, owned), class of occupants (e.g. low income residents, seniors), administration of the units, and price (including how prices increase over time). Assurance that these conditions are maintained over time is secured by registering a notice of the housing agreement on the property's title.

LTC Strategy: Maintain Affordability over Time

Tool: Housing Agreement

There is substantial variation in the complexity of Housing Agreements, with some of the simplest in use in the Trust Area on Salt Spring Island for non-profit seniors' rental housing. More complex agreements are used when homeowner housing is being developed by the private sector, with Whistler being in the forefront after years of experience in developing an agreement that is enforceable and effective in assuring developers meet their commitments, and that affordability is maintained in the long term.

Sample Housing Agreements are provided in ***Appendix C*** for reference.

Housing agreements are adopted by Local Trust Committee bylaw, and a notice of the agreement is registered on title (s. 219 LTA) to ensure that this agreement runs with the land and binds future owners.

Recommendation:
THAT Local Trust Committees review their OCPs and LUBs to ensure that they include provisions that allow (or require) the use of Housing Agreements as a mechanism to ensure affordability is maintained over time.

6.2 Housing Agreement Administration

The use of Housing Agreements is one of the most important tools available to ensure affordability is maintained over time. Resources are required for the administration of Housing Agreements, however, and concerns have been raised about the associated cost burden. A commonly proposed mechanism in many other jurisdictions is the creation of a Housing Agency that is tasked with housing agreement monitoring and enforcement activities.

Operation of a Housing Agency is not a service within either the Local Trust Committees or Trust Council, and accordingly may require an amendment to the Islands Trust legislation to enable it to undertake such an initiative. Should the Islands Trust choose that approach, it would likely be more efficient and cost effective if responsible for the entire Trust Area (instead of for individual Trust Committee Areas). Additional responsibilities could include the management of waitlists, maintenance of housing registries, and eventually even an active role in housing management or delivery.

TC Strategy:
Maintain Affordability over Time

Tool:
Flex Units, Size Limits, Energy Efficiency

An alternative to explore that may not involve a change to the Islands Trust legislation, is the possibility of a Housing Committee being struck by Trust Council and staffed for the purpose of administering Housing Agreements. This would have the advantages of any efficiencies from administering agreements on a centralized Trust-wide basis, as well as that of capacity building within Trust staff. This should be investigated with the assistance of the Trust's legal counsel.

An alternative to establishing a Housing Agency (or as an interim solution if considering taking the steps to establishing its own) is the negotiation of an agreement for this function with another level of government. An ideal candidate would be BC Housing (who already performs this function for other jurisdictions), or with applicable Regional Districts that have Housing Corporations that could create an Island-specific entity for this function.

Recommendation:
THAT Trust Council explore the potential striking and staffing a Housing Committee for the administration of Housing Agreements. Barring that possibility, then:

THAT Trust Council explore the potential with BC Housing to negotiate administration of Housing Agreements on behalf of all the Local Trust Committees.

THAT Local Trust Committees explore the potential with the Housing Agencies in their respective Regional Districts to negotiate administration of Housing Agreements.

6.3 Building Features

While many building design and layout features are regulated through the Building Code (not through the zoning), there are building types or features that can be encouraged to enhance affordability or otherwise meet housing needs in a community.

LTC Strategy:
Enhance Affordability with Diverse and Energy Efficient Housing Choices

Tools:
OCP Policies
DP Areas

Smart Growth (further information on following page) emphasizes the importance of choices in housing, promoting in addition to single-family homes, a mix townhouses, apartments, granny flats, etc. as affordable housing forms that use less land and resources. Additionally, ***Bill 27*** requires that local governments set targets to reduce Green House Gas (GHG) and develop associated Official Community Plan policies. While this report did not perform any detailed review of that legislation or its applicability for the Islands Trust, the Province's stated goals encourage the building of denser, more sustainable and affordable developments, including smaller units.

In the studies reviewed, one of the more commonly mentioned types of creative housing forms are '***flex units***' which are designed to adapt to a resident's changing needs or physical abilities over time. Changes envisioned include such things as converting a large room to two small rooms, an attic to a bedroom, or a basement to a rental or caregiver suite. The goal is to allow homeowners to occupy a dwelling for longer periods of time, which can be cost effective and minimize disruptions to families. Size limits can be applied to flex units to minimize any negative effects on neighbouring properties.

Size limits will also encourage affordability through lower construction costs for homeownership, or market forces for rental units. Functionality need not be compromised with good design. It also makes higher density more practical, with reduced foot print and associated resource demands. Efforts to restrict house size are often met with strong opposition; a solution that merits consideration is the ability to reduce or waive size restrictions with the inclusion of design features that reduce energy or resource consumption and promote affordability in the long term.

The inclusion of design guidelines for enhanced ***energy efficiency*** is environmentally responsible, and will have the effect of improving affordability over time by reducing operating costs. While again this is a Building Code function, Local Trust Committees can encourage energy efficiency in design through OCP policies and leverage these features through any rezoning process. The Salt Spring Island OCP utilizes this approach.

Recommendation:
THAT Local Trust Committees review their OCPs to ensure that they include policy support to encourage energy efficient and flexible designs, and include provisions for size limits as part of their work towards OCP amendments to meet the requirements of Bill 27.

7.0 SMART GROWTH LOCATION CONSIDERATIONS

It is recognized in many communities, perhaps particularly in the Trust Area, that there are tensions between development pressures (including affordable housing) and the need to protect the environment. Efforts to limit development in order to protect the environment naturally create a 'supply and demand' imbalance, creating upward pressure on land and housing values and exacerbating affordability problems.

However, allowing affordable housing doesn't need to be at the expense of the environment. "***Smart Growth***" is a series of land use principles designed to enhance quality of life, preserve the natural environment, and be cost effective over time. The goal of Smart Growth principles is to ensure that growth is fiscally, environmentally and socially responsible and gives priority to infill, redevelopment, and densification strategies.

Smart Growth principles recognize that good quality, affordable housing is key to sustainable communities and stability for families, and places great importance on locating the type of affordable housing that people want near their work or school.

Locations

The Local Trust Committees have control over affordable housing locations through Land Use Bylaw regulations and through Official Community Plan (OCP) policies which guide potential applicants. However, affordable housing applications are often initiated in response to a land opportunity, and may not necessarily be located in the areas identified in the OCP. When evaluating applications that are outside these OCP-identified areas, or when undertaking an OCP review, there are location features that can make higher density more appropriate and development more affordable.

Certainly due care is already given to applications for higher density in inappropriate locations, such as sensitive eco-systems, drinking watersheds or areas of know water shortages or septic capacity problems. Favourable consideration should be given to increased density on sites that are located close to services and amenities, to encourage reduced automobile use (for both environmental and economic reasons). Clustering higher density in existing centres can have the advantage of accessing existing servicing infrastructure, and can take the form of infill and clustered housing in certain locations.

> ***Recommendation:***
> *THAT Local Trust Committees review their OCPs and LUBs to ensure that they include policy support to encourage the location of affordable housing in appropriate areas of the community.*

8.0 OTHER IMPORTANT CONSIDERATIONS

8.1 Preserving Existing Affordable Stock

All communities do have some supply of affordable housing, and maintenance of this existing stock is far less expensive than the development of new units. A mechanism used in some jurisdictions provides for limits on demolitions, requiring the replacement of any affordable units removed. A related alternative may be the requirement that any home slated for demolition first be offered to non-profit or other housing providers for relocation to another site.

LTC Strategy:
Preserve Existing Affordable Housing Stock

Tools:
Limit demolitions, standards maintenance, RRAP funding

A concern expressed was that some of the rental stock is in very poor condition, sometimes even providing health and safety risks; anecdotally, tenants report reluctance to complain because they fear losing their accommodation and have few affordable alternatives. Island communities could explore some mechanism, such as a standards' maintenance bylaw, to determine if there is the ability to enforce health/safety conditions in affordable housing.

In the Islands Trust Area, both limits on demolition and maintenance requirements would fall under the Regional Districts' jurisdictions. However, Local Trust Committees could advocate for such changes, or explore the development of cooperation agreements with the Districts to encourage (or require) these practices.

Recommendation:
THAT Local Trust Committees encourage the preservation of existing by entering into discussions with their Regional Districts about:
- limits and/or controls on demolitions
- standards' maintenance bylaws

The Islands Trust could also provide information in the community about CMHC's RRAP program, which is available to both owners and landlords for the upgrade of sub-standard residences. This assistance, provided they housing is occupied by persons of low-moderate income takes the form of a forgivable loan in amounts ranging from $16,000-$24,000.

Recommendation:
THAT Local Trust Committees encourage the upgrade of existing affordable housing stock through education in the community about CMHC's renovation funding programs available to homeowners and landlords.

8.2 Encourage Partnerships

Throughout the literature reviewed was the recognition of the changing role of Local Government in the provision of affordable housing, which has resulted in the necessity for creative solutions for development. Many of the studies also stressed that there is no single cause for the problem, and no simple solution. Increasingly, local governments are working together (or encouraging) stakeholders to work together to achieve common or complementary affordable housing objectives.

LTC Strategy:
Encourage Partnerships

Tools:
Communication
Affordable Housing Council

The Islands Trust can take a more active role to encourage collaboration by communicating the need for affordable housing and promoting 'multi-partner' solutions. The processes of undertaking a Housing Needs Assessment or developing an Affordable Housing Strategy provide good opportunities to encourage stakeholders to become involved and consider their potential role in solutions and housing partnerships. Community consultation will raise awareness and can be a catalyst for creative thinking among potential partners.

Recommendation:
THAT Local Trust Committees consider all opportunities to encourage collaboration in the development of affordable housing by communicating needs and seeking input on solutions from the community.

One mechanism that the Trust may consider is the initiation of a Housing Council or Housing Board that has an ongoing role, perhaps emanating from the work of the Community Housing Task Force.

Recognizing that affordable housing development is a complex issue that extends well beyond the Islands Trust land use and planning roles, such a Council should have a diverse membership, including Islands Trust Staff and stakeholders from different sectors that have an interest in affordable housing. Membership could include participation from not only non-profit and/or private sector housing providers, but health care organizations, victims' services, homeless shelters, food banks, etc.

Recommendation:
THAT Trust Council and/or Local Trust Committees initiate an ongoing Housing Council consisting of membership from a broad range of stakeholders.

Partnerships for the *most* affordable housing will likely still involve some form of senior government participation. The Local Trust Committees can support individual efforts to secure funding by helping applicants demonstrate need with a Housing Needs Assessment, and demonstrating local government support with a letter indicating how the proposal fits within the Affordable Housing Strategy.

> ***Recommendation:***
> *THAT Local Trust Committees support individual housing providers in their efforts to secure senior government funding by communicating need and support for applicants (as applicable).*

8.3 Sustainable Building Practices

Considerable discussion and concerns are often raised between the perceived trade-off between affordability and sustainability. While there are certainly some energy efficiency or appropriate and sustainable building techniques that are more expensive initially, many have the potential for significant cost savings over time, thus improving affordability.

While it is beyond the scope of this report to more fully address sustainability in housing building practices, it is important to caution against compartmentalizing the affordability priority at the expense of environmentally appropriate actions, practices and materials usage.

Included in **Appendix D** is a copy of Salt Spring Island's '*Sustainability Checklist*' which was produced to encourage homeowners to make your residential construction project more environmentally friendly and reduce impacts on Salt Spring's natural ecosystems. It also includes information about financial incentives and other resources that can help achieve these goals.

It is specific to provisions to Salt Spring's OCP, but could serve as a model for other Trust areas to encourage sustainable practices in the provision of affordable housing.

9.0 FINANCIAL CHALLENGES AND SOLUTIONS

9.1 Housing Funds

LTC Strategy:
Financial Assistance of non-profit housing providers

Tools:
Lobby for Regional Housing Funds

One of the most often cited barriers to the creation of affordable housing is the shortage of funding – this can be seed or pre-development funding or capital funding. While the Islands Trust does not have access to property tax funds, there are measures that it can take to facilitate access to funding that is available.

Some Regional Districts have Housing Funds that are funded out of the property tax assessments and dedicated to the provision of affordable housing. The Capital Region, for example, has the Regional Housing Trust Fund to support affordable rental housing; Salt Spring Island has taken advantage of this funding on a number of occasions, securing hundreds of thousands of dollars in recent years. Local Trust Committees could lobby their Regional Director to either include their communities in existing fund initiatives, or to initiate the creation of new funds in their regions.

Recommendation:
THAT Local Trust Committees lobby their Regional Directors to include their community in existing Housing Fund initiatives, increase contributions or create new funds if none currently exist.

Strategy:
Financial Assistance of non-profit housing providers

Tools:
Lobby for Senior Government

Senior Government Funding Advocacy
Many (if not most) of the significant financial tools available are under the control of senior levels of government. The Islands Trust can play an advocacy role to encourage the commitment of more of the resources for affordable housing.

In the literature reviewed, one of the main issues that was suggested for local government lobbying efforts was to the Provincial government to allocate Property Transfer Tax directly to affordable housing (instead of to general revenues).

Other suggestions were general lobbying efforts to the federal government to resume its housing support programs, improve tax incentives for the construction of new rental housing.

Recommendation:
THAT Trust Council and Local Trust Committees further explore the potential for expanding their advocacy role to senior levels of government for increased funding for affordable housing.

9.2 Land Banking and Housing Trusts

Land Banking was one of the **most frequently recommended steps** that local governments can take to encourage the development of affordable housing. While this may not be possible for the Islands Trust under their existing mandate, there may be some steps that could be taken towards such a goal. The two options that emerge include a modification of the role of the Trust Fund, and the creation of a Housing Trust.

TC Strategy:
Financial Assistance of non-profit housing providers

Tools:
Land Banking and Housing Trusts

The Islands Trust Fund has many opportunities to work with ecologically significant lands, such as receiving and holding donated land, participating in fundraising, matching donations from the Opportunities Fund, preparing grant applications funds, holding covenants and building community awareness.

With many common features of an affordable housing land bank, the Islands Trust may wish to explore any potential for using this vehicle to hold land on an interim basis for affordable housing. As a Revenue Canada 'qualified donee', this could create a vehicle for the receipt of crown lands or private donations, which could then be transferred to a non-profit housing provider to develop affordable housing.

Recommendation:
THAT Trust Council explore the potential for the creation of an affordable housing Land Trust.

Using the Islands Trust Fund as a model, Trust Council could also explore the possibility of using its existing authority to hold and dispose land (including its ability to delegate that role) to initiate a separate Housing Trust. Land in such a Trust could be held on an interim basis (for disposal to non-profit societies, for example) or retained and leased on a long-term basis to providers of affordable housing.

There may be this ability within the existing legislation, which should be explored further with the Islands Trust legal counsel. According to Section 8.2 of the Islands Trust Act "*For the purpose of carrying out the object of the trust,* ***the trust council may a) acquire and dispose of land****...."*. Section 10 of the Act says *"****The trust council may****, by bylaw adopted by at least 2/3 of its members present at the meeting at which the adoption takes place,* ***delegate its powers under sections 8*** *(1) (d) and (f) and* ***(2) (a)*** *to (f) and 9 (1), subject to any restrictions or conditions specified in the bylaw."*

Recommendation:
THAT Trust Council explore the potential for and required changes to the Trust Fund to allow it to hold land on an interim basis for affordable housing.

10.0 WORKING WITH THE COMMUNITY

The re-zoning process usually required to develop affordable housing, can be long, complicated, and expensive. Proponents are sometimes unclear about requirements, the Trust's limitations and regulatory requirements, and become frustrated in their efforts. Many of the proponents are non-profit societies, who are small, volunteer-based organizations, with limited resources and development capacity. 'Partnerships' add a layer of complexity, and require a significant effort to negotiate. All these factors can have the effect of increasing the cost of housing, and even discourage its development.

This section will explain how the Local Trust Committees could facilitate the application and approval process -*from an applicant's perspective*- using some of the tools that have proven successful in both the Consultant's experience in the Trust Area and in other jurisdictions featured in the studies.

10.1 Understanding Expectations

Strategy:
Streamline and Facilitate the Application Process

Tool:
OCP and LUB Summary Guide

Most communities' Official Community Plans (OCPs) and Land Use Bylaws (LUBs) are complex documents, and are difficult to navigate through, particularly for lay persons. Any re-zoning process is likewise complicated, particularly when including additional development approval requirements such as those associated with sub-division, development permit areas, riparian or other sensitive areas, neighbourhood opposition, partnerships in development and/or service provision, housing agreements, etc.

A guide or OCP and LUB summary document could be developed that explains the context of the guidelines and regulations and how they relate to the development process. Essentially an abridged form of the OCP and LUB in lay persons' language, it could also help focus an applicant's review of the OCP and LUB documents themselves to sections or issues of most relevance to their particular situation.

Recommendation:
THAT, to assist in clarifying expectations, Local Trust Committees develop an OCP and LUB summary document to explain the context of the guidelines and regulations and how they specifically relate to the development process.

10.2 Communication

Applicants should be encouraged (or even required) to meet with planning staff before an application is submitted. Ideally, this would occur when a proposal is in its conceptual stage, to help avoid costly and time consuming changes to plans.

Ongoing communication is very important. While recognizing that Local Trust Committees planning resources are limited, it is very helpful if there is consistency in the Planning staff assigned to a particular application. Having a history of the file helps when there are complicated issue to resolve, and becomes particularly important when there are 'Partners' in the development that have development and/or design requirements (such as BC Housing design guidelines or the requirement for covenants).

10.3 Clear Affordable Housing Application Guidelines

While there may be only very limited opportunity to simplify the development approval process, it can be much easier to navigate when there is a clear understanding of what is required (and why). With frank discussions about each party's needs early in the process, there is opportunity to develop a strategy for proceeding and work out solutions when needs and requirements appear to conflict.

The Islands Trust Bylaw Amendment Application Form includes a guide titled 'A Guide to Rezoning Property in the Islands Trust Area". This document is concise and helpful in giving a general overview of the process and the requirements. It also recommends that an applicant meet with planning staff prior to submitting an application to gain a better understanding of the requirements.

Strategy:
Streamline and Facilitate the Application Process

Tool:
Affordable Housing Developmen

A more detailed affordable housing guide may be of benefit to applicants. It could highlight specifically where and how affordable housing is supported in the OCP, and how LUB provisions would affect the specifics of their proposal.

Content could also include a brief overview of the housing situation with a link to the Housing Needs Assessment, an overview of the Affordable Housing Strategy (with a link), identification of key housing priorities, a summary of the tools available (e.g. bonus density, fee reductions), as well other pre-development assistance information (e.g. CMHC, BC Hsg).

Recommendation:
THAT, to assist in clarifying expectations, Local Trust Committees develop a more detailed affordable housing guide to complement the existing rezoning guides.

10.4 Fast Tracking

Delays are costly and add to the cost of affordable housing. Under some circumstances, for example when an applicant has land under contract with subject conditions or when a time limited funding opportunity arises, some delays can even prevent an application from proceeding. While the private development industry may be better equipped or have the resources to endure some delays, it is more difficult for non-profit proponents who tend to be the primary applicants for affordable housing.

The Local Trust Committees could adopt an 'affordable housing first' policy for applications, with planning staff giving them priority in the queue for processing. The Salt Spring Island Local Trust Committee has taken this approach, directing staff to give priority to any applications that propose affordable housing.

> ***Recommendation:***
> *THAT Local Trust Committees adopt an 'affordable housing first' policy for applications, giving priority in the application queue.*

Also, and where applicable, some requirements of multiple function applications (e.g. sub-division and re-zoning) could be run in parallel when the process would normally call for linear steps.

As an illustrative example, once the preliminary layout approval (PLA) is secured from the Ministry of Transportation and Infrastructure, rezoning could proceed to first reading using the to-be-subdivided legal description (instead of waiting until sub-division is complete). In addition to expediting the process, such a step would have the added advantage of delaying costly sub-division requirements (access, water, etc.) until there is more assurance that the rezoning will succeed. The Trust could secure assurance that the appropriate requirements are implemented when the time comes via covenant. This is simply one example of how flexibilities in processing can expedite applications.

Strategy:
Streamline and Facilitate the Application Process

Tool:
Fast Tracking Applications

> ***Recommendation:***
> *THAT Local Trust Committees direct staff the take all opportunities to process (or assist applicants to process) multiple functions in parallel.*

10.5 Managing Application Fees

While application fees are generally a relatively small proportion of the overall cost of an affordable housing unit or project, they can be a barrier, particularly for non-profit societies with limited resources. The requirement for payment of application fees up-front, especially at the same time as an applicant must fund numerous professional studies, can add significantly to the difficulty.

The Islands Trust should consider means to assist affordable housing applicants with this cost. It could take the form of waiving fees on particular applications, which could be sponsored by Local Trust Committees if the application is in the public interest.

Strategy:
Streamline and Facilitate the Application Process

Tool:
Reduce or Delay Application Fees

Alternatively, the overall fee policy could call for reduced fees for all affordable housing applications (or those that include some affordable housing). Both of these approaches would need to take into consideration the application processing costs of applications, as fees normally need to ensure that the fee structure covers these costs.

Another technique identified in the studies reviewed was that of deferring all or part of the fees until a certain stage, such as issuance of the Development or Building Permit, final adoption of the bylaw, etc.

Recommendation:
THAT Local Trust Committees direct staff the take all opportunities to process (or assist applicants to process) multiple functions in parallel.

10.6 Clear Application-Specific Guidance

As mentioned previously, it is understood that there are limited planning staff resources, and planners can only proceed so far with a potential applicant before an application is submitted (and a fee paid). However, it is in this preliminary stage that the Trust may wish to consider allocating additional resources for affordable housing proposals to help proponents avoid costly and time consuming revisions at a later date.

A technique recently utilized by a planner on a complex non-profit society's application (sub-division, Official Community Plan amendment, re-zoning, two separate DP areas, riparian area, housing agreement with senior level of government) provided an excellent example.

Strategy: Streamline and Facilitate the Application Process

Tool: Application-specific Guidance

This involved producing **a** checklist for each stage of the process, listing exactly which documents or professional reports were required (e.g. septic engineer's report), what it must demonstrate (e.g. the site has the capacity to support increased density under Health guidelines), when such a report is required (e.g. two weeks before Local Trust Committee meeting), and what could not proceed before receipt (when applicable). It also listed applicable OCP or Land Use Bylaw reference to facilitate reference back to those documents.

While undoubtedly time consuming for the planner, it was a relatively simple technique that de-mystified the process and allowed applicants to proceed when previously overwhelmed by the requirements. In the long run, it likely saved planning resources and improved the likelihood that the application would proceed to a successful housing development.

Recommendation:
THAT Local Trust Committees direct staff to assist applicants with clear step-by-step requirements for each step of their application process to develop a common understanding of both the specific requirements and how they fit into the overall process.

11. COMMUNITY ENGAGEMENT TOOLS

Key throughout the development of an Affordable Housing Strategy and any Official Community Plan or Land Use Bylaw changes will be public participation and 'buy-in' from the community. This is equally as important when considering any specific affordable housing proposal, many of which encounter community opposition to increased densities, resource use, or simply fear of change. Following are the main opportunities for community engagement that emerged from the review of the affordable housing studies.

11.1 Education and Information

Strategy:
Community Education

Tools:
Posters, Website, Newsletters, Radio, NIMBY (Not in My Back Yard) workshops

The Islands Trust could play a role in educating the community about how the importance of affordable housing goes well beyond the economic importance to the resident being housed. This could take many forms (website, newsletters, etc.), but frame affordable housing as central to a community's well being.

Concerns about community/neighbourhood character changes (including NIMBY) are related and important issues that were often cited as an obstacle to the development of affordable housing. NIMBY is often the result of fears based on mis-information or a lack of information, and education can very effectively address many of these concerns. CMHC, in partnership with BC Non-Profit Housing Association will sponsor a day-long workshop in the community at a nominal cost.

Recommendation:
THAT Local Trust Committees develop an education and information program to help the community gain a better understanding of the importance of affordable housing and foster greater acceptance.

11.2 Confirmation of Needs and Priorities

Prior to the development of any new strategies or policies, input and confirmation of the priority needs should be obtained from the community. This can be performed by any number of means (workshops, information sessions, focus groups, newsletters), most of which are familiar to the Islands Trust through its strong tradition of public consultation. If the community is armed with objective data from a Housing Needs Assessment, the likelihood of support for new policies (or any give application) is greatly improved.

11.3 Input to Policy, Strategy and Applications

Prior to the implementation of any new strategies or policies, input and feedback should again be obtained from the community. As with the step of defining need, community buy-in is critical for the success of the strategy.

Implementation of some of the strategy actions will be quite evident to the public during any property rezoning; familiarity with the needs, the objectives and the tools will enhance support. In the case of rezoning applications, it is very important that applicants understand the importance of consulting with the neighbours early in the process – it needs to be real consultation, with serious consideration of any concerns, and substantive efforts to mitigate these concerns whenever possible.

Strategy:
Gain Greater Community Support

Tools:
Participatory Processes for Needs, Strategy

Recommendation:
THAT Local Trust Committees develop a participatory process to solicit input and feedback from the community on housing needs and proposed solutions.

11.4 Conflict Resolution

An often cited source of conflict that can potentially negatively affect access to affordable housing relates to the landlord-tenant relationship. Rights and responsibilities according to the Residential Tenancy Act (RTA) are often not well known by either party, sometimes contributing to disputes when differences or problems arise.

While the Islands Trust does not have a direct role in conflict resolution, it could consider encouraging or sponsoring a workshop to explain the RTA or provide information on the to-be-developed Affordable Housing section of the Trust's website. Facilitating this type of workshop is another example of one of the potential roles of a Housing Council.

Strategy:
Gain Greater Community Support

Tools:
Facilitate Conflict Resolution

Recommendation:
THAT Local Trust Committees explore the opportunities to bring tenant-landlord conflict resolution education and processes to the community.

Document List	Author	Date	Description
General and Policy Documents			
Planning for Housing 2004	BC Ministry Community, Aboriginal and Womens Services	2004	Overview of local gov't initiatives in BC. Describes 7 categories of tools/techniques. 1-Land use and zoning; bylaws via the LGA can allow density bonus (FSR or units) for amenities like AH, comprehensive development zoning on specific sites with HAs to ensure affordability over LT (incl. e.g. mixed uses, secondary suites); inclusionary zoning with % or # and/or $ AH as a condition, build or convert residential above commercial, small lot zoning for affordable SFD, manufactured housing zoning, zoning for secondary suites (important means of meeting demand for AH-20% of BC rental housing, est. 125-150,000 unauthorized in BC), zoning for addt'l detached dwellings (mfg homes, garden suites, converted garages, carriage suites). 2-Approvals and Funding; fast-tracking proposals for AH reduce development costs, streamlining application process (e.g. convene committee with all parties involved in approval process, waive or reduce permit fees, cash or land grants (can include reduced taxes, reduced or interest free loans or payment deferrals), housing agreements to secure affordability in LT, reserve funds (from direct revenues or developer amenity contributions). 3-leasing land at or below market (can include payment deferrals). 4-Community planning initiatives, a tool for involving the community in planning (e.g. task forces or committees to develop strategies), many include Health Authorities. 5- Partnerships; include other local gov'ts, groups, agencies primarily for research (e.g. GVRD steering committee on homelessness). 6-strategies to address NIMBY (e.g. assessment of changes to property values, pre-notification letters, meetings/workshops). 7- Monitor and maintain rental stock inventory; undertake land use inventories to help tenure/location/amenity decisions, policies to limit conversion or demolition of rental stock (usually require replacement), enact standards of maintenance bylaws, permit secondary suites (regulated with zoning, maintenance bylaws, building code, RTA). Provides specific examples, guidelines and mechanism for adaptable/accessible housing, special needs

Document List	Author	Date	Description
			housing (broad definition), plans to address homelessness. Section on smaller communities, many of which indicated affordability is not a problem. Long list of resources and websites.
Housing Affordability in BC - 2005 - BC Stats	BC Stats	2005	2001 Census data-incidence of affordability problems in BC vs. other regions (shelter costs, incomes), BC regional shelter costs.
Local Government Guide for improving Market Housing Affordability	BC Ministry Community, Aboriginal and Womens Services	2005	Documents how local governments can use their regulatory framework and land use planning to facilitate the development of affordable market housing (LEM ownership and rental, non-market ownership and rental) by private developers, noting challenge is to encourage the inclusion affordable units (exchange for concessions or benefits) and include short or long-term controls to ensure ongoing affordability. Describes municipal powers, tool, resources granted under LGA or Community Charter. Community planning tools include HNA, land use policy, AH policy (req'd by s. 877LGA), design guidelines. Zoning tools include density bonus (s. 904 LGA), comprehensive development zoning, rezoning (may include inclusionary zoning or policy, density transfer), small lot zoning, residential above commercial, relaxations (e.g. parking or FSR calcs), housing agreements with covenants. Approval process can be modified by fast-tracking, streamlining process, clear guidelines (expectations). Financial incentives can include waiving/reducing fees (s. 224 CC, 933 LGA), defer DCC until BP stage (JG note-n/a for IT), housing reserve fund (s. 188 CC). Municipal land can be granted, leased below market, lease payments deferred. Local gov't can foster partnerships with other level gov't, community orgs, health authorities, etc.
Secondary Suites - A Guide for Local Governments	BC Ministry Community, Aboriginal and Women's	2005	Designed to help local gov't develop and implement secondary suite program with practices to promote affordability. Summarizes key benefits to owners (mortgage helpers, aging-in-place, security for seniors/those with disabilities, families stay together) and to tenants/community (affordable rental, proximity to services, low-

Document List	Author	Date	Description
	Services		impact density, maintain neighbourhood character, diversity of residents, increase stock w/o gov't subsidy, avoid culture of non-compliance). Adoption challenges include community resistance (fear of change, unfair taxation, parking), difficulty in monitoring and enforcement, health/safety standards. Identifies and details key strategies: public consultation and education, amendment of zoning protocols (zone areas or specific properties with rezoning-where, how many, size, parking, owner occupancy, other jurisdiction specific criteria), liability management through BP process or indemnifying covenant, bylaw enforcement most commonly complaint based (remedies incl. removal of cooking facilities, barriers separating main unit), utility fee reductions, health and safety standards (BC building code reduced standards for suites or local standard for non-permitted suites), design guidelines, staffing models for program design and implementation. Provides case examples summarizing program, staff resources for implementation, results, lessons learned and transferability. Summarizes experiences into 'best practices' for design/implementation. Identifies key strategies to meet primary objectives (future stock new suites, legalize and upgrade existing suites, close unsafe suites, protect rental affordability in resort communities).
Review of Best Practices in Affordable Housing - Smart Growth BC	Tim Wake	2007	Report focuses on affordable housing (low or no-cost land), not social housing (ongoing subsidy), reviewing range of policies, programs and strategies of Cdn and US jurisdictions. Emphasizes success based on application of multiple tools and range of options and prices is a key Smart Growth strategy. Density and proximity to services/employment affect transportation, infrastructure and greenspace. Provides glossary of various AH definitions. Describes continuum from emergency shelters to homeownership. Summarizes most commonly used policies, with best practices considering ability to retain affordability over time, in order of frequency used (Cnd frequency for purposes of this summary). Most common is secondary suite policy, an excellent first stage that increases rental supply and homeowner affordability (incl. sample Victoria bylaw). Density bonus usually in larger urban centres and suburban infill

Document List	Author	Date	Description
			(Burnaby has clear guidelines for assessing). Inclusionary zoning requires AH development (often % total) or cash-in-lieu to housing fund. Housing funds are designed locally, receive ongoing public funds (SSI successfully participates in CRD's RHTF for rental). Resale price restrictions secured via covenant, with price determined by formula or index (Whistler, Tofino, Victoria). Demolition policies require replacement of lost affordable rental stock. Rent restrictions, most managed by NP organizations. Strategies and tools include (in order of Cdn frequency) REF grants (escrow interest), Affordable Housing Strategies (strong correlation with use of other tools), Growth Management strategies include policies and plans for AH that are coordinated with land use and transportation planning, PPPs (public, NP, private sector), Needs Assessments to determine parameters of challenge and demonstrate to community and funders that need is genuine and quantifiable (examine population, income, inventory, costs and availability, demand), housing organization (most NP) with dedicated staff to deliver AH, land banking for future use, waitlist system to manage qualification (can be labour intensive). Outlines use of cooperatives, community land trusts, and cohousing which are community driven. Provides list of price/rent restricted projects, several case studies, and copy of Whistler housing agreement.
Municipal World Magazine - Affordable Housing 10 Secrets	Robert Roach	2008	Identifies key elements of effective affordable housing strategy; clearly identify need, build new and maintain existing, social supports, diverse locations, identify & address barriers, establish partnerships, include free market with zoning (e.g. suites, inclusionary zoning) and incentives (fee reduction, bonus density), encourage supply and demand (gap between cost and incomes), long-term planning/funding/commitment, recognize tax dollars required.
Creating Market and Non-Market Affordable Housing - Smart Growth	Debra Curran, Tim Wake	2008	Identifies starting point as AHS that determines demographics and needs for entire continuum. Describes inclusionary zoning, secondary suites, density bonus, resale price restrictions, housing funds, land banking, housing organization, partnerships.

Document List	Author	Date	Description
Affordable Housing - Making sense of new trends	Tim Wake	2009	Briefly describes housing agency, secondary suite policies, density bonus, housing fund, PPP, inclusionary zoning, resale price restrictions, land banking.
Housing Needs Assessments			
North Saanich Housing Needs Assessment	City Spaces	2007	Report commissioned as result of OCP update, which included requirement for preparation of Housing Strategy; needs assessment is first step. Report to assess residents' difficulty in accessing affordable housing, workers ability to purchase or rent, options for seniors to age in place, and adoption of policies and regulations to support OCP housing objectives (retain neighbourhood character while responding to need for seniors' and affordable family housing, support socially inclusive cultural diversity). Researched housing market (type, value), demographics (age, income), labour force characteristics, affordability and gaps, population projections. Explored seniors' housing preferences, demographics, incomes, available housing. Briefly summarizes regulatory and empowering status. Summarizes OCP housing related policies (investigate legalizing suites, designate areas to consider for housing, prepare housing strategy). Identifies bylaw provisions that support housing choices (guest/caretaker cottages allowed in some areas with conditions, defines -but does not allow- in-law-suites).
Housing Needs on Hornby and Denman Islands	Eberle Planning and Research	2008	Demographic and housing profile, survey to assess need based on affordability, suitability, adequacy, security of tenure, supports. Recommendations regarding building affordable owned homes, assistance for renters, home repair assistance, home care, elder housing, secondary suites, emergency accommodation.

Document List	Author	Date	Description
North Pender Island Affordable Housing Task Force Report	N. Pender Island Affordable Housing Task Force	2008	Task force formed in response to OCP strategic direction towards enhancement of AH, with report to identify directions, strategies and tools that could contribute. Community profile (population demographics), profile of current land use/zoning, housing supply and cost and tenure, economic/employment profile. Community needs survey for residents (household profile, current housing situation/cost/affordability, need, tenure and size preference). Interviews with business and service providers (sought info on employee difficulty securing rental accommodation, trouble hiring staff, workers leaving island, know instances of difficulty finding housing, food budget shortage due to housing costs). Building housing framework for diverse, flexible housing to meet changing needs and provide choice starts with a vision, principles and goals. Outlined options (density bonus for seniors' and special needs, high-density close to centres, infill housing, housing fund, land acquisition/banking, home (land) trust, secondary suites, seasonal rental, home maintenance, rental housing registry. Concluded that strategic plan needed that stimulates provision of different forms, better matches existing supply to needs, increases overall supply.
Islands Trust Housing Needs Assessment - A step towards a comprehensive Affordable Housing Strategy for SSI	JG Consulting Services	2009	Phase I basic analysis of statistical data related to affordability to provide assurance there were no large gaps in perceptions of affordability problems. Includes general overview of housing market, demographics, estimate of price range affordable to population, housing supply and identification of gaps, and a tool for developing the TOR for Phase II. Results confirmed perceived affordability crisis, dramatic price increases, increases in low income residents, short supply of rental housing in poor condition, employer reports of labour shortages, increasing homelessness and families at risk of homelessness. Phase II completes the assessment, intended to be used as baseline and updated periodically to help guide policy development and land use decision, help housing providers target development to areas of high need, objectively demonstrate need to potential funders. Goals of Phase II included seeking confirmation of findings of Phase I, update housing market assessment (in light of recent economic downturn),

Document List	Author	Date	Description
			summarize population forecast to assist in development of Affordable Housing Strategy. Outlines approach to strategy development (preparation/administrative set-up, needs assessment, public participation process, develop action plans, implement strategy, build partnerships, monitor outcomes). Community consultations undertaken using 'key informant' technique, who detailed their views/preferences on the role of the Islands Trust.
Affordable Housing Strategies			
SSI Community Housing Background Report & Recommendations	SSI Community Housing Task Force	2005	Report purpose is to inform and guide CHTF in deliberations when advising LTC on AH applications and make recommendations for housing policy development. Recommendations for immediate action: policy manual, waitlist, OCP/LUB revisions to enable recommendations, set up housing agency, initiate housing needs assessment, identify funding sources/budget. Establish mechanism for approval and licensing of suites/cottages with housing agreements. Defines 'acceptable' housing (affordable, suitable, adequate), recommends OCP multi-level definition of affordability and means to ensure affordable over time (housing agreements). Outlines components of full HNA (demographics, current housing stock, gaps, priority populations in core housing need) and undertakes preliminary assessment. Suggests community housing qualification criteria (priorities as per HNA, then income/assets/residency). Recommends waitlist process to screen for eligibility (issue qualification certificates), rank need priority, match to available housing, gather data. Outlines environmental, agricultural and sustainability issues to consider; Location: away from drinking watershed, sensitive ecosystems, rare/endangered species, ALR except farm workers, adjacent to pollution, preferably locate in/near villages, especially large projects. Density: tight clustering with greenspace, increased density, three stories. Identifies appropriate construction standards (R-2000, EnerGuide) and infrastructure/site servicing options for energy

Document List	Author	Date	Description
			efficiency and LT savings/cost recovery (water, power, transportation, parking, shared servicing). Recommends alternative housing (e.g.eco-villages) pilot project (possible building code flexibility). Critical to evaluation of applications is to clearly define and quantify community and developer benefit; proposes pro-forma method of quantifying value of bonus density with transparent/substantiated cost estimates (appraisal, QS). Recommends 'Whistler-type' housing agreements and covenants (copy in appendix), details key components (rent/price restrictions, qualification criteria, monitoring, RFR, conditions for temporary waiver, penalties, enforcement). Outlines general instrument/developer agreement as interim step for homeowner projects (will be discharged in favour of separate unit agreements). Recommends formation of community housing agency to manage waitlists and qualification, administer housing agreements, hold RFR, undertake HNA, could build/own/manage). Provides guideline suggestions for disposal of public lands to ensure benefit to public, transparent process, fair opportunity for participation, decisions based objective evaluation of options. Disposal based on REOI/RFP process; report details appropriate components and process.
Regional Housing Affordability Strategy for the Capital Regional District	CRD Planning Services	2007	Stated vision is for safe, adequate and affordable housing for all of the region's residents. Stated goals of strategy are to increase supply of more AH, reduce number of people in core need especially low income renters, reduce number of homeless and support the transition out of homelessness. Regional Growth Strategy requires preparation and adoption of AH strategy. Outlines need for strategy (community, workforce, economic, social, health sustainability). Summarizes homelessness situation and impacts (health, victimization, hospitalization). Describes continuum (homelessness, shelter, supportive, transition, non-profit, assisted, private sector) and associated correlation with funding/policy regulation and income range targets. Summarizes current housing conditions (increasing homelessness, need for social housing, limited rental supply, high ownership costs) and incidence of core need (note: Gulf Isl have by far the greatest core need). Briefly describes federal and provincial

Document List	Author	Date	Description
			changing roles. Outlines 4 strategies to support vision and goals: 1-Secure more funding: expand RHTF, share housing program information, coordinate with member municipalities to lobby senior gov't, broker partnerships. 2-Enhance policies and regulations: Regulatory actions (secondary suites, increased densities in centres, small lot infill, mixed-use, flex housing). Fiscal actions (tax incentives, preserve rental stock with RRAP, adjust permit fee structures). Policy development (include AH policies in OCP and 'regional context statements', OCP inclusionary zoning, 'AH first' policy for surplus land). 3-Facilitate partnerships with community groups and industry (share information, lobby senior gov't, encourage NP redevelopment, consider land trusts). 4-Build neighbourhood support (report on implementation of strategy), share information/best practices/initiative profiles, mediation and dispute resolutions. 5-Expand Victoria homelessness plan to region-establish task force, recast plan as regional, build partnerships. Includes monitoring program - indicators for each goal defined, targets set, regular reporting.
Metro Vancouver Affordable Housing Strategy	Metro Vancouver	2007	Identifies roles of regional, municipal gov'ts and makes recommendations to senior levels. Establishes three key goals (increase supply modest cost housing, eliminate homelessness, and meet needs of low income renters) with more detailed objectives. Identifies four key strategies (fiscal actions, regulatory actions, education and advocacy, direct service). Assigns relevant strategy and specific actions (all levels of gov't) for each goal. For implementation, summarizes which actions can be undertaken by region or municipality under what strategy, and sets performance measures.

Document List	Author	Date	Description
UBCM Affordable Housing and Homeless Strategy	UBCM Executive	2008	Recommendations to Provincial and Federal govt's regarding strategy. Introduced successful US "Housing First" homelessness strategy. Summarizes recent actions of Fed, Prov and Local gov'ts (local provide land, waive fees, action plans, OCP identified locations, fast-track policy, zoning regulations, secondary suite/carriage housing, housing corporations, land banks, housing funds). Local gov't survey identified key issues around support housing and treatment facilities (lack local capacity, lack suitable land/development pressures, lack of zoned sites, philosophical opposition, NIMBY). Second survey to identify barriers (funding, lack local capacity, need vision/plan/policies, land) and potential actions (facilitate partnerships, policy for local priorities, OCP/By-law/Zoning amendments). Recommends senior gov't partnership similar to infrastructure program to implement strategy. Identifies strategies to make SH affordable (supply of zoned land, clear development policies, fast track approvals, density bonus, housing agreements, lease or sell public/crown land, build partnerships with NP organizations). Housing agreements are mechanism to monitor and enforce provisions of SH (which is not licensed under Community Care Facility Act). Provides guidance and checklists for evaluating proposals (location, site planning, parking, design).
Special Trust Area Studies			
Seniors Housing in Island Communities - Heron Rocks Friendship Centre Society	Heron Rocks Friendship Centre Society	1990	Conference project initiated to seek solutions for island seniors (Cortez, Lasqueti, Gabriola, Denman, Quadra, Hornby) having difficulty managing their own homes, but without housing alternatives on island. Phase I included demographic research (households, income, population projections by island) and questionnaires to residents (housing situation, housing and service needs, lifestyle and values preferences). Pre-conference visioning workshops held on each island; participants identify present and anticipated needs and vision a solution using guided imaging exercise. List of visions

Document List	Author	Date	Description
			compiled, and divided into 'needs' and 'options'. Phase II was 2-day conference, seniors and other participants (participants included gov't representatives, industry experts, seniors' organizations) reviewed needs, considered possible solutions, and practical housing options (low income rental, co-ops, home-sharing, home support, granny flats, Abbeyfield shared living, co-ops, cottages). Featured local model (Plumtree on Pender). Phase II is report.
SSI Task Force - 1994 Draft Report - Affordable Housing	IT Task Force on Housing and Accommodation	1994	Research and public consultation through seminars for recommendations to IT on seasonal cottages, housing supply mix, and tourist accommodation. Working groups on rural island character, growth and development, tourist accommodation and affordable housing. Noted existence of a regulation and peer pressure will obtain compliance from large majority. Brief overview of housing supply and affordability (with definition). Recommends AH defined as amenity in OCP and IT assistance/encouragement for subsidized and alternative applications (small houses & lots, second suites, innovative technologies, existing services, lending alternatives). Legalize suites with owner residence, provincial suite code, exterior appearance as SFD. Multi-use zoning in villages allow three stories for one floor residential. High density zoning for small, affordable SFD ownership homes with 1200 sf limits where services exist. Medium density for moderate size 2000 sf with developer covenants to retain ~25% rental. Liveaboards if connected to effective sewage in appropriate location. Work with CRD to encourage new technology pilot projects (e.g. composting toilets). Redefine seasonal cottages for permanent residence (or temporary subject to inspection and licensing).

Document List	Author	Date	Description
Supportive Housing For Seniors	Ministry of Social Development & Economic Security	1999	Policy and bylaw guide to help communities address challenge of providing housing for aging population, and local gov't to understand supportive housing, draft policies, bylaws and guidelines, and encourage and evaluate proposals. Explains the nature of SH, why it is emerging, how it fits within the community, and its relationship to health care system (not licensed). Outlines duties and roles of federal (research, advice, start-up funding, mortgage insurance), provincial (legislative and policy framework, health and housing funding, information) and local gov't (establish policy and planning framework, barrier-free public infrastructure, encouragement of proposals) and housing providers/community groups (private and NP-development and management) in providing SH. Provides brief description of relevant legislation regarding land use; OCP policies to include affordable and special needs housing (MA 877(2)), zoning and density bonus for amenities and AH (s.904), protecting affordability over time with housing agreements (s.906 (1)), financing through Municipal Finance Authority Act (s.176(1)(c)), various programs and SAFER through BC Housing. Details components of needs assessment and CMHC data collection and analysis tools. Local gov't supporting policies reflected in OCP (includes sample goals, objectives, policies and actions). LUB can have barriers (parking requirements, mixed use prohibited, definition that over-regulates). LUB should have uses and densities that accommodate multiple levels of accommodation (campus), allow secondary/garden suites, realistic/lower parking requirements. Can develop separate social plans or housing plans that address needs of older citizens.

Document List	Author	Date	Description
Crisis in Paradise Accelerating the Provision of Affordable Housing on SSI	Clare Heffernan	2002	Examination of regional housing situation (supply, affordability) and demographics. Identifies impediments to AH (land costs and migration speculation, access and servicing costs, bans on MH, height limits, development uncertainty (Bullock Lake), community dissatisfaction with growth policies). Summarizes IT responsibilities and OCP policies that support AH (legalizing seasonal cottages, MF zones, flex units, AH for family & seniors, mixed use zones, amenity/density transfer, "innovative" strategies). Additional strategies for local government to encourage AH on SSI (inclusionary zoning, linkages, housing trust funds, land trusts, shelter for seasonal workers).
Options for Affordable Housing - Normanby Daniels	Normandy Daniels	2003	Affordability definitions, Trust area demographics and core need by tenure, traditional major approaches (AH complexes, co-ops & co-housing, land banks & land trusts, planning tools (secondary suites, density bonus, cluster & cottage housing, housing agreements), issues and next steps.
Hornby Island Advisory Housing Committee Report	Maria-Bonita Kapitany	2004	N. Daniels paper used as starting point. Community input identified key housing needs, possible solutions, recommendations for OCP, LTC (ST vacation rentals), Community follow-up (education, conflict resolution, Land Trust, resident investment, summer accommodation for displaced residents, housing agreements), appendix research.
CHTF Comments on SSI OCP Review	CHTF	2007	Comments relate to explicit inclusion of affordability, clarifying definitions, newly defined villages or hamlets, master plans for Ganges & Fulford.
Housing Agreements - Quattrocchi	Michael Quattrocchi	2006	Examines use of HAs by local gov't to encourage development of affordable and special needs housing. Identifies legislative authority that allows occupancy regulation (s.905 LGA, s. 219 LTA), when they can be used (gov't land sales, amenity zoning, zoning condition, strata conversions). Describes how they are put in place (bylaw, LTO notice, 219 registration, priority agreements, timing). Outlines types of HA restrictions (re-sale price, rental restrictions, occupancy restrictions), enforcement issues (Option/RFR,

Document List	Author	Date	Description
			occupancy criteria/qualification) and administration.
Housing Solutions for Small Communities - April 2007 conference report	Hornby Island Community Economic Enhancement	2007	2007 housing conference designed to provide information and empowerment for communities in their efforts to address affordable housing; 100 participants, 30 communities. Participation from local, provincial and federal gov't, NGOs, housing and other community organizations, consultants and businesses. Sequential exploration of enabling housing-preparing, planning, organizing, partnering, building. Explored history and nature of affordability problem, (amenity migration, resort nature, rapid value escalations and role of baby boomer wealth, affects on communities, growing seniors' population). Solutions need to remove land from speculative market, tools include (Whistler) works/service charge bylaw, floor area bylaw, amenity zoning, walkable locations, housing organization to created. Key to continuing affordability is housing agreement/covenant. Introduced eco-villages, combining ecological responsibility/ community building with 'rural residential comprehensive development' zone. Performance based or parcel-specific zoning based on carrying capacity more in small communities. Engage community (nay-sayers) early to shape policy. Use infill, clustering to avoid sprawl and address transportation, increase density in centres, mixed projects (avoid ghettos). Work with developers to obtain benefits. Secondary units are best option for immediate solution and can be permitted as outright use or even required. Lack of regulation (blind-eye) results in building standards, fire safety, health, parking, rental agreement issues. RRAP may be available to upgrade. Community Land Trusts (CLT) remove land from speculative market with housing through LT ground leases. Modest equity built with aim for permanent affordability. Key to community housing is a broad based community vision. Perpetual affordability for homeownership can be achieved with housing agreements/covenants, with a housing authority to administer (Whistler, Tofino). CLT role is to hold land and ensure perpetual affordability (financing can be complex); housing can be built as co-op. Co-housing has small, privately owned homes with shared amenities, developed by NP then converted to

Document List	Author	Date	Description
			strata (Creekside); not necessarily more affordable. Co-op development more difficult now with reduced gov't funding. Land co-op can own land and common services (e.g. water system) and provide homesites. Eco-village includes food production, housing, NP activities and business (BC Institute Co-op Studies looking at logistics and legal issues). Rental housing difficult without multiple funders, incl gov't. SAFER available. Partnerships important (BC Housing, private/volunteer sector, CMHC, regional districts). CRD has AH Strategy and RHTF to leverage other funding (SSI has benefited greatly). Local gov't role through OCP policies, zoning, land, housing commission, advocacy (e.g. PPTT). Seniors housing needs growing (aging, migrating) and changing, solutions can include home support, assisted living, independent rental. Private rental housing can be challenging; explained tenant and landlord rights and responsibilities. Stable, affordable housing key to addressing poverty, addictions, other health challenges. Habitat for Humanity a model for volunteer based home ownership with candidate labour. Eco-homes meet shelter needs without compromising planet; energy use affected by location (transportation), simple design, thermal envelope, passive solar, efficient systems and appliances. Save water with rainwater catchment, irrigation grey water, composting toilets. Need to balance sustainability and affordability. Featured Creekside Co-housing, Gabriola Commons projects. Energy solutions include solar water, passive solar, solar panels, air-source heat pumps, superior insulation, windows, caulking, wind/micro-hydro, bio-mas gen for communal projects. Success of Whistler, Tofino challenging for unincorporated areas that are a minor area within large RD, islands have limited development capacity (leadership, organizational framework, funding, expertise) or community resistance. Most viable solution for home ownership may be CLT, secondary accommodation for rental (resistance due to water and sewerage). Resulting action is establishment of 'community round table' on Hornby (community development organization, CLT, Elder Hsg and Health Care societies, LTC), Denman OCP review to address issue, Comox staff/elected official training event on land use planning and regulatory tools, ISLA intensive training event, ACT application for secondary

Document List	Author	Date	Description
			accommodation, info to lobby for PTT. Recommended development of Tool Kit (options & resources - legislative tools, planning processes, funding sources, success examples, gov't programs/agencies), access to resource people to develop or facilitate community process. Includes useful list of related reports, websites, Hornby OCP AH policy excerpts (incl. req't for hsg advisory committee). Explored secondary units in more detail.
SSI Housing Focus Group Report - OCP Review	Population, Housing and Settlement Patterns Focus Group	2007	SSI OCP review policy recommendations. Recommends master plan identifying ideal settlement areas, adjustment of zoning and density transfer provisions to direct development appropriate areas with overall downzoning and exemptions for innovative and affordable housing, clarify and revise village containment boundaries, provide village-specific zoning designations in LUB, strengthen OCP amenity density policy in LUB designated area, amend LUB to establish maximum residence size, increase employee and affordable MF and clustered SF housing (definition of affordability, inclusionary zoning, bonus density if covenanted, rezone areas in villages for % covenanted, rezone areas in villages for mixed use and three-storey bldgs, designate densely settled areas as villages/hamlets, encourage innovative projects, support pilot projects, locate w/in village containment boundaries or walking distance of main roads, relax set-back and parking requirements, establish Housing Agency, invite community to submit proposals), allow secondary suites for affordable and employee housing (appropriate areas, covenanted, enforced), and allow cottages for affordable and employee housing (appropriate areas, covenanted, enforced).
Secondary Accommodation Units - A housing option for Gulf Islands and other small communities	Tony Law, Hornby Island Community Economic Enhancement	2008	Identifies key elements to evaluate when considering how to enable secondary units; Community context (demographics, market, need, development potential, local governance), benefits (achievability, impact, owner benefits, avoiding culture of non-compliance), barriers (community resistance, lack of uptake) and issues to address (rural character, water, sewer, ensure intended use). Identifies necessity of meaningful community consultation. Provides various BC communities' OCP policy examples.

Document List	Author	Date	Description
			Summarizes regulatory framework and specific legislation that enables; zoning regulations (use and density), zoning for amenities and AH (higher density than specified in zone with conditions), housing agreements (limit via bylaw classes of residents, management, rents) and HA administration/monitoring, covenants (can be temporary, difficult administration). HA and covenants can be disincentive. Suggests regulatory approaches to deal with concerns/issues (appropriate use, locations, lot areas, unit form and size, siting and flexibility, occupancy, owner occupancy, additional non-residential uses, parking, water, sewer). Identifies possible compliance mechanisms (voluntary compliance with court action for enforcement, municipal ticketing, HA and covenants with court action for enforcement). Suggests key areas of community information/education to encourage compliance and uptake (zoning, sewerage, code, water, building options, funding). Lists approaches taken by various BC communities (suites and cottages, zoning regulations, housing agreements and rezoning applications). Outlines Whistler experience.

APPENDIX B – SAMPLE DEFINITIONS, VISIONS, GOALS, OBJECTIVES

The reader may wish to refer to the Islands Trust collection of Affordable Housing studies for samples of affordability definitions and vision, goals and objectives statements. Using the Capital Regional District Metro Vancouver as examples, provided below are samples definitions and statements for reference.

Interestingly, both jurisdictions have identified similar objectives, which may also be relevant to the Islands Trust Area.

Sample Definitions of Affordability

The Capital Regional District recognizes that affordability is a function of housing cost and income and uses the CMHC definition of which "does not exceed 30% of a household's gross income". The District further stipulates that "this measure applies to households of low to moderate income, usually those with incomes at 80% or below the median household incomes for the region".

Metro Vancouver defines affordable housing as " housing that should not cost more than 30 per cent of a household's gross income regardless of whether they are living in market or non-market housing".

Sample Vision

The Capital Regional District has a stated vision of " safe, adequate, and affordable housing for all the region's residents"

Sample Goals and Objectives

The Capital Regional District Regional Housing Affordability Strategy identifies 3 key goals:

#1 – To increase the supply of more-affordable housing in the region
#2- To reduce the number of people in core housing need, especially low income renters
#3 – To reduce the number of homeless people and support the transition out of homelessness

Sample Goals and Objectives

The Metro Vancouver Affordable Housing Strategy identifies 3 key goals, each with a number of objectives:

Goals:

#1 - Increase the supply and diversity of modest cost housing

Objectives:

- increase the supply of affordable housing at key points along the housing continuum
- Identify partnership opportunities to allow low income families and individuals to move along the continuum
-

#2 – Eliminate homelessness across the region

Objectives:

- Enhance the continuum of housing and supports for those who are homeless
- Improve the affordability of rental accommodation for the low income renters as a means of preventing economic eviction and homelessness
-

#2 – Meet the needs of low income renters

Objectives:

- Expand the supply of affordable rental housing
- Maintain the viability of the existing rental housing stock

APPENDIX C – SAMPLE HOUSING AGREEMENTS

There is substantial variation in the complexity of Housing Agreements, with some of the simplest in use in the Trust Area on Salt Spring Island for non-profit seniors' rental housing.

More complex agreements are used when homeowner housing is being developed by the private sector, with Whistler being in the forefront after years of experience in developing an agreement that is enforceable and effective in assuring developers meet their commitments, and that affordability is maintained in the long term.

Copies of both these agreements are included as examples for consideration.

TERMS OF INSTRUMENT
PART 2

SALT SPRING ISLAND LOCAL TRUST COMMITTEE

BYLAW NO. 364

HOUSING AGREEMENT AND SECTION 219 COVENANT

THIS AGREEMENT DATED FOR REFERENCE the 25th day of July, 2000

BETWEEN:

GULF ISLANDS SENIORS RESIDENCE ASSOCIATION
(Inc. No. S-38999) a society incorporated under the laws of the Province of British Columbia and having its office at 121 Atkins Road, Salt Spring Island, BC V8K 2R6

(the "Owner")

AND:

SALT SPRING ISLAND LOCAL TRUST COMMITTEE
a corporation under the *Islands Trust Act,* having an office at #200 - 1627 Fort Street, Victoria, BC V8R 1H8

(the "Trust Committee")

WHEREAS:

A. The Owner has applied to the Trust Committee for rezoning of the Lands to permit the construction of a seniors' supportive housing complex on the Lands, more particularly described in this Agreement;

B. The Trust Committee may, pursuant to s.905 (1) of the *Local Government Act,* enter into an agreement with an owner of land that includes terms and conditions regarding the occupancy of housing units located on those lands;

C. Section 219 of the *Land Title Act* permits the registration of a covenant of a negative or positive nature in favour of the Trust Committee in respect of the use of land or construction on land;

D. The Owner and the Trust Committee wish to enter into this Agreement to provide for the construction and occupation of Dwelling Units by Seniors, and agree that this Agreement is both a section 219 covenant under the *Land Title Act* and a housing agreement under Section 905 of the *Local Government Act;* and

E. The Trust Committee has, by bylaw, authorized the execution of this Agreement and the Owner has duly authorized the execution of this Agreement;

THIS AGREEMENT is evidence that in consideration of $2.00 paid by the Trust Committee to the Owner (the receipt of which is acknowledged by the Owner), and in consideration of the "promises exchanged below, the Trust Committee and the Owner agree, as covenants granted by the Owner to the Trust Committee under s. 219 of the *Land Title Act,* and as a housing agreement between the Owner and the Trust Committee under s. 905(1) of the *Local Government Act,* as follows:

1. **Definitions** - In this Agreement:

"Consumer Price Index" means the All-Items Consumer Price Index for British Columbia, as compiled and published by Statistics Canada or its successor;

"Dwelling Unit" means one or more rooms in a building that are used, or constructed so as to be capable of being used, for the residential use of a single household, and containing a common access, one kitchen, and eating, sleeping and living areas;

"Housing Complex" means the Seniors' Supportive Housing Complex to be constructed and maintained under the Agreement;

"Lands" means Lot A, Section 3, Range 3 East, North Salt Spring Island, Cowichan District, Plan VIP70848;

"New Housing Price Index" means the New Housing Price Index for Victoria, British Columbia, as compiled and published by Statistics Canada or its successor;

"Owner" means the registered owner of the Lands from time to time and any parcels into which the lands are subdivided; and

"Senior" means an individual aged 65 years or over.

2. **Construction and Maintenance** - The Owner covenants and agrees:

(a) to design, construct and maintain a Seniors' Supportive Housing Complex on the Lands in accordance with the terms of Salt Spring Island Local Trust Committee Bylaw No. 362 (as it exists upon its adoption) and this Agreement;

(b) that the Lands must be used only in accordance with this Agreement; and

(c) that the Lands must be used only for the construction, use and occupation of Dwelling Units for Seniors.

3. **Occupancy -**

(a) With the exception of one Dwelling Unit which may be occupied by the manager of the Housing Complex or other employee of the Owner, the Owner must not permit a Dwelling Unit to be occupied as a residence by any person other than an individual who resides in the Dwelling Unit on. a full-time basis and who is:

(i) a Senior; or

(ii) living in the Dwelling Unit with a Senior in a spousal relationship, or as a caregiver to the Senior.

(b) An individual occupying a Dwelling Unit under section 3(l)(b) in a spousal relationship with a Senior may continue to occupy that Dwelling Unit after such time as the Senior has vacated the Dwelling Unit due to death, illness or other causes.

4. **Availability and Rental of Dwelling Units** - The Owner must:

(a) Rent or lease a Dwelling Unit only on a month-to-month basis or by a lease agreement not to exceed three years, including any rights of renewal; and

(b) Specify in every lease or tenancy agreement the existence of this Agreement and the occupancy restrictions applicable to the Dwelling Unit, and provide each tenant with a copy of this Agreement.

5. **Maximum Rent -**

(a) The Owner must not charge a Tenant occupying a Dwelling Unit a monthly rent amount (not including charges for support services) greater than the amount set out in the following table, during the first 12-month period of that Dwelling Unit's occupancy:

Size of Unit	Maximum Monthly Rent for First 12 Month Period of Occupancy
1 bedroom	$ 850.00
2 bedroom	$1,075.00

(b) Prior to the first rental of any Dwelling Unit, the amounts set out in Section 5(a) may be adjusted by the Owner semi-annually from the date of this Agreement in accordance with changes in the New Housing Price Index.

(c) Despite Section 5(a), the Owner may charge the first tenant of a Dwelling Unit more than the amount set out if the Owner has first received from the Trust Committee written approval of the higher initial rent.

(d) After the first rental of any Dwelling Unit, the Owners must not increase the rent charge for the Dwelling Unit over any period of time by an amount greater than the percentage increase in the Consumer Price Index during that same period of time, unless the Owner has received from the Trust Committee written approval of the higher rent charge.

(e) Despite Section 5(d), no rent increase for a Dwelling Unit may be greater than that permitted under the *Residential Tenancy Act*.

(f) The Owners must provide to the Trust Committee a record of rental charges for each month of occupancy of a Dwelling Unit, as well as sufficient additional information to demonstrate compliance with this Agreement, provided that the Trust Committee must not make such a request more frequently than once in any year.

6. **Order to Comply** - If the Owner is in default of the performance or observance of this Agreement, the Trust Committee may give the Owner a notice of default requiring the Owner to comply with this Agreement within the time stated in the notice.

7. **Statutory Declaration** - Within five days after receiving notice from the Trust Committee, the Owner must deliver to the Trust Committee a statutory declaration, substantially in the form attached as Schedule "A", sworn by the Owner, or a knowledgeable director, officer, or employee of any corporate Owner, under oath before a commissioner for taking affidavits in British Columbia, containing all of the information required to complete the statutory declaration.

8. **Specific Performance of Agreement** - The Owner agrees that the Trust Committee is entitled to obtain an order for specific performance of this Agreement and a prohibitory or mandatory injunction in respect of any breach by the Owner of this Agreement. Further, the Owner agrees that the foregoing provision is reasonable given the public interest in restricting the occupancy of each Dwelling Unit on the Lands in accordance with this Agreement.

9. **No Public Law Duty** - Wherever in this Agreement an act, determination, consent, approval or agreement of the Trust Committee is provided for, such act, determination, consent, approval or agreement may be done or made in accordance with the terms of this Agreement and no public law duty, whether arising from the principles of procedural fairness or the rules of natural justice, shall have any application.

10. **No Waiver** - No condoning, excusing or overlooking by the Trust Committee of any default under this Agreement, nor any consent, approval, or agreement whether written or otherwise shall be taken to operate as a waiver by the Trust Committee of any subsequent default or of the necessity for further consent, approval or agreement in respect of a subsequent matter requiring it under this Agreement, or in any way to defeat or affect the rights or remedies of the Trust Committee.

11. **Arbitration** - Any matter in dispute between the parties under this Agreement, including any disputes as to whether a particular individual is eligible to occupy a Dwelling Unit, must be referred to a single arbitrator if the parties can agree on one, and otherwise to three arbitrators, one to be appointed by each of the parties and the third by those two so appointed, and the matter must be resolved in accordance with the provisions of the *Commercial Arbitration Act* of British Columbia.

12. **Notice on Title** - The Owner acknowledges and agrees that this Agreement constitutes both a covenant under section 219 of the *Land Title Act* and a housing agreement under Section 905 of the *Local Government Act,* and agrees that the Trust Committee must file in the Land Title Office a notice that the Lands are subject to this Agreement, and that, once the notice is filed, this Agreement is binding on all persons who acquire an interest in the Lands.

13. **Covenant Runs with the Land** - Every obligation and covenant of the Owner in this Agreement constitutes both a contractual obligation and a covenant granted by the Owner to the Trust Committee in accordance with Section 219 of the *Land Title Act* in respect of the Lands and this Agreement burdens the Lands and runs with it and binds the Owner's successors in title and binds every parcel into which it is consolidated or subdivided by any means, including, by subdivision or by strata plan.

14. **Limitation on Owner's Obligations** - The Owner is only liable for breaches of this Agreement that occur while the Owner is the registered owner of the Lands.

15. **Amendment and Termination** - This Agreement may not be modified or amended except by bylaw of the Trust Committee, upon an agreement in writing between the Trust Committee and the Owner. This Agreement may be terminated or discharged by the Trust Committee without the consent or agreement of the Owner.

16. **Notices** - Any notice required to be given pursuant to this Agreement shall be in writing and shall be given to the Owner or the Trust Committee, as the case may be, at the address first above written, or to any other address of which either the Owner or the Trust Committee may advise the others in writing in accordance with this paragraph. Notice to the Trust Committee must be addressed to the Secretary of the Islands Trust. If given in person or by facsimile transmission, such notice will be deemed to be received when delivered and, if mailed, such notice will be deemed to have been received on the tenth business day after the date of mailing except in the event of an interruption in mail service, when such notice will be deemed to be received only when actually received by the party to whom it is addressed.

17. **Enurement** - This Agreement shall enure to the benefit of and be binding on the Trust Committee and its successors and on the Owner and its heirs, successors, personal representatives, administrators, assignees, and successors in title.

18. **Remedies Cumulative** - The remedies of the Trust Committee specified in this Agreement are cumulative and are in addition to any remedies of the Trust Committee at law or in equity. No remedy shall be deemed to be exclusive, and the Trust Committee may from time to time have recourse to one or more or all of the available remedies specified herein or at law or in equity.

19. **Severability** - Each covenant and agreement contained in this Agreement is, and shall be construed to be, a separate and independent covenant or agreement and the breach of any such covenant or agreement by the Owner shall not discharge or relieve the Owner from its obligations to perform. If any term or provision of this Agreement, or its application to

any person or circumstance shall to any extent be invalid and unenforceable, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected, and each term and provision of this Agreement shall be valid and shall be enforced to the extent permitted by law.

20. **Joint and Several** - In the case of more than one Owner, the grants, covenants, conditions, provisions, agreements, rights, powers, privileges and liabilities of the Owner shall be construed and held to be several as well as joint.

21. **Included Words** - Wherever the singular or the masculine is used in this Agreement, it shall be deemed to include the plural or the feminine, or the body politic or corporate, where the context or the parties so require.

22. **Governing Law** - This Agreement shall be governed by and construed in accordance with the laws of the province of British Columbia.

23. **Joint Venture** - Nothing in this Agreement shall constitute the Owner as an agent, joint venturer or partner of the Trust Committee or give the Owner any authority or power to bind the Trust Committee in any way.

24. **Time of Essence** - Time is of the essence in this Agreement.

25. **Further Assurances** - The parties shall execute and do all such further deeds, acts, things and assurances as they reasonably require to carry out the intent of this Agreement.

26. **No Fettering of Statutory Discretion** - No consent or approval given by the Trust Committee under this Agreement shall derogate from or bind the Trust Committee in the exercise of any statutory duty, power or discretion.

27. **Release of this Agreement** - The Trust Committee agrees that within a reasonable time after a demand by the Owner, the Trust Committee must execute and deliver to the Owner a discharge of this Agreement, executed in registerable form, discharging this Agreement from the Lands if:

    (a) The Land has not been rezoned to permit the Housing Complex on or before September 30, 2000, or

    (b) A bylaw of the Trust Committee has come into force repealing the rezoning and restoring the zoning of the Lands to that existing on the reference date of this Agreement, or

    (c) The Canada Mortgage and Housing Corporation, or the lender, becomes mortgagee in possession.

28. **Priority** - The owner agrees to do everything necessary at the Owner's expense to ensure that this Agreement is registered against title to the Lands with priority over all financial charges, liens and encumbrances registered or pending at the time of application for registration of this agreement.

29. **Deed and Contract** - By executing and delivering this Agreement each of the parties intends to create both a contract and a deed executed and delivered under seal.

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

SCHEDULE "A" TO THE HOUSING AGREEMENT

CANADA	)	IN THE MATTER OF A HOUSING
	)	AGREEMENT WITH THE SALT
PROVINCE OF BRITISH	)	SPRING ISLAND LOCAL TRUST
COLUMBIA	)	COMMITTEE ("Housing Agreement")

I, _____ of _____, do solemnly declare:

1. This declaration is made with respect to the Housing Complex legally or otherwise described as follows:

   (INSERT LEGAL DESCRIPTION AND CIVIC ADDRESS)

2. That I am the Owner of the Housing Complex and make this declaration to the best of my personal knowledge.

   (or)

   That I am the _____(director, officer, employee) of the Owner of the Housing Complex and (make this declaration to the best of my personal knowledge) (or: have been informed by _____and believe the statements in this declaration to be true).

3. This declaration is made pursuant to the Housing Agreement in respect of the Housing Complex.

4. The individuals who reside in the Housing Complex meet the requirements specified in Section 3 of the Housing Agreement..

5. I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and pursuant to the *Canada Evidence Act*.

SWORN BEFORE ME at	)	
_____, in the Province	)	
of British Columbia, this ____day of	)	
_____, 20___.	)	
	)	
	)	
_____	)	_____
A Commissioner for taking Affidavits in the Province of British Columbia.		Signature of person making declaration

END OF DOCUMENT

STANDARD CHARGE TERMS

FILED BY: RESORT MUNICIPALITY OF WHISTLER

STANDARD HOUSING AGREEMENT, 219 COVENANT AND RENT CHARGE AND INDEMNITY

The following standard charge terms will be incorporated by reference in every Section 219 covenant and housing agreement in which the set is referred to by its filing number as provided by Section 235 of the *Land Title Act.*

WHEREAS:

A. Section 219 of the Land Title Act permits the registration of a covenant of a negative or positive nature in favour of the Resort Municipality of Whistler (the "Municipality") in respect of the use of land or construction on land;

B. The Owner (hereinafter defined) is the registered owner of the Land (hereinafter defined);

C. The Owner and the Municipality wish to enter into this Agreement to provide for affordable employee housing on the terms and conditions set out in this Agreement, and this Agreement is both a covenant under section 219 of the *Land Title Act* and a housing agreement under s.905 of the *Local Government Act*.

THIS AGREEMENT is evidence that in consideration of the mutual promises contained in it and in consideration of the payment of $2.00 by the Municipality to the Owner, the receipt and sufficiency of which is hereby acknowledged by the Owner, the parties agree as follows:

PART I – DEFINITIONS

1. In this Agreement the following words have the following meanings:

   a. "Agreement" means these standard charge terms together with the General Instrument (hereinafter defined);

   b. "Assessed Value" means the most recent assessed value of the real property as determined by the assessment authority in which the real property is situated. If such value is not available, then the Assessed Value means the highest price in terms of money that the real property will fetch under all conditions requisite to a fair sale with the buyer and seller each acting prudently, knowledgably and assuming the price is not effected by undue stimulus as estimated by a real estate appraiser accredited in the jurisdiction in which the real property is located;

   c. “CPI” means the All-Items Consumer Price Index for Vancouver, B.C. published from time to time by Statistics Canada, or its successor in function, where Occupancy Permit Year (hereinafter defined) = 100;

d. “Daily Amount” means $100.00 per day as of December 31, 2000 adjusted thereafter by an amount determined by multiplying $100.00 by the percentage change in the CPI since December 31, 2000 to January 1 of the year that a written notice is delivered to the owner by the Municipality pursuant to section 24 herein;

e. “Dispose” means to transfer by any method, and includes assign, give, sell, grant, charge, convey, bequeath, devise, lease, rent or sublet, divest, release, and agree to do any of those things;

f. "Dwelling Units" means all residential dwelling units located or to be located on the Land whether those dwelling units are lots, strata lots or parcels, or parts or portions thereof, into which ownership or right of possession or occupation of the Land may be Subdivided (hereinafter defined);

g. "Employee" means a Qualified Person (hereinafter defined) who is either employed or self-employed for an average of not less than 20 hours per week over the most recent twelve months and whose principal place of employment or business during that time is located within the boundaries of the Resort Municipality of Whistler;

h. "Employee Unit" means a Dwelling Unit designated as an employee unit in accordance with Part II herein to be used, occupied and Disposed of in accordance with this Agreement;

i. "General Instrument" means the Form C under the Land Title (Transfer Forms) Regulations, as amended, and all schedules and addenda to the Form C charging the Land and citing these Standard Charge Terms;

j. "Gross Floor Area" means the habitable gross floor area of each Employee Unit and includes enclosed sunrooms but does not include crawl spaces, open patios, open balconies or parking spaces. If the Employee Unit is a strata lot as defined by the *Strata Property Act*, the gross floor area measurements will be based on the gross floor area shown corresponding to the Employee Unit on the Strata Plan filed in the LTO (hereinafter defined) in respect of the Land. If the Employee Unit is not a strata lot as defined by the *Strata Property Act*, the gross floor area measurements will be made in accordance with the procedure for determining gross floor area set out in the *Strata Property Act* as if the Employee Unit were a strata lot;

k. “Interest” means the property interest of the Owner in an Employee Unit;

l. "Land" means the land described in Item 2 of the General Instrument and any part into which said land is Subdivided;

m. "LTO" means the New Westminster/Vancouver Land Title Office or its successor;

n. "Occupancy Permit Year" means the calendar year in which the Municipality issues an occupancy permit for an Employee Unit;

o. “Original Rent” means $1.25 per square foot per month;

p. "Owner" means the Transferor described in the General Instrument and any subsequent owner of the Land or of any part into which the Land is Subdivided, and includes any person who is a registered owner in fee simple of an Employee Unit from time to time;

q. “Prime Rate” means the annual rate of interest, expressed as a percentage, used as a reference rate by the Royal Bank of Canada at its main branch in Vancouver, British Columbia for Canadian dollar loans and designated by the Royal Bank of Canada from time to time as its prime rate;

r. "Qualified Person" means a person who does not own, either directly or indirectly through a trust, business asset, or otherwise, any interest in real property anywhere in the world unless, at the time that such person applies for an Employee Unit:

i. the Assessed Value of all the real property he or she owns does not exceed 60% of the Assessed Value of the Employee Unit; or

ii. the real property he or she owns is:

(1) less than 400 square feet in area,

(2) less than 650 square feet in area and it is the principal residence of two individuals,

(3) less than 850 square feet in area and it is the principal residence of that person and at least one child, or

(4) less than 1200 square feet in area and it is the principal residence of that person and at least two children; and

that person enters into an agreement with the Municipality to sell his or her interest in the real property within the time period specified by the Municipality, acting reasonably, or that person enters into an agreement with the Municipality with respect to the real property and the Employee Unit on terms acceptable to the Municipality in its sole discretion;

s. "Retiree" means a Qualified Person who has ceased employment and who was an Employee for 5 of the 6 years immediately preceding the date on which the individual ceased employment;

t. "RFR" means a right of first refusal and option to purchase the Land granted or to be granted by the Owner to the Municipality;

u. “Subdivide” means to divide, apportion, consolidate or subdivide the Land, or the ownership or right to possession or occupation of the Land into two or more lots, strata lots, parcels, parts, portions or shares, whether by plan, descriptive words or otherwise, under the *Land Title Act*, the *Strata Property Act*, or otherwise, and includes the creation, conversion, organization or development of “cooperative units” or “shared interests in land” as defined in the *Real Estate Act*;

v. "Tenancy Agreement" means a tenancy agreement, lease, license or other agreement granting rights to occupy an Employee Unit;

w. "Tenant" means an occupant of an Employee Unit by way of a Tenancy Agreement.

PART II - USE OF LAND AND CONSTRUCTION OF EMPLOYEE UNITS

2. The Owner covenants and agrees with the Municipality that:

a. the Land will not be developed and no building or structure will be constructed on the Land unless:

i. as part of the construction and development of any such building or structure, the Owner also designs and constructs to completion, in accordance with a building permit issued by the Municipality and in accordance with any development permit issued by the

Municipality, at least the number of Employee Units on the Land specified in the General Instrument; and

ii. if required by the Municipality in its sole discretion, an RFR is fully registered against title to the Land in the LTO, with priority as set out in section 2(e) herein;

b. the number of Dwelling Units on the Land will not exceed the number of Dwelling Units specified in the General Instrument;

c. the Owner will meet or exceed the construction standards for Employee Units as specified by the Municipality in a development permit issued by the Municipality in respect of development on the Land;

d. the Owner will at all times ensure that the Land is used and occupied in compliance with all statutes, laws, regulations, and orders of any authority having jurisdiction and without limiting the generality of the foregoing all bylaws of the Municipality and all federal, provincial, municipal or local laws, statutes or ordinances relating to environmental matters, including all rules, regulations, policies, guidelines, criteria or the like promulgated under or pursuant to any such laws; and

e. the Owner will do everything necessary, at the Owner's expense, to ensure that this Agreement and an RFR, if required, will be registered against title to the Land in priority to all charges and encumbrances which may have been registered or are pending registration against title to the Land save and except those specifically approved in writing by the Municipality or in favour of the Municipality.

3. If not all the Dwelling Units on the Land are to be used as Employee Units the owner will not apply for a discharge of this Agreement pursuant to section 6 in respect of any Dwelling Unit, and the Municipality will be under no obligation to provide such discharge, unless at the time that the Owner applies for the discharge the Owner is not in breach of any of its obligations under this Agreement and there are [insert the number of Employee Units stipulated in the General Instrument] other Dwelling Units on the Land which:

a. are designated as Employee Units pursuant to section 4 and for which occupancy permits have been issued by the Municipality and which are and always have been used, occupied and Disposed of in compliance with this Agreement;

b. are not designated as Employee Units but the location of which has been approved in writing by the Municipality for use as Employee Units and for which occupancy permits have been issued by the Municipality and which are not and have never been Disposed of, used or occupied; or

c. are otherwise acceptable to the Municipality in its sole discretion upon conditions the Municipality considers necessary in its sole discretion, to ensure that the Owner fully complies with its obligations under this Agreement.

For greater certainty, any combination of Dwelling Units referred to in a, b and c will suffice to meet the requirements of this section 3, provided that the total of the combination of Dwelling Units referred to in a, b and c is equal to or greater than the number of Employee Units specified in the General Instrument;

4. All applications for Employee Unit designations must be made by the Owner by written notice delivered to the Municipality and are irrevocable by the Owner upon receipt by the Municipality of the written notice, but no designation is effective unless and until the Municipality confirms in writing that the location and

the size of the Dwelling Unit is approved by the Municipality for an Employee Unit, acting reasonably as a local government. If in the sole discretion of the Municipality the Owner has failed within a reasonable time to make application for Employee Unit designations as required by this Agreement, the Municipality may in its sole discretion make such designations.

5. Notwithstanding the definition of "Land" in section 1 herein, for the purpose of stipulating the maximum allowable number of Dwelling Units on the Land and for the purpose of stipulating the number of required Employee Units to be constructed on the Land by the Owner pursuant to this Part II and for the purpose of sections 3, 4 and 6 herein, and for the purpose of the definition of Dwelling Unit in section 1, but for no other purposes, "Land" means the entire area of the legal parcel described in Item 2 of the General Instrument as at the date of registration of the General Instrument at the LTO.

6. Subject to section 3, at the request of the Owner and at the Owner's sole expense, the Municipality will deliver to the Owner discharges of this Agreement in registrable form for each Dwelling Unit that:

   a. is a separate legal parcel; and

   b. is not an Employee Unit,

   provided that, where the Land is subdivided under the *Strata Property Act*, the Municipality may withhold delivery of any discharges required to be delivered pursuant to this section until after the Municipality has received from the strata corporation its duly authorized agreement that it will not take any action that would result in an inability to rent the Employee Units in accordance with this Agreement or would render such rental a breach of the strata corporation bylaws.

PART III - USE AND OCCUPANCY OF EMPLOYEE UNITS

7. The Owner agrees that each Employee Unit may only be used as a permanent residence occupied by Employees or Retirees, and the Owner further agrees that the number of Employees or Retirees who permanently reside in the Employee Unit must be equal to or less than the number of Employees or Retirees that the Municipality's building inspector determines can reside in the Employee Unit given the number and size of bedrooms in the Employee Unit and in light of any relevant standards set by the Municipality in any bylaws of the Municipality.

8. The Owner will ensure that each Employee Unit is continuously used and occupied as set out in section 7.

9. Notwithstanding anything to the contrary contained in this Agreement, if a potential tenant would be an Employee except for the fact that such potential tenant has not resided in the Municipality over the most recent twelve months, then the Owner may rent the Employee Unit to such potential tenant provided that the Employee Unit is rented or leased in accordance with all other requirements of this Agreement.

10. Within three days after receiving notice from the Municipality, the Owner will in respect of each Employee Unit, deliver, or cause to be delivered, to the Municipality a statutory declaration, substantially in the form attached as Schedule "A", sworn by the Owner, containing all of the information required to complete the statutory declaration. The Municipality may request such a statutory declaration in respect of the Employee Unit no more than four times in any calendar year. The Owner hereby irrevocably authorizes the Municipality to make such inquiries as it considers necessary and reasonable in order to confirm that the Owner is complying with this Agreement, and irrevocably authorizes and directs the recipient of the request for information from the Municipality to provide such information to the Municipality.

11. If the Owner cannot comply with the occupancy requirements for any Employee Unit for reasons of hardship, the Owner may request that the Municipality alter the Owner's obligations with respect to that Employee Unit on terms acceptable to the Municipality, but no such request may be made later than 30 days after the Municipality has delivered to the owner a notice of breach of this Agreement under Part VII herein. The Owner must deliver the request in writing in accordance with section 37 of this Agreement. The request must set out the circumstances of the hardship involved. The request must set out the reasons why the Owner cannot comply with the occupancy requirements, and must describe the hardship to the Owner that compliance would cause. The Owner agrees that the Municipality is under no obligation to grant any relief, and may proceed with its remedies under this Agreement, and at law and in equity, despite the Owner's request or the hardship involved, and the Owner agrees that the relief, if any, is to be determined by the Municipality in its sole discretion.

PART IV - DISPOSITION AND ACQUISITION OF EMPLOYEE UNITS

12. In this Part, the following words have the following meanings:

a. "Average Purchaser Index" means the average monthly Housing Price Index (hereinafter defined) for the 12 months immediately preceding the month of any offer to purchase the Interest of the Owner in the Employee Unit.. For example, if the offer to purchase the Employee Unit is dated January 15, 2001, the *Average Purchaser Index* means the average of the monthly Housing Price Indices for the months from and including January, 2000 to and including December, 2000;

b. "Average Vendor Index" means the average monthly Housing Price Index for the 12 months immediately preceding the month in which the Interest of the current Owner of the Employee Unit was submitted for registration in the LTO (the "Old Completion Date"). For example, if the Old Completion Date was January 15, 2000, the *Average Vendor Index* means the average of the monthly Housing Price Indices for the months from and including January, 1999 to and including December, 1999;

c "First Purchaser" means the person to whom the Interest in an Employee Unit is first transferred after issuance of the occupancy permit for the Employee Unit by the Municipality;

d. "Housing Price Index" means the appropriate (Detached, Attached, or Apartment) Multiple Listing Service housing price index for Greater Vancouver, B.C., as published by the Real Estate Board of Vancouver in collaboration with Canada Mortgage and Housing Corporation, the Real Estate Foundation of British Columbia, the University of British Columbia, and their respective successors in function;

e. "Housing Price Multiplier" means the Average Purchaser Index divided by the Average Vendor Index;

f. "Maximum Price" for the sale of the Employee Unit to the First Purchaser means the amount determined by multiplying the Gross Floor Area of the Employee Unit by $155. In addition to the Maximum Price payable by the First Purchaser, the Owner that sells the Employee Unit to the First Purchaser will be entitled to charge the First Purchaser the net GST payable by the First Purchaser and the fee paid by the Owner to obtain the home warranty insurance required by the *Home Protection Act*.

"Maximum Price" for the sale of the Employee Unit by the First Purchaser or a Subsequent

Purchaser (hereinafter defined) means the greater of:

i. the value for the Employee Unit set out in Item 2(b) of the Form A - Freehold Transfer registered in the LTO transferring the Interest in the Employee Unit to the First Purchaser or a Subsequent Purchaser, as the case may be (the "Previous Sale Price"); and
ii. the Previous Sale Price multiplied by the Housing Price Multiplier.

Notwithstanding anything to the contrary contained in this Agreement, if for any reason whatsoever the Housing Price Multiplier cannot be determined, the Maximum Price means the Previous Sale Price;

Examples of how to calculate the Maximum Price for the sale of an Employee Unit by the First Purchaser or a Subsequent Purchaser are attached to this Agreement as Schedule "B", which forms part of this Agreement; and

g. "Subsequent Purchaser" means a person who purchases the Employee Unit from the First Purchaser or from someone who owned the Employee Unit after the First Purchaser.

13. The Owner will not Dispose of the Interest in an Employee Unit except in accordance with the terms and conditions set out in this Agreement and the RFR.

14. The Owner will not accept any offer to purchase the Interest in an Employee Unit for a purchase price exceeding the Maximum Price.

15. The Owner will not permit the Interest in an Employee Unit to be disposed of by sublease or assignment of a Tenancy Agreement unless such subletting or assignment is done in compliance with this Agreement.

16. The Owner will give prior written notice of this Agreement to any person to whom it proposes to Dispose of the Interest in an Employee Unit.

17. The Owner must not rent or lease any Employee Unit except to an Employee or Retiree in accordance with section 7 and except in accordance with the following additional conditions:

a. the Employee Unit will be used or occupied only pursuant to a Tenancy Agreement;

b. the monthly rent payable for the Employee Unit will not exceed the rent, rounded to the nearest dollar, determined by multiplying the Gross Floor Area by the Original Rent. Subject always to the provisions of the *Residential Tenancy Act* (British Columbia), the Owner may increase the rent payable for the Employee Unit annually, beginning with the first anniversary of the day on which the occupancy permit was issued by the Municipality for the Employee Unit, and thereafter on each successive anniversary date, by an amount determined by multiplying the rent payable for the Employee Unit at the time of the proposed rent increase by the percentage change in the CPI since the last anniversary date;

c. the Owner will not require the Tenant to pay any extra charges or fees for use of any common property, limited common property, or other common area, or for sanitary sewer, storm sewer, water utilities, property taxes. For clarity, this section does not apply to cablevision, telephone, other telecommunications, gas utility or electricity utility fees or charges;

d. the Owner will attach a copy of this Agreement to the Tenancy Agreement;

e. the Owner will include in the Tenancy Agreement a clause requiring the Tenant to comply with the use and occupancy restrictions contained in Part III of this Agreement;

f. the Owner will include in the Tenancy Agreement a clause entitling the Owner to terminate the Tenancy Agreement in accordance with the *Residential Tenancy Act* if the Tenant uses or occupies, or allows use or occupation of, the Employee Unit in breach of the use or occupancy restrictions contained in this Agreement;

g. the Tenancy Agreement will identify all occupants of the Employee Unit, and will stipulate that anyone not identified in the Tenancy Agreement will be prohibited from residing at the Employee Unit for more than 30 consecutive days in any calendar year;

h. the Tenancy Agreement will provide for termination of the Tenancy Agreement by the Owner in situations where the Employee Unit is occupied by more than the number of people the Municipality's building inspector determines can reside in the Employee Unit given the number and size of bedrooms in the Employee Unit and in light of any relevant standards set by the Municipality in any bylaws of the Municipality;

i. the Tenancy Agreement will provide that the Owner will have the right, at the Owner's option, to terminate the Tenancy Agreement should the Tenant remain absent from the Employee Unit for three consecutive months or longer, notwithstanding the timely payment of rent;

j. the Tenancy Agreement will provide that the Tenant will not sublease the Employee Unit or assign the Tenancy Agreement; and

k. the Owner will deliver a copy of the Tenancy Agreement to the Municipality upon demand.

18. The Owner will terminate any Tenancy Agreement where the Tenant uses or occupies, or allows use or occupation of an Employee Unit in breach of this Agreement, such termination to be in accordance with the terms of the Tenancy Agreement and the *Residential Tenancy Act* (British Columbia).

19. The Municipality may, in its sole discretion, provide written consent to the Owner from time to time to do something that is otherwise not permitted under this Agreement, on such terms and conditions as the Municipality considers desirable.

20. If the Owner is leasing or renting one or more Employee Units, the Owner will, forthwith upon request by the Municipality, and from time to time as the Employee Units become vacant, identify to the Municipality which Employee Units are vacant and available for occupancy and the Owner will make best efforts to lease or rent the vacant Employee Units to qualified applicants on the Municipality's applicant list.

21. The Owner will be solely responsible for screening Tenants to determine whether or not they qualify to occupy the Employee Unit in accordance with this Agreement notwithstanding that the Employee Unit may be leased or rented to someone from the Municipality's applicant list. For greater certainty, the Owner agrees that the Municipality is not responsible for, and makes no representation to the Owner regarding, the suitability of any prospective tenant on the Municipality's applicant list.

PART V - CAPITAL IMPROVEMENTS

22. If the Owner has made capital improvements to the Employee Unit that required the issuance of a building

permit by the Municipality, then the Municipality may, in its sole discretion, permit the Owner to increase the sale price for the Employee Unit up to an amount commensurate with the value of the capital improvements. If the Owner is dissatisfied with the value of the improvements as determined by the Municipality, the Owner may, at its expense, engage a Quantity Surveyor to establish the value of such improvements, but the Municipality will in no way be bound by the value established by the Quantity Surveyor, and the Municipality will, in its sole discretion, determine the permitted increase, if any, in the sale price. For greater certainty, the Municipality will not permit any increase in the sale price for improvements that have been made without a building permit.

PART VI - DEMOLITION OF EMPLOYEE UNIT

23. The Owner will not demolish an Employee Units unless:

    a. the Owner has obtained the written opinion of a professional engineer or architect who is at arm's length to the Owner that it is no longer reasonable or practical to repair or replace any structural component of the Employee Unit, and the Owner has delivered to the Municipality a copy of the engineer's or architect's report; or

    b. the Employee Unit is damaged or destroyed, to the extent of 40% or more of their value above their foundations, as determined by the Municipality in its sole discretion, acting reasonably, and

    c. a demolition permit for the Employee Unit has been issued by the Municipality (unless the Building has, or the Dwelling Units have been destroyed by an accident, act of God, or sudden and unanticipated force) and the Employee Unit has been demolished under that permit.

    Following demolition, the Owner will use and occupy the replacement Dwelling Unit in compliance with this Housing Agreement, and sections 2.c., 2.d. and 2.e. herein will apply to the construction of the replacement Dwelling Unit to the same extent and in the same manner as those sections apply to the construction of the original Dwelling Unit, and the Dwelling Unit must be approved by the Municipality as a Employee Unit in accordance with section 4.

PART VII - DEFAULT AND REMEDIES

24. The Owner acknowledges that the Municipality requires employee housing to attract employees to work for local businesses and that these businesses generate tax and other revenue for the Municipality and economic growth for the community. The Owner therefore agrees that, in addition to any other remedies available to the Municipality under this Agreement or at law or equity, if an Employee Unit is used or occupied in breach of this Agreement or rented at a rate in excess of that permitted under this Agreement, the Owner will pay, as a rent charge under section 25, the Daily Amount to the Municipality for every day that the breach continues after 30 days written notice from the Municipality to the Owner stating the particulars of the breach. The Daily Amount is increased on January 1 of each year by an amount calculated by multiplying the Daily Amount as of the previous January 1 by the percentage increase in the CPI between that previous January 1 and the immediately preceding December 31. The Daily Amount is due and payable immediately upon receipt by the Owner of an invoice from the Municipality for the same.

25. The Owner hereby grants to the Municipality a rent charge under s. 219 of the *Land Title Act* (British Columbia), and at common law, securing payment by the Owner to the Municipality of any amount payable by the Owner pursuant to this Agreement. The Owner agrees that the Municipality, at its option,

may enforce payment of such outstanding amount in a court of competent jurisdiction as a contract debt, by an action for and order for sale, by proceedings for the appointment of a receiver, or in any other method available to the Municipality in law or in equity.

26. If the Employee Unit is sold for a purchase price exceeding the Maximum Price in contravention of this Agreement, the Owner will pay the excess (the "Excess Amount") to the Municipality within 30 days after written demand is made by the Municipality. The amount remaining unpaid after the 30 days will bear interest at the Prime Rate calculated from the due date until the date paid, compounded annually not in advance. The Owner further acknowledges and agrees that the Municipality's Excess Amount is fair and reasonable and is not to be construed as a penalty or forfeiture but as liquidated damages.

PART VIII - INTERPRETATION

27. In this Agreement:

a. reference to the singular includes a reference to the plural, and vice versa, unless the context requires otherwise;

b. article and section headings have been inserted for ease of reference only and are not to be used in interpreting this Agreement;

c. if a word or expression is defined in this Agreement, other parts of speech and grammatical forms of the same word or expression have corresponding meanings;

d. reference to any enactment includes any regulations, orders or directives made under the authority of that enactment;

e. reference to any enactment is a reference to that enactment as consolidated, revised, amended, re-enacted or replaced, unless otherwise expressly provided;

f. the provisions of s. 25 of the *Interpretation Act* with respect to the calculation of time apply;

g. time is of the essence;

h. all provisions are to be interpreted as always speaking;

i. reference to a "party" is a reference to a party to this Agreement and to that party's respective successors, assigns, trustees, administrators and receivers. Wherever the context so requires, reference to a "party" also includes employees, agents, officers and invitees of the party;

j. reference to a "day", "month", "quarter" or "year" is a reference to a calendar day, calendar month, calendar quarter or calendar year, as the case may be, unless otherwise expressly provided; and

k. where the word "including" is followed by a list, the contents of the list are not intended to circumscribe the generality of the expression preceding the word "including".

PART 1X - MISCELLANEOUS

28. **Housing Agreement.** The Owner acknowledges and agrees that this:

a. Agreement constitutes a covenant under s.219 of the *Land Title Act* and a housing agreement entered into under s.905 of the *Local Government Act* (British Columbia);

b. where an Employee Unit is a separate legal parcel the Municipality may file a notice of housing agreement under s.905 of the *Local Government Act* in the LTO against title to the Employee Unit; and

c. where Employee Units are not separate legal parcels, or have not yet been constructed, or where the land has not yet been Subdivided to create the Employee Units, the Municipality may file a notice of housing agreement under s. 905 of the *Local Government Act* in the LTO against title to the Land.

29. **Modification.** This Agreement may be modified or amended from time to time, by bylaw duly passed by the Council of the Municipality, if it is signed by the Municipality and a person who is the current registered owner of the Land.

30. **Management.** The Owner covenants and agrees that it will furnish good and efficient management of the Employee Units and will permit representatives of the Municipality to inspect the Employee Units at any reasonable time, subject to the notice provisions in the *Residential Tenancy Act*. The Owner further covenants and agrees that it will maintain the Employee Units in a satisfactory state of repair and fit for habitation and will comply with all laws, including health and safety standards applicable to the Land. Notwithstanding the forgoing, the Owner acknowledges and agrees that the Municipality, in its absolute discretion, may require the Owner, at the Owner's expense, to hire a person or company with the skill and expertise to manage the Employee Units.

31. **Indemnity.** The Owner will indemnify and save harmless the Municipality and each of its elected officials, officers, directors, employees and agents, and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, actions, loss, damage, costs and liabilities, which all or any of them will or may be liable for or suffer or incur or be put to by reason of or arising out of:

a. any act or omission of the Owner, or its officers, directors, employees, agents, contractors or other persons for whom at law the Owner is responsible;

b. the Owner’s ownership, lease, operation, management or financing of the Land or any Employee Unit; or

c. any act or omission of the Municipality or any of its elected officials, board members, officers, directors, employees, agents or contractors in carrying out or enforcing this Agreement, except where such act or omission constitutes a breach of this Agreement by the Municipality or by any other person for whom at law the Municipality is responsible.

32. **Release.** The Owner by this Agreement releases and forever discharges the Municipality and each of its elected officials, officers, directors, employees and agents, and its and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, damages, actions, or causes of action by reason of or arising out of advice or direction respecting the ownership, lease, operation or management of the Land or any Employee Unit which has been or at any time after the commencement of this Agreement may be given to the Owner by all or any of them.

33. **Survival.** The obligations of the Owner set out in sections 24, 25, 26, 31 and 32 will survive termination of this Agreement.

34. **Municipalities Powers Unaffected.** This Agreement does not:

a. affect or limit the discretion, rights, duties or powers of the Municipality under any enactment or at common law, including in relation to the use or subdivision of the Land;

b. impose on the Municipality any legal duty or obligation, including any duty of care or contractual or other legal duty or obligation, to enforce this Agreement;

c. affect or limit any enactment relating to the use or subdivision of the Land; or

d. relieve the Owner from complying with any enactment, including in relation to the use or subdivision of the Land.

35. **Agreement for Benefit of Municipality only.** The Owner and the Municipality agree that:

a. this Agreement is entered into only for the benefit of the Municipality;

b. this Agreement is not intended to protect the interests of the Owner, any tenant, or any future owner, lessee, occupier or user of the Property, the Land or the building or any portion thereof, including any employee unit;

c. the Municipality may at any time execute a release and discharge of this Agreement, without liability to anyone for doing so, and without obtaining the consent of the Owner.

36. **No Public Law Duty.** Where the Municipality is required or permitted by this Agreement to form an opinion, exercise a discretion, express satisfaction, make a determination or give its consent, the Owner agrees that the Municipality is under no public law duty of fairness or natural justice in that regard and agrees that the Municipality may do any of those things in the same manner as if it were a private party and not a public body.

37. **Notice.** Any notice required to be served or given to a party herein pursuant to this Agreement will be sufficiently served or given if delivered, to the postal address of Owner set out in the records at the LTO, and in the case of the Municipality addressed:

To: Clerk, Resort Municipality of Whistler,
4325 Blackcomb Way, Whistler, BC VON 1B4

And to: Whistler Housing Authority,
4335 Main Street, Whistler, BC V0N 1B4

or to the most recent postal address provided in a written notice given each of the parties to the other. Any notice which is delivered is to be considered to have been given on the first day after it is dispatched for delivery.

38. **Enuring Effect.** This Agreement will extend to and be binding upon and enure to the benefit of the parties hereto and their respective successors and permitted assigns.

39. **Severability.** If any provision of this Agreement is found to be invalid or unenforceable such provision or any part thereof will be severed from this Agreement and the resultant remainder of this Agreement will remain in full force and effect.

40. **Waiver.** All remedies of the Municipality will be cumulative and may be exercised by the Municipality in any order or concurrently in case of any breach and each remedy may be exercised any number of times with respect to each breach. Waiver of or delay in the Municipality exercising any or all remedies will not prevent the later exercise of any remedy for the same breach or any similar or different breach.

41. **Sole Agreement.** This Agreement, and any documents signed by the Owners contemplated by this Agreement, represent the whole agreement between the Municipality and the Owner respecting the use and occupation of the Employee Units, and there are no warranties, representations, conditions or collateral agreements made by the Municipality except as set forth in this Agreement.

42. **Further Assurance.** Upon request by the Municipality the Owner will forthwith do such acts and execute such documents as may be reasonably necessary in the opinion of the Municipality to give effect to this Agreement.

43. **Covenant Runs with the Land.** This Agreement burdens and runs with the Land and every parcel into which it is Subdivided. All of the covenants and agreements contained in this Agreement are made by the Owner for itself, its personal administrators, successors and assigns, and all persons who after the date of this Agreement, acquire an interest in the Land.

44. **Limitation on Owner's Obligations.** The Owner is only liable for breaches of this Agreement that occur while the Owner is the registered owner of the Land.

45. **Equitable Remedies.** The Owner acknowledges and agrees that damages would be an inadequate remedy for the Municipality for breach of this Agreement or the RFR and that the public interest strongly favours specific performance, injunctive relief (mandatory or otherwise), or other equitable relief, as the only adequate remedy for a default under this Agreement or the RFR.

46. **No Joint Venture.** Nothing in this Agreement will constitute the Owner as the agent, joint venturer, or partner of the Municipality or give the Owner any authority to bind the Municipality in any way.

47. **Applicable Law.** Unless the context otherwise requires, the laws of British Columbia will apply to this Agreement and all statutes referred to herein are enactments of the Province of British Columbia. Without limiting the above, in the event of any conflict between any provision of this Agreement and the Residential Tenancy Act, this Agreement is without effect to the extent of the conflict.

48. **Deed and Contract.** By executing and delivering this Agreement the Owner intends to create both a contract and a deed executed and delivered under seal.

SCHEDULE "A"
STATUTORY DECLARATION
CANADA
PROVINCE OF BRITISH COLUMBIA
IN THE MATTER OF A HOUSING AGREEMENT WITH THE RESORT MUNICIPALITY OF WHISTLER ("Housing Agreement")

TO WIT:

I, _____ of _____, British Columbia, do solemnly declare that:

1. I am the owner of _____ (the "Employee Unit"), and make this declaration to the best of my personal knowledge.

2. This declaration is made pursuant to the Housing Agreement in respect of the Employee Unit.

3. For the period from _____ _____ to _____ the Employee Unit was occupied only by the Employees and Retirees (as defined in the Housing Agreement) whose names and current addresses and whose employer's names and current addresses appear below:

   Names, addresses and phone numbers of Employees and Retirees:
   Names, addresses and phone numbers of Employers:

4. The rent charged each month for the Employee Unit is as follows:
   (a) the monthly rent on the date *365* days before this date of this statutory declaration: $_____ per month;
   (b) the rent on the date of this statutory declaration: $_____; and
   (c) the proposed or actual rent that will be payable on the date that is 90 days after the date of this statutory declaration: $_____.
5. I acknowledge and agree to comply with the Owner's obligations under this Agreement, and other charges in favour of the Municipality registered in the land title office against the land on which the Employee Unit is situated and confirm that the Owner has complied with the Owner's obligations under these Agreements.

6. I make this solemn declaration, conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and pursuant to the Canada Evidence Act.

DECLARED BEFORE ME at the)
_____, British Columbia,)
this ____ day of _____) _____

_____
A for taking Affidavits for)
British Columbia)

Schedule "B"

Insert 2 page Excel sheets for examples of calculations

Salt Spring Island

Sustainability Checklist



Guide for residential construction including additions, renovations and accessory buildings.

for Single Family Dwellings

Part A is for rezoning, development permit and development variance permit applications.

Part B is for building permit applications.

What's the Sustainability Checklist?

The Sustainability Checklist lets you know how to make your residential construction project more environmentally friendly and reduce its impact on Salt Spring's natural ecosystems. It also includes information about financial incentives and other resources that can help you achieve these goals.

Why on Salt Spring?

Salt Spring Island is part of the Islands Trust, which has a mandate to preserve and protect the Islands Trust area's unique environment. Both the IslandsTrust and the Capital Regional District (CRD) have signed the provincial government's Climate Action Charter, which requires communities to reduce greenhouse gas emissions. One way to do this is through adopting a more sustainable approach to land development and construction. Initiatives you take at the planning stages of your building project can dramatically reduce any negative impacts and help to create a truly sustainable community.

Who should use the Checklist?

All current and prospective Salt Spring landowners who are preparing to build a new house, a cottage, or an accessory building, or planning to remodel or add to an existing dwelling, or to build or reroute a driveway.

When should I use the Checklist?

The checklist is primarily a guidance document. The earlier you consult it, the easier it will be to include its ideas in your project. Review the checklist with your architect, designer and contractor. Completing the checklist after the working drawings are finished may result in lost opportunities and additional costs if you decide to make last-minute changes.

How do I submit the completed Checklist?

Part A

If your project requires planning permission — rezoning, development permit, or a variance — complete Part A and submit it as part of your application to the Islands Trust. A planner will be pleased to help you with your application and answer any questions you may have. Even if you don't have to complete part A, doing so could give you some good new ideas.

Part B

All residential construction projects, except for minor non-structural changes, require a Building Permit from the CRD Building Inspection Office in Ganges. Complete and submit Part B with your permit application.

How is the Checklist scored?

There is no pass-fail scoring. Implementing the suggested measures is entirely up to you. If your dwelling is in a Development Permit Area (DPA) though, some measures may be required as part of the development permit.

IslandsTrust

CRD
Making a difference...together

Islands Trust contact:

Ganges Office 250-537-9144
1-500 Lower-Ganges Road,
Salt Spring Island, BC V8K 2N8
www.islandstrust.bc.ca

CRD contact:

Building Inspection Office 250-537-2711
206-118 Fulford-Ganges Road,
Salt Spring Island, BC V8K 2S4
www.crd.bc.ca

Ver 1.0 - June 09

Salt Spring Island

Sustainability Checklist

for Single Family Dwellings

PART A

(for Islands Trust)

STREET ADDRESS OF PROPERTY:

_____

For official use only:

APPLICATION NO: _____DATE: _____

*Development proposals consistent with Official Community Plan (OCP) policies are supported. If your dwelling is located in a Development Permit Area (DPA), special restrictions apply and a development permit may be needed for siting, site preparation and other factors, and construction. Items marked with an * are requirements in some DPAs. Consult an Islands Trust planner.*

Ecosystem approach to site planning: Know the land

(OCP Volume 1 A.5.2.13 & maps 9 through 12)

1. Have you identified environmental and archaeological values, including habitat for threatened or endangered species and First Nations sites, before planning access, site clearing and design?

   Yes ❑ No ❑ N/A ❑

2. Have you located development — your driveway, septic system, house and outbuildings — away from areas with high environmental values like shorelines, streams, rare plants, and wildlife trees? Have you placed natural buffers between the development and sensitive features?

   Yes ❑ No ❑ N/A ❑

3. Have you clustered development in one area of the property to minimize site disturbance?

   Yes ❑ No ❑ N/A ❑

4. Have you considered granting a covenant for your property to protect ecological values in perpetuity?

   Yes ❑ No ❑ N/A ❑

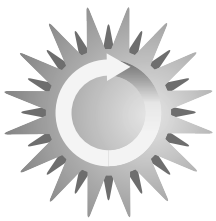
ECOLOGY TIPS

Plan ahead: walk the land with your contractor and a local biologist to find environmental benefits and cost savings.

Certain types of First Nations sites are protected under federal and provincial law and must not be disturbed. Avoid the accidental destruction of an ancient burial site and costly delays and fines by walking the land with an archaeologist before work begins.

A small patch of skunk cabbage or bulrushes in an otherwise dry environment indicates a mini-wetland — an important habitat for amphibians and birds.Clustering buildings and planning short driveways helps the environment and saves money.

Conservation covenants are registered on title and protect the special aspects of the land that you wish to preserve. They can also give you significant tax benefits.



Tree removal: Think twice before you cut

5. Have you minimized tree cutting and soil disturbance? Our island's trees and soils have ecological value and represent important carbon sinks, critical in addressing climate change. When land is cleared for development, its ability to sequester carbon is lost. *(OCP ref: A.6.1.6)*

   Yes ❑ No ❑ N/A ❑

6. Are there any eagle or heron nests on your property? These are Provincially protected and Salt Spring Land Use Bylaw 355 at subdivision requires a 100 metre undisturbed buffer around trees containing eagle, osprey or heron nests. *(OCP ref. A.5.2.8.c; LUB ref. 5.3.6)*

   Yes ❑ No ❑ N/A ❑

7. Are you retaining and protecting significant trees like Garry oaks and older growth Douglas-fir and cedar? (OCP ref. A.8.2.3)

   Yes ❑ No ❑ N/A ❑

TREE TIPS

Very few old growth cedar or fir remain on Salt Spring. The dominant coastal Douglas-fir ecosystems on Salt Spring are very rare in the rest of the province. The island's Garry oak meadows are a rare subset of these shrinking ecosystems. These trees have both heritage and ecological value.

Standing dead trees provide important wildlife habitat; leave them standing unless they pose a hazard. Topping is better than felling.

You can create views by limbing taller trees instead of removing them. If you feel trees on your property must be removed to open up a view, cut trees selectively to create a viewscape framed by trees.

Consult an Islands Trust planner before removing trees and vegetation. Special restrictions apply to tree removal in Development Permit Areas. For example, in DPA 6 a permit is required for tree removal if the trunk diameter is greater than 20 cm (measured 1.5 m above the ground), and for the removal of vegetation resulting in the exposure of bare soil more than 9 m2 in area. (OCP ref: E.6.1.2)

Water management:

Fresh water is a precious resource *(OCP ref: A.4.3.2)*

8. Is your property located within a community water system's well capture zone as defined in the OCP, or within the watershed of one of Salt Spring's drinking water lakes (St. Mary, Cusheon, Weston, and Maxwell)? If so, you need to ensure the drinking water supply is not contaminated by malfunctioning septic systems, phosphorus release from soil disturbance, runoff and erosion, and fuel and chemical spills. Is your project designed to minimize risks to water supplies?* *(OCP ref: A.5.2.9)*

   Yes ❑ No ❑ N/A ❑

9. If your property has a stream, a wetland, or lake frontage, are you planning to protect trees and vegetation within 60 m of the water?* Salt Spring's Land Use Bylaw requires buildings and structures to be setback 15m from all water bodies. *(OCP ref: E.4; LUB ref. 4.4.1)*

   Yes ❑ No ❑ N/A ❑

10. Are you planning to store rainwater on site by constructing a cistern, pond or wetland?

    Yes ❑ No ❑ N/A ❑

11. Have you observed the way water flows over your property and designed your landscaping and development in response?

    Yes ❑ No ❑ N/A ❑

12. For oceanfront property, permits are required to construct docks, boat ramps and breakwaters, to place fill, or to remove larger trees within 30m of the shoreline. Are you planning to site buildings well back from the high water mark, and to retain trees & vegetation within 10 m of the ocean?* *(OCP ref: E.3)*

    Yes ❑ No ❑ N/A ❑

WATER MANAGEMENT TIPS

Salt Spring typically has wet winters and dry summers. Good water management involves retaining the winter rains to recharge groundwater supplies, lakes and ponds. Forested slopes, fractured bedrock, and deep organic soils hold moisture. Bare rock and pavement do not. Ensure sufficient topsoil remains on the property and that soil is not left compacted after construction.

Removing trees can result in increased runoff and stormwater damage to properties below. Landowners can be liable for damages caused to a neighbour's property. Plan stormwater retention ponds, drainage swales and wetlands to retain stormwater on site, and maintain existing drainage patterns.

The SSI Salmon Enhancement Society works with landowners to improve fish bearing streams. Provincial Riparian Area Regulations require that a registered professional biologist approve any plans to develop close to a fish-bearing stream or its tributary.

Landscaping:

Go native, avoid turf

13. Are you landscaping with native, drought hardy vegetation rather than lawns and water demanding ornamentals? *(OCP ref: A.4.3.2)*

    Yes ❑ No ❑ N/A ❑

14. Are you minimizing impervious surfaces and planning to use permeable paving rather than conventional asphalt or concrete? *(OCP ref: A.4.3.2)*

    Yes ❑ No ❑ N/A ❑

15. Will you avoid the use of synthetic pesticides & fertilizers? *(OCP ref: A.5.2.12)*

    Yes ❑ No ❑ N/A ❑

16. Have you planned to control invasive species like Scotch broom, holly, English ivy, Himalayan and evergreen blackberry growing on the property? *(OCP ref: A.5.2.27)*

    Yes ❑ No ❑ N/A ❑

17. Are you planning an organic fruit and vegetable garden? *(OCP ref: B.6.2.1.9)*

    Yes ❑ No ❑ N/A ❑

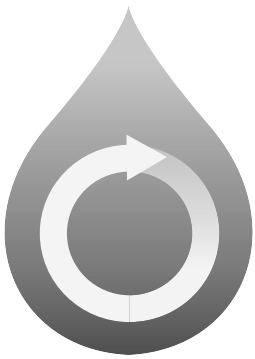
ECOLOGICAL LANDSCAPING TIPS

Avoid non-native plants that spread into and alter our natural ecosystems. The highly invasive Scotch broom originated from three seeds brought from Scotland a century ago. The SSI Conservancy has information on invasive species, and how best to control them.

If turf is to be installed, reduce area as much as possible. Consider using other ground cover than turf grass. Minimize impervious surfaces generally.

Pesticides and chemical fertilizers decrease the biological diversity of the soil and are counter-productive to a healthy landscape. Many plant "pest" problems can be addressed by feeding the soil with organic material such as compost.

Growing organic food (or buying local organic food) is one of the best ways to reduce carbon emissions. Becoming more self-sufficient in food is an objective of the Area Farm Plan and of the SSI Community Energy Strategy.



Salt Spring Island

Sustainability Checklist

for Single Family Dwellings

PART B

(for CRD building permit)

STREET ADDRESS OF PROPERTY:

_____

(circle all that apply) NEW CONSTRUCTION ADDITION / RENOVATION HOUSE SUITE COTTAGE OTHER

For official use only:

APPLICATION NO: _____DATE: _____

Wherever possible, property owners should review and complete Part B early in the design process. Submit as part of the building permit application. The checklist does not include items required by the BC Building Code. References to methods and materials in this checklist does not imply their suitability in all circumstances. Discuss options with your designer and contractor.

Site Plan

1. Review Part A of this checklist. Have you taken opportunities to reduce the number of trees to be cut and to otherwise minimize the ecological impact of your building through good site design?

   Yes ❑ No ❑ N/A ❑

2. Have you registered or applied for a permit under the Soil Removal and Deposit Bylaw 419?

   Yes ❑ No ❑ N/A ❑

ECOLOGICAL PLAN REVIEW TIPS *(see Part A)*

Take time to get to know your land before selecting your house site. Protect existing drainage patterns, trees and understory by siting buildings and driveways to avoid sensitive areas and minimize disturbance.

Construction Site Management

3. Are you planning to avoid outdoor burning of slash and wood debris through berming and/or chipping or trucking?

   Yes ❑ No ❑ N/A ❑

4. Do you have a construction waste recycling plan and a no-burn policy on site?

   Yes ❑ No ❑ N/A ❑

5. Are trees and other natural features protected during construction?

   Yes ❑ No ❑ N/A ❑

6. Do you have a plan to reduce erosion and sedimentation during construction?

   Yes ❑ No ❑ N/A ❑

SITE MANAGEMENT TIPS

Good management significantly reduces the amount of construction waste to be recycled or landfilled.

Outdoor burning is strongly discouraged because of local air pollution and GHG emissions.

Branches may be piled densely in alternating layers with other clean wood debris to form a long narrow mound or berm. The material will gradually decompose to form rich soil. Woody berms can be used to slow runoff from a sloping site and to create raised planting beds.

If you've had to cut down large trees, consider milling them on site to use in your project. Wood unsuitable for construction can be cut, split and stored under cover for at least one year before using as firewood.

House Design

7. Is your design compact and resource-efficient to reduce the building's ecological footprint?

   Yes ❑ No ❑ N/A ❑

8. Have you used passive solar design principles for space heating and cooling and planned for natural daylighting and natural ventilation?

   Yes ❑ No ❑ N/A ❑

9. Have you set performance objectives for your house? (e.g. annual consumption targets for water, electricity, firewood and/or propane, or a third party industry standard such as BuiltGreen Platinum or EGH 85 rating)

   Yes ❑ No ❑ N/A ❑

10. Have you used Hot-2000 or similar software to optimize your design for energy performance?

    Yes ❑ No ❑ N/A ❑

11. Are you planning a net zero energy house? A net zero energy home produces as much energy as it consumes annually.

    Yes ❑ No ❑ N/A ❑

DESIGN TIPS

Good passive solar design is the key to an environmentally sustainable home. By taking the 'House as a System' approach and by setting energy and water consumption targets, your designer can create a healthy, comfortable and efficient sustainable home.

Match south-facing window areas with interior mass (e.g. concrete or tile floors, masonry feature walls, plaster or thick drywall) to store passive solar gains and reduce temperature swings. Avoid large areas of non-south glazing and large skylights; they cause overheating and glare during the summer and lose heat during the winter.

Use of Hot-2000 or equivalent modelling software at the preliminary design stage can result in major energy and cost savings. Re-running the program at the working drawing stage can help fine-tune your plans.

A near net zero energy house is feasible using current technology. CMHC found that in this climate it was theoretically possible to retrofit a 1969 bungalow to become a net zero energy home by adding insulation (R-50 ceiling, R-26 walls and R-10 slab), high-performance windows, high efficiency lighting and appliances, and a rooftop solar electric (PV) system.



Building Materials

12. Are you using foundation options that will provide good thermal performance and water resistance, and efficient resource use?

    Yes ❑ No ❑ N/A ❑

13. Are you using resource efficient framing and wall options that optimise structural and thermal performance and reduce environmental impact?

    Yes ❑ No ❑ N/A ❑

14. Are you using more insulation, insulation with recycled content, and windows with a higher energy rating than required in this area by the BC Building Code?

    Yes ❑ No ❑ N/A ❑

BUILDING MATERIALS TIPS

The building code is a minimum standard. Adding insulation reduces operating energy costs and increases comfort.

Various techniques and materials may be used to reduce a home's ecological footprint, but determining the best solution is not always straightforward. Depending on the circumstances, a 'high-tech' wall system using fossil fuel derived products may, or may not, score better than a conventional well-insulated wall, or a wall system built of natural materials. Ask your designer which techniques are appropriate for your home. Materials must be compatible with the design and with other building systems, plus meet performance objectives.

Foundation options include fabric forms, foundation drainage membranes, insulated concrete forms (ICF), and portland cement substitutes such as fly ash.

Above grade, raised heel trusses, advanced framing techniques (e.g. 24" centres, elimination of non-bearing double headers), sustainably harvested FSC certified wood, structural insulated panels (SIPS), and insulated rammed earth walls may be appropriate choices, depending on the building design.

Provide a continuous air barrier. Air leakage through cracks, e.g. around beams and trim, significantly reduces energy performance. A blower door test towards the end of construction will identify unintentional air leakage paths, and is required if the house is to be rated.

Mechanical & Electrical Systems

15. If heat loads justify, are you using heat pump technologies for space heating such as ground, water, or air source heat pumps, including air source ductless systems?

    Yes ❑ No ❑ N/A ❑

16. Are you installing a central heat recovery ventilator system?

    Yes ❑ No ❑ N/A ❑

17. Are you installing a high efficiency wood burning appliance, pellet stove, or efficient propane gas fireplace rather than a conventional fireplace?

    Yes ❑ No ❑ N/A ❑

18. Are you purchasing EnergyStar appliances?

    Yes ❑ No ❑ N/A ❑

MECHANICAL SYSTEMS TIPS

Heat pumps are excellent where heat loads are large, as in older houses and large new homes. If your house is compact and well-insulated, the space heating loads may be too small to justify a heat pump; electric baseboard heaters may be the best solution.

Radiant floor distribution systems can circulate hot water from various sources — boiler, heat pump, solar system — and provide even, dust-free silent heat. They do not necessarily save energy.

Central heat recovery ventilation (HRV) systems control humidity and ensure good indoor air quality.

Greywater or drain-water heat recovery systems can recover heat from the hot water used in showers, bathtubs, sinks, dishwashers, and clothes washers.

Always burn dry wood that has been seasoned under cover for at least one year. A conventional open fireplace wastes energy and creates air pollution. Low-emissions wood stoves and fireplaces not only produce less air pollution — they're more efficient, heating your house with less wood.

Water Conservation

19. Are you harvesting rainwater from roofs and storing it in tanks, cisterns, and/or ponds?

    Yes ❑ No ❑ N/A ❑

20. Are you using dual flush toilets, low flow shower heads and faucet aerators?

    Yes ❑ No ❑ N/A ❑

21. Are you using greywater separation and treatment for irrigation or reuse?

    Yes ❑ No ❑ N/A ❑

WATER CONSERVATION TIPS

Rainwater collected from the roof can be more than sufficient to meet annual household needs. 100 sq. m. of roof yields 86,000 litres, given 86 cm annual rainfall. Rainwater may be used for toilet flushing, laundry and garden irrigation. After treatment, rainwater may be used for all household needs, including drinking water. Install a metal, slate or clay tile roof if you plan to use rainwater for potable water and check with the CRD for current regulations.

Six litre toilets are required; dual flush toilets give the option of using only three litres per flush.

Low flow shower heads vary in water consumption from about two litres per minute to six litres per minute. Read the fine print before you buy.

Greywater from laundry, showers and baths can be filtered and treated for reuse to flush toilet, or water gardens. Commercial systems are approved for use in BC.

A waterless composting toilet is permitted and is the ultimate water saving device, but a septic system must still be installed to handle wastewater, grease and food debris from kitchen sinks, and to meet regulatory requirements. A registered practitioner is required to design and install residential wastewater systems in BC.

Interior & Exterior Finishes

22. Are you using a roofing material suitable for rainwater harvesting for potable use?

    Yes ❑ No ❑ N/A ❑

23. Are you sourcing local wood and stone where possible to reduce transportation energy?

    Yes ❑ No ❑ N/A ❑

24. Are you using low maintenance exterior cladding and trim to reduce the need for paint and stain?

    Yes ❑ No ❑ N/A ❑

25. Are you using environmentally friendly, water soluble low-VOC paints and finishes?

    Yes ❑ No ❑ N/A ❑

26. Are you using materials with recycled content?

    Yes ❑ No ❑ N/A ❑

FINISHING MATERIALS TIPS

Local materials, such as stone, sustainably harvested wood, and locally-sourced natural earth plasters, are non-toxic, have low embodied energy, and often are very attractive.

Natural, non-toxic and low VOC paints and coatings are now widely available and labelled as such.

Many products are available with recycled content, for example, roofing, interior doors, ceramic tiles, and carpets. Ask your building supplier.

Natural linoleum, bamboo and cork are three of many greener alternatives to vinyl flooring.

Renewable Energy

27. Are you installing a clothesline?

Yes ❑ No ❑ N/A ❑

28. Are you installing a solar water heating system?

Yes ❑ No ❑ N/A ❑

29. If your property has a seasonal creek, a micro hydro generator may be an option. Have you looked into a micro hydro system?

Yes ❑ No ❑ N/A ❑

30. Roof-mounted photovoltaic (PV) panels can provide enough electricity from the sun to run an energy-efficient home or cottage during summer months. A single panel can pump water from a pond to a garden irrigation system, or power a computer and emergency lights. Have you looked into installing a PV system?

Yes ❑ No ❑ N/A ❑

RENEWABLE ENERGY TIPS

The clothesline is one of the simplest solar technologies, and a good way to save energy.

An unshaded south-facing roof and space for a solar preheat tank are the prerequisites for a solar hot water system. A solar water heater can supply up to 60% of your annual domestic hot water energy needs. Provincial and federal grants are currently available to offset some of the initial costs.

If your micro hydro, PV, or wind energy system is connected to BC Hydro, whenever the system generates excess electricity you can "run the meter backwards," to reduce your electricity bill. Contact BC Hydro, or a qualified installer for details on net metering.

Maintenance

31. Do you schedule annual cleaning for chimneys and regular inspection and servicing for mechanical equipment, including water treatment equipment?

Yes ❑ No ❑ N/A ❑

32. Do you occasionally inspect the outside of your home during, or just after, heavy rain to check for any drainage problems such as blocked eaves troughs?

Yes ❑ No ❑ N/A ❑

33. Do you purchase environmentally friendly cleaning products and use organic gardening methods?

Yes ❑ No ❑ N/A ❑

34. Do you recycle all household recyclables and compost garden and kitchen waste?

Yes ❑ No ❑ N/A ❑



HOME OPERATING TIPS

Careful use can typically reduce energy and water consumption in a home by 10% to 20%. Use programmable thermostats to set back the temperature at night and when the house is unoccupied. Remind family members about energy and water conservation, and "turn it off". Smart meters are available to help people track energy consumption.

An "operating manual" or binder with equipment and materials information, along with a photographic record of construction and list of trades used will be very helpful long after construction's done.

Schedule regular servicing activities, such as filter cleaning or replacement, and chimney and eaves trough cleaning, into the household calendar. Filters include air filters on furnaces and HRVs and screens on air intakes, and filters on home water purification systems.

Plan infrequent maintenance projects, such as exterior painting and septic tank pump out, well in advance. Postponing these tasks can lead to serious problems and major, expensive repairs.

Baking soda and vinegar work just as well as commercial cleansers for many household cleaning jobs and are better for the environment.

Plan to drive less. Automobiles are a major source of local air and noise pollution on Salt Spring, and are the largest single contributor to Salt Spring's greenhouse gas emissions. Reduced automobile dependence is an island objective. If you are considering a move, look for a location within easy walking or cycling distance of a village or transit route.

Thank you

for completing the Salt Spring Island Sustainability Checklist for Single Family Dwellings.
Please let us know if this checklist was helpful to you, and how it can be improved.

RESOURCES

Home Labelling Programs

If you would like assurance that your house meets current greenbuilding standards, you can get your home certified by an independent third party.

Several home labelling systems are currently used in Canada, including Energy Star, LEED® Canada for homes, R-2000, and BuiltGreen™.

These labels all use the same "Hot-2000" software for energy analysis.

These are the available options in BC:

New Home Labelling Programs

R-2000 CHBA-BC
www.chbabc.org/
1-800-933-6777

BuiltGreen™ BC CHBA-BC
www.chbabc.org/
1-800-231-1336

LEED® Canada for Homes
www.cagbc.org
866-941-1184

Home Retrofit Labelling Programs

EcoEnergy for houses CityGreen
www.citygreen.ca
1-866-381-9995

Grants

Some federal, provincial and CRD grants are available for energy & water conservation. The following were current at time of publication, check for additional grants with CRD and CityGreen.

BC Hydro Power Smart Rebates
See BC Hydro's website for current incentives and discount coupons.
www.bchydro.com/powersmart

Solar BC
$1,000 point-of-sale discount (plus a further $625 EcoEnergy/Live SmartBC rebate) towards a solar hot water system.
www.solarbc.ca
1-866-650-6527

EcoEnergy / Live Smart BC provide grants to homeowners and landlords upgrading existing homes for energy efficiency and some renewable energy and water conservation measures.

A special CRD rebate of $75 is available to Salt Spring residents. All these are available on Salt Spring through CityGreen
www.citygreen.ca
1-866-381-9995

Information

Energy and buildings

CMHC www.cmhc-schl.gc.ca/en/

NRCan www.oee.nrcan.gc.ca

CRD www.crd.bc.ca

CityGreen
www.citygreen.ca
1-866-381-9995

Solplan Review is the independent Canadian journal of energy conservation, building science and construction practice for residential construction.
604-689-1841

BC Sustainable Energy Association
www.bcsea.org

Lighthouse Sustainable Building Centre
www.sustainablebuildingcentre.com

Water

Capital Regional District Water Services
www.crd.bc.ca/water
250-474-9684
Information on water conservation technology and rainwater harvesting in Greater Victoria

Islands Trust Fund
Rainwater Harvesting on the Gulf Islands, a series of publications, including project schematics and links.
www.islandstrustfund.bc.ca

Watersheds

Capital Regional District
Stormwater, Harbours & Watersheds program
www.crd.bc.ca/watersheds
Residential tips to watershed protection, best practices, natural areas atlas & more

Land Development

BC Ministry of Environment
Develop with Care March 2006 online manual
www.env.gov.bc.ca/wld/documents/bmp/devwithcare2006/develop_with_care_intro.html

Conservation Covenants

SSI Conservancy
www.saltspringconservancy.ca/

Islands Trust Fund
www.islandstrustfund.bc.ca

TLC-The Land Conservancy of BC
www.conservancy.bc.ca

Local Resources

The following organizations have information and programs to assist residents in reducing our ecological footprints:

SSI Conservancy
www.saltspringconservancy.ca/

SSI Energy Strategy
www.saltspringenergystrategy.org

I-SEA Institute of Sustainability Education & Action
www.i-sea.org

Cusheon Lake Stewardship
www.cusheonlakestewardship.com

Mayne Island Integrated Water Systems Society
www.mayneisland.com/water/index.htm

SSI Salmon Enhancement Society
250-537-8983

Island Natural Growers
information on organic farming & gardening
www.cog.ca/ing/index.htm

The Salt Spring Sustainability Checklist
is downloadable at:
www.saltspringenergystrategy.org
www.islandstrust.bc.ca
www.crd.bc.ca



ISLANDS TRUST POLICY SUPPORT FOR AFFORDABLE HOUSING					
Policy Statement	OCP Policies	Housing Needs Assessment	Affordable Housing Strategy	OCP Amendments	LUB Amendments
Clear, well thought-out definition of 'affordability' Give affordable housing a greater profile for its role in sustainable communities. Include a reference to housing affordability in policy direction to LTCs and municipalities	Clear, well thought-out definition of 'affordability' Clearly articulated vision, goals and objectives for affordable housing. Robust policy statements of support for affordable housing. Share information between Local Trust Areas on existing OCP affordable housing provisions No OCP provisions that conflict with development of affordable housing.	LTCs include the requirement to carry out and regularly update a formal Housing Needs Assessment in OCPs. Trust Council coordinate Housing Needs Assessment across Trust Area to achieve efficiencies and allow consolidation.	Trust Council initiate a Trust-wide Affordable Housing Strategy. LTCs develop and implement Affordable Housing Strategies	LTCs amend the OCP to give direction to implement the recommendations of Housing Needs Assessment and Affordable Housing Strategy.	LTCs amend the LUBs to ensure regulations are consistent with OCP policy direction. LTC give positive consideration to Development Variance Permits when they would support affordable housing.

Local Trust Committee Initiated LAND USE / ZONING STRATEGIES AND TOOLS					
Strategy	Tools	Advantage	Disadvantages	Enabling Legislation	Section 5
Increase the Supply of Affordable Housing	Legalize Secondary Units	Helps ownership affordability, aging in place, limits development pressure on land, limited infrastructure, impacts on neighbourhood character can be minimized.	Potential diversion to vacation rentals, water supply, septic capacity.	LGA s.903 (zoning) LGA s.904 (density) ITA s.29 BC Building Code s9.36	Page 22
	Density Bonus	Suitable for clustered or cottage-style housing. Incentive to develop affordable housing, improve feasibility, lowers land cost	Concerns over environment, limited water resources, rural character.	LGA s.903 (zoning) LGA s.904 (density) ITA s.29	Page 23
Increase Opportunities for Affordable Housing	Mixed Use Zoning	Rental opportunities for business owners/staff, RRAP assistance.	No major disadvantages cited.	LGA s.903 (zoning)	Page 24
	Small Lot Zoning	Affordable home ownership, encourages small compact housing, ideal for cluster and cottage-style homes, reduces sprawl.	No major disadvantages cited	LGA s.903 (zoning)	Page 24
	LUB Relaxations	Flexibilities can improve affordability.	No major disadvantages cited.		Page 25
	Pilot Projects	Test practicality of creative solutions before widespread adoption.	No major disadvantages cited.		Page 25

Rezoning Application Initiated LAND USE / ZONING STRATEGIES AND TOOLS					
Strategy	Tools	Advantage	Disadvantages	Enabling Legislation	Section 5
Encourage Applicants to Build Affordable Housing	Amenity Zoning	Achieves benefit for community. Suitable for clustered or cottage-style housing. Incentive to develop affordable housing, improve feasibility, lowers land cost	Concerns over environment, limited water resources, rural character.	LGA s.903 (zoning) LGA s.904 (density) ITA s.29	Page 26
	Inclusionary Zoning	Requires inclusion of some affordable units with any development. Suitable for clustered or cottage-style housing. Incentive to develop affordable housing, improve feasibility, lowers land cost	Most effective in denser, high-growth areas. Concerns over environment, limited water resources, rural character.	LGA s.903 (zoning) LGA s.904 (density) ITA s.29	Page 26
	Density Transfer	Achieves land conservation objectives, moves development away from sensitive areas.	No major disadvantages cited.	LGA s.903 (zoning) LGA s.904 (density) ITA s.29	Page 27
	Other Types of Housing	Liveaboards (example used) may suite some lifestyles, very affordable.	Waste disposal difficult. Controversial due to aesthetics, no property taxes paid.	Outside IT jurisdiction	Page 27

PLANNING STRATEGY TOOLS					
Strategy	Tools	Advantage	Disadvantages	Enabling Legislation	Section 6
Maintain Affordability Over Time	Housing Agreements	Ensures affordability is maintained over time, provides direction on tenants/owners towards priority needs.	Costly to administer, can be a disincentive for single units or very small projects.	LGA s.905 (agreement) LTA s.219 (title registry)	Page 29
	Housing Agreement Administration	Allows conditions of agreement to be monitored and enforced.	May require some creative solutions to create in the Trust Area.	n/a	Page 30
Enhance Affordability with Diverse and Energy Efficient Housing Choices	Building Features	Can encourage affordability, a diverse mix of housing types and meet residents needs as they change over time.	No major disadvantages cited.	n/a	Page 31
	Size Limits	Encourage affordability through reduced cost and market forces.	No major disadvantages cited.	n/a	Page 31
	Energy Efficiency	Environmentally responsible and reduces operating costs.	No major disadvantages cited.	n/a	Page 31

SMART GROWTH CONSIDERATIONS				
Strategy	Tools	Advantage	Disadvantages	Section 7
Achieve compact, walkable, energy efficient communities	Locations close to services, amenities.	Encourages reduced automobile use, clusters housing in existing centres, accesses existing servicing infrastructure.	No major disadvantages cited.	Page 32

OTHER IMPORTANT CONSIDERATIONS					
Strategy	Tools	Advantages	Disadvantages	Partners	Section 8
Preserve Existing Affordable Housing Stock	Limit Demolitions	Maintains affordable supply, environmentally responsible.	Requires Regional District direction to implement.	Regional Districts	Page 33
	Standards Maintenance Bylaws	Helps ensure minimum health and safety standards.	Requires Regional District direction to implement. Enforcement could be costly.	Regional Districts	Page 33
	CMHC RRAP renovation funding	Assists homeowners and landlords with health and safety upgrades.	No major disadvantages cited.	CMHC	Page 33
Encourage Partnerships	Communicate Housing Needs in Community	Encourages collaboration in finding solutions, raises awareness.	No major disadvantages cited.	Community Members	Page 34
	Affordable Housing Council	Secures involvement in solutions from diverse stakeholders.	No major disadvantages cited.	Stake-holders	Page 34
	Communicate support to senior government	Assist housing applicants in efforts to secure funding.	No major disadvantages cited.	Senior Gov't	Page 35

FINANCIAL CHALLENGES AND SOLUTIONS					
Strategy	Tools	Advantages	Disadvantages	Partners	Section 9
Financial Assistance to Non-Profit Housing Providers	Regional District Housing Funds	Significant assistance in reducing costs, enables projects to proceed.	No major disadvantages cited.	Regional Districts	Page 36
	Senior Government Lobbying	Advocacy can help achieve significant capital assistance to housing providers.	No major disadvantages cited.	Senior Gov't	Page 36
	Land Banking and Housing Trusts	Encourage more development, helps assure affordability maintained.	Requires administration, requires research/creative application of existing authorities.	LTA s.10	Page 37

WORKING WITH THE COMMUNITY					
Strategy	Tools	Advantages	Disadvantages	Partners	Section 10
Streamline and Facilitate the Application Process	OCP and LUB Summary Guide	Help clarify expectations, focus applicants efforts on most relevant issues.	No major disadvantages cited.	Applicants	Page 38
	Ongoing Communication	Consistency in planning staff provides file history and helps resolve complicated issues.	No major disadvantages cited.	Applicants	Page 39
	Affordable Housing Development Guide	Assists applicants navigate through the process, develop workable strategy early on, provides applicants links to other tools and information.	Some resources will need to be allocated for development.	Applicants	Page 39
	Fast Tracking Applications	Minimizes delay-related costs, helps keep momentum, increases likelihood of application success.	May compete in queue with other applications.	Applicants other Regulatory Agencies	Page 40
	Reduce or delay Application Fees	Removes early-state cost barriers, reduces overall cost.	Actual processing costs need to be otherwise covered.	Applicants	Page 41
	Clear Application-Specific Guidance	Detailed guidance helps avoid costly revisions, de-mystifies process for applicants, likelihood of success.	Time consuming with limited planning resources.	Applicants	Page 42

COMMUNITY ENGAGEMENT TOOLS					
Strategy	Tools	Advantages	Disadvantages	Partners	Page
Community Education	Poster, Website, Newsletters, Workshops, Radio	Increases public support, encourages applicants, reduces fear of change.	Modest resource requirements.	Community and Stakeholders	n/a
Gain Greater Community Support	NIMBY workshops	Can reduce a major fear-based obstacle, helps proponents address valid concerns.	No major disadvantages cited.	Stakeholders, CMHC BC Non-Profit Housing Assoc.	n/a
	Input on Needs and Priorities	Valuable insight into community needs, helps secure support and 'buy-in' for policies and applications.	Resources required to organize consultations and consolidate input.	Community and Stakeholders	n/a
	Consultation on Policy and Strategy	Valuable input solutions, helps secure support and 'buy-in' for policies and applications.	Resources required to organize consultations and consolidate input.	Community and Stakeholders	n/a
	Conflict Resolution	Potential to improve access to existing affordable stock.	No major disadvantages cited.	Stakeholders, RTA	n/a

2017 BC SOCIETY ANNUAL REPORT

BC Society • Societies Act

NAME OF SOCIETY: **DENMAN COMMUNITY LAND TRUST ASSOCIATION**

Incorporation Number:	S0054085
Business Number:	84223 0898 BC0001
Filed Date and Time:	May 13, 2017 09:23 AM Pacific Time
Annual General Meeting (AGM) Date:	April 18, 2017

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CERTIFICATION

I, Harlene Holm, certify that I have relevant knowledge of the society, and that I am authorized to make this filing.

Denman Community Land Trust Association
3900 Lacon Road, Denman Island, B.C. V0R 1T0
www.denmanaffordablehousing.org BN 84223 0898 RR0001

September 15, 2017

Peter Luckham
Chair, Executive Committee
Islands Trust
200 - 1627 Fort Street
Victoria, B.C. V8R 1H8

Dear Peter,

As mentioned in my delegation to Trust Council on September 13/17, the Denman Community Land Trust Association (DCLTA) is creating a seniors' affordable housing development. I am writing to ask the Executive Committee to sponsor our September 6/17 property-specific application to amend the Denman Island Land Use Bylaw to allow this land use.

DCLTA was incorporated as a non-profit society in 2008 (S0054085) and gained charitable status in 2009 (84223 0898 RR0001). Our mission is to create secure, long-term, affordable housing for low-income earners and those on low fixed incomes with a residential commitment to Denman Island. Our first affordable housing project was tenanted April 2015. This project aims to create 8 dwelling units (4 duplexes) designed to provide secure, rental accommodation for low-income senior residents of Denman Island within their community.

For some time, many Denman islanders have been concerned that a substantial number of our residents over 65 years of age are at risk of homelessness, living in substandard housing, or paying rent and hydro costs that together far exceed 30% of their income. In 2015, DCLTA engaged a consultant to prepare an assessment of seniors' affordable housing needs on Denman Island. The consultant consolidated several earlier studies of seniors' housing needs in this community and incorporated the latest information available from Statistics Canada, BC Stats, and the Islands Trust. The resulting report concluded that the Island faces a pressing and growing need for affordable and appropriate housing for its senior population. The Seniors' Affordable Housing project is intended to address this need.

Work on the project began in October 2013 with a Memorandum of Understanding to purchase two acres within the village area. To date we have publicized the project on Denman, kept the LTC updated, and discussed it with community members; met with provincial approval agencies; completed a needs assessment; formalized a business plan; successfully applied to exclude the land from the ALR; achieved adequate, potable water and obtained a professional's plan for wastewater disposal; and held a series of volunteer work bees to tidy the site.

This project is a significant step toward implementing recommendations from the 2010 *Islands Trust Community Housing "Tool Kit"* plus a number of reports arising from the June 13/16 Islands Trust Forum on Community Housing and toward forwarding the Strategic Plan objectives relating to protecting community character and socio-economic sustainability. As well, the project promotes policies of the Denman Island Official Community Plan addressing climate change adaptation and mitigation, water management, and, in particular, housing (see the enclosed addendum).

In order to initiate staff review of our bylaw amendment application, DCLTA included a cheque for $4,400 to cover the basic application fee. However, according to Northern Office Regional Planning Manager Ann Kjerulf, the cheque will not be cashed while a decision on fee sponsorship is pending.

We are hopeful that the Executive Committee will sponsor this application and lighten the financial load carried by DCLTA.

Harlene Holm
Director

cc: Laura Busheikin, LTC
David Critchley, LTC
Ann Kjerulf, Regional Planning Manager
Marnie Eggen, Island Planner

Denman Island Seniors' Affordable Housing Project
Consistency with the Policy Statement and the Denman Island OCP
(key phrases are highlighted)

Islands Trust Policy Statement

The Policy Statement fails to address the need for affordable housing. The only text relevant to the problem is the overriding goal for Part V: Sustainable Communities, which follows.

GOAL: TO SUSTAIN ISLAND CHARACTER AND HEALTHY COMMUNITIES
Communities within the Trust Area are predominantly rural in character and contrast markedly with surrounding urban areas. Each island community has developed somewhat independently of other communities. Residents of all island communities value the safe and supportive nature of their island and their quality of life. Most feel strongly that people of differing age groups and income levels should continue to have the opportunity to reside in island communities.

The health of a community is influenced by numerous factors such as economic security, education, social support systems, the cleanliness and safety of the environment, and the availability of such necessities as educational and social services, transportation, affordable food and housing. Public involvement in decisions that affect a community is also critical to the health of that community. Participation in the decision-making process influences whether an individual or group is able to realize aspirations, satisfy needs or cope with change.

Denman Island Official Community Plan

This project promotes the goals of the following OCP policies:

Part C: The Natural Environment
Section C4: Climate Change Adaptation and Mitigation

Policy 2:
The Local Trust Committee should consider energy efficiency attributes, the reduction of greenhouse gas emissions, and climate change adaptation and impacts mitigation in all rezoning applications that propose an increase in density or change of use.

Policy 4:
The Local Trust Committee should support zoning amendment applications for affordable housing that incorporate climate change adaptation and mitigation measures, such as energy efficiency and shared facilities.

Policy 12:
Residents are encouraged to incorporate high energy efficiency into building design and construction (for example, through the use of high efficiency windows), and to use carbon-efficient materials in new construction.

Part D: The Social Fabric
Section D3: Water Management

Policy 3: Landowners are encouraged to create cisterns and ponds for the storage of rain water.

Part E: Families and Individuals
Section E1: Housing

Policy 11: The overall residential density on Denman Island should generally not increase beyond that permitted by existing zoning on the date this Plan was adopted except that an increase of approximately 5 percent may be permitted to accommodate zoning amendments for special needs and affordable housing, secondary dwelling units approved by the Denman Island Local Trust Committee under a Temporary Use Permit and site-specific zoning amendment applications under Policy 29 of this Section.

Policy 16: Landowners are encouraged to cluster houses and buildings accessory to a residential use to leave areas of undeveloped space.

Policy 17: The Local Trust Committee should encourage the establishment and work of non-profit land trusts for affordable housing.

Policy 27: The Local Trust Committee should consider zoning amendment applications for seniors housing provided:

- that the proposal is not located in a connectivity area identified on Schedule D;
- that the proposal is small-scale;
- that the siting and height of the proposal is sensitive to the surrounding land uses and does not impact negatively on adjacent properties;
- that the proposal proves an adequate supply of potable water and an adequate sewage disposal system;
- that the applicants enter into a housing agreement with the Local Trust Committee;
- that any environmentally sensitive areas on the lot are identified and the applicant undertakes a conservation covenant to protect such areas;
- that the proposal is designated a development permit area to guide form and character; and
- that the proposed development will not place a strain on existing public services and infrastructure.

Policy 28: The Local Trust Committee should consider zoning amendment applications for affordable housing projects provided:

- that the proposal is not located in a connectivity area identified on Schedule D;
- that the proposal does not impact negatively on adjacent properties;
- that the proposal is small-scale;
- that the proposal is clustered and the siting and height are sensitive to surrounding land uses;
- that the proposal proves an adequate supply of potable water and an adequate sewage disposal system;
- that any environmentally sensitive areas on the lot are identified and the applicant undertakes a conservation covenant to protect such areas;
- that the proposed development will not place a strain on existing public services and infrastructure.

Islands Trust
www.islandstrust.bc.ca
Toll Free: 1-800-663-7867

Victoria Office
200–1627 Fort Street
Victoria, BC V8R 1H8
Telephone: (250) 405-5151
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information@islandstrust.bc.ca
North Pender, South Pender, Galiano, Mayne, Saturna

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Salt Spring

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Fax: (250) 247-7514
northinfo@islandstrust.bc.ca
Gambier, Lasqueti, Hornby, Denman, Gabriola, Thetis, Ballenas-Winchelsea

Development Application Fee Sponsorship Application Form

*Under Islands Trust Policy 4.1.xiii, Trust Council Executive Committee may sponsor development application fees. When applying for sponsorship, please submit this form, or the details in a letter, **with your development application**. Applicants are encouraged to file this form with or after their development application.*

To be eligible for Executive Committee Sponsorship:

- ✓ The applicant is a non-profit agency or organization seeking to establish, expand or modify a facility for the benefit of the community at large and consistent with goals in the Official Community Plan (OCP).
- ✓ The applicant is an established or establishing institution supported by taxpayers that is seeking to establish, expand or modify a community facility. (Potential sponsorship of up to one half of the costs of the application)
- ✓ The applicant seeks to implement specific objectives of an OCP with broad community benefits.

The following are NOT eligible for Executive Committee Sponsorship:

- ✗ The applicant is a registered for-profit corporation under the Corporations Act.
- ✗ The applicant is a non-profit agency or organization seeking to establish, expand or modify a facility that would not benefit the community at large.
- ✗ An applicant claims that he or she cannot afford the cost of the application, and the application would not otherwise qualify for sponsorship or initiation.
- ✗ ALR and Subdivision referral application fees are not eligible.

SECTION 1: APPLICANT INFORMATION

(Please print or type all sections)

Organization Name: Denman Community Land Trust Association (DCLTA)

Primary Contact: Harlene Holm

Address: 3900 Lacon Road, Denman Island, BC V0R 1T0

Telephone: 250-335-2691 E-mail: info@denmanaffordablehousing.org

Charitable Status Number (If applicable): 84223 0898 RR0001

Organization Mandate (Attach bylaws, constitution or cite organization website): (See paragraph 2 of application letter) DCLTA's website is denmanaffordablehousing.org

Board Members (Name, Position): See 2017 BC Society Annual Report (attached). DCLTA is egalitarian with board members taking responsibility for specific tasks

SECTION 2: DEVELOPMENT APPLICATION INFORMATION

Check development application where fee refund is requested:

- ☐ Official Community Plan
- ☑ Zoning Bylaw Amendment
- ☐ Development Permit
- ☐ Development Variance Permit
- ☐ Temporary Use Permit
- ☐ Other: _____

Development Application Submitted? ☑ Yes ☐ No Application #: not yet available

Development Application Fees Paid (Amount): $4,400 Receipt #: not yet available

Note that reduction in fees reduces DCLTA's request to $1000.

SECTION 3

Objective of Development Application: see application letter

Describe how the Development Application furthers official community plan goals: see application letter addendum

SECTION 4

I/we declare that all of the above statements and the information contained in the material submitted in support of the application are to the best of my/our knowledge true and correct.

Printed Name: Harlene Holm

Signature: [signature] Date: Sept. 16/17

Contact Information (e-mail and/or phone): see Section 1

INFORMATION TO BE COMPLETED BY ISLANDS TRUST

Date of Executive Committee Consideration: _____ Decision: _____

Financial Details: _____

Fee Refunded: _____

Organization Charitable Status Number: _____

LTC Notified (Date): _____

Applicant Notified (Date): _____

Hello Emma,

I would like to submit the following delegation request for the Islands Trust Council meeting on behalf of Sheila Malcolmson, MP for Nanaimo-Ladysmith.

1) Topic: Abandoned vessel legislation endorsement
2) Speaker: Sheila Malcolmson, MP Nanaimo- Ladysmith
3) Contact: Sheila.malcolmson@parl.gc.ca

We sent correspondence to the Islands Trust council in June, and it should be included in the latest EC agenda.

Thank you and please let me know if you have any questions or require further information.

Lauren Semple
Constituency Assistant | Office of Sheila Malcolmson
MP for Nanaimo—Ladymsith | NDP Status of Women Critic

Sheila.Malcolmson.c1c@parl.gc.ca
(OFFICE) 250-734-6400

UFCW 232



Sheila Malcolmson
Member of Parliament
Nanaimo—Ladysmith

HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

Parliamentary Office

313 Confederation Building
House of Commons
Ottawa, Ontario
K1A 0A6
T. : 613-992-5243
F. : 613-992-9112

Community Office

495 Dunsmuir Road #103
Nanaimo, British Columbia
V9R 6B9
T. : 250-734-6400
F. : 250-734-6404

Sheila.Malcolmson@parl.gc.ca
www.sheilamalcolmson.ndp.ca

June, 2017

Greetings from coastal British Columbia!

I'm seeking your support for my federal legislation to protect our coasts.

Right now, thousands of abandoned vessels are polluting our oceans and leaking oil into our waterways, jeopardizing valuable aquaculture and commercial fishing jobs, threatening our tourism industry, and taking a huge toll on coastal communities and volunteers.

For too long, jurisdictional gaps have left coastal communities with nowhere to turn when they need help cleaning up abandoned vessels.

It's time for federal action on abandoned vessels!

My bill C-352 creates a comprehensive coast-wide strategy to:

- ✓ End the run-around and finger-pointing by designating Coast Guard as the agency responsible for directing the removal & recycling of abandoned vessels
- ✓ Get taxpayers off the hook by fixing vessel registration and creating a fee to help cover the cost of vessel disposal
- ✓ Prevent vessels from becoming hazards by piloting a turn-in program at safe recycling facilities
- ✓ Create good green jobs by supporting local marine salvage businesses
- ✓ Build a coast-wide strategy in cooperation with local and provincial governments

Although community pressure has finally gotten abandoned vessels on the federal agenda, the Liberal government's plan simply cannot address the thousands of vessels littering our coastlines. After decades of federal and provincial neglect, $1 million/year for removals is a welcome first small step, but falls far short of what's needed to address this growing problem on all three coasts.

I built my legislation based on years of advice from coastal communities. Your endorsement as a marine ally will demonstrate powerful solidarity when the debate on abandoned vessels begins in the House of Commons this fall.

To show the growing demand for a comprehensive coast-wide solution, I'd love your support.

Here is how you can help build momentum for federal action:

1. **Gather petition signatures supporting Bill C-352** (enclosed). Once you've added your name and gathered other signatures, please mail it to my Ottawa office so I can stand in Parliament and show support for a solution.

2. **Join the growing list of coastal allies by writing a formal endorsement letter or passing a motion of support** (templates enclosed)

3. **Sign and return the postcard** (enclosed)

For more information, including the text of the bill, please visit my website at www.sheilamalcolmson.ndp.ca/abandonedvessels

Thank you so much for your support; I look forward to working with you.

Sheila Malcolmson,
Member of Parliament for Nanaimo—Ladysmith

It's Time For Federal Action To Clean Up Abandoned Vessels



Why are abandoned vessels a problem?

- Thousands of abandoned vessels threaten Canadian waterways
- They're a major source of oil spills and pollution, jeopardizing valuable aquaculture, commercial fishing jobs and tourism
- No regulations or programs exist to remove and recycle abandoned vessels before they become serious environmental or navigational hazards
- Jurisdictional gaps have left coastal communities with nowhere to turn for help dealing with abandoned vessels
- Lack of action on this long-standing issue is pressuring local governments, First Nations, marinas, port operators and taxpayers
- Vessel abandonment is made worse by the lack of turn-in programs where owners can easily dispose of their vessels

What solutions does my legislation Bill C-352 propose?

- Ends the run-around and finger-pointing to designate Coast Guard as the agency responsible for directing the removal & recycling of abandoned vessels
- Gets taxpayers off the hook by fixing vessel registration and creating a fee to help cover the cost of vessel disposal
- Prevents vessels from becoming hazards by piloting a turn-in program at safe recycling facilities
- Creates good green jobs by supporting local marine salvage businesses
- Builds a coast-wide strategy in cooperation with local and provincial governments

June 2017

Sheila Malcolmson, MP for Nanaimo—Ladysmith
House of Commons, Ottawa, Ontario, K1A 0A6
Telephone: (613) 992-5243 - Email: sheila.malcolmson@parl.gc.ca

NDP

What have we achieved so far?

- Successfully pressured the federal government to promise action
- Helped get the 100' trawler Viki Lyne II, which threatened Ladysmith Harbour, safely dismantled after four years of community advocacy
- Secured the inclusion of vessel registration and recycling in the BC NDP election platform
- Kept federal government accountable after Liberals missed their own six-month deadline to act on abandoned vessels
- Received unanimous endorsement for C-352 from the Association of Vancouver Island and Coastal Communities, the Regional District of Nanaimo, the City of Parksville, and Ladysmith Maritime Society (see the growing list at: www.sheila.malcolmson.ndp.ca/abandonedvessels)

How can you help build support?

- Sign and distribute the petition
- Write a letter of support or sign the postcard
- Share the abandoned vessels campaign on Facebook and Twitter
  - Facebook: facebook.com/SheilaMalcolmsonNDP
  - Twitter: @s_malcolmson

What's Sheila's history?

Sheila Malcolmson has been a strong advocate for a comprehensive abandoned vessel solution since being elected locally in 2002.

As Islands Trust Council Chair, for six years she worked with hundreds of local governments to urge provincial and federal government action on this decades-old problem.

Elected as the Member of Parliament for Nanaimo—Ladysmith in 2015, she tabled legislation and secured $1.2 million for the safe removal of the trawler Viki Lyne II from Ladysmith Harbour, on the East coast of Vancouver Island.

Her degree in Environmental and Resource Studies and years guiding kayak trips in BC's wilderness inform her work for coastal communities.

June 2017

Sheila Malcolmson, MP for Nanaimo—Ladysmith
House of Commons, Ottawa, Ontario, K1A 0A6
Telephone: (613) 992-5243 - Email: sheila.malcolmson@parl.gc.ca

NDP

Template: Suggested endorsement letter and motion of support

(Insert organization name and logo)

(Date)

Sheila Malcolmson, MP for Nanaimo-Ladysmith
House of Commons
Ottawa, Ontario
K1A 0A6

Dear Ms. Malcolmson,

On behalf of (*insert organization name*), I am writing to support the following motion urging the federal government to adopt MP Sheila Malcolmson's legislation, C-352:

Whereas:

- Abandoned vessels pose an environmental risk and navigational hazard;
- No regulations and programs have established effective measures for the removal and disposal of abandoned vessels;
- Coastal communities in Canada have called on the government to act on abandoned vessels for decades;

Move that *(inset organization name)* encourages Parliament to adopt Bill C-352, "An Act to amend the Canada Shipping Act, 2001 and provide for the development of a national strategy for abandoned vessels", which would fix vessel registration, pilot a vessel turn-in program, create good green jobs by supporting local marine salvage businesses and vessel recycling, and make Coast Guard responsible for directing the removal of abandoned vessels.

Sincerely,

(Please sign on behalf of your organization)

Petition to the House of Commons: Federal Action to Clean up Abandoned Vessels

We, the undersigned residents of Canada, draw the attention of the House of Commons to the following:

WHEREAS:

- Abandoned vessels pose an environmental risk and navigational hazard;
- No regulations or programs have established effective measures for the removal and recycling of abandoned vessels;
- Coastal communities in Canada have called on the government to act on abandoned vessels for decades;

THEREFORE, we call on the Government of Canada to support Bill C-352 to:

1. Designate Coast Guard as the agency responsible for directing the removal & recycling of abandoned vessels;
2. Build a coast-wide strategy in cooperation with local and provincial governments;
3. Get taxpayers off the hook by improving vessel registration and creating a fee to help cover the cost of vessel disposal;
4. Prevent vessels from becoming hazards by piloting a turn-in program at safe recycling facilities;
5. Create good green jobs by supporting local marine salvage businesses.

NAME (PRINT)	STREET ADDRESS (city, province, postal code)	EMAIL	SIGNATURE

PLEASE SEND COMPLETED PETITIONS TO: Sheila Malcolmson, Member of Parliament, House of Commons, Ottawa, ON, K1A 0A6 **POSTAGE FREE!** (Please use an envelope)

Petition to the House of Commons: Federal Action to Clean up Abandoned Vessels

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PLEASE SEND COMPLETED PETITIONS TO: Sheila Malcolmson, Member of Parliament, House of Commons, Ottawa, ON, K1A 0A6 **POSTAGE FREE!** (Please use an envelope)

Making a difference...together

EEP 17-32

REPORT TO ENVIRONMENTAL SERVICES COMMITTEE
MEETING OF WEDNESDAY, JULY 26, 2017

SUBJECT **Abandoned and Derelict Vessels**

ISSUE

To provide an update on addressing abandoned boats within the Capital Regional District (CRD) and seek direction on possible federal funding for the removal and disposal of derelict boats.

BACKGROUND

The federal government has announced the Abandoned Boats Program (ABP) containing two separate components of (1) Education, Awareness and Research and (2) Assessment, Removal and Disposal of abandoned and wrecked boats that pose a hazard in Canadian waters (see Appendix A). The funding application deadlines are September 30 and October 30, 2017, respectively, and an application dealing with multiple boats from a single organization is acceptable.

Prior to the announcement of the ABP, CRD staff received committee direction at the December 14, 2016 Core Area Liquid Waste Management Committee meeting to initiate and coordinate inter-municipal discussions on a consistent approach to deal with problem vessels in the region.

Staff extended invitations to CRD municipalities, electoral areas and Islands Trust and this group has met once to receive an overview of problem vessel issues, discuss each jurisdiction's challenges and approaches, identify issues, and talk about regional options to deal with problem vessels. The initial discussion of the group focused primarily on anchorage and inter-municipal alignment. At the group's next meeting on August 2, 2017, a representative from Transport Canada's Navigable Waters Protection Program will be speaking about the Abandoned Boats Program (ABP). First Nations will also be invited to participate. A report to committee with outcomes from this group is expected at the end of 2017.

The CRD Committee of the Whole heard a presentation from Terry Beech, Parliamentary Secretary to the Minister of Fisheries, Oceans and the Canadian Coast Guard, on July 19, 2017. During the meeting, CRD Directors raised a number of issues related to abandoned and derelict boats. The issues raised by the Directors are itemized in Appendix B.

ALTERNATIVES

That the Environmental Services Committee recommend to the CRD Board:

Alternative 1

That in support of addressing the abandoned boat issue in the CRD:

1. Staff be directed to submit a regional application for Abandoned Boats Program (ABP) Education and Awareness funding and ABP Assessment and Removal funding;

2. The Board increase the scope of the Environmental Resource Management Community Clean-up Program to include the federal ABP initiative, and approve:
   (a) a 2017 budget amendment to provide $50,000, from the ERM Sustainability Reserve, to fund the completion of the required ABP funding application, including inventorying of eligible abandoned boats
   (b) the submission of federal ABP applications for a total of $1,050,000: $50,000 in Abandoned Boat Education and Awareness funding (with CRD contribution of $16,667) and $1,000,000 in Abandoned Boat Assessment and Removals funding (with CRD contribution of $333,333) in support of a local multi-year ABP initiative starting in 2018; and CRD contributions to be funded by the ERM Sustainability Reserve;
3. Staff approach Southern Vancouver Island Regional Districts and First Nations regarding potential South Island synergies in addressing abandoned boats under the federal ABP initiative; and
4. The CRD Board Chair write a letter to the Marc Garneau, Minister of Transportation, raising the issues as itemized in Appendix B.

Alternative 2

That the CRD support parties participating in the federal Abandoned Boats Program by funding disposal tipping fees at the Hartland landfill for the disposal of local boats that have been satisfactorily assessed under the Transport Canada ABP program.

ENVIRONMENTAL IMPLICATIONS

A 2014 Vessels of Concern report conducted for Transport Canada indicated there were as many as 245 vessels of concern within BC waterways, with approximately 55 (22%) in CRD waterways. The key regions where these vessels are located in the CRD are the Gulf Islands associated with the Islands Trust (Burgoyne Bay, Fulford Harbour, Pender Harbour), Brentwood Bay, Selkirk Waterway and Sooke Harbour. An updated assessment of quantity and types of vessels within the CRD will be required to accurately calculate removal costs for 2018/2019.

Abandoned vessels have significant environmental implications, including but not limited to:
- discharge of sewage effluent and garbage
- discharge of fuels, lubricants and bilge water
- erosion and degradation of shoreline and seabed ecosystems from physical damage

Prior to disposal at Hartland landfill, the ABP-approved assessment, including environmental risks, will need to be reviewed by CRD staff under the Hartland landfill controlled waste technical review framework to ensure that environmental concerns are appropriately dealt with prior to disposal at the landfill.

INTER-JURISDICTIONAL IMPLICATIONS

The Canadian Coast Guard has sole jurisdiction over polluting vessels. Transport Canada may authorize a willing third party to take possession of and remove abandoned or derelict vessels and wrecks; the costs for removal are often borne by the willing third party. The recently-announced federal Abandoned Boats Program provides funding for public, private, or non-profit groups to actively remove and dispose of abandoned or wrecked small vessels.

CRD staff reached out to both the Regional District of Nanaimo and the Cowichan Valley Regional District. At the time of writing this report, staff at these Regional Districts were not submitting an

ABP application based on resource allocation to other regional priorities.

If the CRD is successful in an ABP application, staff would coordinate ABP strategies with other south island Regional Districts and First Nations that also receive funding; and, by working together, all parties could realize significant efficiencies in resources and program implementation.

SOCIAL IMPLICATIONS

There is a separate program under the ABP for education and awareness projects to a maximum of $50,000 per project, with 75% of costs eligible for funding. Staff will submit an application and, if successful, deliver a regional education program that is focused on vessel stewardship and environmental effects of abandoned boats.

LEGAL IMPLICATIONS

Removing vessels is a multi-step process, starting with posting notices on a vessel and making reasonable steps to locate an owner. If an owner cannot be located, notification is made to the Transport Canada Navigation Protection Program, which will designate a Receiver of Wreck (often a Transport Canada employee) who can authorize any person to undertake the disposition or destruction of a vessel.

Before undertaking or directing boat removal actions, the CRD will need to obtain legal advice and develop a protocol and standard operating procedure for assessment and disposal.

FINANCIAL IMPLICATIONS

The CRD's Environmental Resource Management (ERM) division is a regional service with a solid waste and recycling mandate. The expansion of the ERM Community Clean-up program to include ABP-eligible abandoned boats can be funded through the ERM Sustainability Reserve. This $400,000 investment can be leveraged into a $1,400,000 abandoned boat program for the CRD.

In order to support an ABP application, the following funds would be transferred from the ERM Sustainability Reserve:

1. $50,000 - 2017 budget amendment, for preparing the program application and issuing a contract to inventory current abandoned and derelict vessels (non-eligible under the ABP)
2. $350,000 - as the CRD contribution to a $1,400,000 budget ($1,050,000 from the ABP) to pay for in-house or contracted resources to deliver educational initiatives and vessel removal and disposal services starting in 2018

A waiver of tipping fees (Alternatives 1 and 2) would forgo revenue, depending upon the number of vessels delivered to Hartland Landfill. Under Alternative 2, this waiver could be included in any third-party application for funding assistance under the federal program. Weights of empty boat hulls are variable, depending on construction material, boat design and how water-logged they are. As an example, a rough estimate based on receiving 55 vessels at an estimated 1.5 to 2.5 tonnes per empty 20-30 foot sailboat hull would see the CRD forego tipping fees of $9,000-$15,000.

CONCLUSIONS

Abandoned vessels present an environmental risk to the region's shorelines and nearshore waters. Additionally, these vessels degrade the aesthetic enjoyment of these areas and present a safety risk for beach users.

This initiative will expand the Community Clean-up program and by waiving tipping fees at Hartland Landfill for ABP eligible abandoned and removed vessels

RECOMMENDATION

That the Environmental Services Committee recommend to the Capital Regional District Board:

That in support of addressing the abandoned boat issue in the CRD:

1. Staff be directed to submit a regional application for Abandoned Boats Program (ABP) Education and Awareness funding and ABP Assessment and Removal funding;
2. The Board increase the scope of the Environmental Resource Management Community Clean-up Program to include the federal ABP initiative, and approve:
   (a) a 2017 budget amendment to provide $50,000, from the ERM Sustainability Reserve, to fund the completion of the required ABP funding application, including inventorying of eligible abandoned boats
   (b) the submission of federal ABP applications for a total of $1,050,000: $50,000 in Abandoned Boat Education and Awareness funding (with CRD contribution of $16,667) and $1,000,000 in Abandoned Boat Assessment and Removals funding (with CRD contribution of $333,333) in support of a local multi-year ABP initiative starting in 2018; and CRD contributions to be funded by the ERM Sustainability Reserve;
3. Staff approach Southern Vancouver Island Regional Districts and First Nations regarding potential South Island synergies in addressing abandoned boats under the federal ABP initiative; and
4. The CRD Board Chair write a letter to the Marc Garneau, Minister of Transportation, raising the issues as itemized in Appendix B.

Submitted by:	Russ Smith, Senior Manager, Environmental Resource Management
Concurrence:	Larisa Hutcheson, P.Eng., General Manager, Parks & Environmental Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

DG:cam

Attachments: Appendix A –Transport Canada's Abandoned Boats Program
Appendix B – List of Issues to Raise with Canada regarding Abandoned and Derelict Boats

Hi Emma,

I am requesting a 10 minute delegation for the Gulf Islands Alliance at the next Trust Council meeting on Denman Island.

We will be speaking to the issue of marine stewardship and planning. Our representative for the delegation will be GIA Director Graham Brazier.

thanks so much

Misty MacDuffee
GIA Director

Graham Brazier
9086 Keith Wagner Way
Denman Island, B.C.
V0R 1T0

The Gulf Islands Alliance delegation will be supportive of the recommendations made by the Association of Denman Island Marine Stewards (ADIMS) with respect to dealing with the deleterious impacts of many of the practices of the aquaculture industry in Baynes Sound. We will then offer some suggestions as to how the Islands Trust could be effective in addressing these harmful practices.

Industrial Development of the Foreshore
and a
Management Precedent from 1969

by Graham Brazier
on behalf of The Gulf Islands Alliance
September, 2017

We at the Gulf Islands Alliance believe important parallels between the time leading up to the establishment of the Islands Trust in 1974 and the present are worth drawing to your attention.

Some of you may recall the 'land rush' of the late 1960's when hundreds of city-sized lots on a number of the Southern Gulf Islands were offered for sale and marketed at the Pacific National Exhibition in Vancouver as well as across the whole country. My recollection is that $50 down and $50 a month would buy a lot in the Magic Lake Estates on North Pender Island. At the same time, similar projects on a number of other islands were in the early stages of development when the Social Credit government of the day recognized that these schemes were entirely inappropriate in scale for the islands of Georgia Strait and Howe Sound and went into crisis management mode. In 1969 the provincial government blew the whistle on subdivision and imposed 'a10 acre freeze'.

As I'm sure you know, the freeze provided time for a full assessment of impacts and options for the future and the time was well spent. Studies were undertaken and consultations with residents of nearby island communities were conducted. The result was the founding of the Islands Trust in 1974 when the notion of 'preserve and protect' became the basis for land-use planning on the islands in Georgia Strait and Howe Sound.

What does this have to do with the here and now? We believe that a situation parallel to the 'land rush' of the late 1960's and early 1970's is well underway today. Now, however, that rush is along the shorelines of our islands. Industrial activity outlined by the Association of Denman

Island Marine Stewards and the Denman Island Residents Association Marine Guardians earlier today is escalating on leases that adjoin each other cheek by jowl along our shores without regard to the long-term consequences. The difference between then and now is that then, the crisis in the late 1960's and early 1970's, was wholly terrestrial in nature and the tools developed to deal with it in the five year period between the implementation of the 10 acre freeze and the founding of the Trust were 'land-use' tools. Now the crisis is a marine crisis and those tools don't work.

We believe that the current crisis on the foreshore warrants application of the precedent of the 'ten acre freeze' of 1969 and strongly recommend that the Trust urge the provincial government to step in and freeze all industrial activity on the shorelines of the islands in the Trust area until such time as regulatory tools consistent with the object of the Trust can be developed.

In the meantime, we encourage the Trust to establish a permanent marine committee with appropriate staff support in order to develop a coordinated approach to a whole array of marine issues including derelict vessels, freighter anchorages, oil tankers, marine parks, ocean pollution, seaweed harvesting and industrial aquaculture.

September 2017 Islands Trust Council

Effective Advocacy

3:30 p.m. - 5:30 p.m. Wednesday, September 13, 2017

Purpose: To provide information about the Islands Trust's advocacy program and discuss best practices for 'cooperating with others.'

Resources: Clare Frater, Director of Trust Area Services
Russ Hotsenpiller, Chief Administrative Officer
Sheila Malcolmson, Member of Parliament Nanaimo—Ladysmith

TIME	TOPIC	WHO
3:30	**Overview of Trust Council's advocacy policy, program and practices**	Clare Frater
4:00	**Working with Regional Districts**	Russ Hotsenpiller
4:30	**Emerging challenges and opportunities**	Clare Frater
4:45	**Best practices for advocacy from an MP perspective**	Sheila Malcolmson
4:55	**Discussion**	All

Islands Trust Act:

> *"The object of the Trust is to preserve and protect the Trust Area and its unique amenities and environment for the benefit of the residents of the Trust Area and of British Columbia generally, in cooperation with municipalities, regional districts, improvement districts, other persons and organizations and the government of British Columbia."*

Islands Trust Policy Statement, Preamble, Part II:

"To achieve its object, the Islands Trust must be an educator, coordinator, and initiator, guiding individuals, organizations and other agencies in support of the object. While the Islands Trust can provide the necessary leadership, responsibility for stewardship of the Trust Area rests with many. Individuals, other government agencies, organizations, and the Province itself all have important roles to play. Cooperative actions are required of other agencies, organizations and individuals to ensure that activities are carried out in a manner that is sensitive to the needs of Trust Area ecosystems and island communities."

Effective Advocacy Session

Overview of:

Trust Council's Advocacy program and best practices for 'cooperating with others'

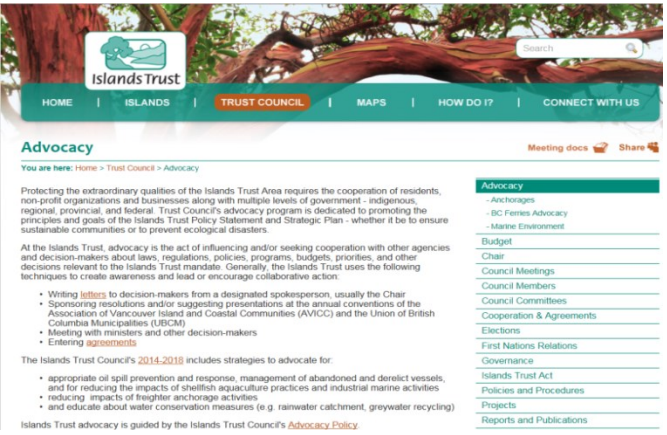
Effective Advocacy Session

TIME	TOPIC	WHO
3:30	*Overview of Trust Council's advocacy policy, program and practices*	*Clare Frater*
4:00	*Working with Regional Districts*	*Russ Hotsenpiller*
4:30	*Emerging challenges and opportunities*	*Clare Frater*
4:45	*Best practices for advocacy from an MP perspective*	*Sheila Malcolmson*
4:55	*Discussion*	*All*

Effective Advocacy session

What is advocacy?

The act of influencing and/or seeking cooperation with other agencies and decision-makers about laws, regulations, policies, programs, budgets, priorities, and other decisions relevant to the Islands Trust mandate.



In cooperation with

"The object of the Trust is to preserve and protect … in cooperation with municipalities, regional districts, improvement districts, other persons and organizations and the government of British Columbia."

and First Nations

In cooperation with

- "To achieve its object, the Islands Trust must be an educator, coordinator, and initiator, guiding individuals, organizations and other agencies in support of the object."

- "Cooperative actions are required of other agencies, organizations and individuals to ensure that activities are carried out in a manner that is sensitive to the needs of Trust Area ecosystems and island communities."

Advocacy Policy

General policies

Roles and responsibilities

Spokespeople

Reporting

Budget

Evaluation

Advocacy Policy - Methods

Write **letters from the Chair**

Request **in-person meetings**

Propose **UBCM/AVICC resolutions**

Sponsor **UBCM/AVICC sessions**

Sign **protocol agreements and letters of understanding**

Host **roundtable meetings**

Attend **consultations**

Participate **in working groups**

Other Related Policies

Best Management Practices for Delivery of Local Planning Services to Local Trust Committees Policy

Policy 16: LPS staff and LTC Chairs will ensure that:

1. All decisions on the LTC agenda that require LPS staff resources are relevant to:

a) the responsibilities of LTCs to regulate the development and use of land pursuant to responsibilities of LTCs (s. 24 of *Islands Trust Act)*

b) any powers that may be delegated to an LTC by Trust Council.

2. LTCs should not instruct LPS staff to undertake work that is un-related to these responsibilities.

Other Related Policies

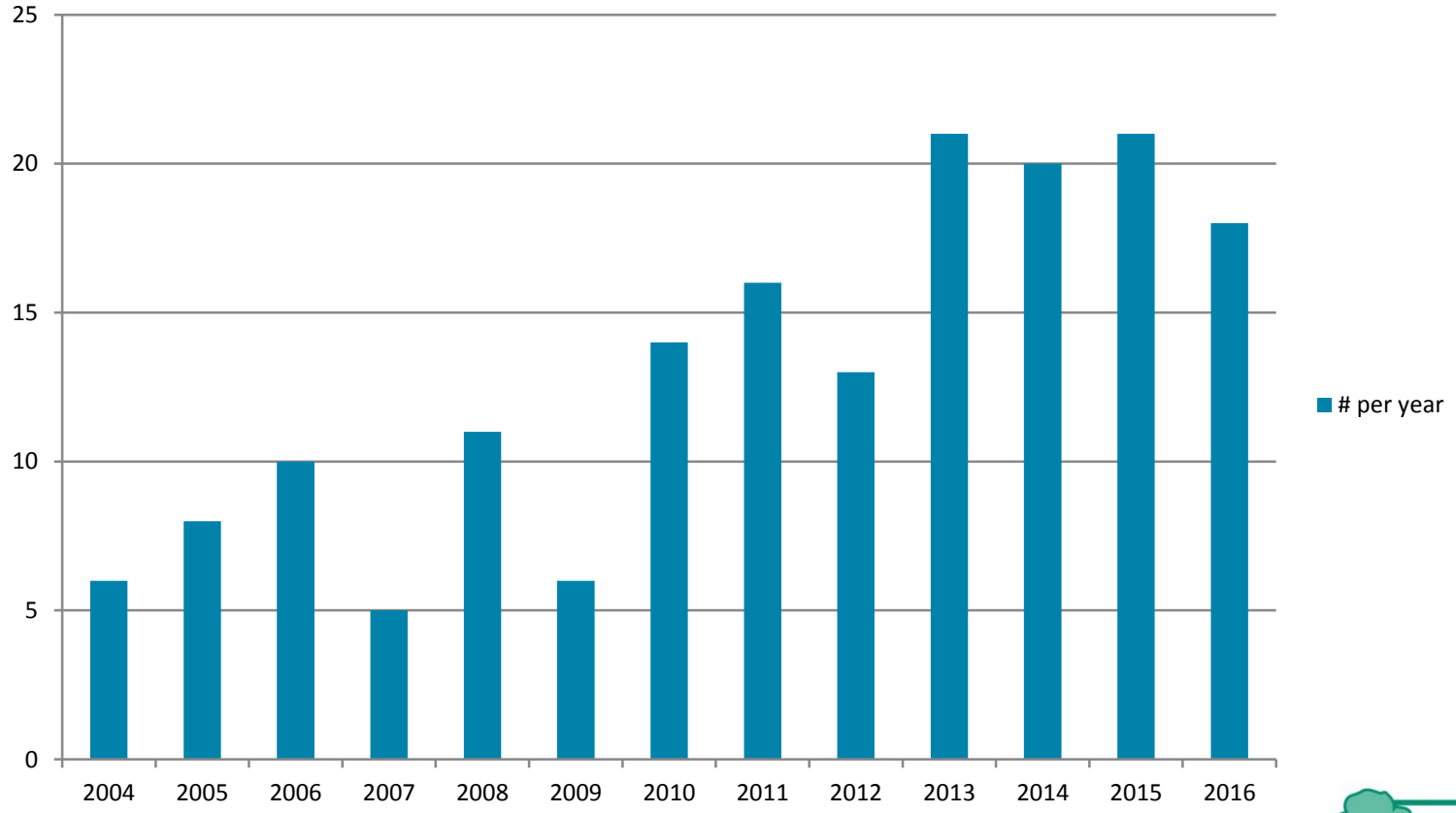
First Nations Engagement Principles Policy

Islands Trust is committed to:

1. **Becoming aware of what it does not know or understand about First Nations,**
2. **Proving sincere desire for reconciliation,**
3. **Integrating, where possible, activities that support First Nations reconnecting with the Trust Area lands and waters.**

History of advocacy

Number of Advocacy letters from Chair (2004 – 2016)



History of advocacy

Themes through the years

Ferries **Marine oil spills** **Aquaculture**

Kinder Morgan **Raven Coal Mine** **Peace**

Coast Guard **Cycling and Road infrastructure**

FN Reconciliation **EIA Roberts Bank/BURNCO**

Ecosystem / Marine Conservation **Climate Change**

Water Sustainability Act **Derelict Vessels & Docks**

Boat Sewage dumping **Anchorages** **Water**

Spill Response **Shoreline Tenures** **ALR**

History of advocacy
Highlights

BC Ferries
Oil Spills
Abandoned Boats







History of advocacy

BC Ferries fares and services levels

Key features of campaign:

- Sustained focus for 10 years with consistent messaging
- Alliances with other local governments/UBCM
- Developed position papers and credible analysis
- Met with Ministers/Parliamentary Secretaries/BC Ferries CEO
- Participated in consultations
- Developed arguments that supported the government's goals – economic development

History of advocacy

BC Ferries fares and services levels

Islands Trust Council submission on

BC Coastal Ferries Consultation & Engagement Process

December 2012



Summary of requests:

- The provincial government needs to recognize the coastal ferry service as an essential and integral part of BC's transportation infrastructure and fund it accordingly, taking full responsibility for future capital costs.
- In the meantime, the provincial government should immediately provide sufficient funding to significantly reduce fares on the minor routes, as island communities have been hard hit by substantial cumulative fare increases.
- In addition, the Province should follow the recommendation of the BC Ferry Commissioner to cushion fuel price volatility in order to hold future price cap increases at the rate of inflation.
- More detailed and specific consultations must occur with island communities before any significant service changes or cuts are considered.

Islands Trust

Islands Trust

News Release

200 - 1627 Fort Street Victoria BC V8R 1H8
Telephone **250.405.5151** FAX: 250.405.5155
Toll Free via Enquiry BC in Vancouver 604.660.2421. Elsewhere in BC **1.800.663.7867**
information@islandstrust.bc.ca www.islandstrust.bc.ca

June 11, 2015 2015-11-IT

ISLANDS TRUST ASKS PROVINCE TO REDUCE FERRY FARES ON MINOR ROUTES BY 25%

VICTORIA — The Islands Trust Council is asking the Province of British Columbia to invest an additional $11 to $14 million annually for four years to reduce fares on all BC Ferries' minor routes. This request is timed to influence negotiations for BC Ferries' Coastal Ferry Services Contract from 2016 to 2020.

In May 2015, the Islands Trust hired Perrin Thorau & Associates, a public policy consulting firm with expertise in BC Ferries' markets, to calculate the cost of lowering fares on all minor ferry routes. The consultants built a model using recent BC Ferries operating results and fare information, allowing examination of how ridership will rebound in response to lower fares. The consultants calculated that an additional $11 to $14 million is needed annually to reduce fares by 25 per cent from today's prices, on all minor routes on B.C.'s coast.

"Ferry-dependent communities are struggling under the weight of ferry fares that have increased at a pace well above the rate of inflation," said Peter Luckham, Islands Trust Council Chair. "We have a constructive proposal. By strategically investing an additional $11 to $14 million annually, the Province can lower fares on BC Ferries' minor routes by 25 per cent. Affordable fares would attract more customers into the ferry system, bolster B.C.'s economy and result in increased provincial tax revenues - a win-win for everyone."

Since the enactment of the *Coastal Ferries Act* in 2003, fare increases on some minor routes have increased four to five times higher than inflation. The BC Ferry Commissioner has proposed an additional 1.9 per cent annual fare increase during BC Ferries' next four-year performance term.

For 10 years, the Islands Trust Council and local government partners have raised concerns that the fares for ferry-dependent communities have reached the tipping point where they are causing economic challenges and reducing ferry ridership.

"For years, we've heard clearly from our communities that ferry fare increases have been too steep and are causing hardship for coastal families and businesses. I appreciate the work that has been done to keep future fare increases lower than in the past, but remain concerned that present fares are unaffordable for our communities," said Luckham. "Current negotiations for a renewed Coastal Ferry Services Contract are a perfect opportunity for the government to invest in coastal communities. Our funding estimates give the Province credible information to make a sound investment decision. We believe a well-advertised drop in fares on the minor routes would help our communities bounce back and give us all time to work on longer-term solutions with the Province."

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

Islands Trust

History of advocacy

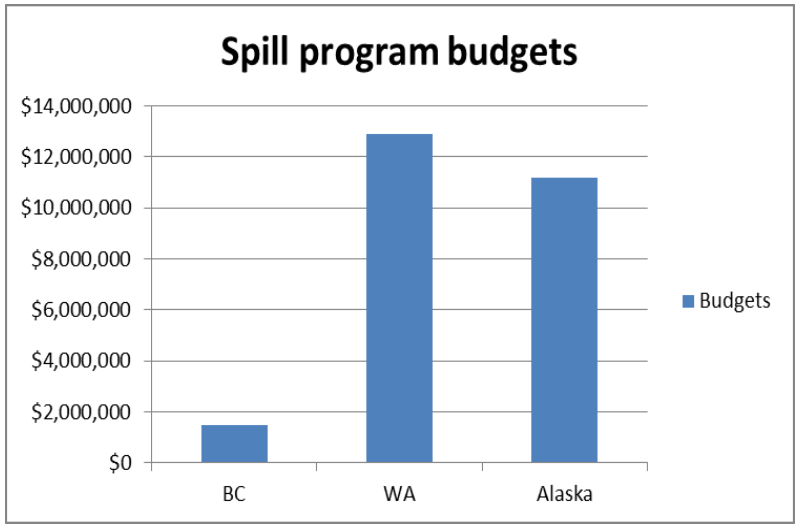
Oil Spills Prevention/Response

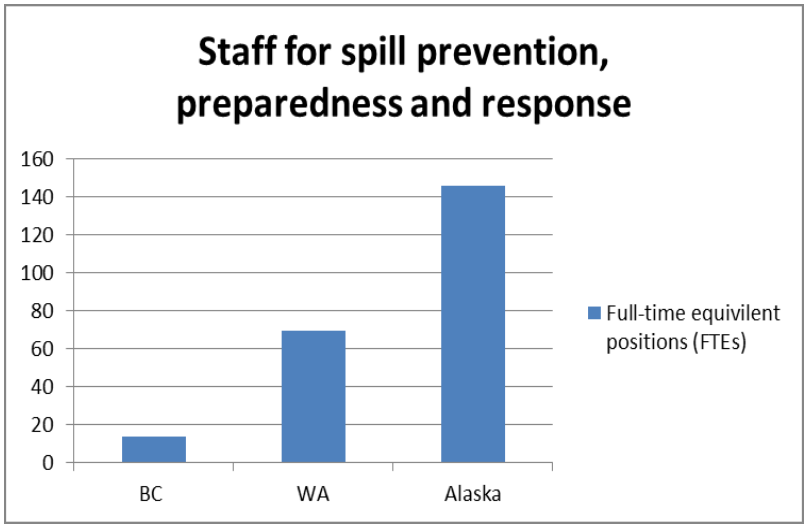
Key features of campaign:

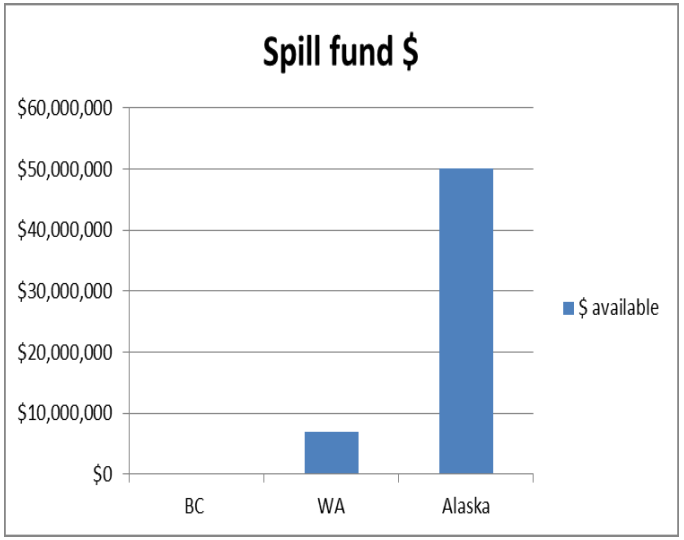
- Sustained focus for 7 years with consistent messaging
- Significant investment of staff time/learning
- Regular in-person attendance at industry consultations
- Meetings with Minister/CEO Kinder Morgan/NEB
- Cross-border partnerships/joint letters
- Original research, including Chair visit to Norway
- Proposed/organized AVICC session

History of advocacy

Oil Spills Prevention/Response







History of advocacy

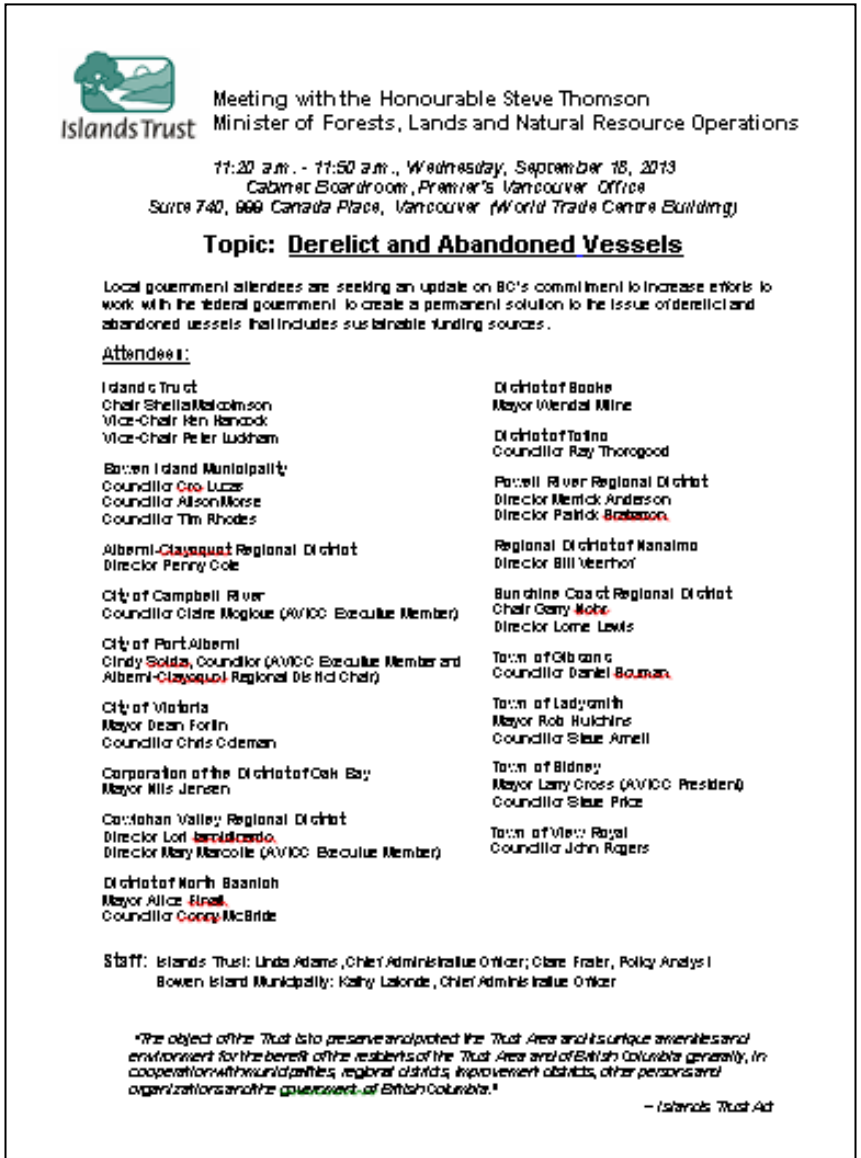
Derelict and Abandoned Vessels

Key features of campaign:

- **Sustained focus for 7 years with consistent messaging**
- **Staff participation on inter-governmental working group**
- **Meetings with Ministers**
- **2 UBCM resolutions and 2 UBCM sessions**
- **Assisted with inventories of vessels**
- **Linked to related advocacy on pleasure craft sewage/oil spills**

History of advocacy

Derelict and Abandoned Vessels



Islands Trust

Meeting with the Honourable Steve Thomson
Minister of Forests, Lands and Natural Resource Operations

11:20 a.m. - 11:50 a.m., Wednesday, September 18, 2013
Cabinet Boardroom, Premier's Vancouver Office
Suite 740, 999 Canada Place, Vancouver (World Trade Centre Building)

Topic: Derelict and Abandoned Vessels

Local government attendees are seeking an update on BC's commitment to increase efforts to work with the federal government to create a permanent solution to the issue of derelict and abandoned vessels that includes sustainable funding sources.

Attendees:

Islands Trust
Chair Sheila Malcolmson
Vice-Chair Ken Hancock
Vice-Chair Peter Luckham

Bowen Island Municipality
Councillor Cec Lucas
Councillor Alison Morse
Councillor Tim Rhodes

Alberni-Clayoquot Regional District
Director Penny Cole

City of Campbell River
Councillor Claire Moglove (AVICC Executive Member)

City of Port Alberni
Cindy Solda, Councillor (AVICC Executive Member and Alberni-Clayoquot Regional District Chair)

City of Victoria
Mayor Dean Fortin
Councillor Chris Coleman

Corporation of the District of Oak Bay
Mayor Nils Jensen

Cowichan Valley Regional District
Director Lori Iannidinardo
Director Mary Marcotte (AVICC Executive Member)

District of North Saanich
Mayor Alice Finall
Councillor Conny McBride

District of Sooke
Mayor Wendal Milne

District of Tofino
Councillor Ray Thorogood

Powell River Regional District
Director Merrick Anderson
Director Patrick Brabazon

Regional District of Nanaimo
Director Bill Veerhof

Sunshine Coast Regional District
Chair Garry Nohr
Director Lorne Lewis

Town of Gibsons
Councillor Daniel Bouman

Town of Ladysmith
Mayor Rob Hutchins
Councillor Steve Arnett

Town of Sidney
Mayor Larry Cross (AVICC President)
Councillor Steve Price

Town of View Royal
Councillor John Rogers

Staff: Islands Trust: Linda Adams, Chief Administrative Officer; Clare Frater, Policy Analyst
Bowen Island Municipality: Kathy Lalonde, Chief Administrative Officer

"The object of the Trust is to preserve and protect the Trust Area and its unique amenities and environment for the benefit of the residents of the Trust Area and of British Columbia generally, in cooperation with municipalities, regional districts, improvement districts, other persons and organizations and the government of British Columbia."

– Islands Trust Act

Islands Trust

Abandoned Boats Program

Two Components – Assessments and Removals & Education, Awareness & Research

Program Overview Presentation

Presented by Ryan Greville, Navigation Protection Program



History of advocacy

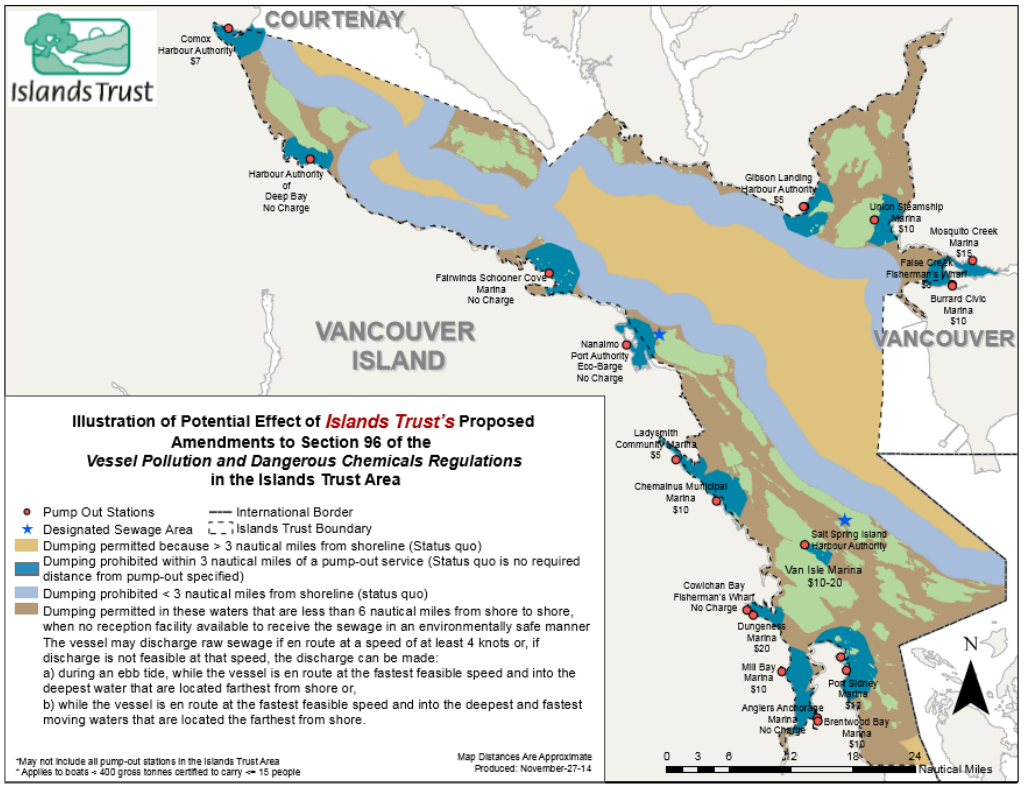
Pleasure craft sewage dumping

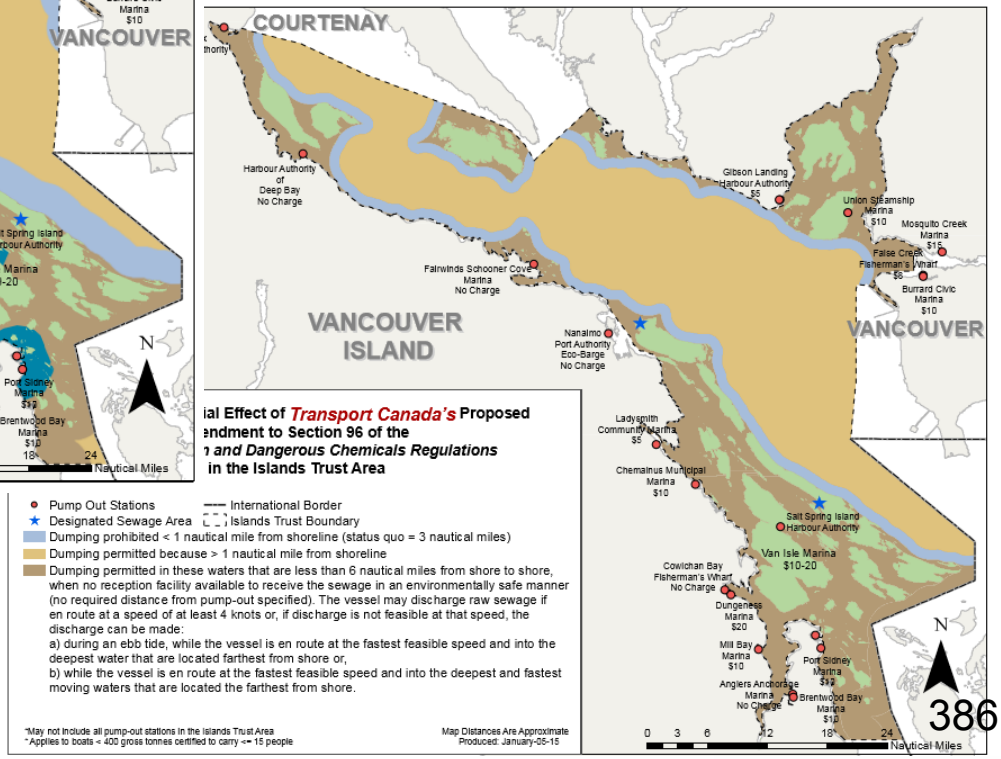
Key features of campaign:

- Existing staff knowledge of issues
- Industry connections advised of consultation
- Responded quickly to proposed weakening of regulation
- Used maps to illustrate points in Chair letter
- Long list of cc's on letter to Minister
- Successful push back but core issues remain

History of advocacy

Pleasure craft sewage dumping



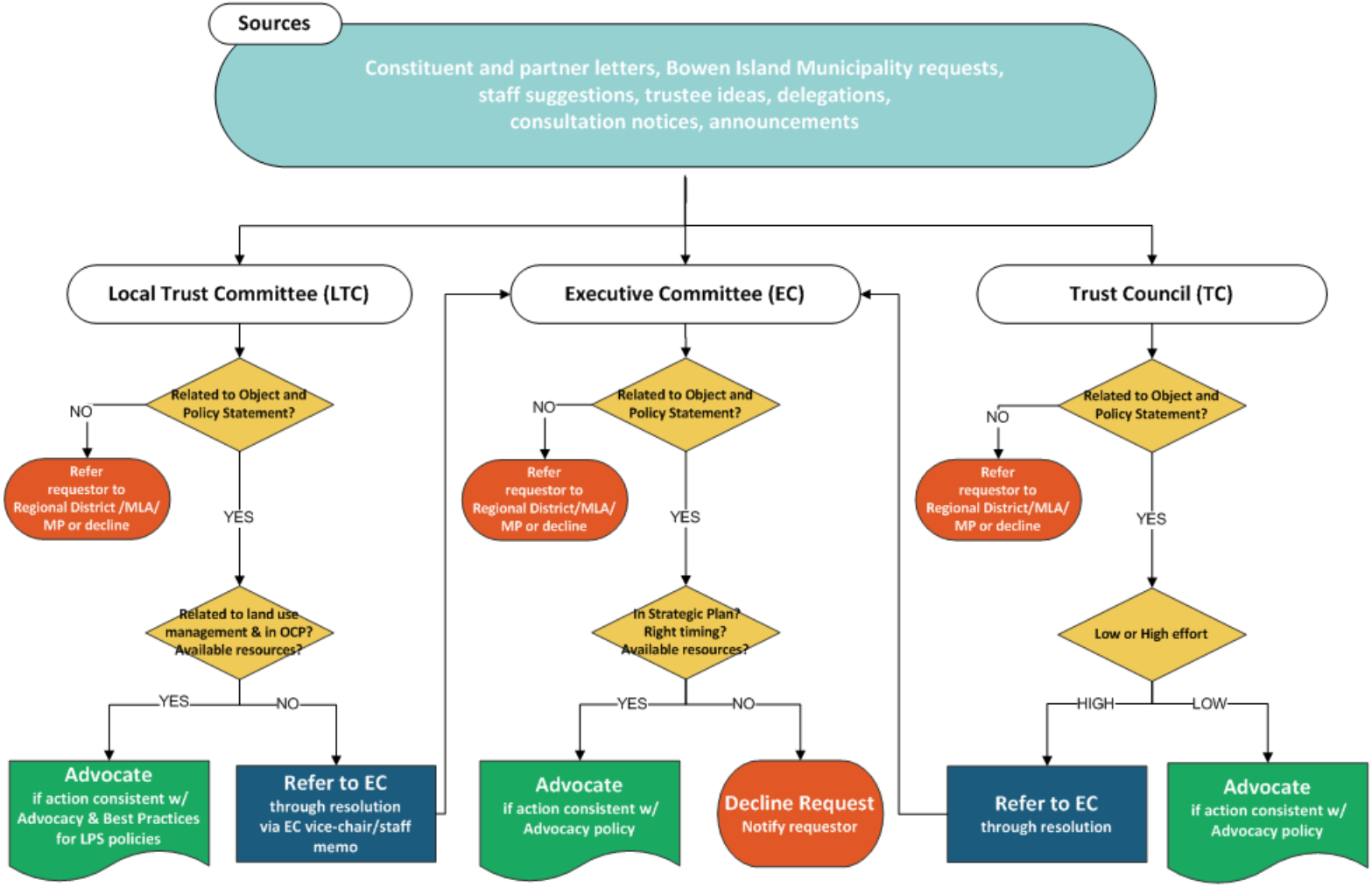


What makes advocacy effective?

- Best practices based on 'theory of change'
  - Why and how do people make decisions?
- Credible reputation
- Sustained effort
- Compelling arguments that speak to decision-maker's interests
- Many voices



Advocacy Decision Making



Working with Regional Districts

Regional Districts

1. They are the local governments for their unincorporated areas (Electoral Areas) EA.

2. They provide the political and administrative frameworks necessary for member municipalities and electoral areas to collaborate in the provision of sub-regional Services.

3. They are regional service bodies responsible for providing important regional services to all members.

Regional Districts

Background

Municipal corporate powers: full capacity rights, powers, and privileges of a natural person of full capacity

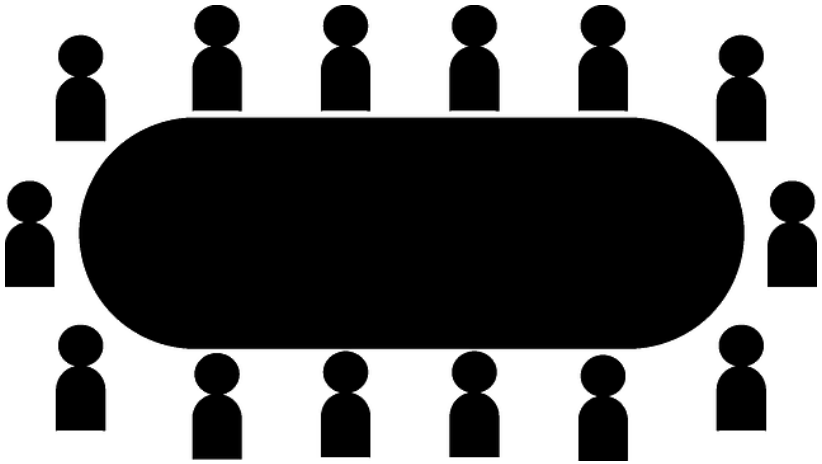
Regional Districts: make agreements, provide assistance, acquire hold and manage land, delegation of authority

-- Borrowed power

Regional Districts

1. Federal/confederal: Part of municipal system
2. Voluntary: Write your own ticket
3. Consensual: Borrowed power
4. Flexible: Choice of services
5. Fiscal equivalence: Pay for what you get
6. Soft boundaries: Choose your geography

Regional Districts Organization



Regional Board

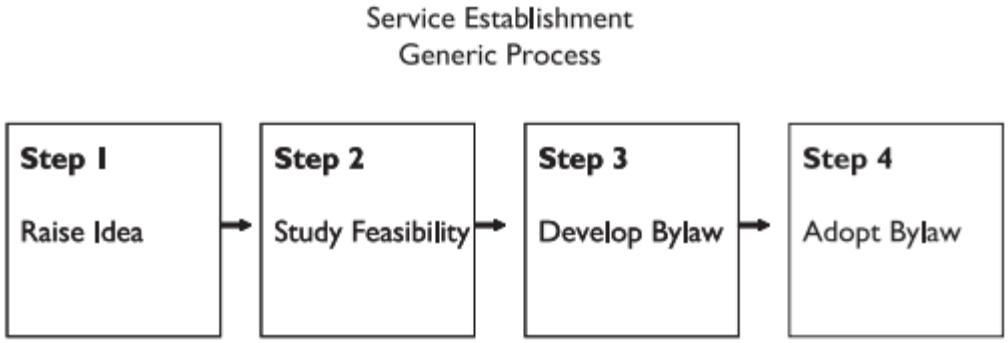


Sub Regional Service



Electoral Area Service

Regional Districts Services and Voting



Unweighted corporate vote – affect the corporation and all jurisdictions, one director=one vote

Weighted corporate vote - money matters, adoption of financial plan, borrowing, contracts.

Stakeholder vote (weighted), the administration and operation of a service, weighted participants

Regional Districts Finances

Separate funds for different services, dedicated service fund (fiscal equivalence)

Not allowed an operating deficit

Cannot shift funds between services

Allocate admin costs to services, variety of methods

Cost recovery vs cost apportioning

Long term borrowing

Development financing: DCCs, end user agreements

What Regional Districts Do Well

Discrete and accountable cost recovery

Represent federal-regional interest

Respond to common issues

Provide a framework for cooperation between local governments

Regional Districts Challenges

Establishing services

Funding equity… free riders

Managing border conflict… municipal incorporation

Conflict of interest…. municipal voting on service provision

Concentration of authority….

Deliver a vision for the region

Delegate authority

How to work with Regional Districts

Context... Whole EA or partial? Is our LTA part of an EA or a whole EA?

Service provision mentality… focus on the service... if not, pivot to contracts

Everyone at an RD doesn't care about the same things

We represent a 'weak' service partner… our limited powers don't deliver service outcomes

Protocol Agreements/LOU

1. Have agreements with most RDs
    - Building inspection, enforcement, amenity provisions

2. Generally speak to policy and coordination

3. With exceptions, rebooting the relationships at each meeting

4. Effective to a degree but have not lead to robust collaboration:
    - EA Director Trust understanding
    - Coordination of service delivery to the public
    - Community representation

Regional District Strategies

Natural allies, have a regional understanding

Tend to be self interested, do not advocate collectively (exception: ferries, solid waste Van Island)

In many instances we link to community

Know your service participants

Work with your electoral area director

CAO is important link

Leverage other participants if required

Regional District Strategies cont

Get to know the staff and Directors

Public is most effective: 1 letter, 3 letters, 10 letters

Monitor and update Protocol Agreements and Letters of Understanding

Strategic Plan is an opportunity… hard to deliver across such a wide array of services, tie partnerships to strategic plan.

Emerging challenges for Islands Trust advocacy program

1. First Nations relationship building
2. Resources vs demands
3. Changes in political context
4. Policy Statement amendments

Emerging Opportunities

1. Cooperation with First Nations
2. Building on successes / past work
3. Better internal processes

Ways forward?



Other Topics

Island Trust Council
Priorities Chart

Print Date: August 23, 2017

Islands Trust Council Goals	Executive Committee	Trust Fund Board
1.Ecosystem Preservation and Protection 2.Ensure human activity and development are compatible with maintenance of Trust Area ecosystems 3.Sustain Island Character and Healthy Communities 4.Effective, Efficient and Collaborative Governance	1.Islands Trust Act Amendments 2.Oil Spill and Shipping Safety 3.Revisions to Crown Land protocol agreements and letters of understanding 4.First Nations Relationship Building	1.Strategic Planning/Administration 2.Covenant and Property Acquisitions 3.Property and Covenant Management 4.Communications 5.Fundraising and Conservancy Support

Financial Planning Committee	Local Planning Committee	Trust Programs Committee
1.First draft of the 2018/19 Budget 2.Complete review of Purchasing Procedure Policy 6.5.iii. 3.Consider revisions to Trust Council Policy 7.2 vi Municipal Tax Requisition Calculation.	1.Community Housing Needs 2.Shoreline Marine Planning 3.Land Use Consultation for Radio Communication Towers	1.Protect Quality and Quantity of Water Resources (Strategic Plan 4.3) 2.Amend Crown Land Cooperation Agreements (Strategic Plan 8.1) 3.Review the Islands Trust Policy Statement (Strategic Plan 9.1)

Southern Team **Galiano**, Mayne, N. Pender, S. Pender, Saturan	Northern Team Ballenas-Winchelsea, Denman,Gabriola, Gambier, Hornby, Lasqueti and Thetis	Salt Spring Team
• **Galiano -** Telecommunication Strategy; Affordable Housing Strategy; Dock Review; • **Mayne -** Riparian Area Regulation Implementation; Fallow Deer Eradication; Commercial Land Use Review; • **North Pender -** Land Use Planning for Waste Management; Housing; First Nations Interests; • **Saturna -** First NationsRelationship Building ; LUB Technical Review; • **South Pender -** First Nations Reconciliation; LUB Review and Update;	• **Ballenas-Winchelsea s -** Nanoose First Nation Relationship Building.; Advocacy for the protection and appropriate use of Crown islets.; • **Denman -** Relationship building with Komoks First Nation ; Denman Island Farm Plan Implementation; Marine Issues; Denman Village Community Design Charrette; • **Gabriola -** First Nations Relationship Building; Water taxi feasibility ; Develop a new ecological protection zone for the LUB.; Housing Options Review Project; • **Gambier -** Riparian Areas Regulation ; Keats Island OCP/LUB Amendments; OCP Advocacy Policies - Implementation & SupportGambier OCP Comprehensive Review; • **Hornby -** Relationship building with Komoks First Nation; Housing amendments; Vacation Home Rental Policy Review; • **Lasqueti -** Community to Community Forum; Aging at Home Implementation Project; Shoreline Protection Project; • **Thetis -** Riparian Areas Regulation Implementation; Follow up on Lyackson FN comments post adoption of Thetis Assoc. Islands OCP and LUB; Ruxton Island Private Moorage Review;	• **Salt Spring -** Watershed Management + SSIWPA; LUB Update - Industrial Zones; Ganges Village Area Planning - Harbourwalk; LUB Update - Rural Watershed Uses. Agricultural uses appear incompatible with watershed drinking water quality.; Affordable Rental Housing - Cottages;

DRAFT

Trust Council Quarterly Meeting Schedule
December 5-7, 2017
728 Humboldt Street, Victoria BC

Tuesday, December 5		Wednesday, December 6		Thursday, December 7	
		7:30	**Breakfast**	**7:30**	**Breakfast**
		8:30	**New Business Items***	8:30	**Closed meeting**
		9:15	**Trust Area Services** Director's Report * TPC Work Program Trust Fund Board Report	9:30	**Summary/Updates** Trustee Updates Priorities Chart Proposed March TC Draft Agenda Disposition of Delegations and Town Hall Requests
12:00	**Executive Committee Meeting**	**10:00**	**Break**	10:30	**Correspondence**
12:30	**Lunch**	10:15	**U.S. and Canadian Consuls General**	11:00	**Adjournment (approx.)**
1:30	**Call to Order and Approval of Agenda** RWMs * Adoption of Minutes FUAL Trustee Round Table	11:00	**Ocean Protection Plan**		
3:00	**Break**	**12:30**	**Lunch**		
3:15	**Executive** CAO's Report * EC Work Program Continuous Learning Plan Strategic Plan Update	1:30	**Community Presentations**		
		2:00	**Delegations & Town Hall**		
4:30	**Local Planning Services** Director's Report * LPC Work Program Bylaw Enforcement Briefing	**3:00**	**Break**		
		3:30	**San Juan County**		
5:00	**Administrative Services** Director's Report * FPC Work Program Report Quarterly Financial Report	5:30	**Adjourn for the day**		
5:30	**Adjourn for the day**	6:30	**Dinner**		
6:30	**Dinner with Former Trustees**				

* Denotes resolution/decision items

Members of the public are invited to attend all sessions except any closed meetings and meals.