Gambier Island Local Trust Committee
Regular Meeting Agenda

Date:	November 17, 2016
Time:	10:45 am
Location:	John Braithwaite Community Centre 145 West 1st Street North Vancouver, BC

Pages

1. CALL TO ORDER 10:45 AM - 10:50 AM

"Please note, the order of agenda items may be modified during the meeting. Times are provided for convenience only and are subject to change."

2. APPROVAL OF AGENDA

3. TOWN HALL AND QUESTIONS 10:50 AM - 11:00 AM

4. COMMUNITY INFORMATION MEETING - none

5. PUBLIC HEARING - none

6. MINUTES 11:00 AM - 11:10 AM

   6.1 Local Trust Committee Meeting dated October 13, 2016 - for adoption 3 - 14

   6.2 Local Trust Committee Public Hearing Record dated October 13, 2016 - for receipt 15 - 20

   6.3 Section 26 Resolutions-Without-Meeting Report dated November 9, 2016 21 - 21

   6.4 Advisory Planning Commission Minutes - none

7. BUSINESS ARISING FROM MINUTES 11:10 AM - 11:45 AM

   7.1 Follow-up Action List dated November 9, 2016 22 - 23

   7.2 Fixed Link Feasibility Study - Staff Report - to be distributed

8. DELEGATIONS

9. CORRESPONDENCE

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

10. APPLICATIONS AND REFERRALS 11:45 AM - 12:15 PM

10.1 GM-RZ-2004.1 (DL696- Keats Island) - Staff Report - to be distributed

11. BREAK 12:15 PM - 12:30 PM

12. LOCAL TRUST COMMITTEE PROJECTS 12:30 PM - 1:45 PM

12.1 Riparian Areas Regulation - Post Public Hearing Issues and Recommendations - Staff Report 24 - 41

12.2 Gambier Island Official Community Plan Review - for discussion

12.3 Shoreline Protection - Memorandum 42 - 90

13. REPORTS 1:45 PM - 2:15 PM

13.1 Work Program Reports

13.1.1 Top Priorities Report dated November 9, 2016 91 - 91

13.1.2 Projects List Report dated November 9, 2016 92 - 93

13.2 Applications Report dated November 9, 2016 94 - 96

13.3 Trustee and Local Expense Report dated September, 2016 97 - 97

13.4 Adopted Policies and Standing Resolutions 98 - 98

13.5 Local Trust Committee Webpage

13.6 Chair's Report

13.7 Trustee Reports

13.8 Electoral Area Director's Report

13.9 Trust Fund Board Report

14. NEW BUSINESS

15. UPCOMING MEETINGS

15.1 Next Regular Meeting Scheduled for Thursday, February 2, 2017 at 10:30 am at (To be Announced)

16. TOWN HALL 2:15 PM - 2:25 PM

17. CLOSED MEETING - none

18. ADJOURNMENT 2:25 PM - 2:25 PM

Gambier Island Local Trust Committee
Minutes of Regular Meeting

Date: **October 13, 2016**
Location: **Gleneagles Community Centre**
6262 Marine Drive, West Vancouver, BC

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

Staff Present **Aleksandra Brzozowski, Island Planner**
Marnie Eggen, Planner 2 (by telephone 1:17 – 1:41 p.m.)
Diane Corbett, Recorder

Also Present **Members of the Public – 25**

1. CALL TO ORDER

Chair Morrison called the meeting to order at 10:45 am. She acknowledged that the meeting was being held in the territory of the Squamish and Tsleil-Waututh First Nations. Chair Morrison introduced trustees and staff in attendance, and acknowledged the presence of previous Local Trustee Jan Hagedorn. She thanked everyone for coming.

2. APPROVAL OF AGENDA

The following additions to the agenda were presented for consideration:

- Correction: 6.1 should read "August 25" not September 20
- Move forward to after item 6: items 10 and 11.1
- 11.3 Riparian Areas Regulation – Gambier Island
- 11.4 Motion to adopt Gambier Island Local Trust Committee Bylaw No. 139

By general consent the agenda was approved as amended.

3. TOWN HALL AND QUESTIONS

Ruth Simons, Future of Howe Sound Society, thanked Chair Morrison, Local Trustees Stamford and Rogers and Islands Trust Chair Peter Luckham for their letter-writing work and advocacy regarding the BURNCO mine project. Ms. Simons expressed appreciation to Trustee Stamford for her time and commitment with the BURNCO Working Group, on behalf of the Future of Howe Sound Society.

Eoin Finn, Bowyer Island, thanked trustees for their "forthright action" in writing the above-noted letter and remarked on the importance of keeping Howe Sound from being industrialized.

4. COMMUNITY INFORMATION MEETING

Riparian Areas Regulation Bylaw Nos. 129, 130, 131, 132, and 133 for Keats, Anvil, Bowyer and South Thormanby Islands

Island Planner Brzozowski gave a presentation regarding implementing the Riparian Areas Regulation (RAR) on Keats, Anvil, Bowyer and South Thormanby Islands. Points included:

- Legislative developments since the Province of BC passed the *Fish Protection Act* in 1997 to protect water and fish habitat, and subsequent requirements for local governments to include the RAR in bylaws
- Where we are at in the bylaw process
- How the RAR works – Riparian Assessment Area 30 metres; Streamside Protection and Enhancement Area; RAR Assessment report
- Description of proposed Bylaw Nos. 129, 130, 131, 132, 133
- Activities requiring a Development Permit
- Activities exempting a Development Permit
- Filing for a Development Permit
- Description of the Development Permit process

It was noted that a handout describing the development permit process was available at the back of the room for members of the public.

5. PUBLIC HEARINGS

5.1 Recess for Public Hearings

Chair Morrison recessed the meeting at 11:12 a.m. for a public hearing regarding the following proposed bylaws:

- Bylaw No. 129, cited as "Keats Island Official Community Plan, 2002, Amendment No. 1, 2015"
- Bylaw No. 130, cited as "Keats Island Land Use Bylaw, 2002, Amendment No. 1, 2015"
- Bylaw No. 131, cited as "Gambier Associated Islands Official Community Plan, 2010, Amendment No. 1, 2015"
- Bylaw No. 132, cited as "Gambier Associated Islands Land Use Bylaw, 2013, Amendment No. 1, 2015"
- Bylaw No. 133, cited as "Bowyer and Passage Islands Land Use Bylaw, 2011, Amendment No. 1, 2015"

5.2 Proposed Bylaw Nos. 129 and 130, 131, 132 and 133

5.3 Recall to Order

Chair Morrison recalled the business meeting to order at 12:18 pm.

6. MINUTES

6.1 Local Trust Committee Meeting dated August 25, 2016

By general consent the Local Trust Committee meeting minutes of August 25, 2016 were adopted as presented.

6.2 Section 26 Resolutions-Without-Meeting Report dated October 4, 2016

Received.

6.3 Advisory Planning Commission Minutes – none

For the convenience of members of the public, Chair Morrison moved items forward for discussion before item 7, as follows:

- 11.1 Riparian Areas Regulation Bylaw Nos. 129, 130, 131, 132 and 133
- 10.1 GM-DVP-2016.3 Akehurst and Payne (Gambier Acres)
- 10.2 GM-RZ-2004.1 (District Lot 696)

Upon conclusion of discussion of the above items, Chair Morrison recessed the meeting at 2:19 p.m. and reconvened the meeting at 2:31 p.m.

7. BUSINESS ARISING FROM MINUTES

7.1 Follow-up Action List dated October 4, 2016

The Follow-Up Action List was discussed.

GM-2016-071
It was MOVED and SECONDED
that the Gambier Island Local Trust Committee ask staff to apply for a two-year membership to the Green Shores for Homes BC project in conjunction with Bowen Island, and that funding of $2,500 for the current year be determined by staff.

CARRIED

7.2 Fixed Link Study – Public Consultation – Discussion

The Local Trust Committee (LTC) discussed the recently announced public consultation on the Fixed Link Study, with Open House sessions starting the following week, from October 18 to 27, to be held in Squamish, West Vancouver, Powell River, Sechelt and Gibsons. The study results were not available as of the current date.

8. DELEGATIONS – none

9. CORRESPONDENCE

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

10. APPLICATIONS AND REFERRALS

10.1 GM-DVP-2016.3 Akehurst and Payne (Gambier Acres)

10.1.1 Staff Report

Planner Eggen outlined the staff report regarding a request for a variance to reduce the required setback from the natural boundary of the sea from 15 metres to 3.5 metres to accommodate an existing deck and allow the construction of a new addition to the existing legal non-conforming cabin.

The applicants were present and responded to trustee inquiries regarding: consideration of sea level rise and proximity of the structures to the natural boundary of the sea; topography of the site; the proposed construction; neighbour and shareholder approval. It was noted that:

- the location of the structure is about ten to twelve feet above the high tide mark, quite removed from the water;
- most of the addition would be built on the same level as the existing cabin;
- the shareholders gave their approval of the proposal;
- there was approval from the immediate neighbours.

Discussion ensued.

GM-2016-072
It was MOVED and SECONDED
that the Gambier Island Local Trust Committee defer its decision regarding GM-DVP-2016.3 until a geotechnical report is returned without any changes, at which time a Resolution-Without-Meeting will be considered.

CARRIED

10.2 GM-RZ-2004.1 (District Lot 696)

10.2.1 Staff Report

Island Planner Brzozowski gave a summary of the staff report outlining the draft bylaw language for amendments to the District Lot 696 Land Use Contract and to the Keats Island Land Use Bylaw that are required to permit a proposed 110 lot subdivision on the subject property.

The LTC asked questions for clarification and provided feedback regarding the bylaw amendments and process. Points of discussion included:

- Conduct of a shoreline structure assessment by a qualified environmental professional
- Incorporating and addressing public concerns and issues in the bylaw process

- Inclusion of a park in the plan; request for information on status of access to Salmon Rock
- Regulation regarding archaeological sites
- Land above the dock: new road allowance will be continuous to the dock rather than separated by a piece of land (as presently)
- Regarding the new plans for sewer and well, could the well provide for the subdivision? Request information on how applicant would use water for the subdivision, and how it impacts the neighbours.
- Questions about the parking, and how it works out with the Ministry of Transportation and Infrastructure (MoTI) and the right of way. Presently there is no formal parking by the dock. There are concerns by islanders about parking along the road if that is going to be a MoTI road.

Mr. Lupine discussed the Convention's viewpoint in keeping Salmon Rock as a private conservation area in light of previous observations of the lack of supervision on public spaces in the area, and issues of camping on it, fires and so on. Regarding parking on a MoTI road, the Convention will no longer own that land.

Trustees thanked the applicant representatives for attending the meeting.

11. LOCAL TRUST COMMITTEE PROJECTS

11.1 Riparian Areas Regulation Bylaw Nos. 129, 130, 131, 132 and 133

11.1.1 Staff Report

The Island Planner discussed the staff report on the RAR – Keats, Anvil, Bowyer and South Thornanby, and inquired if there were any questions. Discussion ensued. Points raised included:

- Discussion of opinions for RAR on Bowyer Island;
- Concern that Bowyer Island (Kildare Estates) did not receive notice of the bylaws until recently, due to their lawyers having an incorrect mailing address;
- Options available to the LTC for next steps in the bylaw process, including passing the bylaw, commissioning a peer review of the RAR report or a detailed QEP assessment for Bowyer, or deferring the bylaw, and potential costs and impacts for the taxpayer, owner and LTC budget in the various options;
- Amendment proposed for item 4 b) in Bylaw No. 130.

Trustees agreed to defer Bylaws No 131, 132 and 133, and requested further information and clarification on RAR issues on Bowyer Island.

Bylaw 129 – "Keats Island Official Community Plan, 2002, Amendment No. 1, 2015"

GM-2016-073

It was MOVED and SECONDED
that the Gambier Island Local Trust Committee amend Bylaw No. 129, cited as "Keats Island Official Community Plan, 2002, Amendment No. 1, 2015" as per the following recommendations and comments from staff at the Ministry of Forests, Lands, and Natural Resource Operations:

a. Replace all references to "Fish Protection Act" with "Riparian Areas Protection Act";
b. Remove all references to "or another professional".

CARRIED

GM-2016-074
It was MOVED and SECONDED
that Gambier Island Local Trust Committee Bylaw No. 129, cited as "Keats Island Official Community Plan, 2002, Amendment No. 1, 2015", be read a second time.

CARRIED

GM-2016-075
It was MOVED and SECONDED
that Gambier Island Local Trust Committee Bylaw No. 129, cited as "Keats Island Official Community Plan, 2002, Amendment No. 1, 2015", be read a third time.

CARRIED

GM-2016-076
It was MOVED and SECONDED
that the Gambier Island Local Trust Committee has reviewed the Islands Trust Policy Statement Directives Only Checklist and determined that Bylaw No. 129, cited as "Keats Island Official Community Plan, 2002, Amendment No. 1, 2015", is not contrary to or at variance with the Islands Trust Policy Statement.

CARRIED

GM-2016-077
It was MOVED and SECONDED
that Gambier Island Local Trust Committee Bylaw No. 129, cited as "Keats Island Official Community Plan, 2002, Amendment No. 1, 2015", be forwarded to the Secretary of the Islands Trust for approval by the Executive Committee.

CARRIED

GM-2016-078
It was MOVED and SECONDED
that the Gambier Island Local Trust Committee forward Bylaw No. 129, cited as "Keats Island Official Community Plan, 2002, Amendment No. 1, 2015", to the Minister of Community, Sport and Cultural Development for approval.

CARRIED

By general consent the meeting was recessed at 12:58 pm and reconvened at 1:07 pm.

Bylaw 130 – "Keats Island Land Use Bylaw, 2002, Amendment No. 1, 2015"

GM-2016-079
It was MOVED and SECONDED
that the Gambier Island Local Trust Committee amend Bylaw No. 130, cited as "Keats Island Land Use Bylaw, 2002, Amendment No. 1, 2015" as per the following recommendations and comments from staff at the Ministry of Forests, Lands and Natural Resource Operations and as per the comments of the public:

a. Replace the distance in Subsections 9.1.3 e), n), and o) from 15 metres to 10 metres.
b. Remove the word "native" from Subsection 9.1.3 m) ii.
c. Remove all references to "or another professional".
d. Reference throughout Section 4 the requirement for a RAR assessment report to the standard outlined in the RAR.
e. Remove 4 b) and replace with the following text:
   "The development permit should only allow within any Streamside Protection and Enhancement Area (SPEA) activities identified by the QEP in a RAR assessment report and the owner should be required to follow any measures identified by the QEP for protecting the SPEA over the long term and these measures should be included as conditions of the development permit. The width of the SPEA may be less than the width of the DPA."

CARRIED

GM-2016-080
It was MOVED and SECONDED
that Gambier Island Local Trust Committee Bylaw No. 130, cited as "Keats Island Land Use Bylaw, 2002, Amendment No. 1, 2015", be read a second time.

CARRIED

GM-2016-081
It was MOVED and SECONDED
that Gambier Island Local Trust Committee Bylaw No. 130, cited as "Keats Island Land Use Bylaw, 2002, Amendment No. 1, 2015", be read a third time.

CARRIED

GM-2016-082
It was MOVED and SECONDED
that the Gambier Island Local Trust Committee has reviewed the Islands Trust Policy Statement Directives Only Checklist and determined that Bylaw No. 130, cited as "Keats Island Land Use Bylaw, 2002, Amendment No. 1, 2015" is not contrary to or at variance with the Islands Trust Policy Statement.

CARRIED

GM-2016-083
It was MOVED and SECONDED
that Gambier Island Local Trust Committee Bylaw No. 130, cited as "Keats Island Land Use Bylaw, 2002, Amendment No. 1, 2015" be forwarded to the Secretary of the Islands Trust for approval by the Executive Committee.

CARRIED

GM-2016-084
It was MOVED and SECONDED
That the Gambier Island Local Trust Committee request staff to investigate options to resolve and clarify Riparian Areas Regulation issues on Bowyer Island.

CARRIED

11.2 Gambier Island Official Community Plan Review – Update

11.2.1 Staff Report

The staff report dated September 28, 2016, on the Gambier Island Official Community Plan Review was discussed.

GM-2016-085
It was MOVED and SECONDED
that the Gambier Island Local Trust Committee endorse the Gambier Island Official Community Plan Review and Coastal Douglas-Fir Conservation Partnership Terms of Reference as received.

CARRIED

GM-2016-086
It was MOVED and SECONDED
that the Gambier Island Local Trust Committee ask staff to arrange for an Advisory Planning Commission orientation meeting for the new Gambier Island Advisory Planning Commission as soon as possible.

CARRIED

11.3 Riparian Areas Regulation – Gambier Island

GM-2016-087
It was MOVED and SECONDED
that Gambier Island Local Trust Committee forward Bylaw No. 140, cited as "Gambier Island Official Community Plan, 2001, Amendment No. 1, 2016", to the Minister of Community, Sport and Cultural Development for approval.

CARRIED

11.4 Motion to adopt Gambier Island Local Trust Committee Bylaw No. 139

The Island Planner pointed out that the LTC had not yet formally adopted the amended Development Procedure Bylaw.

GM-2016-088
It was MOVED and SECONDED
that Gambier Island Local Trust Committee Bylaw No. 139, cited as "Gambier Island Local Trust Committee Development Procedure Bylaw No. 50, 1992, Amendment Bylaw No. 1, 2016", be adopted.

CARRIED

12. REPORTS

12.1 Work Program Reports

12.1.1 Top Priorities Report dated October 4, 2016

Received.

GM-2016-089
It was MOVED and SECONDED
that Gambier Island Local Trust Committee direct staff to release funds from Special Projects to provide accommodation for Trustee Stamford to attend BURNCO meetings in Vancouver.

CARRIED

12.1.2 Projects List Report dated October 4, 2016

Received.

12.2 Applications Report dated October 4, 2016

Received.

12.3 Trustee and Local Expense Report dated August, 2016

Received.

12.4 Adopted Policies and Standing Resolutions

Received.

12.5 Local Trust Committee Webpage

GM-2016-090
It was MOVED and SECONDED
that Gambier Island Local Trust Committee request staff to post all letters from Trustees and the Local Trust Committee to Trustee Corner as a standard procedure.

CARRIED

12.6 Chair's Report

Chair Morrison reported on the following:

- She recently attended an Islands Trust meeting with MoTI regarding trustees' perceptions of how it is working on the islands with the Ministry's road contractors. The meeting was Minister Stone's response to a request by the Executive Committee at the Union of BC Municipalities (UBCM) to speak to the Minister.
- At the September 14, 2016 meeting, Trust Council approved a Transition Plan to guide Islands Trust in the event of Salt Spring Island incorporation.
- Executive Committee will meet with the Land Commission panel on October 17, 2016.

12.7 Trustee Reports

Trustees Stamford and Rogers had sent their trustee reports via their email lists.

Trustee Rogers reported that:

- There continued to be an issue on Thormanby Islands regarding sensitive ecosystems and an access road.

Trustee Stamford reported on the following:

- She took the minutes for the BC Ferries Langdale float closure.
- The closure will affect the ability to get back and forth to Gambier Island and will present issues for people with mobility issues.
- Access to Keats and Gambier Islands will be restricted for approximately three months.

12.8 Electoral Area Director's Report – none

Island Planner Brzozowski reported on a staff-to-staff meeting she attended with Sunshine Coast Regional District staff the previous day.

12.9 Trust Fund Board Report, September 2016

Received.

13. NEW BUSINESS

13.1 Preparation for Howe Sound Community Forum

Trustees discussed preparation for the Howe Sound Community Forum, to be held the following day in Vancouver.

13.2 2017 Local Trust Committee Meeting Schedule

The staff report on the 2017 meeting schedule was discussed.

GM-2016-091
It was MOVED and SECONDED
that the Gambier Island Local Trust Committee schedule its regular business meetings for 2017 on the following dates:

February 2
March 23
April 27
May 25
July 27
August 31
October 26
November 30

CARRIED

13.3 Supporting Improvement Districts

Chair Morrison referred to a discussion at the UBCM convention regarding Improvement Districts, for which there is not a lot of oversight. She encouraged trustees to support Improvement Districts in any way they could. She noted that there has never been an Improvement District allowed into the Union of BC Municipalities.

13.4 Telecommunication Facilities – Process Overview

Trustee Rogers reported that he had been contacted by someone who requested a letter of support for a grant to install a wireless communications tower on Keats Island. Discussion ensued.

The Island Planner indicated that a proposal had not been received by Islands Trust, and that when an application is made to Industry Canada to have a new communications facility, the application has to go through a process that includes consultation with the community regarding relevant concerns as part of a land use authority concurrence process.

14. UPCOMING MEETINGS

14.1 Next Regular Meeting Scheduled for Thursday, November 17, 2016 at 10:45 am at John Braithwaite Community Centre (Meeting Room #2), 145 West 1st Street, North Vancouver, BC

15. TOWN HALL – none

16. CLOSED MEETING

16.1 Motion to Close Meeting

GM-2016-092
It was MOVED and SECONDED
that the meeting be closed to the public in accordance with the Community Charter, Part 4, Division 3, S.90(1)(d) Adoption of In-Camera meeting minutes dated September 8, 2016 and (f) Bylaw Enforcement and that the recorder and staff attend the meeting.

CARRIED

The meeting closed to the public at 3:32 p.m.

16.2 Recall to Order

The meeting was reopened to the public at 3:49 p.m.

16.3 Rise and Report

Chair Morrison reported that the Local Trust Committee adopted its in-camera minutes of August 25, 2016.

17. ADJOURNMENT

By general consent the meeting was adjourned at 3:50 p.m.

_____
Susan Morrison, Chair

Certified Correct:

_____
Diane Corbett, Recorder

Gambier Island
Local Trust Committee
Public Hearing Record

REGARDING PROPOSED BYLAW NOS. 129, 130, 131, 132, AND 133 TO FACILITATE THE IMPLEMENTATION OF THE PROVINCIAL RIPARIAN AREAS REGULATION

Date of Public Hearing:	**October 13, 2016**
Location:	**Gleneagles Community Centre** **6262 Marine Drive, West Vancouver, BC**
Members Present:	Susan Morrison, Chair Dan Rogers, Local Trustee Kate-Louise Stamford, Local Trustee
Staff Present:	Aleksandra Brzozowski, Island Planner Diane Corbett, Recorder
Others Present:	Twenty-five (25) members of the public

1. CALL TO ORDER

Chair Morrison called the meeting to order at 11:12 a.m. She read the Chairperson's Opening Statement and explained that the Public Hearing was being conducted to hear views regarding proposed Bylaw Nos. 129, 130, 131, 132, and 133. She explained that the intent and purpose of these bylaws is to facilitate the implementation of the Provincial Riparian Areas Regulation (RAR).

2. PROPOSED BYLAW NOS. 129, 130, 131, 132, AND 133

- Proposed Bylaw No. 129 to amend the Keats Island Official Community Plan to include language that authorizes the protection of watersheds on Keats Island
- Proposed Bylaw No. 130 to amend the Keats Island Land Use Bylaw to include language that identifies the applicability, exemptions and guidelines to be employed for development permits dealing with watersheds
- Proposed Bylaw No. 131 to amend the Associated Islands Official Community Plan to include language that authorizes the protection of areas on Anvil, Bowyer, and South Thormanby Islands pursuant to the Riparian Areas Regulation
- Proposed Bylaw No. 132 to amend the Associated Islands Land Use Bylaw to include language that identifies the applicability, exemptions and guidelines to be employed for development permits dealing with areas pursuant to the Riparian Areas Regulation
- Proposed Bylaw No.133 to amend Bowyer and Passage Islands Land Use Bylaw to include language that identifies the applicability, exemptions and guidelines for development permits dealing with areas pursuant to the Riparian Areas Regulation

The Island Planner announced that a copy of the Public Hearing Notice was advertised in two issues of The Coast Reporter. A copy of the Notice was mailed to property owners on Anvil, Keats, Thormanby and Bowyer Islands, and posted online. Copies of the binder were available at Islands Trust Northern Office on Gabriola Island.

The proposed bylaws were referred to nine agencies, one municipal government and three First Nations. The Island Planner summarized the referral agency responses. Comments were also received from the public: two from Mr. Shepard, Keats Island and one from Kildare Estates, Bowyer Island.

Island Planner Brzozowski pointed out the location of the Public Hearing reference binder and the Public Hearing submission box.

3. PUBLIC COMMENTS AND QUESTIONS

Chair Morrison asked if there were any submissions on the proposed bylaws.

Scott Benson, 791 Mountainview Drive, Gibsons and Keats Island, discussed conversations he experienced with people from two of the affected areas on Keats, Barnabas and Andy's Beach, who have the opinion they would like fewer rules and regulations, and feel they are already protecting those riparian areas. They feel that the proposed bylaws are a duplication of rules that are already there, citing examples of the rejection of both a dock application and a building permit since these were too near the mouth of a creek. The individual with the longest section of creek affected on Keats felt the bylaws were tantamount to expropriation and assumed the land was no longer usable to him.

Mr. Benson noted that often in the Trust Area there is a Natural Area of Protection Tax Exemption Program (NAPTEP) taken advantage of. Perhaps people affected by these rules, where they are already protecting the land and staying clear of those lands, and husbanding them well, could restrict themselves and include that area in the NAPTEP program, and get a reduction in their property taxes.

Brian Clark, Maple Ridge, BC, shareholder in Kildare Estates on Bowyer Island, said he was asked to speak on behalf of Kildare Estates. Mr. Clark is a Registered Professional Biologist in BC and also was co-chair of the federal-provincial Riparian Areas Regulation Steering Committee. Understands the fish habitat protection concern and appreciates the intent of the RAR. He does not think the RAR applies to Orchid Creek.

Regarding the Madrone report, Mr. Clark did not have a problem with the way it was written. It was based, he assumed, on a morning or afternoon on Bowyer, less than a day. They walked up the creek, and identified the barrier at 16 metres. Mr. Clark believed that it is actually 15 metres, and there is a three metre drop, so there are twelve and a half square metres of habitat before a barrier. The creek itself is not accessible from the ocean, so there is no access for fish. The Madrone report suggested that a pink salmon could get into the creek. Mr. Clark challenged that assumption and outlined his observations of the conditions: need for a channel to get

there, no sign of sub-tidal vegetation, and pink salmon do not spawn in cobble. He claimed it is not a RAR system; there is no fish value in that watershed at all.

Trustee Rogers indicated he had read Mr. Clark's submission and inquired if this is a disagreement between professionals.

Mr. Clark explained he had spoken to the Ministry of Forests, Lands and Natural Resource Operations (FLNRO) and suggested that the Madrone report was not adequate to assess it as a RAR stream; they said it was between biologists. He also talked to the consultant who authored the Madrone report, who had taken a default position based on the precautionary principle and on observations that there is a channel that at times has water where there was a possibility that pink salmon could travel. Mr. Clark had spent time on Bowyer since the 1950's and had never seen a sign of fish habitat there.

Chair Morrison noted Islands Trust has to make bylaws that look decades into the future, and inquired if Mr. Clark's observations had taken into account the possibility of sea level rise.

Mr. Clark explained that if there were ocean rise, he believed that would further limit the likelihood of fish in the creek.

Ardeth Paxton-Mann, Vancouver, President of Kildare Estates, Bowyer Island, explained that Kildare had notified Islands Trust of their particular situation. Unfortunately, the letter from Islands Trust notifying islands of today's meeting was received on September 22; it was Kildare Estates' first awareness of this process. The lawyers had been forwarding the mail to a previous president to the wrong address for the past several years. Kildare Estates was much taken by surprise, and they wanted to be sure to give Islands Trust their input.

Trustee Rogers inquired if this creek is going through a developed or wilderness area.

Mr. Clark responded it is well developed; they have fire and drinking water tanks at the headwaters. There are three or four of the roads that access cabins that go through it. The beach recreational area is adjacent; its roads access cabins. It does have infrastructure development.

Eion Finn, Bowyer Island, attested to Mr. Clark's comments, having been a shareholder of Kildare Estates for thirty years. He was party to the original Land Use Bylaw. He had never seen a fish in that stream. For those thirty years, Kildare has held a water license on that stream, to take out up to 500 gallons a day; that has affected the stream flow, which is dry for most of August. It is an intermittent flow. It is not fish habitat.

Mr. Finn said he is in favor of having the Riparian Area designation as it affords the extra protection in terms of the access to the property. The stream banks and their integrity are vital to accessing the properties. That RAR designation would afford the kind of protection to logging or having the trees stripped away that would ultimately cause the banks to erode. For that reason he would be supportive of RAR. Mr. Finn thought the RAR would have very little effect on the development of Kildare Estates, in

light of development limitations within the Official Community Plan and Land Use Bylaw. There is no cabin or cabin structure within 30 metres of the stream. The RAR designation would be helpful to preserving those banks. He did not think it would be helpful to fish now or in the future.

Jessica Bratty, North Vancouver, Secretary of Kildare Estates Board of Directors, stated she fully supports the conclusion of Brian Clark: that the stream doesn't warrant Riparian Area protection. Ms. Bratty has expertise in fisheries habitat and indicated she is well-versed in what is contemplated under RAR. In addition to Brian Clark, there is considerable additional biological expertise on the community, with people who have spent their lives there and know whether the stream would require protection. It is not just one biologist but a number of biologists in the community that have come to the same conclusion.

Glenn Stelzl, resident of Vancouver with property on Keats Island, was concerned with the method whereby these areas were created. He expressed his view that the RAR report somewhat arbitrarily identified streams on very cursory observations, such as with a short paragraph and note that there is possibility although remote that fish could live here. This designation takes up about a third of his property; it will seriously affect his ability to develop on that property. He would welcome another type of report or analysis of these waterways other than the single report being relied on; he also would like to see a clear definition of the boundaries and how they are described or surveyed. He believed that surveying these things will be crucial in the future. Suggested the bylaw details a lot of the permitting process, but doesn't actually address figuring out what the designated areas are. Has specific concern about how to demarcate the starting point of where the riparian area is in different kinds of conditions, like in swampy areas. He expressed the view that this also could have an impact on taxation and fewer dollars for property tax for the Regional District in the future.

Bruce Clark, North Vancouver and member of Kildare, a Registered Professional Biologist, Registered RAR assessor and current practitioner, with over thirty-five years as a government regulator and decision maker dealing with fish habitat issues, supported Brian Clark's assessment. He believe that there are some errors in the Madrone report that misidentify reaches and barriers, and they have tortured the precautionary principle. He expressed the following views: The access to Orchid Creek is over a bedrock bulge and high water seldom gets to the base of that bulge; you would have to have a combination of high water (June or January) and a weather event pushing the tide higher; the vegetation around it isn't salt tolerant; fish can't access it; the reach is short, way beyond the grade that salmon can spawn; it is a very thin layer, spotty, overlaid on top of hardpan; fish won't be able to spawn in that area; here are no pools; there is a hanging culvert after 15 metres; if you remove the culvert you will still have the problem of the grade; it is unlikely in the extreme that fish will get in there; there have been observations during salmon spawning time that there are no fish accessing the creek, people have checked out that portion of the watercourse regularly.

Regarding ocean level rise and moving forward, Mr. Clark remarked that he believed there would be no habitat to spawn in. It doesn't have the attributes that RAR is looking for. If they establish there are no fish in this creek, then RAR wouldn't apply. Mr. Clark was concerned that this would result in a dead bylaw. He suggested

deferring the bylaw and allowing Kildare to do the work that is necessary under the RAR procedures and register it as a non-fish bearing watercourse.

Maurice Bridge, President of Welcome Pass Land Holdings, South Thormanby Island, remarked that the stream on the property isn't a stream in his view; it is mostly a swamp. In forty-seven years he had never seen fish in there. Hearing proposed legislation based on something that increasingly sounds pretty thin in terms of underpinnings, and that has impacts on properties, gives rise to concerns.

Tom Watson, fish biologist, PhD, with forty years doing work on fisheries issues, has been involved with Keats Island, Plumper Cove. Also owns property on Nelson Island. Complimented the Island Planner on her presentation, which gave a nice summary of the regulation. He made the following comments: under RAR there is a simple and a detailed assessment. Simple assessment is based on the precautionary principle; it has defaults to certain widths, and includes shade, steam width and so on. If there are no fish, it kicks out a minimum of 15 metres. We need to consider the simple and detailed. For some streams, simple assessment is suitable; other streams require detailed assessment to really understand how it should be managed and what the Streamside Protection and Enhancement Area (SPEA) would be. Also in the bylaw package that was sent out, there was wording that said that no development should occur in SPEA; he believed the wording should add "as per RAR" and "as per the exemptions". If you say "no development", it is pretty black and white and is inconsistent with what can be done in SPEA. If landowners had a creek and wanted to cross it they could do that under other legislation.

Mr. Watson noted that "other professionals" is used. Qualified Environmental Professional (QEP) has a very specific definition in RAR; he suggests the bylaw say "as per the RAR definition". QEPs follow codes of ethics and also fall under a Provincial Act. "RAR" is a Provincial Regulation; Regulations can be repealed. It is a good thing to look at and consider always things to protect the environment. RAR doesn't mean sterilizing. There are ways to assess your streams. If you have a QEP, do a detailed assessment.

Mr. Watson expressed the view that the Madrone report has limitations but in defense of Madrone, they had limited time and limited budget. They did a field walk to highlight the location of streams for consideration under RAR. Respectfully, Mr. Watson thought the Local Trust Committee maybe went a step too far to call it RAR applicable without doing a simple or a detailed assessment. He noted comments of Brian and Bruce Clark are quite appropriate for Bowyer, and accepted all their points. Lastly, fish presence is one of three or four things to consider in a simple and detailed assessment, not the only thing.

Curt Shepard, Keats Island, Plumper Cove, has been there for fifty years and never seen a fish in the stream. On the creek, he has a water license to draw water out of that creek. He gave the Local Trust Committee a letter today that referred to Development Permit Area No. 1 (Bylaw 129 and 130) and noted that the map should reflect what is in the words. Mr. Shepard observed in reading the documentation that Andrew Appleton made a suggestion regarding moving the 15 metres to 10 metres – Mr. Shepard hoped this was going to happen. Going back to his July 26 letter: Mr. Watson spoke to that. Under RAR there are some flexibilities that can be worked with,

but he believed the wording on subsection 4 b) precludes that. Maybe change wording to “conform to the RAR”.

Trustee Rogers inquired further about the statement that the RAR does not apply if it is positively established there are no fish in the creek.

Brian Clark replied that the process Madrone did was not a RAR assessment process, but to identify if there was potential for fish. They made a precautionary comment. Access is the issue. Madrone said it was technically possible. Mr. Clark expressed that view that it might have been worthwhile taking a step to determine which of the creeks actually have a fish presence in them. He reiterated his view that if the creek drains directly to a marine environment, RAR wouldn’t apply. There are prescribed methods to determine absence of fish based on: gradient; man-made structures present; an assessment to see if you can find fish.

Richard Beard, West Vancouver and Keats Island, wanted to understand what is happening. It seems RAR is the only way that land can be effectively protected when on private property. Is it possible to look at creeks, wetlands, recognizing environmentally sensitive areas? Fish habitat is just one reason; others are birds, trees, marine life, slope stability, sediment in the ocean, spawning beds.

Chair Morrison asked two times if there were further comments.

Chair Morrison asked again if there were any further comments.

4. ADJOURNMENT

Seeing that there were no further comments, Chair Morrison declared the public hearing closed at 12:17 p.m.

I CERTIFY THAT THIS IS A FAIR AND ACCURATE SUMMARY OF THE NATURE OF REPRESENTATIONS RESPECTING THE MEETING HELD.

_____

Diane Corbett, Recorder

Print Date: November 9, 2016

Resolutions Without Meeting

Gambier Island

Resolution #	Action	Resolution Desciption	Resolution Date
2016-13	In Favour	"THAT the Gambier Island Trust Local Trust Committee request staff to schedule a Special Business Meeting for the purpose of holding a "Community Roundtable" regarding the Gambier Island Official Community Plan Review to be held at Brigade Bay, Gambier Island at approximately 9:30 am and at Sea Ranch, Gambier Island at approximately 1:30 pm on Saturday, October 8, 2016."	05-Oct-2016
2016-14	In Favour	"THAT the Gambier Island Local Trust Committee request staff to arrange a meeting with the Ministry of Transportation and Infrastructure."	04-Nov-2016

Islands Trust

Print Date: November 9, 2016

Follow Up Action Report

Gambier Island

19-Nov-2015

Activity	Responsibility	Target Date	Status
Staff to review current Gambier Official Community Plan policies against technical information gathered in recent years, and to draft proposed policies to protect sensitive ecosystems for Local Trust Committee consideration.	Aleksandra Brzozowski	21-Jan-2016	On Going

28-Jul-2016

Activity	Responsibility	Target Date	Status
Add Coast Salish location names (if known) to agendas, notices, etc. Update: Tsleil-Waututh Nation does not have a policy on place names so it cannot participate in this project at this time. TWN requests that the phrase "traditional territory of the Tsleil-Waututh Nation" be used generally.	Becky McErlean Aleksandra Brzozowski Penny Hawley Wil Cottingham	31-Aug-2017	On Going

25-Aug-2016

Activity	Responsibility	Target Date	Status
Trustee Stamford to provide a response (to be posted online) to the survey comments, including indicating where people could go for further information, with the help of staff and trustees, and to thank respondents for participating.	Aleksandra Brzozowski Kate-Louise Stamford	08-Sep-2016	On Going
Try to reschedule Squamish Nation community dialogue for September or October. Update: In process	Aleksandra Brzozowski Kate-Louise Stamford	13-Oct-2016	On Going

13-Oct-2016

Activity	Responsibility	Target Date	Status

Follow Up Action Report

Staff to coordinate Orientation meeting for APC for as soon as possible. Update: in process.	Aleksandra Brzozowski Penny Hawley	17-Nov-2016	On Going
Bylaws 129 & 130 - 2nd reading AS AMENDED. 3rd reading and referral to EC.	Becky McErlean Aleksandra Brzozowski	17-Nov-2016	Done
Staff to investigate options to resolve and clarify RAR issues on Bowyer Island.	Aleksandra Brzozowski	17-Nov-2016	Done
Post all LTC letters and Trustee letters to Trustee Corner as a standard practice. Include previous letters regarding Integrated Survey, letter to David Suzuki Foundation, etc	Penny Hawley Wil Cottingham	17-Nov-2016	Done
Staff to source $2,500 of funds for the Green Shores commitment. Update: funding not required until 2017/2018 fiscal.	Aleksandra Brzozowski	17-Nov-2016	Done
LTC adopted Bylaw 139.	Becky McErlean	17-Nov-2016	Done
Forward Bylaw 140 on to the Ministry of Community, Sport, and Cultural Development.	Becky McErlean Aleksandra Brzozowski	17-Nov-2016	Done
LTC approved the following LTC meeting dates: Feb 2 March 23 April 27 May 25 July 27 August 31 October 26 November 30	Becky McErlean Aleksandra Brzozowski Penny Hawley Ann Kjerulf Wil Cottingham	17-Nov-2016	Done

STAFF REPORT

File No.: GM-6500-20
Riparian Areas Regulation

DATE OF MEETING: October 18, 2016

TO: Gambier Island Local Trust Committee

FROM: Aleksandra Brzozowski, Island Planner
Northern Office

SUBJECT: Riparian Areas Regulation – Bowyer Island

Applicant: LTC-initiated project

Location: Bowyer Island

RECOMMENDATION

That the Gambier Island Local Trust Committee move forward with consideration of Proposed Bylaws 131 and 133 (RAR on Bowyer Island).

REPORT SUMMARY

On October 13, 2016, following the close of the public hearing, the Gambier Island Local Trust Committee (LTC) requested staff to clarify and resolves issues related to the proposed *Riparian Areas Regulation* (RAR) bylaws applicable for Bowyer Island.

A group of residents of Bowyer Island have indicated their intent to challenge the RAR Identification report findings for Orchid Creek on Bowyer Island. The following report outlines the options available to the LTC to best implement the RAR in light of this information received during the public input period.

Staff recommends that, as local governments have no ability to summarily exclude areas identified to be RAR-applicable, the LTC continue to consider Orchid Creek as RAR-applicable and proceed with consideration of Proposed Bylaws 131 and 133.

BACKGROUND

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

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

Please refer to the April 5, 2012 Staff Report for background information regarding the *RAR* and general options for the Islands Trust local trust areas.

In late February 2015, Qualified Environmental Professionals (QEPs) from Madrone Environmental Services conducted mapping on Gambier, Keats, Bowyer, and Anvil Islands. The deliverables of the contract were to conduct an on-site assessment of watersheds identified as having the potential to be RAR applicable, and to map

the streams in RAR applicable watersheds. A final report, including discussion on methodology and landowner contact, mapping results, and recommendations, was presented at the June 18, 2015 LTC meeting. The Gambier Island LTC requested that Staff proceed with drafting amendment bylaws for Bowyer Island to designate all lands within 30 metres of watercourses in RAR-identified watersheds.

Please refer to the May 26, 2015 Staff Report for background information summarizing the LTC's discussions and decisions since 2012 regarding RAR mapping and implementation options.

During the period for public input, Bowyer Island residents indicated their disagreement with the professional report upon which the LTC has established the RAR amendment bylaws. The public hearing for Proposed Bylaws 131 and 133 was held on October 13, 2016. A public hearing is a quasi-judicial process within and following which specific procedures must be followed. Following the close of the hearing, the LTC may not hear further submissions about Proposed Bylaws 131 and 133.

ANALYSIS

Policy/Regulatory:

The LTC is required by the Ministry of Forests, Lands, and Natural Resource Operations (FLNRO) to ensure compliance with the RAR in all Local Trust Area bylaws.

Issues and Opportunities:

The *Riparian Areas Regulation* was developed by the Province based upon a professional reliance model. A professional reliance model establishes standard methods to be executed by qualified environmental professionals. A professional reliance model regulation prevents a local government or a Ministry from having the authority to exclude an area that has been identified by a qualified environmental professional as applicable to the RAR. The correct recourse for a challenge to a technical report developed to RAR Assessment Methodology standards is an adjudication by the relevant professional association, in this case, the College of Applied Biology. Bowyer Island residents are aware of this requirement. It is unknown at this time how the residents intend to proceed.

The other options open to the two property owners in the Orchid Creek watershed are to pursue a RAR-standardized non-fish-bearing status report, or to conduct a RAR-standardized assessment of the stream once the amendment bylaws are adopted. It is unknown whether the results of either report would remove or substantially reduce the size of the Streamside Protection and Enhancement Area (SPEA), anticipated at 10 metres, in the Madrone report.

The other option for the LTC would be to contract a peer review of the Orchid Creek findings of the Madrone report. Peer reviews have been pursued on other islands in the Trust Area, but typically for islands with several watersheds in question. A peer review would require additional funding; though not a direct comparison, recent funding for peer reviews on Mayne Island and Lasqueti Island have been budgeted at $7,000 and $6,000 respectively and staff estimates a budget request of at least $4,000 for a peer review of Orchid Creek. Staff advises a Request for Proposals format would be required rather than a Direct Award contract; this process would likely take three to four months to complete. Staff does not recommend this option.

Staff at FLNRO confirm that a local government is also unable to temporarily remove an identified area from a proposed RAR bylaw, so this is not an option for the LTC. As Proposed Bylaw 131 encompasses three islands in the Local Trust Area, Staff advises against delaying consideration of Proposed Bylaws 131, 132, and 133. Should a future professional association adjudication result in a change to the Madrone RAR report, relevant amendments to the Associated Islands Official Community Plan could be made following that decision.

Rationale for Recommendation:

Implementing the RAR is a requirement for the LTC. In addition, there are standard requirements for changing the results of a professional RAR report that do not involve the LTC. Standard post-public hearing consideration of the proposed bylaws can and should occur for Proposed Bylaws 131, 132, and 133.

ALTERNATIVES

1. **Request peer review of Orchid Creek watershed on Bowyer Island**

   The LTC may request a peer review of the Orchid Creek watershed on Bowyer Island. Suggested resolution wording for this alternate is as follows:

   That the Gambier Island Local Trust Committee request staff to proceed with an independent peer review of the Madrone RAR identification findings for Orchid Creek, and to present proposed changes to the RAR Project Charter to the LTC at a future meeting.

   That the Gambier Island Local Trust Committee authorize $4,000 to be spent from its work program budget to fund the peer review and that this money be drawn from the Gambier OCP project budget.

2. **Receive for information**

   The LTC may receive the report for information.

RECOMMENDATIONS

That the Gambier Island Local Trust Committee consider Proposed Bylaws 131, 132, and 133 as follows:

Bylaw 131 – "Gambier Associated Islands Official Community Plan, 2010, Amendment No. 1, 2015"

1. **That the Gambier Island Local Trust Committee amend Bylaw No. 131, cited as "Gambier Associated Islands Official Community Plan, 2010, Amendment No. 1, 2015" as per the following recommendations and comments from staff at the Ministry of Forests, Lands, and Natural Resource Operations:**
   a. **Replace all references to "*Fish Protection Act*" with "*Riparian Areas Protection Act*".**
   b. **Remove all references to "or another professional".**
2. **THAT Gambier Island Local Trust Committee Bylaw No. 131, cited as "Gambier Associated Islands Official Community Plan, 2010, Amendment No. 1, 2015", be read a second time.**
3. **THAT Gambier Island Local Trust Committee Bylaw No. 131, cited as "Gambier Associated Islands Official Community Plan, 2010, Amendment No. 1, 2015", be read a third time.**
4. **THAT the Gambier Island Local Trust Committee has reviewed the Islands Trust Policy Statement Directives Only Checklist and determined that Bylaw No. 131, cited as "Gambier Associated Islands Official Community Plan, 2010, Amendment No. 1, 2015" is not contrary to or at variance with the Islands Trust Policy Statement.**
5. **THAT Gambier Island Local Trust Committee Bylaw No. 131, cited as "Gambier Associated Islands Official Community Plan, 2010, Amendment No. 1, 2015" be forwarded to the Secretary of the Islands Trust for approval by the Executive Committee.**
6. **THAT the Gambier Island Local Trust Committee forward Bylaw No. 131, cited as "Gambier Associated Islands Official Community Plan, 2010, Amendment No. 1, 2015" to the Minister of Community, Sport and Cultural Development for approval.**

Bylaw 132 – "Gambier Associated Islands Land Use Bylaw, 2013, Amendment No. 1, 2015"

7. **That the Gambier Island Local Trust Committee amend Bylaw No. 132, cited as "Gambier Associated Islands Land Use Bylaw, 2013, Amendment No. 1, 2015" as per the following recommendations and comments from staff at the Ministry of Forests, Lands, and Natural Resource Operations:**
   a. **Replace the distance in Subsections 9.1(3) (e), (n), and (o) from 15 metres to 10 metres.**
   b. **Remove the word "native" from Subsection 9.1(3) (m) ii.**
   c. **Remove all references to "or another professional".**
   d. **Reference throughout Section 4 the requirement for a RAR assessment report to the standard outlined in the RAR.**
8. **THAT Gambier Island Local Trust Committee Bylaw No. 132, cited as "Gambier Associated Islands Land Use Bylaw, 2013, Amendment No. 1, 2015", be read a second time.**
9. **THAT Gambier Island Local Trust Committee Bylaw No. 132, cited as "Gambier Associated Islands Land Use Bylaw, 2013, Amendment No. 1, 2015", be read a third time.**
10. **THAT the Gambier Island Local Trust Committee has reviewed the Islands Trust Policy Statement Directives Only Checklist and determined that Bylaw No. 132, cited as "Gambier Associated Islands Land Use Bylaw, 2013, Amendment No. 1, 2015" is not contrary to or at variance with the Islands Trust Policy Statement.**
11. **THAT Gambier Island Local Trust Committee Bylaw No. 132, cited as "Gambier Associated Islands Land Use Bylaw, 2013, Amendment No. 1, 2015" be forwarded to the Secretary of the Islands Trust for approval by the Executive Committee.**

Bylaw 133 – "Bowyer and Passage Islands Land Use Bylaw, 2011, Amendment No. 1, 2015"

12. **That the Gambier Island Local Trust Committee amend Bylaw No. 133, cited as "Bowyer and Passage Islands Land Use Bylaw, 2011, Amendment No. 1, 2015" as per the following recommendations and comments from staff at the Ministry of Forests, Lands, and Natural Resource Operations:**
   a. **Replace the distance in Subsections 9.1(3) (e), (n), and (o) from 15 metres to 10 metres.**
   b. **Remove the word "native" from Subsection 9.1(3) (m) ii.**
   c. **Remove all references to "or another professional".**
   d. **Reference throughout Section 4 the requirement for a RAR assessment report to the standard outlined in the RAR.**
13. **THAT Gambier Island Local Trust Committee Bylaw No. 133, cited as "Bowyer and Passage Islands Land Use Bylaw, 2011, Amendment No. 1, 2015", be read a second time.**
14. **THAT Gambier Island Local Trust Committee Bylaw No. 133, cited as "Bowyer and Passage Islands Land Use Bylaw, 2011, Amendment No. 1, 2015", be read a third time.**
15. **THAT the Gambier Island Local Trust Committee has reviewed the Islands Trust Policy Statement Directives Only Checklist and determined that Bylaw No. 133, cited as "Bowyer and Passage Islands Land Use Bylaw, 2011, Amendment No. 1, 2015" is not contrary to or at variance with the Islands Trust Policy Statement.**
16. **THAT Gambier Island Local Trust Committee Bylaw No. 133, cited as "Bowyer and Passage Islands Land Use Bylaw, 2011, Amendment No. 1, 2015" be forwarded to the Secretary of the Islands Trust for approval by the Executive Committee.**

Submitted By:	Aleksandra Brzozowski, MCIP, RPP Island Planner	October 19, 2016
Concurrence:	Ann Kjerulf, MCIP, RPP Regional Planning Manager	October 21, 2016

ATTACHMENTS

1. Proposed Bylaw Nos. 131 – 133
2. Islands Trust Policy Statement Directive Policies Checklist

PROPOSED

GAMBIER ISLAND LOCAL TRUST COMMITTEE

BYLAW NO. 131

A BYLAW TO AMEND GAMBIER ASSOCIATED ISLANDS

OFFICIAL COMMUNITY PLAN, 2009

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

1. Bylaw No. 109, cited as "Gambier Associated Islands Official Community Plan, 2009" is amended as shown on Schedule 1.

2. This bylaw may be cited for all purposes as "Gambier Associated Islands Official Community Plan, 2009, Amendment No. 1, 2015".

READ A FIRST TIME THIS	19TH	DAY OF	NOVEMBER	, 2015
PUBLIC HEARING HELD THIS	TH	DAY OF		, 201
READ A SECOND TIME THIS	TH	DAY OF		, 201
READ A THIRD TIME THIS	TH	DAY OF		, 201
APPROVED BY THE EXECUTIVE COMMITTEE OF THE ISLANDS TRUST THIS				
	TH	DAY OF		, 201
ADOPTED THIS	TH	DAY OF		, 201

SECRETARY **CHAIRPERSON**

GAMBIER ISLAND LOCAL TRUST COMMITTEE

BYLAW NO. 131

SCHEDULE 1

Gambier Island Local Trust Committee Bylaw No. 109, cited as "Gambier Associated Islands Official Community Plan, 2009" is amended as follows:

2.1 SCHEDULE A – Policy Document, Part 3 OBJECTIVES AND POLICIES, Section 3.12 SENSITIVE ECOSYSTEM POLICIES, is amended as follows:

a) To replace the text of Policy 3.12.5 with the following text:

"3.12.5 The Province of British Columbia's *Fish Protection Act* requires that local governments establish regulations to protect riparian areas. This regulation is intended, in part, to protect riparian areas from development so that the areas can provide natural features, functions and conditions that support fish life processes.

Areas where land use and related development may have to be restricted to protect riparian areas include lands falling within Development Permit Area 1: Riparian Areas."

2.2 SCHEDULE A – Policy Document, Part 6 DEVELOPMENT PERMIT AREAS, TEMPORARY USE PERMITS AND DEVELOPMENT APPROVAL INFORMATION, Section 6.1 *DEVELOPMENT PERMIT AREAS*, is amended as follows:

a) The following text is inserted prior to Section 6.2 TEMPORARY USE PERMITS:

"<u>Background</u>

Pursuant to Section 919.1(1) of the *Local Government Act*, a community plan may designate areas as development permit areas for the:

(a) protection of the natural environment, its ecosystems and biological diversity;
(b) protection of development from hazardous conditions;
(c) protection of farming;
(d) revitalization of an area in which commercial use is permitted;
(e) establishment of objectives for the form and character of intensive residential development;
(f) establishment of objectives for the form and character of commercial, industrial and multi-dwelling residential development;
(g) establishment of objectives to promote energy conservation;
(h) establishment of objectives to promote water conservation; and,
(i) establishment of objectives to promote the reduction of greenhouse gas emissions.

For a property in a development permit area, no construction, structural alteration, or addition to a building or structure may take place prior to a development permit being obtained. In addition, a property in a development permit area may not be subdivided, nor the land altered, prior to a development permit being obtained.

As a condition of designating a development permit area in a community plan it is necessary to briefly describe the feature or site to be designated, state the objective to be achieved through designation and outline the guidelines to be complied within the development permit area. This format is used below to describe the development permit areas in the Gambier Associated Islands Planning Area. These locations are also shown in map form in Schedule E.

Development Permit Area 1: Riparian Areas

This Development Permit Area (DPA) is established, pursuant to Section 919.1(1)(a) of the *Local Government Act,* for the protection of the natural environment, its ecosystems and biological diversity.

The Riparian Areas DPA is designated as an area for which development approval information may be required as authorized by Section 920.01 of the *Local Government Act*. Development approval information in the form of a report from a Qualified Environmental Professional (QEP) or another professional may be required.

Terms used in this section that are defined in the *Riparian Areas Regulation, BC Fish Protection Act* (RAR) are intended to be interpreted in accordance with the definition given in the *Regulation*.

Location

The Riparian Areas Development Permit Area, DP-1, includes all land designated on Schedule E of this plan, and any of the following that provides fish habitat:

(a) watercourse, whether it usually contains water or not;
(b) a pond, lake, river, creek or brook; or
(c) a ditch, spring or wetland that is connected by surface flow to something referred to in paragraph (a) or (b).

For a stream that is not located in a ravine, the development permit area is a 30 metre (98.42 feet) strip on both sides of the stream measured from the high water mark;

For a stream located within a ravine that is less than 60 metres (196.8 feet) wide, the development permit area is a strip on both sides of the stream measured from the high water mark to a point that is 30 metres (98.42 feet) beyond the top of the ravine bank;

For a stream located within a ravine that is 60 metres (196.8 feet) wide or greater, the development permit area is a strip on both sides of the stream measured from the high water mark to a point that is 10 metres (32.8 feet) beyond the top of the ravine bank;

For a lake, wetland or other water body, the development permit area is 30 metres (98.42) around the water body measured from the high water mark of the water body;

The designation and delineation of Development Permit Area 1 consists of a digital record stored and maintained in a Geographic Information System (GIS) at the offices of the Islands Trust. The actual location of the streams and water bodies and the actual extent of the Development Permit Area may need to be determined on a site-specific basis by a qualified environmental professional or a surveyor.

Justification

This development permit area contains streams, lakes and wetlands and their associated riparian areas, which have been identified as potential fish habitat. Riparian areas are necessary for stream and watershed health. Our job as stewards of the land is to ensure that these areas continue to function well into the future.

Riparian ecosystems perform a number of valuable services to humans, plants and animals alike. They support a diversity of plants and animals, provide important refuges and migration routes for birds and wildlife, and support fish life processes. Vegetation in riparian areas moderates the volume and rate of water flowing through the watershed and stabilizes stream banks by holding soil in place. Plant root systems enhance the soil's ability to absorb water by making it more porous. This allows water to be stored and released slowly into the watercourse, reducing potential for erosion and flooding. Soils also filter impurities and sediment from runoff water, improving water quality in the stream channel.

Riparian vegetation provides food and shelter for fish. Shade from trees within the riparian area regulates water temperatures within the stream, which is critical for salmon, trout and other fish species that need cool water to survive. Logs and other woody debris fall into streams from the riparian area influencing stream channel morphology, dissipating the stream's natural erosive energy and providing habitat for a diverse range of species. Land use practices, including land clearing, road building, construction of buildings and structures, and location of septic systems in or near riparian areas, can jeopardize these habitats and water quality. Protection of riparian vegetation and watercourses is therefore necessary to protect the natural environment, ecosystems and biological diversity of the Gambier Associated Islands.

It is a policy of the Islands Trust Council that local trust committees shall in their Official Community Plans and regulatory bylaws, address means to prevent further loss or degradation of freshwater bodies or water courses, wetlands or riparian zones and to protect aquatic wildlife.

Furthermore, the Province of British Columbia's *Fish Protection Act,* requires that local governments establish regulations to protect riparian areas. This designation is intended to protect riparian areas from development so that the areas can provide natural features, functions and conditions that support fish life processes.

Objectives:

The objectives of this development permit area are as follows:

6.1.1 To protect the biological diversity and habitat values of riparian and aquatic ecosystems;

6.1.2 To protect the natural environment necessary to conserve productive fish habitat, including both streams and the adjacent land and vegetation; and

6.1.3 To minimize adverse impacts of land use practices on wildlife habitats and plant habitats in riparian areas.

Development Approval Information

Development Permit Area 1 is designated as an area for which development approval information may be required as authorized by Section 920.01 of the *Local Government Act*. Development approval information in the form of a report from a Qualified Environmental Professional (QEP) or another professional may be required due to the special conditions and objectives described above.

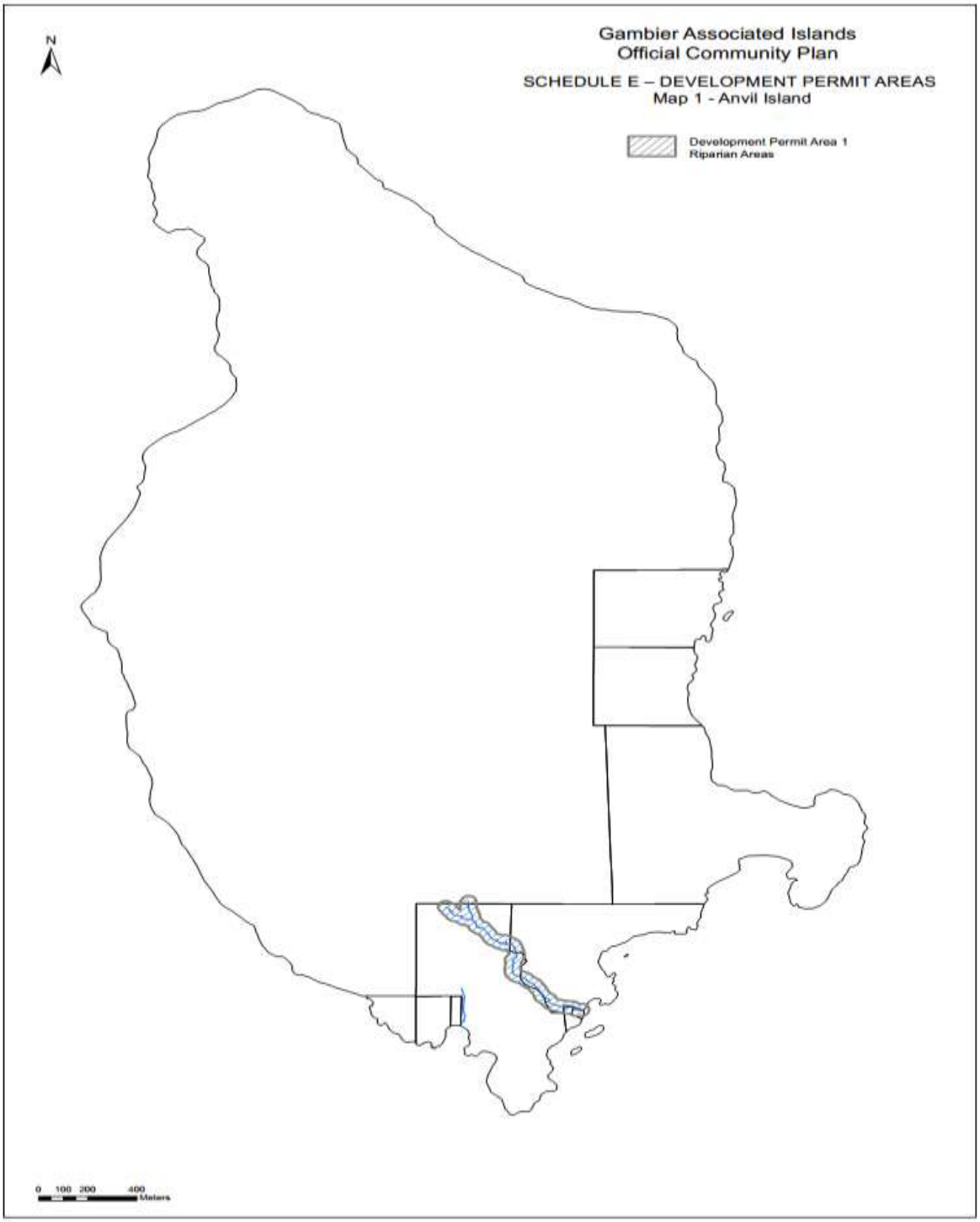
"*Information Note: Development Permit Area Guidelines for DP-1 Riparian Areas are in the Gambier Associated Islands Land Use Bylaw and the Bowyer and Passage Islands Land Use Bylaw."*

2.3 SCHEDULE E- DEVELOPMENT PERMIT AREAS is added as shown on Plans 1, 2, and 3, which are attached to and form part of this bylaw.

GAMBIER ISLAND LOCAL TRUST COMMITTEE

BYLAW No.131

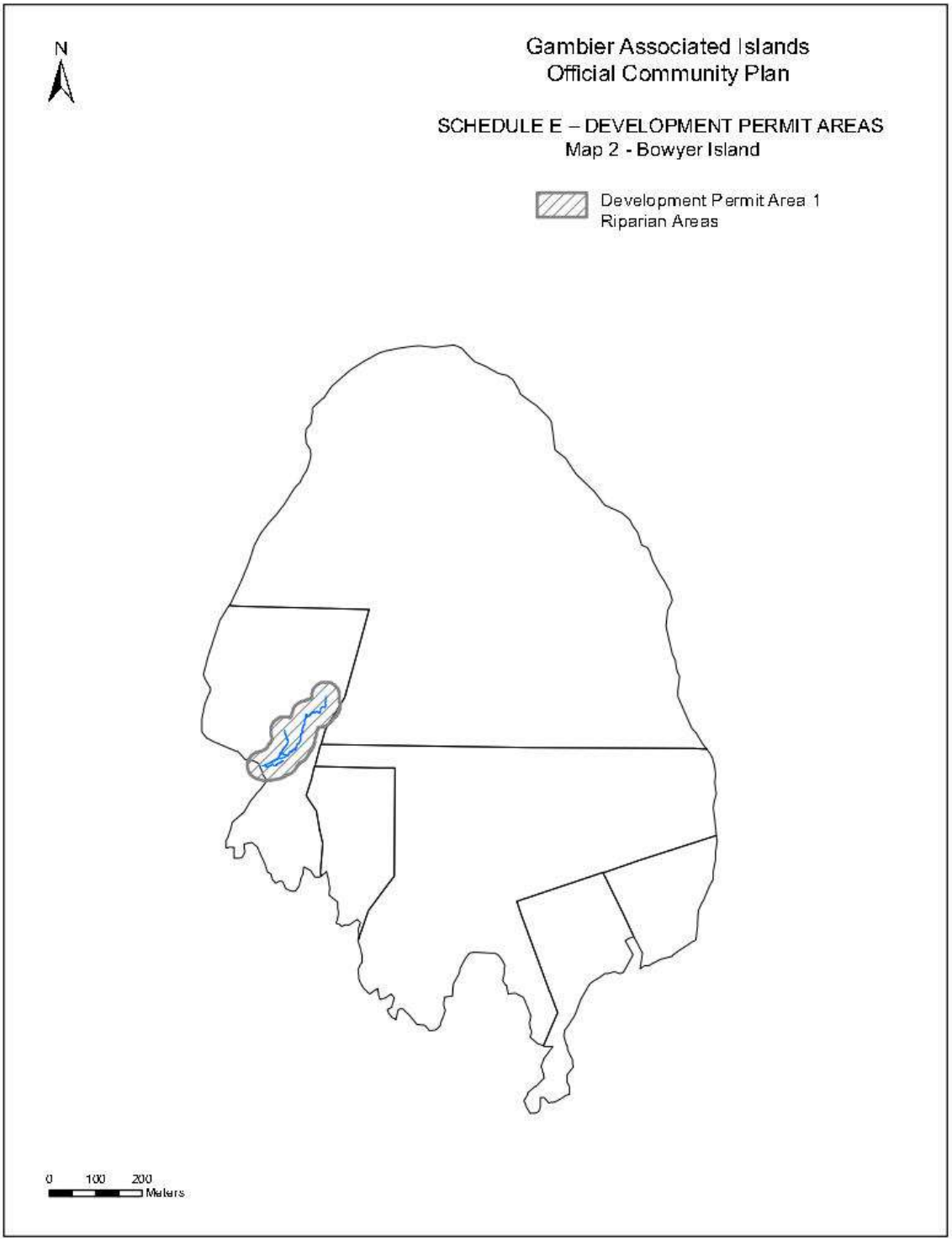
PLAN NO. 1



GAMBIER ISLAND LOCAL TRUST COMMITTEE

BYLAW No.131

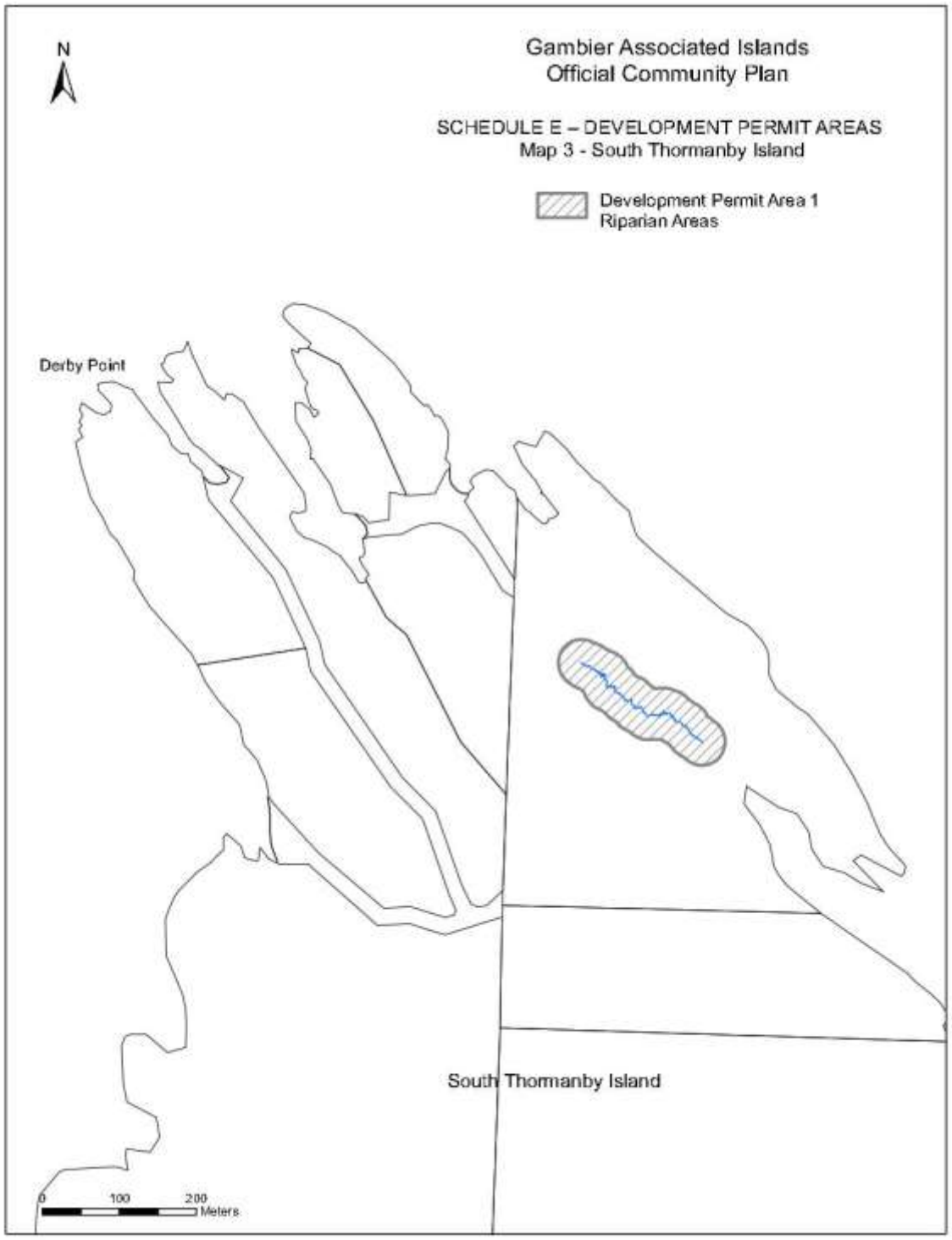
PLAN NO. 2



GAMBIER ISLAND LOCAL TRUST COMMITTEE

BYLAW No.131

PLAN NO. 3



POLICY STATEMENT DIRECTIVES ONLY CHECK LIST

Bylaw and File No: GM BL 131, 132, 133

PURPOSE

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

POLICY STATEMENT

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

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

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

DIRECTIVES ONLY CHECK LIST

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

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

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

Part III Policies for Ecosystem Preservation and Protection

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

PART IV: Policies for the Stewardship of Resources

CONSISTENT	NO.	DIRECTIVE POLICY
	4.1	**Agricultural Land**
N/A	4.1.4	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification and preservation of agricultural land for current and future use.
N/A	4.1.5	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the preservation, protection, and encouragement of farming, the sustainability of farming, and the relationship of farming to other land uses.
N/A	4.1.6	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the use of adjacent properties to minimize any adverse affects on agricultural land.

CONSISTENT	NO.	DIRECTIVE POLICY
N/A	4.1.7	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the design of road systems and servicing corridors to avoid agricultural lands unless the need for roads outweighs agricultural considerations, in which case appropriate mitigation measures shall be required to derive a net benefit to agriculture
N/A	4.1.8	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address land uses and activities that support the economic viability of farms without compromising the agriculture capability of agricultural land.
N/A	4.1.9	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the use of Crown lands for agricultural leases.
	4.2	**Forests**
N/A	4.2.6	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the need to protect the ecological integrity on a scale of forest stands and landscapes.
N/A	4.2.7	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the retention of large land holdings and parcel sizes for sustainable forestry use, and the location and construction of roads, and utility and communication corridors to minimize the fragmentation of forests.
N/A	4.2.8	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the designation of forest ecosystem reserves where no extraction will take place to ensure the preservation of native biological diversity.
	4.3	**Wildlife and Vegetation**
	4.4	**Freshwater Resources**
N/A	4.4.2	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address measures that ensure neither the density nor intensity of land use is increased in areas which are known to have a problem with the quality or quantity of the supply of freshwater, water quality is maintained, and existing, anticipated and seasonal demands for water are considered and allowed for.
N/A	4.4.3	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address measures that ensure water use is not to the detriment of in-stream uses
	4.5	**Coastal Areas and Marine Shorelands**
N/A	4.5.8	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the needs and locations for marine dependent land uses.
N/A	4.5.9	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the compatibility of the location, size and nature of marinas with the ecosystems and character of their local planning areas.
N/A	4.5.10	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the location of buildings and structures so as to protect public access to, from and along the marine shoreline and minimize impacts on sensitive coastal environments.
N/A	4.5.11	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address opportunities for the sharing of facilities such as docks, wharves, floats, jetties, boat houses, board walks and causeways.
	4.6	**Soils and Other Resources**
N/A	4.6.3	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the

		protection of productive soils.

PART V: Policies for Sustainable Communities

CONSISTENT	NO.	DIRECTIVE POLICY
	5.1	**Aesthetic Qualities**
N/A	**5.1 3**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the protection of views, scenic areas and distinctive features contributing to the overall visual quality and scenic value of the Trust Area.
	5.2	**Growth and Development**
✓	**5.2.3**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address policies related to the aesthetic, environmental and social impacts of development.
✓	**5.2.4**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address any potential growth rate and strategies for growth management that ensure that land use is compatible with preservation and protection of the environment, natural amenities, resources and community character.
N/A	**5.2.5**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address means for achieving efficient use of the land base without exceeding any density limits defined in their official community plans.
N/A	**5.2.6**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification of areas hazardous to development, including areas subject to flooding, erosion or slope instability, and strategies to direct development away from such hazards.
	5.3	**Transportation and Utilities**
N/A	**5.3.4**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the development of a classification system of rural roadways, including scenic or heritage road designations, in recognition of the object of the Islands Trust.
N/A	**5.3.5**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the impacts of road location, design, construction and systems.
N/A	**5.3.6**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the designation of areas for the landing of emergency helicopters.
N/A	**5.3.7**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the development of land use patterns that encourage establishment of bicycle paths and other local and inter-community transportation systems that reduce dependency on private automobile use.
	5.4	**Disposal of Waste**
N/A	**5.4.4**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification of acceptable locations for the disposal of solid waste.

CONSISTENT	NO.	DIRECTIVE POLICY

	5.5	**Recreation**
N/A	**5.5.3**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the prohibition of destination gaming facilities such as casinos and commercial bingo halls.
N/A	**5.5.4**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the location and type of recreational facilities so as not to degrade environmentally sensitive areas, and the designation of locations for marinas, boat launches, docks and anchorages so as not to degrade sensitive marine or coastal areas.
N/A	**5.5.5**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification of sites providing safe public access to beaches, the identification and designation of areas of recreational significance, and the designation of locations for community and public boat launches, docks and anchorages.
N/A	**5.5.6**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification and designation of areas for low impact recreational activities and discourage facilities and opportunities for high impact recreational activities.
N/A	**5.5.7**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the planning for bicycle, pedestrian and equestrian trail systems.
	5.6	**Cultural and Natural Heritage**
N/A	**5.6.2**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification, protection, preservation and enhancement of local heritage.
N/A	**5.6.3**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the preservation and protection of the heritage value and character of historic coastal settlement patterns and remains.
	5.7	**Economic Opportunities**
N/A	**5.7.2**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address economic opportunities that are compatible with conservation of resources and protection of community character.
	5.8	**Health and Well-being**
N/A	**5.8.6**	Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address their community's current and projected housing requirements and the long-term needs for educational, institutional, community and health-related facilities and services, as well as the cultural and recreational facilities and services.

POLICY STATEMENT COMPLIANCE	
✓	**COMPLIANCE WITH TRUST POLICY**
	NOT IN COMPLIANCE WITH TRUST POLICY for the following reasons:

Memorandum

700 North Road Gabriola Island BC V0R 1X3
Telephone **250. 247-2063** FAX: 250. 247-7514
Toll Free via Enquiry BC in Vancouver 660-2421. Elsewhere in BC **1.800.663.7867**
northinfo@islandstrust.bc.ca www.islandstrust.bc.ca

Date Novermber 8, 2016

File Number GM-6500-20
Shoreline Protection

To Gambier Island Local Trust Committee

From Aleksandra Brzozowski
Island Planner
Northern Office

Re Foreshore Protection & Stewardship – New Resource Material

This memorandum provides information to the Gambier Island Local Trust Committee (LTC) on matters pertaining to activities on Foreshore Protection.

Your Marine Waterfront Brochure

Islands Trust Staff and the Green Shores for Homes – BC Pilot Project (GSH-BC) Advisory Group have coordinated an additional written resource for waterfront properties in BC. *Your Marine Waterfront: a guide to protecting your property while promoting healthy shorelines (Canadian Edition)* is a modified version of a Washington Department of Fish and Wildlife (WDFW) guide, aimed to provide waterfront property owners with detailed information on how to assess a site's waterfront features and vulnerabilities, as well as provide information about design techniques to soften shorelines.

The original version of this guide was possible due to a grant from the United States Environmental Protection Agency and was budgeted at $50,000; the opportunity to modify this resource for the BC context at no further cost is very much appreciated by the Green Shores for Homes - BC Pilot Project. Furthermore, staff at the WDFW modified the changes pro bono, a commitment for which the GSH-BC Advisory Group is particularly grateful.

Please advise staff should you wish to put this resource on the LTC website or arrange for hard copy printing of the guide.

Funding for joint participation with Bowen Island in a Green Shores for Homes - BC Pilot Project

Staff has confirmed with Bowen Island Municipality staff that the two $2,500 funding commitments from the Gambier Island LTC should run across the 2017/2018 and 2018/2019 fiscal years.

Currently, the LTC has requested $8,000 for Foreshore Protection and Stewardship in the 2017/2018 fiscal budget request.

Attachment:

1. *Your Marine Waterfront (Canadian Edition)* brochure

CANADIAN EDITION

Your Marine Waterfront

A guide to protecting your property while promoting healthy shorelines

Enjoy the beach. Protect your home. Improve shoreline habitat.

Washington Department of FISH and WILDLIFE

Overview

The shorelines and waters of the Salish Sea are home to an exceptional variety of birds, fish, intertidal life, wildlife and plants. Spread over 5,200 square kilometres, the area offers residents and visitors with stunning views, incredible recreational opportunities and a laid back lifestyle.

As a waterfront property owner, you have both the privilege and the responsibility to ensure human activity is managed in a way that protects the health of the Salish Sea – now and for future generations. We hope this guide offers some practical techniques to move away from hardened shorelines to natural shorelines that protect and enhance both waterfront properties and marine ecosystems.

The Washington State Department of Fish and Wildlife has kindly agreed to adapt this guide to offer shoreline development choices to waterfront property owners in British Columbia and has provided further editing and graphic design support to make the changes possible. Some of the terms have been changed to fit the Canadian context, but the majority of the guide remains unchanged and speaks to the shared values of our partners across the border.

Contents

Sustainable choices for your waterfront are a good investment in your property and in the health of the Salish Sea.

Introduction

Benjamin Benschneider

With iconic views and easy access to recreation, owning a waterfront property is a dream-come-true for many. But a property's greatest asset—its waterfront location—may come with concerns about erosion, flooding, and exposure to the elements. As a marine waterfront property owner you undoubtedly want to protect your investment and its unique shoreline environment.

Many alternatives to shoreline structures will provide protection to a waterfront property while supporting healthy beach habitat. In many locations, hard vertical structures like seawalls can be replaced with elements that are functional, attractive, and better for the environment.

If you are thinking of replacing, repairing, or constructing a seawall on your shoreline or you are interested in how to best manage your shoreline, consider the following:

ONE SIZE DOESN'T FIT ALL

Hard structures (walls, rip rap) along the shoreline may be appropriate in select circumstances. However, in most locations, using techniques that preserve or mimic natural shoreline characteristics can be equally effective at protecting property.

LOCATION MATTERS

Locating residences and infrastructure away from the shoreline is the most effective way to reduce the need for shoreline protection. When needed, shoreline structures should be installed as high up the beach as possible.

ATTRACTIVE BEACHES ADD VALUE

Natural-looking waterfronts can make a home more appealing and cost less to maintain. Many buyers of waterfront property envision family and friends playing in the water and relaxing on the beach in a way that may be difficult and unsafe if obstructed by a seawall.

HARD STRUCTURES CAN HAVE UNINTENDED CONSEQUENCES

Unfortunately, in some cases, hard structures can change or eliminate beach habitat which reduces food and shelter for fish and wildlife. They may also increase erosion risk to neighbors.

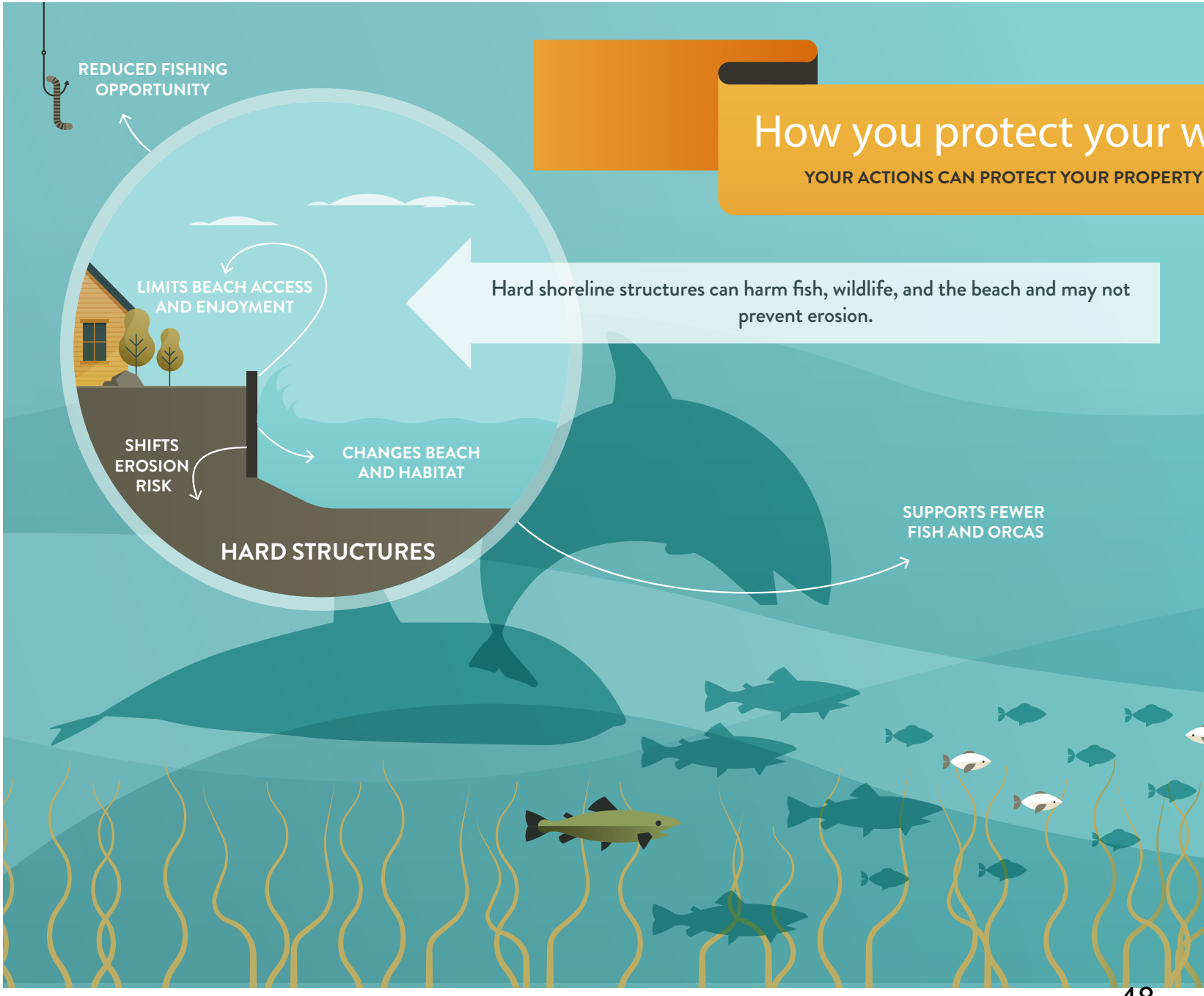
THE SIMPLER, THE BETTER

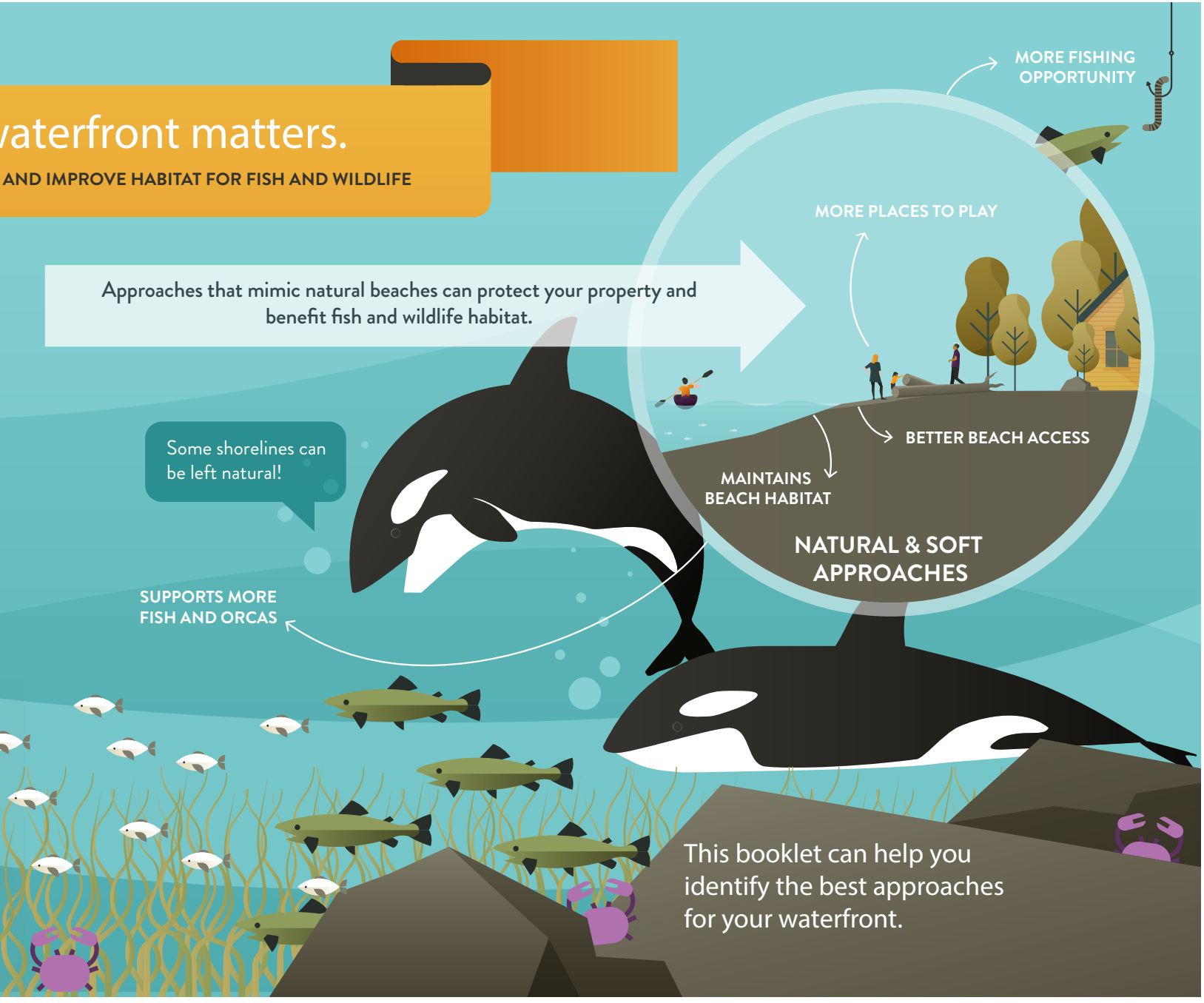
Projects that are over-designed for a particular site can negatively impact the beach environment with no added protection for the landowner. Often, allowing the shoreline to function naturally or with minor enhancements will protect property.

PROTECT WILDLIFE

Wall structures can change or eliminate upper beach areas that are used by some small fish to lay their eggs. Reduced area for these eggs can result in fewer small fish for larger fish to eat, such as salmon. Fewer large fish can reduce the food supply for both humans and orcas.

Your decisions matter. Hard shoreline structures have had a cumulative effect on sediment delivery in the Salish Sea. You can help by making informed decisions when considering how to manage your marine waterfront.

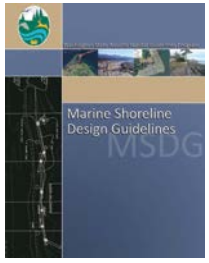

REDUCED FISHING OPPORTUNITY
LIMITS BEACH ACCESS AND ENJOYMENT
SHIFTS EROSION RISK
CHANGES BEACH AND HABITAT
HARD STRUCTURES
SUPPORTS FEWER FISH AND ORCAS
How you protect your w
YOUR ACTIONS CAN PROTECT YOUR PROPERTY
Hard shoreline structures can harm fish, wildlife, and the beach and may not prevent erosion.


vaterfront matters.
AND IMPROVE HABITAT FOR FISH AND WILDLIFE
Approaches that mimic natural beaches can protect your property and benefit fish and wildlife habitat.
Some shorelines can be left natural!
MORE FISHING OPPORTUNITY
MORE PLACES TO PLAY
BETTER BEACH ACCESS
MAINTAINS BEACH HABITAT
NATURAL & SOFT APPROACHES
SUPPORTS MORE FISH AND ORCAS
This booklet can help you identify the best approaches for your waterfront.

EXCITED ABOUT SMART APPROACHES FOR YOUR WATERFRONT?

This booklet describes the first three steps to protect your home, enhance your property, and enjoy your beach: 1) assessing your site, 2) evaluating design techniques that may best fit your situation, and 3) other helpful information. The shoreline is a complex ecological and regulatory environment, and you will likely require professional assistance to plan and implement your project. Your local planning office (Municipal, Regional District, Islands Trust) is a great resource. An early meeting with a planner can help you learn about applicable regulations, approval time frames, and any required special studies.

Concepts presented in this booklet come from the ***Marine Shoreline Design Guidelines*** technical document. See page 41 for more details.



pages 7-15

ASSESS YOUR PROPERTY

Site Assessment introduces you to characteristics of waterfront property including:

- Geologic features
- Beach and wave characteristics
- Hydrologic features

pages 16- 33

SELECT DESIGN TECHNIQUE(S)

Design Techniques introduces you to a variety of design approaches, ranging from:

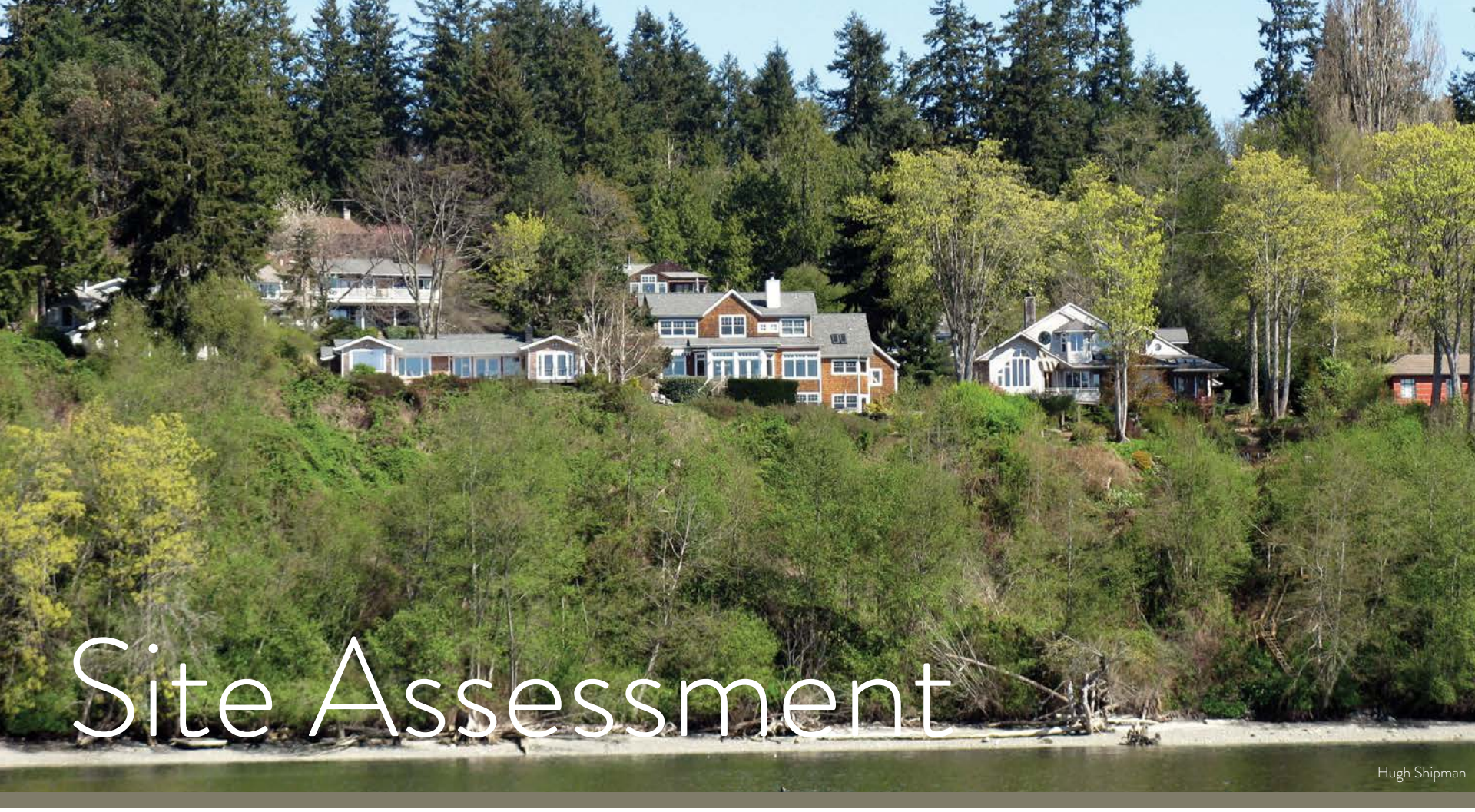
- Limited or no action
- Soft/restorative improvements
- Hard/structural improvements
- Structure removal

pages 34 - 44

OTHER HELPFUL INFO

Look here for useful information to help you get started:

- Choosing a professional
- Permitting
- Selecting native plants
- Finding additional resources



Site Assessment

Hugh Shipman

Characterizing your site starts with simply observing the conditions on and around your property. In many cases you will need the assistance of a professional, such as a geologist, to complete the assessment which will provide an understanding of the interactions between coastal, geologic, and ecological processes at a site.

A thorough assessment of your site is the first step towards protecting both your property and the environment and will allow you to better understand the opportunities and constraints at your site. This section introduces common types of information that are important to collect and consider when deciding how to proceed.

Getting Started

An assessment will help you identify the types, locations, and causes of erosion occurring at a site. This step allows you to determine if action is required, and if so, which approaches will be the most effective. Depending on site conditions, taking no action may be the best choice. An assessment should enable you and your design professionals to answer these types of questions:

- Is erosion occurring on your site? If so, where?
- How fast is the erosion occurring?
- How frequently, and under what conditions, does erosion occur?
- Does the erosion reflect cyclical/seasonal changes rather than a chronic problem?
- Is the erosion a risk? If so, to what?

Some types of erosion are not caused by marine-related factors and will not be solved by installing a seawall or other hard shoreline structure.

The two centre properties are examples of retaining natural shoreline features to provide property protection while preserving valuable habitat on the backshore beach.

WA Department of Ecology

Site Assessment Checklist

In collaboration with design professionals, you will want to document important characteristics of your site. This checklist provides examples of the information that you will want to record.

GEOLOGY

- ☐ Slopes and bluffs
- ☐ Backshore characteristics (width, presence of large logs)
- ☐ Beach material and composition
- ☐ Evidence of landslide activity
- ☐ Presence of fill or excavated areas

COASTAL PROCESSES

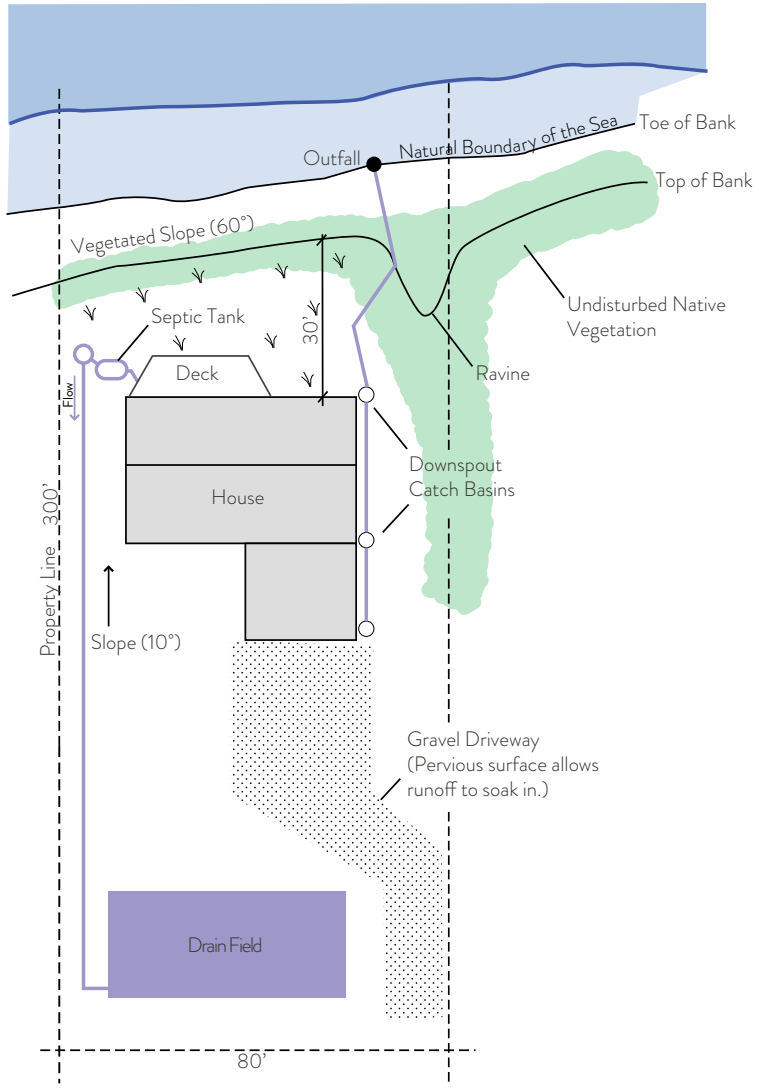
- ☐ Long term rate of erosion
- ☐ Landform (beach, bluff, stream mouth)
- ☐ Location in drift cell (beginning, middle, end, or no appreciable drift)
- ☐ Direction of net drift (sediment movement)
- ☐ Barriers to sediment movement (bulkheads, groins, fill) within the drift cell, especially updrift of the site

HYDROLOGY

- ☐ Seeps, springs, and streams
- ☐ Irrigation systems, water lines, drainfields
- ☐ Hydrophilic vegetation
- ☐ Drainage measures (discharges, impervious surfaces)

OTHER SITE CHARACTERISTICS

- ☐ Plant species present
- ☐ Structures and setback distances
- ☐ Presence of key wildlife and associated habitat
- ☐ Potential for cultural resources
- ☐ Past and present erosion control measures



You can start by drawing a simple diagram of key features on your property. The above site plan is an example.

Geology

The geologic composition of your site is a key factor in how your property responds to erosive forces. Some types of soils are more resistant to erosion while some geologic features can lead to instability. The geology of a site includes both the landform above ground and the composition and dynamics of the earth below.

Before identifying the characteristics of the property itself, it is useful to consider its larger context. The assessment should take into account site location such as on a sand spit, along a bluff, or at the mouth of a stream. A geologic assessment documents major features and existing upland and beach conditions. It also considers past uses of the site and looks for evidence of past instability or slides.

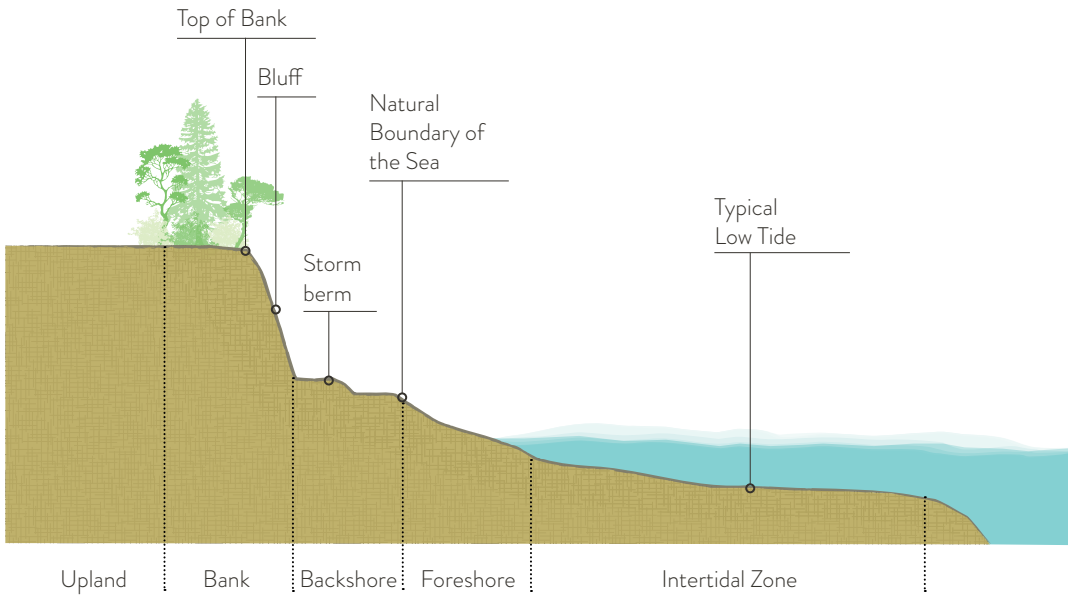
Beaches naturally change over time. Taking photographs seasonally and after major storms from the same location, perspective, and including a reference point, will help you distinguish short-term shifts from long-term erosion.

High bank shoreline with bluff

Low bank shoreline

The location, elevation, and composition of a beach will guide the design process for enhancements or erosion control measures. Note that some features are not always present.

Considering a site's backshore condition, including the presence of salt-tolerant vegetation, is particularly relevant to your assessment as it can provide clues to understanding tidal elevations at your site that will inform design options. Erosion control structures placed at incompatible elevations are at risk of early failure and damage to beach habitat.



Example beach profile features

What are the sections of your shoreline?

BANK

A steep slope rising behind the beach. A bank can range in height from a few feet to hundreds of feet. Higher, more distinct slopes are called bluffs. Banks and bluffs may or may not be vegetated. Bowed and tilted trees, distinct breaks (scarps or benches) in the slope, and piles of earth and debris at the base all indicate the potential for landslides.

BACKSHORE

Upper zone of a beach beyond the reach of normal waves and tides. A broad backshore can provide natural protection against wave induced erosion and storm events.

The width and character of the backshore varies naturally and is often heavily impacted by human modifications such as roadways, bulkheads, and other structures.

FORESHORE

Sloping portion of the beach normally acted on by waves and tides. Beach steepness depends on wave energy and sediment size.

INTERTIDAL ZONE

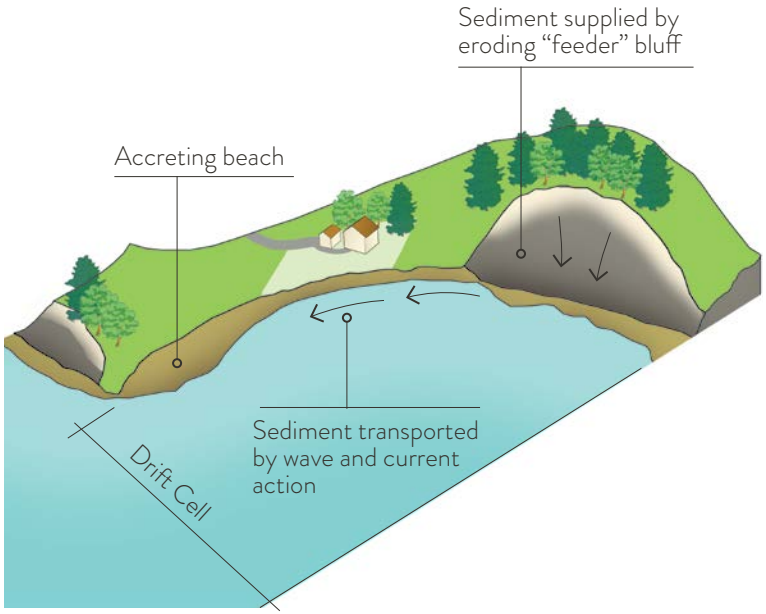
Broad, flat portion of the beach generally at the low tide elevation. Often, this area supports a diversity of aquatic vegetation such as eelgrass, kelps, and seaweed.

Coastal Processes

Your property is part of a larger system driven by wind, waves, and currents that continuously moves beach material (sand, gravel, logs) along the waterfront like a conveyor belt. In some places beach material may build up and in other places it may erode. Many factors combine to determine the rate and amount of material that moves along the beach.

DRIFT CELLS

Recognizing that beach material moves as part of a natural, healthy system is fundamental to understanding coastal processes. This movement is captured by the concept of drift cells. A drift cell includes a source of sediment input to the beach, a zone where wind and waves move sediment down drift, and a terminus where sediment either builds up on the beach (accretion) or moves offshore into deeper water. Altering the flow of sediment through the drift cell can cause downdrift beaches to receive less sediment and erode.



Elements of a drift cell

Knowing your place in a drift cell will help you and any professionals you hire design an approach for your site that allows coastal processes to continue as naturally as possible.

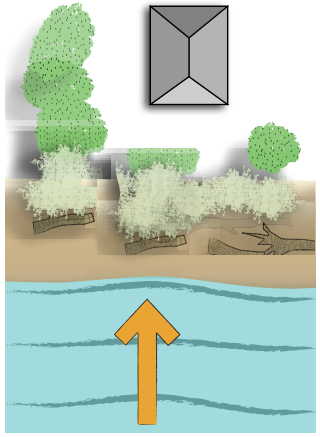
Sand and gravel erode from feeder bluffs (left) and travel a mile down the beach to form a broad spit (right).

WAVE CONDITIONS

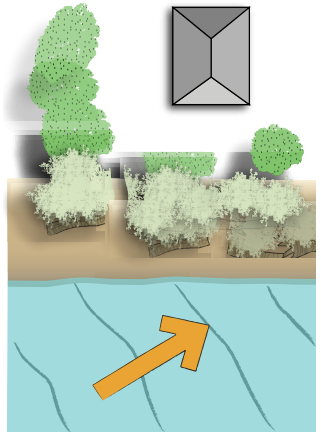
Wave conditions help determine the character of the beach and the erosion potential. Key elements are the orientation of the beach to predominant wind and waves and the intensity of the waves. Wave conditions at a site are a key factor in selecting a design technique. Lower energy sites are good candidates for soft armour or no intervention.

Beaches oriented parallel to predominant waves are called swash aligned beaches. They tend to erode slower and may even build up sediment over time. Beaches oriented at an angle to predominant waves are called drift aligned beaches and tend to experience more sediment movement and erosion.

Wave energy is largely dependent on fetch. Fetch is the distance across open water to an opposing shoreline. A longer fetch generally indicates greater relative wave energy. Winter storms in the Strait of Georgia typically come from the south east or southwest, so south facing beaches with a long fetch can expect strong wave energy. Less commonly, strong northerly outflow winds can blow for several days in winter and shores with a long fetch to the north can be affected by these winds.

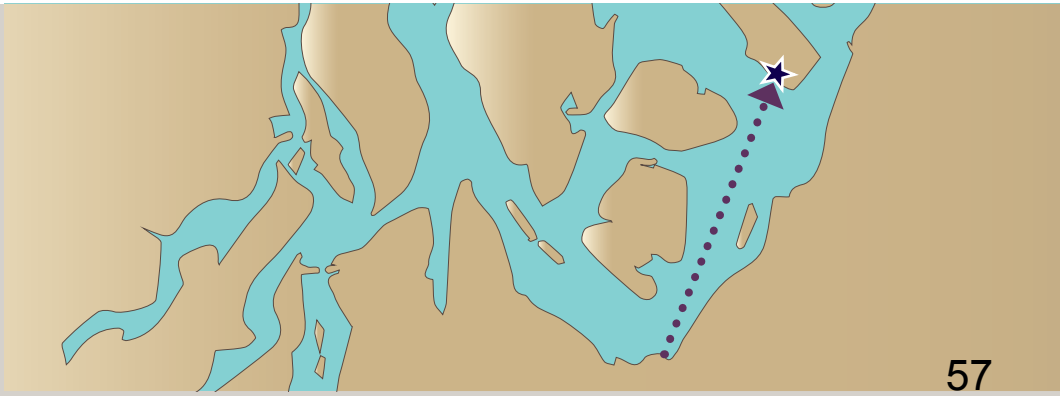


Swash aligned: Waves break *parallel* to the beach.



Drift aligned: Waves break at an *angle* to the beach.

Wave energy is an important factor in determining erosion patterns and depends greatly on fetch. The greater the distance, the larger the waves and the more energy they carry.

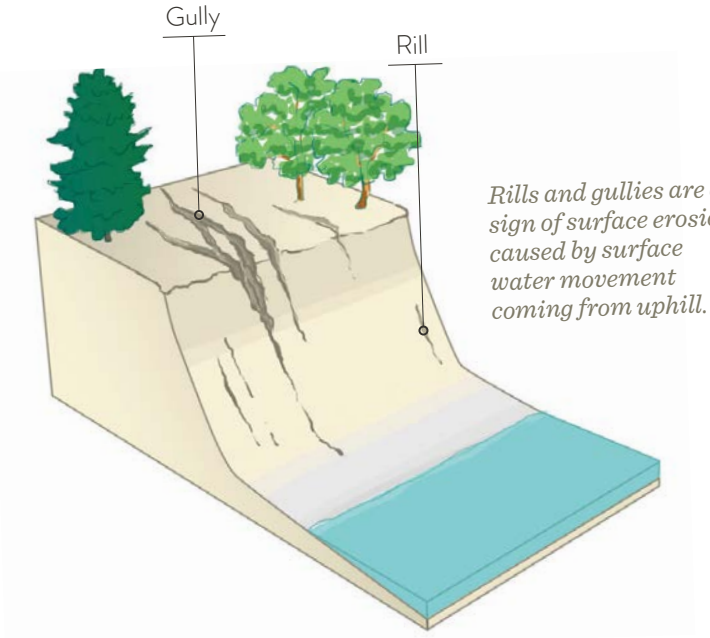


Maximum fetch (arrow) is the longest distance across open water to a site (star).

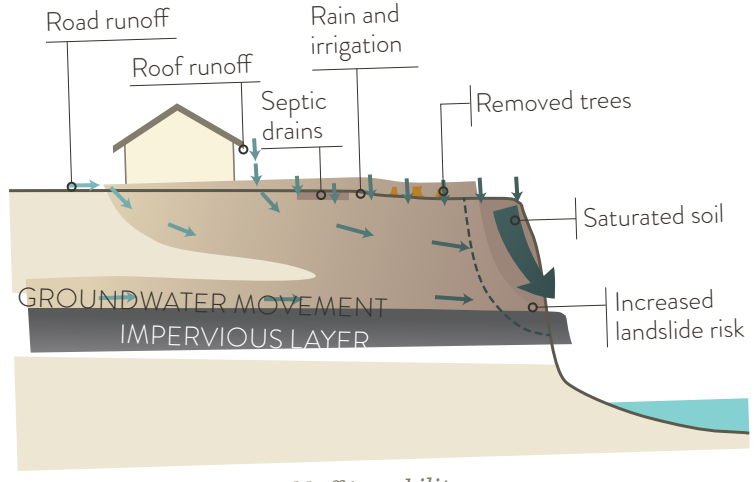
Hydrology

Hydrology describes how surface water and groundwater move throughout an area and how they may impact the stability of your site. A professional can identify streams, springs, and seeps and collect subsurface data from borings to fully understand the hydrology. All drainage control structures such as downspouts, French drains, and tightlines as well as pipe sizes and discharge points will need to be noted. Irrigation systems, ponds, and fountains will also need to be considered since these can add additional water to a site.

Landslides can occur when groundwater reaches an impervious layer and destabilizes the slope. In another scenario, rainfall does not soak into the soil, gathers on the surface, and runs downhill forming small channels of water called rills or larger ones called gullies. For sites where slope instability is caused by the dynamics between the geologic features and the hydrology, installation of bulkheads or other shore armor will do little to reduce the instability. Improvements to surface water management and site drainage are good approaches to these sites. The discussion about drainage on page 20 offers more information.



Rills and gullies are a sign of surface erosion caused by surface water movement coming from uphill.



Water-related causes of bluff instability

Other Site Characteristics

VEGETATION

Noting the general types, condition, and distribution of vegetation on each portion of your property will lead to better understanding of site stability. Look for the following: water-loving plants (alder, willow, salmonberry, etc.), which can indicate the presence of a seep that may weaken soil; bluff faces devoid of vegetation, which may indicate instability; vertical trees on a slope, which can be a sign of good soil stability; and dune grass and salt-tolerant vegetation, which indicate a lower energy environment less prone to erosion.

WILDLIFE AND HABITAT

Documenting protected and important animal species and habitat in the project area will be useful information as you plan your project. Key species include eelgrass, dunegrass, seaweed, sea and shore birds, crabs and oysters, and marine mammals. Of particular importance are documented spawning areas for small fish called forage fish. In some areas these fish use the upper beach habitat to lay their tiny eggs. Both the fish and their eggs are an important food resource for larger fish and birds.

CULTURAL RESOURCES

Cultural resources are evidence of past human activities. It is not uncommon for waterfront areas to have items of cultural significance. British Columbia's archaeological sites are protected under the Heritage Conservation Act. If you suspect you have a culturally sensitive area on your property, contact the BC Archaeology Branch to confirm and to receive information on obtaining the required Alteration Permit. Professional archaeologists can help you identify ways to design your project to minimize or mitigate any disturbance to the resource.

Dunegrass can grow in the backshore and provide protection against waves.

Surf smelt and sandlance (forage fish) use the upper beach to lay their eggs.

Discarded shells (midden) can be a sign of past human activity.

Design Techniques

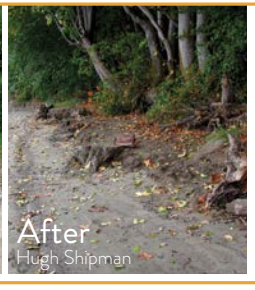
Theresa Mitchell

A broad spectrum of techniques can be applied to protect your property and manage the shoreline sustainably for you and future generations. The techniques range in complexity and cost; some projects may be simple and inexpensive while others may require lengthy permitting and design processes.

Leaving your site to function naturally is likely the best course of action for environmental health. However, if intervention is needed, **natural** techniques—vegetation, drainage, and locating structures—are best management practices that should be considered first.

Soft methods (e.g., log placement, beach nourishment, and reslope and revegetation) can provide erosion protection using strategically placed natural materials while allowing beach processes and habitat to remain intact.

Conventional, **hard** methods (e.g., seawalls, retaining walls, rip rap) disrupt natural ecosystems and tend to be difficult to permit and expensive to install. Hard structures can often be replaced with soft methods or removed completely to restore natural processes.

DESIGN TECHNIQUE TYPE	DESIGN TECHNIQUE	COST	PROJECT COMPLEXITY
 NATURAL Hugh Shipman	LEAVE NATURAL	N/A	N/A
	VEGETATION	$	
	DRAINAGE	$ - $$	
	BUILDING LOCATION	$ - $$$	
 SOFT Hugh Shipman	LOG PLACEMENT	$	
	BEACH NOURISHMENT	$$	
	RESLOPE AND REVEGETATION	$ - $$$	
 HARD Theresa Mitchell	STRUCTURE INSTALLATION	$$$	
 REMOVAL Before Saving Salmon  After Hugh Shipman	Remove Structures: STRUCTURE REMOVAL	$ - $$$	

Each design technique can be used alone or in combination, depending on site characteristics and property owner objectives. The techniques are described on the following pages.

Icon Key

COST

$ Low

$$$ High

PROJECT COMPLEXITY

Less Complex

More Complex

Vegetation

Vegetation absorbs rainwater that can cause surface erosion. Roots, especially deep roots of trees and shrubs, bind soil together to strengthen and stabilize slopes. Having the right plants in place helps the overall coastal ecosystem by:

- Providing insects as food to animals on the beach and in shallow water (including fish);
- Slowing and filtering run-off before it reaches the beach;
- Supporting the small fish that salmon eat;
- Naturally supplying large wood to the beach (see log placement on page 24); and
- Increasing the presence of birds and other wildlife.

Where might you consider this?

Adding and maintaining native vegetation is a good idea on any site. The native plant list (see page 37) is a good place to start. Erosion issues are best assessed by a trained professional, who will be able to determine the issues during the site assessment.

Native vegetation is exceptional in its ability to hold soils together, stabilize slopes, and absorb and filter rainwater. Lawns are less suited for providing these benefits.

Vegetation is one of the easiest and most affordable techniques to install and maintain. It protects slopes by stabilizing soils and is good for fish and wildlife. Native flora is well adapted to our climate.

62

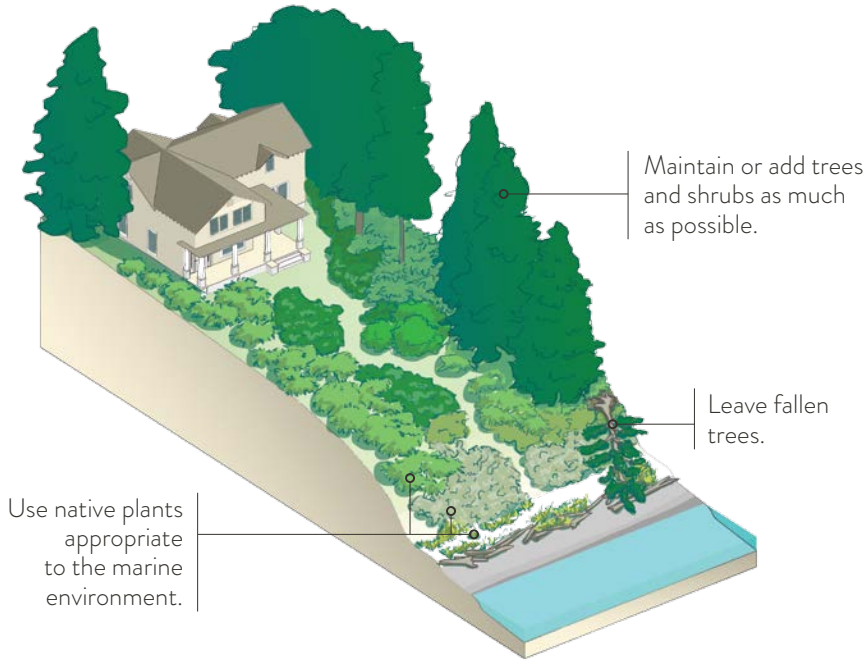
Dave Shreffler

Good Design Practices

Small-scale planting can often be done by homeowners without the need for permits or professional guidance. However, if erosion is a concern, or if significant changes to vegetation near bluffs is planned, a professional can help ensure there are no unforeseen impacts.

A geologist or geotechnical engineer can determine causes of erosion and a landscape architect or designer can develop a planting plan and oversee installation. See page 40 for more information.

Vegetation is often paired with drainage.



Use good quality native plants (see page 37) and those with deep roots like shrubs and trees. A planting plan should consider the bank exposure and steepness, soil type, hydrology, intensity of development, and an assessment of existing vegetation.

FRAME VIEWS

Arranging plants to accommodate and complement special views may help prevent removal of vegetation in the future when plants mature or a property is sold.

ENHANCE VEGETATION

Avoid removing, topping, and excessive pruning of existing trees, as their roots stabilize the soil. Keep existing native vegetation and plant new trees and shrubs to mimic a pre-development environment.

LEAVE LEANING AND FALLEN TREES

Leave leaning trees in-place unless an arborist determines they are hazardous. Allowing trees to fall naturally and the logs to decompose on-site provides no-cost erosion protection and important habitat for fish and wildlife.

CONSERVE AND RESTORE SOIL

Conserving topsoils during construction helps to retain the organic matter within existing soils. Some soil may need to be amended to better support plants.

ACCOMMODATE DRAINAGE

Placing plants and soils appropriately is important to ensure they fit into the overall drainage plan for rainwater and septic systems. This may include planting water-loving plants in lined swales and rain gardens.

USE EROSION CONTROL PRACTICES

Applying erosion control techniques (e.g., laying straw over soil) on recently laid or disturbed soil will help keep topsoil in place while plants establish and grow.

Drainage

Proper drainage manages on-site water flow to minimize erosion. Removing vegetation and adding impermeable surfaces like buildings, driveways, and patios can increase the flow of water toward the bluff and heighten the risks of erosion and landslides. Septic drainfields and irrigation can compound this problem.

Redirecting rainwater through drains or pipes to the bottom of the bluff can reduce these risks. Lined rain gardens, swales, and native vegetation are often used in conjunction with drainage structures to clean runoff before it enters the piped system.

Where might you consider this?

This technique is typically used where there is evidence of surface erosion or risk of landslide. Your professional can determine whether this technique is appropriate during site assessment.

Managing drainage is an effective way to protect your bluff or bank from rainwater-induced erosion.

Piping water over a steep slope (left) with a diffuser tee outfall (middle) can promote stable bluffs. Rain gardens (right) lined with a waterproof barrier can filter run-off as it flows into the drainage system.

Hugh Shipman

Hugh Shipman

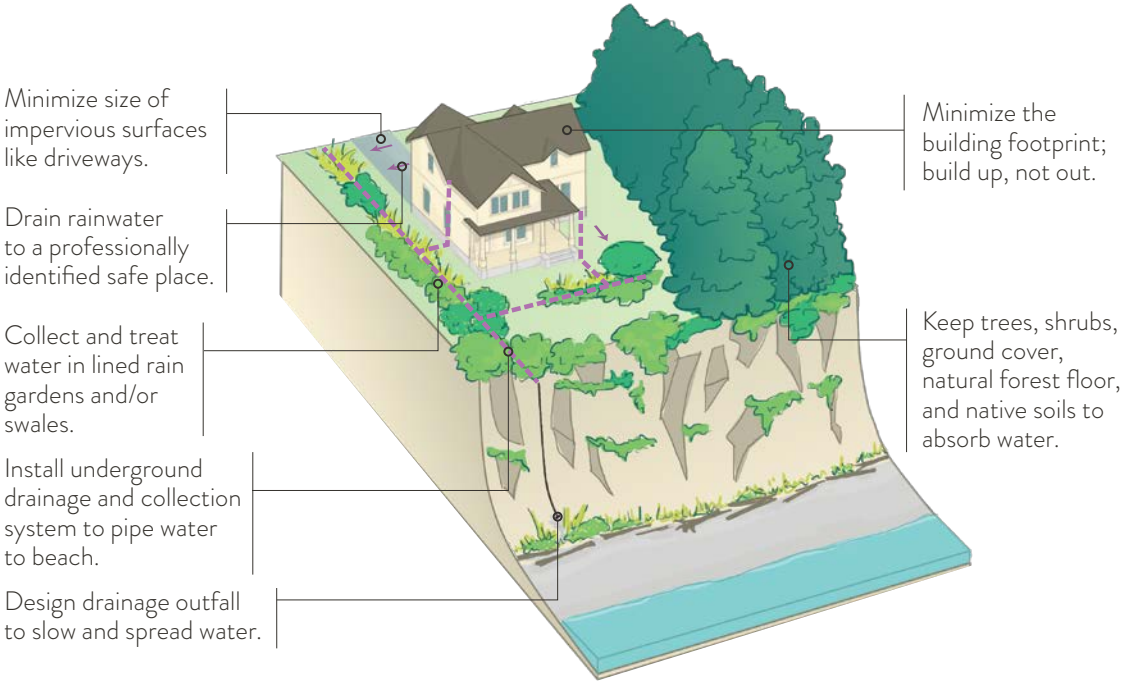
Kitsap Conservation District

Good Design Practices

Even small changes to drainage can have unforeseen impacts to bluffs and shorelines. Systems should be designed and installed with the help of a trained professional.

See the BC Ministry of Environment's *Stormwater Planning: A Guidebook for BC (2002)* for more information. The Washington Department of Ecology's *Managing Drainage on Coastal Bluffs* is also very useful.

Drainage is often paired with vegetation.



Design drainage projects to reduce the volume of water that might: 1) erode slopes at the surface or 2) cause landslides (see diagrams on page 14). Specific practices will depend on site conditions like the property's geology, pattern of water movement, and erosion risks.

ENHANCE VEGETATION

Keeping existing vegetation and adding new plants, especially native vegetation, will help absorb water and stabilize the soil and slope.

MINIMIZE IMPERVIOUS SURFACES

Reducing driveway lengths and widths, and building up rather than out, will reduce surface water flow and allow rainwater to be absorbed by plants.

USE RAIN BARRELS

Collecting rainwater and reintroducing it over a large area that doesn't affect slope stability will reduce the amount of water saturating the bluff during heavy rains.

CLEAN RAINWATER RUNOFF

Directing rainwater flows to lined rain gardens will prevent water from seeping deeper underground and toward the bluff. Rain gardens also filter runoff. Combine this with an underground drainage system.

INSTALL A DRAINAGE SYSTEM

Installing a drainage system that carries water to the beach or to a professionally identified safe place (e.g., stormwater storage area) will reduce landslide and surface erosion risks.

SLOW WATER AT OUTFALL

The outfall is the last point on the piped system where the runoff discharges to the beach. Placing a diffuser tee or other water-slowing device at a proper height will help prevent erosion of the beach.

Building Location

When a structure is threatened by erosion or flooding, sometimes the wisest and most effective solution is to place it out of harm's way. In the case of erosion, this may mean locating a building farther from the shoreline. If the threat is flooding, the solution may be to locate the structure landward or elevate it to accommodate storms and floods.

Where might you consider this?

Your site assessment should evaluate long-term erosion patterns, the potential for landslides, and the risk from floods and storms to determine the safest places to build or relocate structures on your site. Also consider complicating factors such as earthquakes, development of nearby areas, and sea level rise.

Locating structures away from an eroding shoreline or bluff is the most effective action to ensure peace of mind and safety. It may also result in long-term cost savings.

Homes set back from the waterfront provide comfort in knowing shoreline erosion risks are minimal while still delivering stunning views.

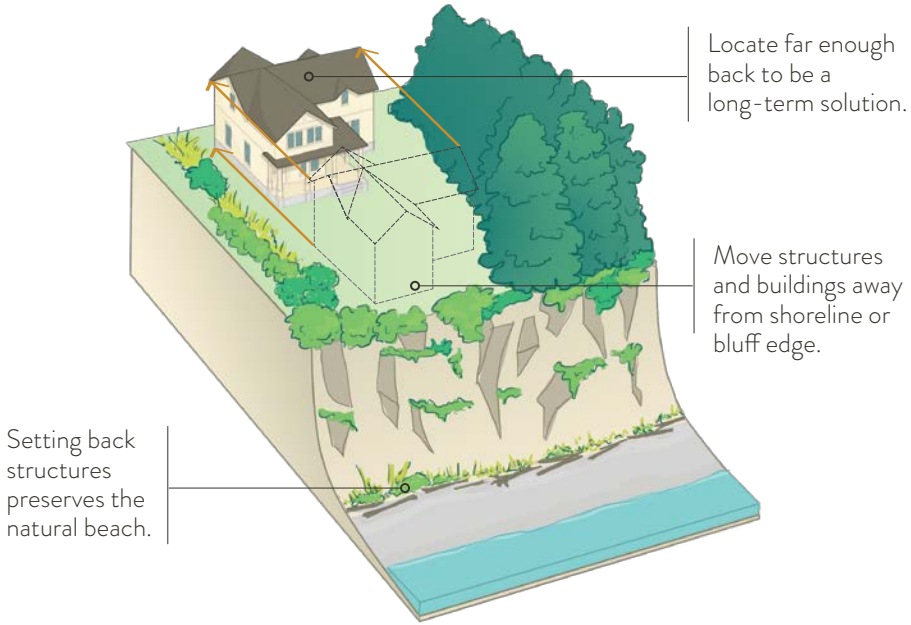
Hugh Shipman

Good Design Practices

Whether you are developing a site for the first time or rebuilding, a geologist familiar with coastal sites can help identify site stability issues and reduce your long-term risks. Ask for a design that minimizes the need for future structural stabilization.

An engineer can help design your home, site drainage, and necessary structural stabilization to assure safety and compliance with legal and technical standards. Make sure the designer understands your property's erosion rates, flood risks, and slope stability.

The building location technique is often paired with seawall removal.



Consider the building location technique before any construction, especially if the property is located on a feeder bluff.

NEW CONSTRUCTION

Siting buildings away from the shoreline is always good practice and eliminates the added expense of constructing and maintaining shoreline protection.

New construction was set back for long-term safety.

FEEDER BLUFF

Relocation in lieu of a seawall is especially beneficial on feeder bluffs. It is safer for your home, allows for natural erosion of the bluff, and promotes a healthier ecosystem.

This bluff supplies sediment to nearby beaches and maintains habitat used by spawning forage fish, which salmon eat.

NO OR LOW BANK

Relocation can reestablish a backshore area that accommodates viewing and recreation areas, occasional flooding, a marsh, or higher sea levels.

The building on the right was moved back and the seawall removed.

Log Placement

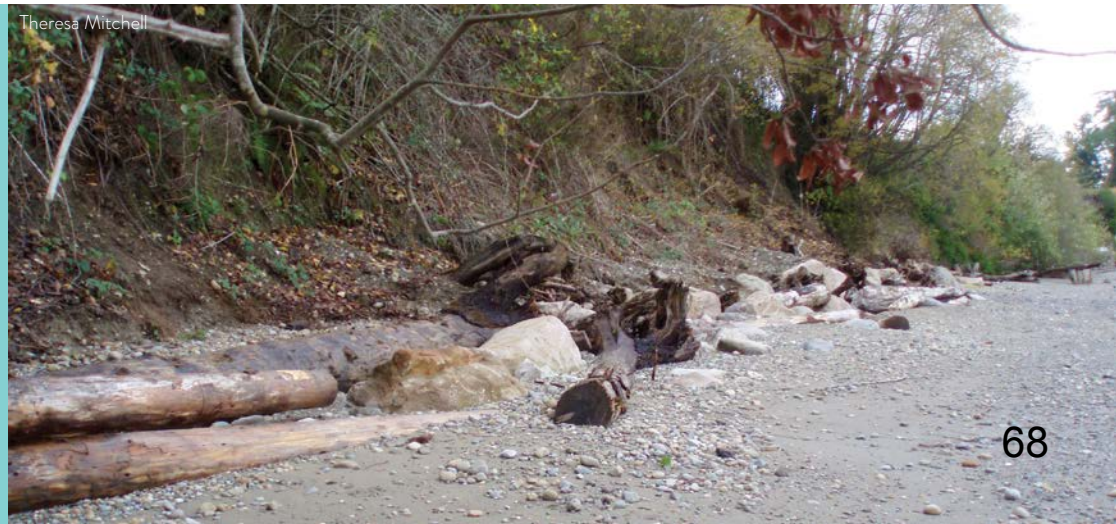
This technique places large logs and root wads (also known as large woody debris) along the upper beach to mimic natural driftwood accumulation. Logs disperse wave energy, trap and build up sand (which can provide additional erosion protection), and improve habitat. Log placement can be used in combination with beach nourishment and vegetation to protect your site from erosion.

Where might you consider this?

Log placement can be applied on many marine shores, but specific site conditions, like wave action, beach material, erosion rates and backshore width will influence the design and application of this technique. During the site assessment, your professional should evaluate the feasibility of using this technique on your property.

Log placement projects are typically low-cost, attractive, and offer natural erosion protection. They provide habitat and food sources for plants, animals, insects, and other shoreline species.

Fallen trees that land on the beach can build up beaches by trapping sediment behind them. Both the logs and sediment serve as natural erosion protection for the uplands. Placed logs like those pictured to the right mimic the role of naturally accumulated logs.

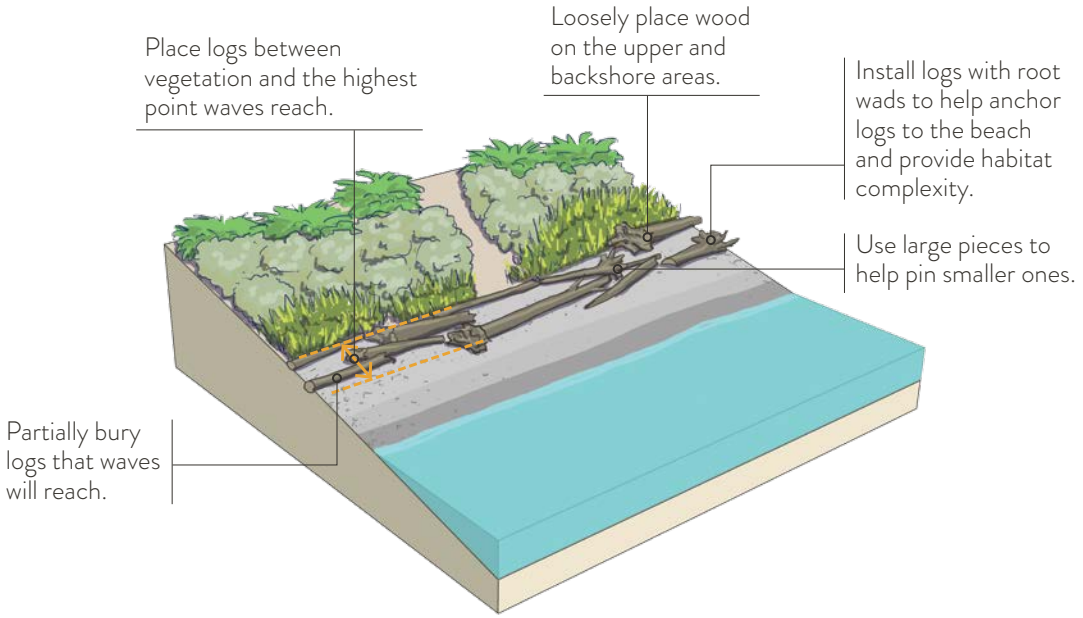


Theresa Mitchell

Good Design Practices

A qualified professional, like a landscape architect or a coastal engineer, can help you create healthy habitat and avoid hazards when installing large logs. Make sure your professional understands coastal processes and has experience with this technique.

Log placement is often paired with beach nourishment and vegetation.



Design log placement projects to last for many years, improve access to the waterfront, and benefit ecological processes.

PLACE LOGS PROPERLY

In most cases, large wood pieces are aligned parallel to the shoreline, but in some cases can be oriented at an angle to facilitate beach access or to trap additional large wood and beach sediment. If waves will reach them, partially bury logs to limit mobility. Otherwise, loosely place logs on upper and back beach areas. Large pieces can help pin other pieces in place.

CHOOSE LOCATION

Log placement should mimic wood that falls or is washed onto the shoreline. Logs are typically placed several feet landward of the highest point waves regularly reach and just waterward of upland vegetation or infrastructure. If placed too far down the beach, they will wash away.

SELECT LOGS PROPERLY

Selecting larger logs with root wads and/or branches is best. Western redcedar and Douglas fir provide longevity due to natural rot resistance and strength. Never use lumber or logs treated with chemicals.

ANCHORING

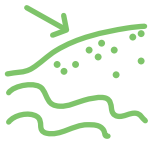
Anchoring logs may be appropriate depending on site conditions. Use durable materials appropriate for the marine environment to reduce the likelihood of failure and beach debris. Selective use of larger logs or boulders can help pin logs in place.

Beach Nourishment

Beach nourishment is an effective way to address erosion on some sites and restore previous beach conditions. Nourishment involves placing sand and rounded gravel on the beach to reestablish upper beach and backshore areas or create protective storm berms. This establishes a gradual beach grade that allows wave energy to dissipate and reduces erosion potential.

Where might you consider this?

Beach nourishment is a good option where buildings are at risk because beaches have eroded, either from natural causes or the effects of development. This technique works best on swash aligned beaches (see page 13) and on barrier beaches. Beaches mined for gravel in the past may also be good candidates.



Beach nourishment slows beach erosion, provides wind and storm protection, mimics beneficial natural processes, provides areas for recreation, and is relatively inexpensive.

These property owners chose to remove a failing and ineffective rock rip rap structure, used nourishment to create a stable beach, and improved their waterfront access.

Before

Hugh Shipman

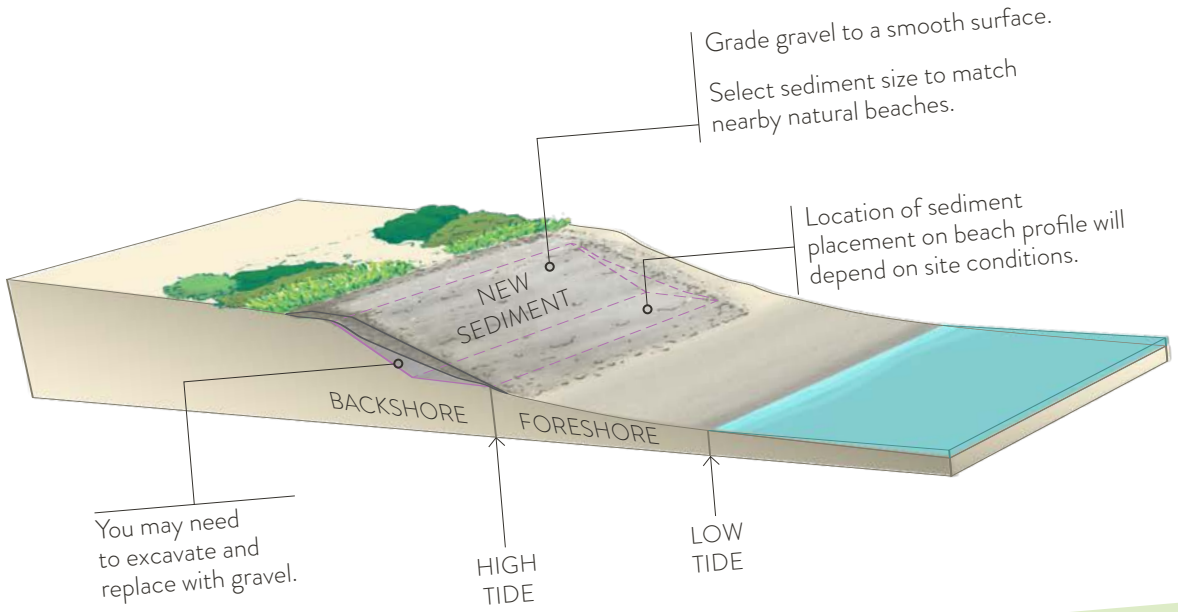
After

Hugh Shipman

Good Design Practices

Although beach nourishment is a relatively standard practice, the design and permitting needed for it usually requires a trained professional. Make sure your designer understands beach dynamics and has project experience in this environment. A geotechnical engineer or coastal geologist can determine the causes of erosion and set design goals.

Beach nourishment is often paired with log placement and hard structure removal.



Since beach nourishment design goals can range from erosion control to habitat enhancement, site-specific designs are needed.

ASSESS WAVE ENERGY

Beach nourishment is generally suitable for low to medium wave energy sites. Wave energy informs design features such as proper elevation of sediment placement, sediment volume, and grain size.

DETERMINE BERM ELEVATIONS

A professional experienced in this technique can help design a proper berm height. A berm that is too low or high will create management challenges. The design elevation will also depend on whether the backshore is natural or developed.

SELECT SEDIMENT SIZE

Choosing the right sediment is important. Sediment that is too small may wash away quickly; sediment that is too coarse will gravitate to the lower beach and provide little protection. Sediment size should generally match what is found on nearby beaches but slightly coarser material may be needed to provide additional protection.

PLACE SEDIMENT CAREFULLY

Placing sediment appropriately is critical to a project's success. The specific location will depend on the project scale and longevity. Gravel should generally be graded to a smooth surface, as large irregularities or low points in the backshore can cause localized erosion.

Reslope and Revegetation

Reslope and revegetation transforms a steep, unstable bluff or bank into a regraded, more stable slope. Native vegetation is then planted to protect the slope from eroding.

Where might you consider this?

This approach is most often used in response to an upper slope disturbance that has created steep, unstable slopes. If your site is generally stable or well-vegetated, weigh the benefits of this technique against the scale of disturbance it will cause. If erosion is occurring solely due to wave energy, resloping may not be appropriate.

Resloping stabilizes bluffs and banks and revegetation protects the slope from erosion and enhances aesthetics, water quality, and wildlife habitat.

A professional can help you develop a planting plan for your resloped site.

A porous natural fabric (geofabric) like burlap holds soil in place until a site is planted and roots establish.

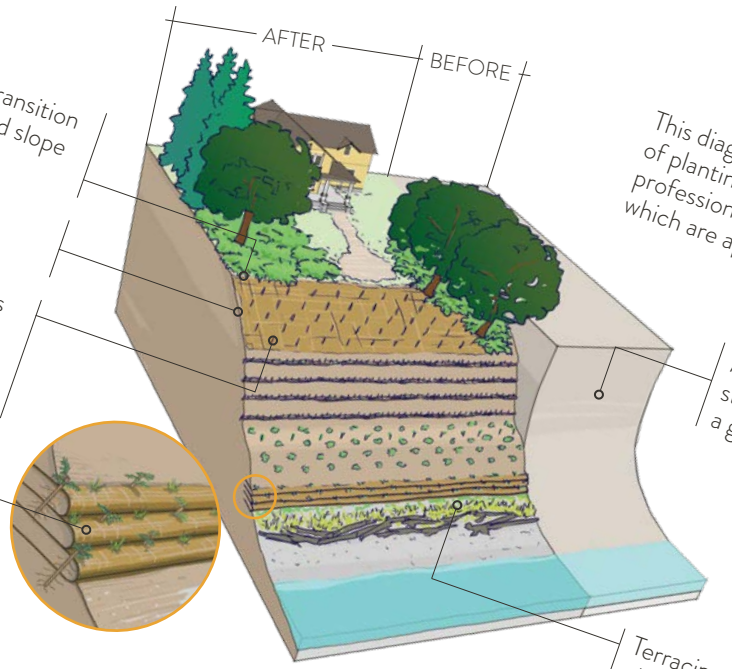
A vegetated retaining wall can provide the structural support of a traditional wall while mimicking natural systems.

Good Design Practices

Professional assistance is required to safely and permanently change a slope angle. Your property's geologic features including its sediment strength will be considered in design.

Addressing drainage on the site may eliminate the need for further action. If resloping is still necessary, proper surface and groundwater management will need to be a design component.

Reslope and revegetation is often paired with drainage, beach nourishment and log placement.



RESLOPE APPROPRIATELY

Consider soil types, planting goals, and structure location when determining the slope to promote a stable bluff or bank. Gentler slopes and terraces require more space but also provide better stability for topsoil and plants. Smoothing the transition between the new slope and the existing upland prevents instabilities.

PLANT FOR LONG-TERM SUCCESS

Revegetating provides soil strength through root systems. Plants and grasses with shallow root systems will not adequately strengthen steeper slopes. It may take time for deep-rooted plants and trees to establish, so temporary erosion control features like geofabric and wood stakes may be necessary. Always try to use native plants in designs (see page 37).

LIMIT IRRIGATION NEEDS

Establishing plants will require extra care and watering, though installing during the fall and winter will reduce irrigation needs. Plants that require long-term irrigation are not ideal; additional water inputs can destabilize the soil.

PROJECT TIMING

To limit erosion concerns, minimize the time bare soil is exposed. Grading is often done during dry months to avoid rain runoff. If possible, grade at the end of the dry season (see Limit Irrigation Needs above), or use irrigation if you must plant during dry months.

Structure Installation

Hard structures are rigid structures constructed on the beach to control erosion. They are used to protect upland property from wave attack or to hold back material eroding from the upper beach or bluff. Seawalls, retaining walls, and rip rap are examples.

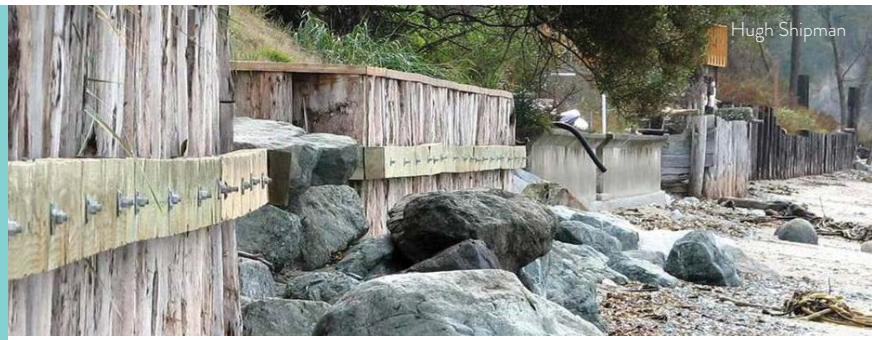
Though hard structures can reduce erosion of the uplands at the site, they disrupt the natural supply of sediment into the drift cell, increase erosion potential on nearby beaches, and can lead to coarser, narrower beaches. Over time, this degrades important beach and shallow water habitat used by salmon, birds, and other fish and wildlife.

If a hard structure is determined to be necessary, following proper design protocols is critical for minimizing negative impacts to beach habitat and neighboring properties.

Where might you consider this?

Hard structures are now considered an option of last resort and most often built only where required by site conditions. Many jurisdictions prohibit hard structures unless it is demonstrated that erosion will directly threaten a home in the near term.

All hard structures require periodic inspection for signs of failure, as well as on-going maintenance, repair, or replacement. Failures can create a safety hazard or an unsightly mess if debris falls onto the beach. The associated costs and risks should be included when considering a hard structure.



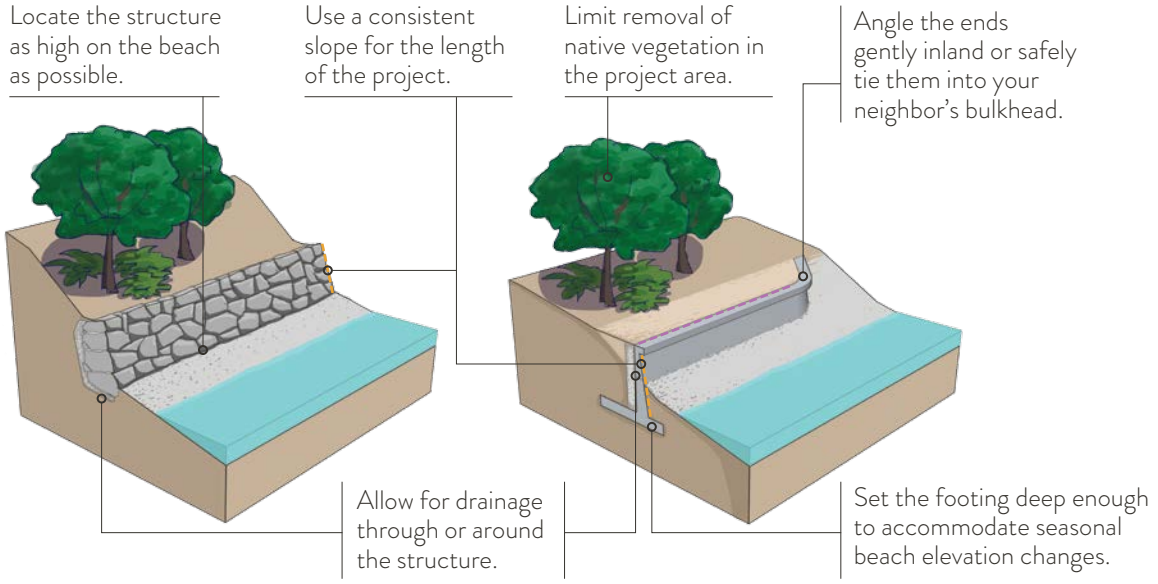
Hugh Shipman

A hard structure can increase erosion risk by deflecting wave energy onto the beach or adjacent properties.

Good Design Practices

Your team of professionals should assess your site and document why other techniques are not appropriate. If no other options exist, a hard structure may be appropriate. Hard structures can still incorporate design elements that will minimize their environmental impact.

A standard approach in the Salish Sea would be a retaining wall made of concrete or wood, or a rock wall constructed of stacked boulders (rip rap). A less common option is the use of vinyl or metal sheet pile.



CHOOSE APPROPRIATE DESIGN

Locating a structure as high on the beach as possible and keeping its footprint small will reduce environmental impacts. Construct replacement structures landward of an existing structure whenever possible. Your engineer will suggest wall material based on your preference and site conditions.

ALLOW FOR DRAINAGE

Incorporating tightlines, weep holes, and backfill that allows drainage will reduce the likelihood of water pressure related failures.

ADEQUATELY SET FOOTING

The footing provides structural integrity and should be deep enough to prevent overturning. Consider scour effects and seasonal beach elevation changes when determining footing placement.

ALIGN TO LIMIT EROSION

Hard structures are often built in a straight line, however rock walls (rip rap) have more flexibility to conform to the natural shape of the shoreline. Angle wall ends gently inland to limit erosion on neighboring shorelines and retain fill behind the structure.

SELECT APPROPRIATE MATERIALS

Use durable materials appropriate for the marine environment; avoid the use of treated wood to prevent leaching of chemicals into the environment. Design for site conditions to reduce the likelihood of failure and debris on the beach.

PRESERVE VEGETATION

Avoid construction-related impacts to vegetation and, if needed, replant native vegetation at project completion. Vegetation is an important part of the nearshore ecosystem providing food, shade, and shelter for fish, birds, and wildlife.

Structure Removal

Many existing structures were installed decades ago, long before we understood the value of the upper beach and backshore for fish and wildlife. Hard strucutres were often installed in areas where they are ineffective or unnecessary for erosion control. Reducing the size and impact of hard structures, or removing it completely, provides an opportunity to regain beach habitat and improve natural shoreline function.

Where might you consider this?

Removal is not feasible at every site and a full professional site assessment will be necessary. Locations with infrastructure set back from the waterfront or with no upland development are good places to consider this approach. If infrastructure is present, knowing the wave climate (see page 13) is important, as sites with lower wave energy and without persistent erosion are more suitable for this technique.

If your existing hard structure is in need of repair or replacement, it is a good time to consider structure removal. It may reduce costs, improve beach access, and benefit you and the environment.

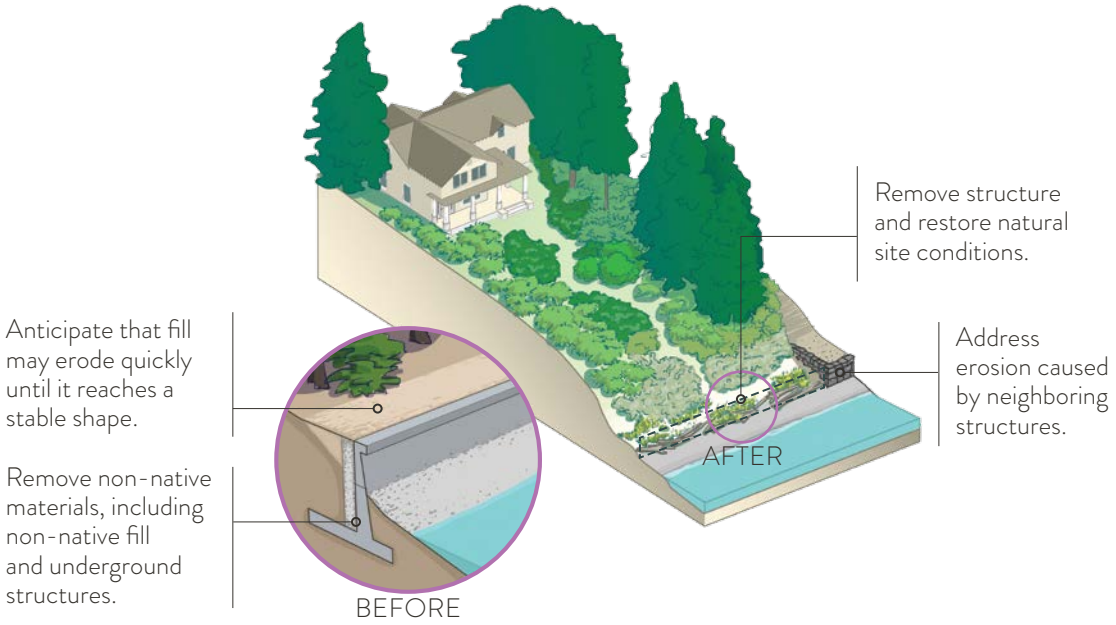
We now know that hard structures are unnecessary in many places, can cause additional erosion concerns, and damage habitat for local species. Removal is increasingly becoming a favored option as appreciation for the value of natural shorelines grows.

Unnecessary rip rap on the left is scheduled for removal and will allow for a more natural beach setting like the one on the right.

Good Design Practices

The primary design goals of structure removal are to maintain a safe home while enhancing recreational value and natural processes. To accomplish this, your designer will need to understand your site's conditions. The following are some issues your professional team will need to address.

Structure removal is often paired with reslope and revegetation, beach nourishment, log placement, and locating structures.



ANTICIPATE INITIAL EROSION

After a structure is removed, it is not uncommon to notice erosion of sediment and fill from behind the structure as the shoreline works to reach a new stable configuration. Your project consultants should assess the site and any as-built drawings for the structure in order to anticipate the extent of this response to structure removal.

ADDRESS ADJACENT STRUCTURES

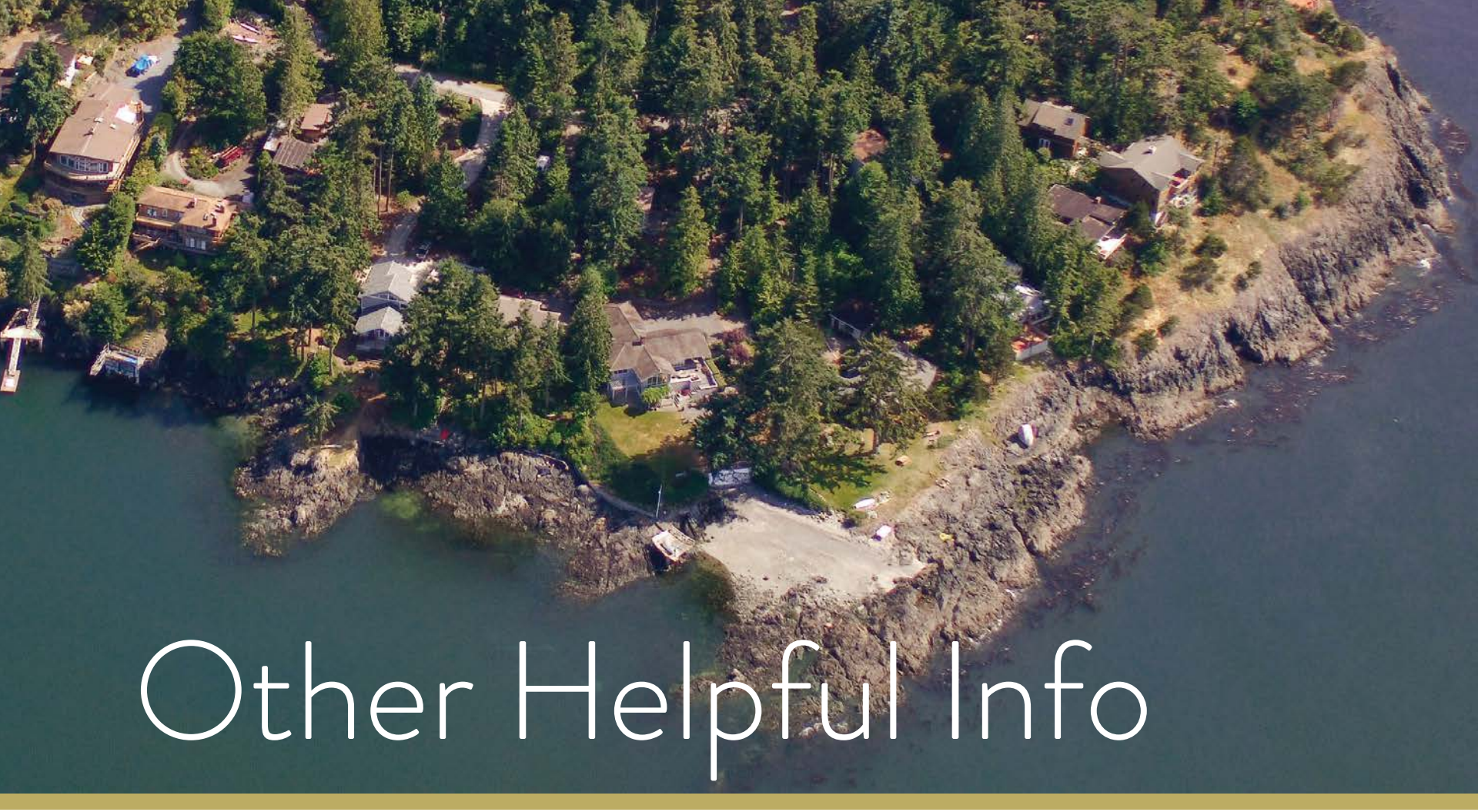
If structures will remain on adjacent properties, additional design elements will be needed to protect your property from deflected wave energy and erosion from those structures.

CONSIDER SLOPE STABILITY

To understand how the site will respond over time to structure removal, a complete analysis of slope stability through a geologic and geotechnical assessment should be done by a professional.

REMOVE NON-NATIVE MATERIALS

Remove non-native soil, treated wood, and rocks to help the beach return to a natural condition more quickly. Look to the original design drawings or test holes to anticipate the amount of material that may be underground and use proper disposal methods. Any on-site native materials such as logs, boulders, and sand and gravel can be incorporated into the project design.



Other Helpful Info

This section contains additional useful information, including guidance on choosing a design professional, getting a permit, and selecting appropriate vegetation for your shoreline. If you would like to learn more, additional resources are summarized at the end of the section.

Choosing a Professional

In many cases, selection and proper implementation of the design techniques illustrated in this manual will require the involvement of a trained professional. The range of professionals with expertise in shoreline environments includes:

- Arborists and botanists
- Archaeologists
- Biologists
- Coastal engineers
- Engineering geologists
- Geologists and geomorphologists
- Geotechnical engineers
- Hydrologists
- Landscape architects and landscape designers
- Shoreline planners and permitting specialists
- Structural engineers

If your site is straightforward and your project is limited to simple interventions, minimal involvement from a single professional may be all that is needed. However, if more complex work is planned, or if there are steep slopes with evidence of erosion or drainage issues, additional professionals will likely be needed to assess conditions and determine the appropriate solution. Firms that specialize in shoreline projects may have multiple disciplines in-house, but it is also common for sole practitioners to work together as part of a design team.

What type of professional do I need?

The unique characteristics of your site, the design techniques that you consider, and your timeline and budget will all help determine which professional is best suited to guide your project. While a professional can assist at many different stages of the project, often you will encounter a need for more information and guidance early in the planning process. Local planners and permitting specialists, if contacted early, can help you avoid costly and time-consuming redesigns. To conduct a thorough site assessment, you will need someone who has a broad understanding of the interaction of coastal and upland ecological processes and has a working understanding of the local regulatory framework and permit processes.

Friends or neighbors who have integrated soft shoreline design techniques into their property can also be an essential resource to help you get started. Ultimately, the best professional for your project is someone you trust who can provide the skill set needed to successfully accomplish your project.

Permitting

Shoreline development in the province of British Columbia and along the Salish Sea is regulated, which means installation of most shoreline protection techniques will require one or multiple permits. Taking steps outlined in this booklet to properly assess a site and using publications like the Washington Department of Fish and Wildlife's *Marine Shoreline Design Guidelines* to properly design a structure may minimize review time for permits.

Installation, repair, or replacement of shoreline protection often requires a permit from a local jurisdiction (a municipality, regional district, or Islands Trust). Typically, shoreline structures require a Development Permit or a Development Variance Permit. Shoreline structures that need to go below the Natural Boundary of the Sea require permission from the provincial Ministry of Forests, Lands, and Natural Resource Operations (FLNRO). Licences of Occupation or Specific Permissions ensure that the design and construction of the project include proper protection for fish.

The federal Department of Fisheries and Oceans (DFO) is responsible for fisheries protection provisions to prevent serious harm to Commercial, Recreational, and Aboriginal fisheries under the Fisheries Act, including shoreline "riparian" habitats, as well as for maintaining maritime safety through the Coast Guard.

Many shoreline projects in the Salish Sea will be in or near an archaeological site of importance to First Nations; those projects may also require a permit from the Archaeology Branch of BC.

Each of these agencies should be engaged early in your design process, which will reduce the need for major redesign later in the process.

Additional Permitting Information

- Coastal Shore Jurisdiction in British Columbia (Factsheet) **http://www.islandstrust.bc.ca/media/262837/Greenshores-JurisdictionIssueSheet_finalVer4.pdf**
- Archaeology Branch of BC – Frequently Asked Questions from Property Owners **https://www.for.gov.bc.ca/archaeology/property_owners_and_developers/frequently_asked_questions**
- Front Counter BC **http://www.frontcounterbc.gov.bc.ca/**
- Frequently Asked Questions about Crown water applications **http://www2.gov.bc.ca/gov/content/industry/natural-resource-use/land-use/crown-land/crown-land-uses/residential-uses/marine-q-a**
- Information and Self-Assessment about DFO authorizations **http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html**

Selecting Native Plants

British Columbia has many native plant species that are well-adapted to the unique conditions of the marine shoreline environment. Existing native vegetation should be preserved wherever possible, as these plants provide habitat for local wildlife and help stabilize soil. To find plants best-suited to the unique conditions of your site, work with a local professional and/or native plant nursery.

Shore pine

Vine maple

Western red-cedar

Trees

Common Name	Scientific Name	Exposure Needs	Moisture Needs	Max. Height (m)	Growing Ease
Big-leaf maple	*Acer macrophyllum*	sun - shade	dry - moist	30	High
Cascara	*Rhamnus purshiana*	sun - shade	moist -wet	10	High
Douglas-fir	*Pseudotsuga menziesii*	sun - partial shade	dry - moist	75	Medium
Douglas maple	*Acer glabrum var. douglasii*	sun - partial shade	dry - moist	10	Medium
Hookers willow	*Salix hookeriana*	sun	moist - wet	5	High
Madrone	*Arbutus menziesii*	sun - partial shade	dry	25	Low
Pacific crabapple	*Malus fusca*	sun - partial shade	moist - wet	10	Medium
Pacific willow	*Salix lucida*	sun	moist - wet	20	High
Red alder	*Alnus rubra*	sun - partial shade	dry - wet	35	High
Scouler's willow	*Salix scouleriana*	sun	moist - wet	10	High
Shore pine	*Pinus contorta var. contorta*	sun - partial shade	dry - wet	15	High
Sitka spruce	*Picea sitchensis*	sun - partial shade	moist -wet	60	Medium
Vine maple	*Acer circinatum*	partial shade - shade	dry - moist	10	High
Western red-cedar	*Thuja plicata*	partial shade - shade	moist - wet	60	Medium

Saskatoon berry

Nootka rose

Salal

Western columbine

Tufted hairgrass

Shrubs

Common Name	Scientific Name	Exposure Needs	Moisture Needs	Max. Height (m)	Growing Ease
Beaked hazelnut	*Corylus cornuta var. californica*	sun - shade	dry - moist	6	Medium
Black twinberry	*Lonicera involucrata*	sun - partial shade	dry - moist	1	High
Evergreen huckleberry	*Vaccinium ovatum*	partial shade - shade	dry - moist	2	Medium
Indian plum	*Oemlaria cerasiformis*	partial shade - shade	dry - moist	5	Medium
Mock-orange	*Philadelphus lewisii*	partial shade - shade	dry - moist	3.5	High
Nootka rose	*Rosa nutkana*	sun - partial shade	moist - wet	3	High
Oceanspray	*Holodiscus discolor*	sun - shade	dry - moist	5	High
Pacific ninebark	*Physocarpus capitatus*	sun	dry - moist	3	High
Red flowering currant	*Ribes sanguineum*	sun - partial shade	dry - moist	2.5	High
Salal	*Gaultheria shallon*	partial shade - shade	dry - moist	1.5	Medium
Salmonberry	*Rubus spectabilis*	sun - shade	moist - wet	3	High
Saskatoon berry	*Amelanchier alnifolia*	sun - shade	dry - moist	6	High
Snowberry	*Symphoricarpos albus*	sun - shade	dry - moist	1.5	High
Thimbleberry	*Rubus parviflorus*	sun - shade	dry - moist	2.5	Medium

Terrestrial Grasses and Forbs

Common Name	Scientific Name	Exposure Needs	Moisture Needs	Max. Height (m)	Growing Ease
Beach pea	*Lathyrus japonicus*	full sun	dry - moist	0.5	High
Beach wild-rye grass	*Leymus mollis spp. mollis*	full sun	moist - wet	1.5	High
Douglas aster	*Aster subspicatus*	sun - partial shade	dry - moist	1	High
Large-leaved lupine	*Lupinus polyphyllus*	sun - partial shade	moist - dry	1.5	High
Puget Sound gumweed	*Grindelia integrifolia*	sun	dry - moist	1	Medium
Red fescue	*Festuca rubra*	sun	moist - wet	1	High
Seashore lupine	*Lupinus littoralis*	sun	dry - moist	0.5	High
Sea-watch	*Angelica lucida*	sun - partial shade	moist - wet	1.5	Medium
Silvery burweed	*Ambrosia chamissonis*	sun	dry - moist	4	High
Western columbine	*Aquilegia formosa*	sun - partial shade	moist	1	Medium
Yarrow	*Achillea millefolium*	sun - partial shade	dry - moist	1.5	High

Wetland

Common Name	Scientific Name	Exposure Needs	Moisture Needs	Max. Height (m)	Growing Ease
Common spikerush	*Eleocharis palustris*	full sun	wet	0.5	Medium
Lyngby's sedge	*Carex lyngbyei*	sun - partial shade	wet	0.75	Medium
Pickleweed	*Salicornia pacifica*	sun	moist - wet	0.25	High
Puget Sound gumweed	*Grindelia integrifolia*	sun	dry - wet	1	Medium
Seashore saltgrass	*Distichlis spicata*	sun	wet	0.3	Medium
Seacoast bulrush	*Bolboschoenus robustus*	full sun	wet	1	Low

H. checker mallow

Kinnikinnick

Beach strawberry

Thrift

Broad-leaved stonecrop

Groundcovers

Common Name	Scientific Name	Exposure Needs	Moisture Needs	Max. Height (m)	Growing Ease
Beach strawberry	*Fragaria chiloensis*	sun - partial shade	dry	0.25	High
Broad-leaved stonecrop	*Sedum spathulifolium*	sun	dry	0.1	High
Cooley's hedge-nettle	*Stachys cooleyae*	sun - partial shade	moist - wet	2	Medium
Cow-parsnip	*Heracleum maximum*	sun - shade	moist - wet	2.5	Medium
Graceful cinquefoil	*Potentilla gracilis*	sun	moist	0.5	Medium
Henderson's checker mallow	*Sidalcea hendersonii*	sun	moist - wet	1.5	Medium
Kinnikinnick	*Arctostaphylos uva-ursi*	sun - partial shade	dry	0.25	Medium
Thrift; Sea pink	*Armeria maritima*	sun	dry - moist	0.25	High
Wooly sunflower	*Eriophyllum lanatum*	sun	dry	0.5	High

For additional information on native plants and nurseries that can help with proper plant selection, visit the following resources:

BC Native Plant Society: Information on where to purchase *Native Plants in British Columbia* plus so much more about using native plants at home. **www.npsbc.ca/nativegardening.html**

Washington State University Beach Watchers EZ-ID Guides - Shoreline Plants: Extensive and easy-to-use guide to marine shoreline plants. **http://soundwaterstewards.org/ezidweb/**

Additional Resources

Marine Shoreline Design Guidelines (MSDG)

Washington Dept. of Fish and Wildlife
www.wdfw.wa.gov/publications/01583
If this booklet intrigued you, get more information from the source! The MSDG provides additional detail and technical information on assessing your shoreline as well as how to select and design a technique for your site. Case studies of 25 sites evaluate the effectiveness and impacts of the various design techniques.

Shore Friendly

Washington Dept. of Fish and Wildlife & Washington Dept. of Natural Resources
www.shorefriendly.org
If you appreciate the content in this booklet, visit the Shore Friendly website. Get more information about options for your waterfront property. You can also share the link with your friends and neighbors.

Green Shores for Homes

Multiple Agencies
www.greenshores.ca
www.greenshoresforhomes.org
Green Shores for Homes is a voluntary incentives program to promote sustainable use of coastal ecosystems through planning and design.

Stewardship Centre for BC (SCBC)

www.stewardshipcentrebc.ca
SCBC delivers tools, resources and educational programs to support volunteer community stewards, landowners, and land-use decision makers to strengthen ecological stewardship in British Columbia. Download primers and manuals to help you care for shorelines and species at risk.

Coastal Shore Stewardship: A Guide for Planners, Builders, and Developers

http://www.dfo-mpo.gc.ca/Library/335908.pdf
A guide written to help all those interested in the BC coast understand the dynamics that shape the coastal shore, the sensitivities of our particular part of the coastal shore, the rules that govern development, and the best methods for protecting the coastal shore.

Shore Stewards: Guide for Shoreline Living (2015)

Washington State University
www.shorestewards.wsu.edu
A guide based on 10 steps to being a good steward of the shoreline. Many of the sections are directly relevant to managing the shoreline and working with nature.

Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia

British Columbia Ministry of Environment
http://www.env.gov.bc.ca/wld/documents/bmp/devwithcare
This document is for local governments, the development community, landowners and environmental organizations as a guide to maintaining environmental values when developing urban and rural properties.

This Campbell River restoration project removed both a timber wall and a rock wall from a park site and added logs and natural vegetation to transform the park into a beautiful, usable, safe, and healthy environment. The same techniques can be used on residential properties.

The owners of this home replaced a retaining wall with a more natural shoreline. Their approach involved resloping the beach, nourishing with sand and gravel, and strategically placing boulders and logs.

Landowners on Orcas Island installed a gravel beach with logs and native vegetation in place of a rock berm. This new beach enhances storm protection, improves beach access, and provides habitat for fish and wildlife.

Acknowledgments

Steering Committee

Laura Arber, WA Dept. of Fish and Wildlife
Joe Burcar, WA Dept. of Ecology
Randy Carman, WA Dept. of Fish and Wildlife
Nicole Faghin, WA Sea Grant
Alison Hart, WA Dept. of Fish and Wildlife
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MAKERS
Killer Infographics

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Laura Roddan, Powell River Regional District

This booklet is based on the work of Coastal Geologic Services, Qwg Applied Geology, and partners as presented in the *Marine Shoreline Design Guidelines*.

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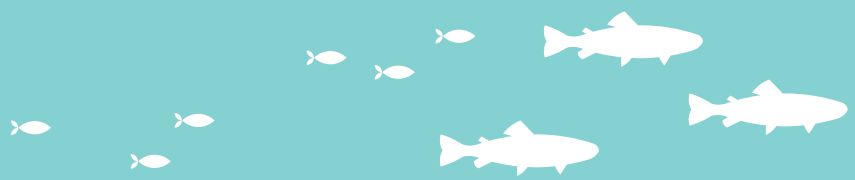
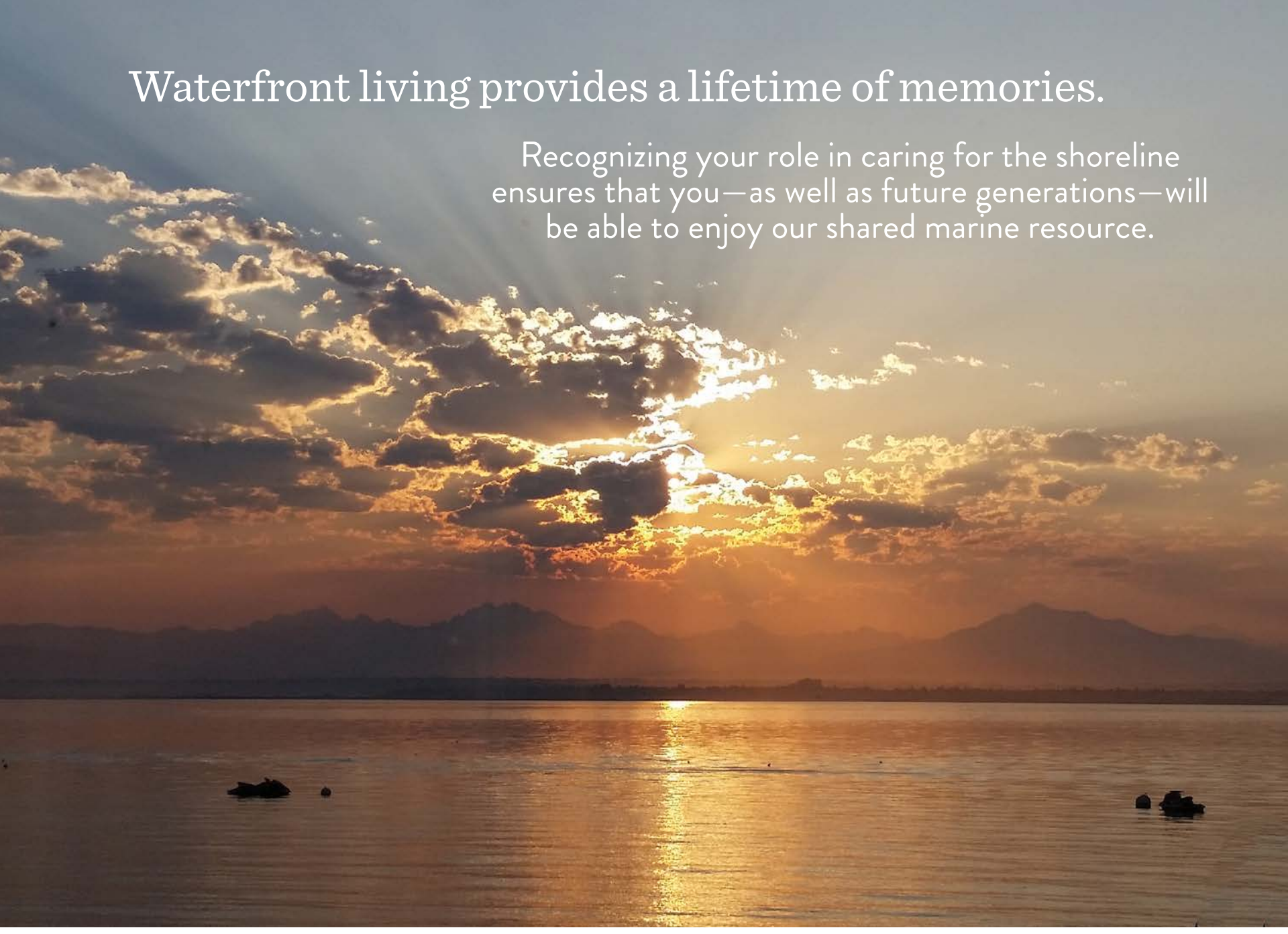
Front cover photo provided courtesy of Dave Shreffler
Back cover photo provided courtesy of Theresa Mitchell





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Islands Trust

Top Priorities

Gambier Island

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

Islands Trust

Projects

Gambier Island

Description	Activity	R/Initiated
Keats Island OCP Map Amendment - add trail map used during public process developing OCP.		08-Mar-2007
Development Approval Information Bylaw	Develop and adopt a D.A.I bylaw for the Gambier Trust Area.	
Consultation with Squamish First Nation	Scope interim strategies pending completion of a possible protocol agreement to address protection of archaeological and heritage resources.	31-Jan-2012
Strategic Planning Review for Howe Sound		31-Jan-2012
Review Gambier LUB to address:	- definition of breakwater - trams (currently silent) - advocacy policies around pump out stations - review of title Wilderness Conservation - 2013: REVIEW KEATS AND GAMBIER LUBS FOR ACCOMMODATION of OCEAN LOOP GEO-EXCHANGE SYSTEMS - 2010: GHG Emissions (a more proactive approaches to plan for GHG reductions especially in relation to Policies 6.1 and 6.2 in consultation with SCRD.) Initiative arises from recommendation of SCRD in comments about bylaws 111 & 112.	22-May-2014
Staff to research the history of Site-Specific water zones on Gambier.		26-Sep-2013
Riparian Sensitive Ecosystem protection	Review Madrone stream mapping reports and consider addressing other sensitive ecosystems on the islands identified in reports.	17-Mar-2016
Review of Recreational Camp and Private Institutional regulations in all Local Trust Area land use bylaws.	Review to ensure that regulations properly balance ecological protection with current realities re: rentals as income source for rec camps.	28-Jul-2016

Islands Trust

Projects

Gambier Island

Description	Activity	R/Initiated

Islands Trust

Applications

Development Variance Permit

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

Planner: Aleksandra Brzozowski

Planning Status

Status Date: 10-Apr-2008
still on hold pending rezoning

Status Date: 13-Aug-2007
on hold pending rezoning application

Status Date: 16-May-2006
Met with applicant. Outstanding items forwarded for attention. May be add'l fees.

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

Planner: Marnie Eggen

Planning Status

Status Date: 14-Oct-2016
Requested documents not received in the time provided. File passed over to bylaw enforcement.

Status Date: 11-Jul-2016
Staff sent letter requesting information to complete the DVP application. Property owner given 90 days to respond to request.

Status Date: 09-Jun-2015
no change

File Number	Applicant Name	Date Received	Purpose
GM-DVP-2016.3	Gambier Acres Ltd.	21-Jul-2016	PID: 010-440-992 Civic address: Richardson's Cove (Between Halkett and Hope Point). Recreational use, provide additional living space and upgrade existing structures.

Planner: Marnie Eggen

Planning Status

Status Date: 14-Oct-2016

Applicant requested to obtain geotech and landslide reports.

Status Date: 06-Oct-2016

Report and draft permit presented to LTC Oct 13, 2016.

Rezoning

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

Planner: Aleksandra Brzozowski

Planning Status

Status Date: 06-Oct-2016

Bylaw language drafted for LUC and LUB amendments.

Status Date: 12-Jul-2016

New Subdivision application submitted to MOTI, SCRD, and Islands Trust. Planner reviewing application to prepare draft bylaws.

Status Date: 12-Jul-2016

Cost Recovery account updated.

Subdivision

File Number	Applicant Name	Date Received	Purpose
GM-SUB-2013.1	Creus Engineering	09-Dec-2013	PID: 014-385-694 The Convention of Baptist Churches of BC\nKeats Island\n9 Lot Subdivision

Planner: Aleksandra Brzozowski

Planning Status

Status Date: 06-Oct-2016

New drawings submitted to MOTI September 9, 2016.

Applications

Status Date: 01-Aug-2016

New subdivision application submitted to MOTI on July 16, 2016.

Status Date: 28-Mar-2014

Under review by planner

Islands Trust

LTC EXP SUMMARY REPORT F2017

Invoices posted to Month ending September 2016

630 Gambier	Invoices posted to Month ending September 2016	Budget	Spent	Balance
65000-630	LTC "Trustee Expenses"	3,000.00	684.67	2,315.33
LTC Local				
65200-630	LTC - Local Exp - LTC Meeting Expenses	4,750.00	1,741.65	3,008.35
65210-630	LTC - Local Exp - APC Meeting Expenses	500.00	0.00	500.00
65220-630	LTC - Local Exp - Communications	1,000.00	0.00	1,000.00
65230-630	LTC - Local Exp - Special Projects	500.00	0.00	500.00
TOTAL LTC Local Expense		6,750.00	1,741.65	5,008.35
Projects				
73001-630-2016	Gambier OCP/LUB	5,000.00	26.85	4,973.15
73001-630-3003	Gambier RAR	2,500.00	1,767.00	733.00
73001-630-4052	Gambier Howe Sound Community Forum	1,000.00	1,550.00	-550.00
73001-630-4066	Gambier First Nations Relations	1,500.00	0.00	1,500.00
TOTAL Project Expenses		10,000.00	3,343.85	6,656.15

POLICIES AND STANDING RESOLUTIONS

Updated: March 26, 2015

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