# WINDSPORTS ACCESS INTERIM OPTIONS WORKSHOP: January 17, 2020 Meeting Summary Report

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# **Executive Summary**

This report summarizes the outcomes from the Windsports Access Interim Options Workshop held January 17, 2020, 9:00 am - 4:30 pm in District of Squamish (DOS) Council Chambers. Participants to the process are noted in Appendix 1.

## **Workshop Objectives**

The workshop objectives were to:

- Enable participants to discuss the key issues for the area
- Clarify values for this area for all participants
- Establish clear objectives that address the issues and values
- Determine and evaluate interim options, using the objectives, that best meet the issues and values
- Recommend preferred option(s) for consideration by the decision makers.

The agenda for the session is in the Appendix 2.

## **Recommendations Snapshot**

The table below sets out a snapshot of the top recommended options to consider in the interim. The term "interim" means that any decision is not a permanent decision for windsports activities in Squamish.

The participants decided to create scenarios and divided them between those that could be for consideration:

- in the 'short-term' for the 2021 windsports season, and
- in the longer term 2022 and beyond.

This process is focussed on the short-term options. Longer term options are beyond the scope of the CERP project.

Comments and ideas were provided as pros and cons. Comments are summarized in the table on the following page. These comments are points of consideration relative to the objectives that were identified. The objectives are recognized as important to achieve in considering all interim windsports options.

In summary the top recommendations are as follows:

#### Short term recommended scenario: (2021):

- Scenario 3 (Island 2 KM Spit Removal and Boat/Ferry Shuttle)
- Scenario 2 (Island 1 KM Spit Removal and Boat/Ferry Shuttle)

#### Long term recommendation (2022 +):

- Scenario 6 (the "Hockey Stick")
- Scenario 3 (Island with 2 KM Spit Removal and Boat/Ferry Shuttle)
- Scenario 4 (Mid Channel Island Zone)

Objectives	Short Term (2021) – co	mbined package		Long Term (2022 +)	
	Scenario 3 (Island - 2 KM Spit Removal and Boat/Ferry Shuttle)	Scenario 2 (Island - 1 KM Spit Removal and Boat/Ferry Shuttle)	Scenario 6 (the "Hockey Stick")	Scenario 3 (Island with 2 KM Spit Removal and Boat/Ferry Shuttle)	Scenario 4 (Mid Channel Island Zone)
Meets WMA regulatory requirements and Cultural value awareness	Yes - Potential impact of I WMA to be considered	boat traffic in	TBD - Must be compatible with WMA objectives	Yes - Potential impact of boat traffic in WMA to be considered/studied	Yes
2. Safe distance from ships and navigation channel	Yes		Yes	Yes	Yes
3. Does not increase flood risk to town	TBC		Yes	Yes	Yes
4. Benefits & improvements to fish and wildlife habitat	Yes - Anticipated significa ecology of the estuary	nt benefits to the	TBD - Contain potential spill (and past spill area), further study required. Benefit if it allows for marsh accretion. Pier Allows water flow but dangerous	Yes - Anticipated significant benefits to the ecology of the estuary	Yes - Must be equal to or better than option 3
5. Ability to have & maintain windsports facility and supporting infrastructure	Yes - Other than status quoption	uo, best available	TBD - High maintenance cost option. Question about ownership and maintenance.	Yes	Yes
6. Safe access from parking to launch area	TBD - Permission for park shuttling from 1km or 2km		TBD - CN Rail crossing is a major question.	TBD - Permission for parking required; shuttling from 1km or 2km point or other	TBD - Permission for parking required; shuttling from 1km or 2km point or other
7. Safe launching - perpendicular to wind and manageable water flow	TBD - Changes to water fl impact e.g. freshet (glacia spring). Potential modific	al and snow melt in	Yes	TBD - Changes to water flow; seasonal impact e.g. freshet (glacial and snow melt in spring). Potential modifications to facility.	TBD - Changes to water flow; seasonal impact e.g. freshet (glacial and snow melt in spring). Potential modifications to facility.
8. Line of site: Retrievals, visibility, hazards, obstacles	Yes - Status quo		Yes	Yes - Status quo	Yes - Status quo
9. Emergency access (first responders)	TBD - New emergency ma strategy required	anagement	TBD - May not have vehicle access	TBD - New emergency management strategy required	TBD - New emergency management strategy required
10. Resiliency and new standards (future proofing)	N/A - Short term option a required	llthough armoring	Yes - Provided it is built to required standards	No - Does not meet long-term future proofing; further study required to determine what is required	Yes - New alignment would incorporate future-proofing. Elevation + structural integrity must be considered.
11. Financial feasibility and responsibility	Yes - Assumption that cur remain. Increased operal windsports access. Poter Spit Rd maintenance.	ting costs for	\$\$\$ (Very expensive) - White Rock pier repair est 16.2 million, section removal with new pilings, matching character 2019	Yes - Assumption that current land tenures remain. Increased operating costs for windsports access. Potential cost savings in Spit Rd maintenance.	\$\$\$ Increased capital costs. Potential savings in long term operational costs (TBD)

## Introduction

This report summarizes the outcomes from the Windsports Access Interim Options Workshop held January 17, 2020, 9:00 am – 4:30 pm in District of Squamish Council Chambers. Participants to the process are noted in Appendix 1.

## Background

Following a Council motion at the November 26, 2019 Committee of the Whole meeting, the District is working with the Squamish Windsports Society and the Central Estuary Restoration Project (CERP) partners to explore interim alternate windsports access options, should a portion of the training berm be realigned.

The Central Estuary Restoration Project is a joint partnership between Fisheries and Oceans Canada, Squamish Nation, and Squamish River Watershed Society. Updates are available through the Squamish River Watershed Society website: <a href="https://www.squamishwatershed.com/central-estuary-restoration.html">https://www.squamishwatershed.com/central-estuary-restoration.html</a>. Phase 2 of CERP involves modifying the lower section of the training berm to reconnect the lower estuary. CERP partners have indicated to the District that Phase 2 is currently in the planning phase, and may commence as early as winter 2020. Neither the scope of works, the project area, nor the project timing have been confirmed by the CERP project team at the time of writing this report.

## **Workshop Objectives**

The workshop objectives were to:

- Enable participants to discuss the key issues for the area
- Clarify values for this area for all participants
- Establish clear objectives that address the issues and values
- Determine and evaluate interim options, using the objectives, that best meet the issues and values
- Recommend preferred option(s) for consideration by the decision makers.

The agenda for the session is found in Appendix 2.

# **Workshop Recommendations**

The following sets out the discussion that lead to the recommendation snapshot. Participants discussed: values and criteria. Discussion on the criteria lead to the creation of objectives which were used to assess and determine interim options.

## **Determining Values**

Participants identified the following as values to consider in providing interim windsports access into the estuary. These values were discussed generally through the day and helped to determine criteria, objectives and scenarios. Later the criteria was used to assess the final set of recommendations.

- Wildlife Management Area designation/regulatory requirements
- First Nations history and culture
- Fish and wildlife habitat
- Terminal and navigation channel
- Flooding risks
- Windsports facility and infrastructure
  - o Access from parking to launch area
  - o Safe launching that is perpendicular to wind with manageable water flows
  - o Line of site for Retrievals, visibility, hazards, obstacles
  - Emergency access (first responders)

#### Criteria

Participants identified criteria that would meet important values of the estuary area. The criteria were refined and specific objectives were identified. The fuller set of criteria and objectives are noted in Appendix 3. It was agreed that the first four criteria were non negotiables. The scenarios to be discussed would either achieve the criteria or not. The terms criteria and objectives are used interchangeably.

No.	Criteria	Objectives
1	WMA	Meets WMA regulatory requirements and Cultural value
		awareness
2	Ships and navigation	Safe distance from <b>ships</b> and nav channel
3	Flood risk	Does not increase <b>flood risk</b> to town
4	Fish and wildlife habitat	Benefits & improvements to fish and wildlife habitat
5	Windsports facility and	Ability to have & maintain windsports facility and supporting
	infrastructure	infrastructure
6	Access	Safe access from parking to launch area
7	Safe launching	Safe launching - perpendicular to <b>wind</b> and manageable <b>water</b>
		flow
8	Line of site	Line of site: Retrievals, visibility, hazards, obstacles
9	Emergency	Emergency access (first responders)
10	Resiliency	Resiliency and new standards (futureproofing)
11	Financial feasibility	Financial feasibility and responsibility

## **Determining Interim Options**

The following scenarios were raised as the full set of options to consider. Pros and Cons were discussed for each scenario. Some sub-scenarios were removed from the brainstorm list and are noted for the record in Appendix 4.

#### Scenario Zero

This is the situation as is – status quo.

Pros	Cons
<ul> <li>Access to good wind</li> <li>Line of site</li> <li>Retrieval</li> <li>Addresses safety concerns</li> <li>Emergency access</li> <li>Parking available</li> <li>Capacity</li> <li>Ideal wind triangle</li> <li>Access perpendicular to wind</li> <li>Perfect wind location</li> </ul>	<ul> <li>Road/dyke will naturally erode due to sea level rise</li> <li>Continued impact on fish</li> <li>Flood risk upland</li> <li>Breach, loss of usable fill material</li> <li>Size small and at capacity for athletes and spectators</li> <li>Road narrow for parking</li> </ul>

## Scenario 1: Nexan Beach Only

This scenario means no central estuary access.

This scend to means no central estuary access.		
Pros	Cons	
Limits recreation impact to estuary	<ul> <li>Crowded/ limited; not enough capacity</li> </ul>	
<ul> <li>Elimination of impacts on fish from jetty</li> </ul>	Expert launch	
Close to town	<ul> <li>Parking</li> </ul>	
	<ul> <li>Dangerous launching/landing</li> </ul>	
	<ul> <li>Small launch and landing area</li> </ul>	
	<ul> <li>Kiteboarders will still kite up to existing</li> </ul>	
	wind/launch area	
	<ul> <li>No SWS presence. Kiters will end up in</li> </ul>	
	Estuary and terminal area.	
	<ul> <li>No flat water for freestyle kiteboarding</li> </ul>	

## Scenario 2: Island - 1 KM Spit Removal and Boat/Ferry Shuttle

This scenario includes an island out in the estuary with removal of one kilometre of the current spit road and some kind of boating / ferry shuttle system to bring windsports users out to the island. The boat/ferry could leave from the new spit road end, from Downtown (Mamquam), Darryl Bay, Stawamus, or 3<sup>rd</sup> Avenue.

#### Scenario 2. Pros/Cons

Pros	Cons
<ul> <li>Improved access to estuary by fish</li> </ul>	Confines river upstream of removal point
<ul> <li>Parking available on spit road</li> </ul>	Creates an island for launch and land area
• Easier access to wind and water than scenario	River current both sides of launch/land area
3 (2km removal)	Short term option
Minimal additional infrastructure on estuary	<ul> <li>Loss of economic benefit to town</li> </ul>
and island.	Road traffic impact; to other users; to wildlife

## Scenario 2A. Darryl Bay/ Stawamus Ferry Shuttle

Pros	Cons
<ul> <li>DOS owns and manages</li> </ul>	Very high use area in future
<ul> <li>LNG only there 5 years</li> </ul>	
First Nations may see an economic	
opportunity venture	

## Scenario 2B Downtown / Mamquam Ferry Shuttle

Pr	os	Cons
•	District building dock and beach?	
•	First Nations may see an economic	
	opportunity venture	

## Scenario 3: Island - 2 KM Spit Removal and Boat/Ferry Shuttle

This scenario includes an island out in the estuary with removal of two kilometres of the current spit road and some kind of boating system to ferry windsports users out to the island. The ferry could leave from the new spit road end, from Downtown (Mamquam), Darryl Bay, Stawamus, or 3<sup>rd</sup> Avenue.

Pros	Cons
<ul> <li>Interim parking on spit road – DOS management</li> <li>Strong improvements in access to estuary by fish</li> <li>Extended flood channel openings</li> </ul>	<ul> <li>Interim parking on spit road end</li> <li>Long boat ride - Not a feasible boat ride</li> <li>Maintenance of spit</li> </ul>

#### Scenario 4: Mid Channel Island Zone

This scenario envisions an island being rebuilt wherever it would be deemed suitable for estuary function, fish and wildlife, in a zone also suitable for windsports.

Pros	Cons
Great for estuary function and fish and wildlife	<ul> <li>Would require building a new structure</li> <li>Expensive</li> <li>Capital expense</li> <li>Impacts to shipping lane?</li> <li>Close to ship activity</li> <li>Who would lead this?</li> </ul>

## Scenario 5: Floating Barge

This scenario envisions a barge floating as a temporary structure located where it would be deemed suitable for estuary function, fish and wildlife, in a zone also suitable for windsports. See image showing possible location.

Due to the safety concerns, the group was not sure whether to remove this option or not. As SRWS noted they will do more research on this, it was decided to leave this scenario on the list.

Pros	Cons
<ul> <li>Adaptable with changing conditions (e.g., sea level rise)</li> <li>Resilient and allows for maximum estuary function</li> <li>Good (excellent) for fish and wildlife</li> <li>Manage use to wind sport season</li> <li>Easier to permit</li> <li>Less maintenance with temp structure vs permanent structure</li> <li>Moveable seasonally</li> </ul>	Storage? All year long in the same location? Difficult to launch and land Inconvenient Off season storage Ongoing maintenance Safety is a big issue – lines or bodies getting caught under barge

# Scenario 6: Physical Access via Road or Pier from 3<sup>rd</sup> Ave – "The Hockey Stick"

This scenario envisions a hockey stick shaped access structure that extends out onto the estuary from 3<sup>rd</sup> Avenue. The structure would be constructed as a road or a pier, or possibly some kind of walk way. See image below as example concept designs.



Figure 1: Hockey Stick Concept Design



Figure 2: Walkway design

Pros	Cons
<ul> <li>Economic spin off benefits for DOS</li> <li>Doubles as sediment deflection (to maintain Terminal west berth)</li> <li>Direct access to good wind</li> <li>Protect estuary from oil spill</li> <li>Possibility for urban park</li> <li>Possible integration with town</li> <li>Less retrievals</li> <li>Possibly less impact to estuary?</li> <li>Vehicle access – easier; emergency; maintenance</li> <li>Best wind conditions</li> </ul>	<ul> <li>Expensive</li> <li>Solid dike design would block river outflow and estuary / fish process – it is just "moving the problem"</li> <li>Design in variable environment- seismic, flow forces</li> <li>CN crossing risk; may not even approve</li> <li>Pier design is a hazard: high risk of getting hung up in rafters</li> </ul>

## Scenario 7: Access from KM 1 Mark (yellow dot) with Pier

This scenario envisions a pier being built out from the 1-KM mark as the new beach area once the 1 km of spit road is removed. The purpose of the pier would be to enable access for windsports to where the wind is available.

Pros	Cons	
No need for boat shuttle	<ul> <li>Expensive</li> <li>Likely a shorter term solution</li> <li>More infrastructure in estuary that is not supportive of estuary function and fish and wildlife</li> <li>Requires ongoing maintenance of spit road</li> </ul>	

# **Evaluating Interim Options**

To help refine the scenarios further, they were divided into a timeline of short-term interim opportunities – for 2021; and longer term, interim opportunities – for 2022 and beyond. The CERP project is focussed on identifying the short-term interim options for 2021.

A discussion and exercise highlighted which scenarios could be considered for short term recommendation and the longer-term.

#### Short – Term Interim Scenarios for 2021

- Scenario 3 (Island 2 KM Spit Removal and Boat/Ferry Shuttle)
- Scenario 2 (Island 1 KM Spit Removal and Boat/Ferry Shuttle)

#### Long – Term Interim Scenarios for 2022 and Beyond

- Scenario 6 ("the hockey stick")
- Scenario 3
- Scenario 4 (Mid Channel Island Zone)

#### Criteria Assessment

#### Short Term Scenario 2/3 – Island and 1 or 2 Km of Spit Removal with Ferry Shuttle

The short term interim scenarios were combined as one option package and assessed against the criteria as follows. The aim was to comment on whether the scenarios did or did not meet the criteria. For some criteria it was not known for sure if the criteria would be met, and as a result TBC (to be confirmed) or TBD (to be determined) were noted.

No.	Criteria	Yes/No	Comments
1	Meets <b>WMA</b> regulatory requirements and Cultural value awareness	Υ	Potential impact of boat traffic in WMA to be considered
2	Safe distance from <b>ships</b> and nav channel	Υ	
3	Does not increase <b>flood risk</b> to town	TBC	
4	Benefits & improvements to fish and wildlife habitat	Yes	Anticipated significant benefits to the ecology of the estuary
5	Ability to have & maintain windsports facility and supporting infrastructure	Yes	Other than status quo, best available option
6	Safe access from parking to launch area	TBD	Permission for parking required; shuttling from 1km or 2km point or other
7	Safe launching - perpendicular to wind and manageable water flow	TBD	Changes to water flow; seasonal impact e.g. freshet (glacial and snow melt in spring). Potential modifications to facility.

No.	Criteria	Yes/No	Comments
8	<b>Line of site</b> : Retrievals, visibility, hazards, obstacles	Yes	Status quo
9	Emergency access (first responders)	TBD	New emergency management strategy required
10	Resiliency and new standards (futureproofing)	N/A	Short term option although armoring required
11	Financial feasibility and responsibility	Yes	Assumption that current land tenures remain. Increased operating costs for windsports access. Potential cost savings in Spit Rd maintenance.

## Long Term Scenario 6 — "the Hockey Stick" $\,$

The following responses and comments were provided for Scenario 6.

No.	Criteria	Yes/No	Comments
1	Meets <b>WMA</b> regulatory requirements and Cultural value awareness	TBD	Must be compatible w/ WMA objectives
2	Safe distance from <b>ships</b> and nav channel	Yes	
3	Does not increase <b>flood risk</b> to town	Yes	
4	Benefits & improvements to fish and wildlife habitat	TBD	Contain potential spill (and past spill area), further study required. Benefit if it allows for marsh accretion. Pier Allows water flow but dangerous
5	Ability to have & maintain windsports facility and supporting infrastructure	TBD	High maintenance cost option. Question about ownership and maintenance.
6	Safe access from parking to launch area	TBD	CN Rail crossing is a major question.
7	Safe launching - perpendicular to wind and manageable water flow	Yes	
8	<b>Line of site</b> : Retrievals, visibility, hazards, obstacles	Yes	
9	Emergency access (first responders)	TBD	May not have vehicle access
10	Resiliency and new standards (futureproofing)	Yes	Provided it is built to required standards
11	Financial feasibility and responsibility	\$\$\$	White Rock pier repair est 16.2 million, section removal with new pilings, matching character 2019

## Long Term Scenario 3 (Island - 2 KM Spit Removal and Boat/Ferry Shuttle)

The following responses and comments were provided for Scenario 3.

No.	Criteria	Scenario 3	Comments
1	Meets <b>WMA</b> regulatory requirements and Cultural value awareness	Υ	Potential impact of boat traffic in WMA to be considered/studied
2	Safe distance from <b>ships</b> and nav channel	Υ	
3	Does not increase <b>flood risk</b> to town	Yes	
4	Benefits & improvements to fish and wildlife habitat	Yes	Anticipated significant benefits to the ecology of the estuary
5	Ability to have & maintain windsports <b>facility</b> and supporting infrastructure	Yes	
6	Safe access from parking to launch area	TBD	Permission for parking required; shuttling from 1km or 2km point or other
7	Safe launching - perpendicular to wind and manageable water flow	TBD	Changes to water flow; seasonal impact e.g. freshet (glacial and snow melt in spring). Potential modifications to facility.
8	<b>Line of site</b> : Retrievals, visibility, hazards, obstacles	Yes	Status quo
9	Emergency access (first responders)	TBD	New emergency management strategy required
10	Resiliency and new standards (futureproofing)	No	Does not meet long-term future proofing; further study required to determine what is required
11	Financial feasibility and responsibility	Yes	Assumption that current land tenures remain. Increased operating costs for windsports access. Potential cost savings in Spit Rd maintenance.

#### Long Term Scenario 4 (Mid Channel Island Zone)

The following responses and comments were provided for Scenario 4.

No.	Criteria	Scenario 4	Comments
1	Meets <b>WMA</b> regulatory requirements and Cultural value awareness	Yes	
2	Safe distance from <b>ships</b> and nav channel	Υ	
3	Does not increase <b>flood risk</b> to town	Yes	
4	Benefits & improvements to fish and wildlife habitat	Yes	Must be equal to or better than option 3
5	Ability to have & maintain windsports <b>facility</b> and supporting infrastructure	Yes	
6	Safe access from parking to launch area	TBD	Permission for parking required; shuttling from 1km or 2km point or other
7	Safe launching - perpendicular to wind and manageable water flow	TBD	Changes to water flow; seasonal impact e.g. freshet (glacial and snow melt in spring). Potential modifications to facility.
8	<b>Line of site</b> : Retrievals, visibility, hazards, obstacles	Yes	Status quo
9	Emergency access (first responders)	TBD	New emergency management strategy required
10	Resiliency and new standards (futureproofing)	Yes	New alignment would incorporate future-proofing. Elevation + structural integrity must be considered.
11	Financial feasibility and responsibility	\$\$\$	Increased capital costs. Potential savings in long term operational costs (TBD)

## **Final comments**

Some questions and comments were noted in closing the session.

- CERP Project Team is completing hydrodynamic modelling, and outcomes will be shared with CERP Stakeholder Working Group at a future meeting in 2020.
- Long term planning and management of estuary will be undertaken collaboratively, with similar stakeholders as those involved in this CERP project process. This will include long term planning of windsports activities.
- SWS discussed assessing costs and logistics of various options.
- SWS could make a plan for the longer term and seek the funds (grants, sports and recreation grants). It was suggested to speak with Tim Hoskins, Director of Recreation (DOS), District economic development staff, and the Province. For grants a financial impact analysis would likely be required.
- SWS could leverage funding sought with CERP modelling but the timing needs to match CERP's initiative. If scenario 6, the Hockey Stick, is pursued by SWS, it would be ideal to align with CERP engineering modelling timelines. SWS will discuss with DOS/CERP the opportunity to move forward into the longer term future on scenario 6, the Hockey Stick.

# **Appendix**

## Appendix 1: Participants

#### **Attendees:**

- · Geoffrey Waterson, SWS, President
- Alyssa Salloum, SWS
- Scott Degelman, SWS
- · Kimberly Armour, SRWS/CERP
- · Edith Tobe, SRWS Executive Director/CERP
- · Murray Manson, DFO/CERP
- · Sandra Bicego, Facilitator
- Eric Balke, South Coast Conservation Land Management Program
- · Chris Wyckham, DOS Director of Engineering
- Caroline Ashekian, DOS Environmental Coordinator

#### **Regrets**

- · Joyce Williams, Squamish Nation/CERP
- Chessy Knight, SRWS President/CERP
- · Nicola Bickerton, BC FLNRO
- Scott Shaw-MacLaren, BC FLNRO
- Joshua Viner, SWS
- Steven Tulk, SWS
- · Alan Linsley, SWS

## Appendix 2: Workshop Agenda

# DETAILED FACILITATOR AGENDA WINDSPORTS ACCESS INTERIM OPTIONS WORKSHOP

January 17, 2020 | 9:00 am – 4:30 pm District of Squamish Venue, Squamish, BC

#### Objectives

The workshop objectives are to:

- Enable participants to discuss the key issues for the area
- Clarify values for this area for all participants
- Establish clear objectives that address the issues and values
- Determine and evaluate interim options, using the objectives, that best meet the issues and values
- Recommend preferred option(s) for consideration by the decision makers.

Time	Agenda Item	
9:00 am – 9:10 am	Introduction and Housekeeping – PacificaBlue Consulting	
	Review Agenda and Objectives of Meeting	
9:10 am – 9:15 am	Introduction to Exercise	
9:15 am – 10:00 am	Define Key Issues and Values	
10:00 am – 10:15 am	BREAK	
10:15 am – 11:15 am	Define the Desired Outcomes: Identify objectives (criteria) to meet values	
	and address issues	
11:15 am – 12:00 pm	Measures of Success	
12:00 pm – 12:30pm	LUNCH	
12:30pm - 2:30 pm	Determine and Evaluate Interim Options	
2:30 pm – 2:45 pm	BREAK	
2:45 pm – 3:45 pm	Recommend Preferred Option(s) for Consideration by Decision Makers	
3:45 pm – 4:30 pm	Wrap Up & Next Steps	
4:30 pm	Workshop Close	

## Appendix 3: Decision Making Criteria and Objectives

Participants identified and summarized the following criteria and objectives to ensure any options discussed would meet the values of the area and also help determine the best options for recommendation.

- 1. (Regulatory) Windsports managed in accordance with objectives of the WMA
  - a. Supportive of estuary functions, sediment flow/management
  - b. Carrying capacity (of people in estuary, of windsport users on water, of number of people at facility)
  - c. Minimizes disturbance to wildlife and habitat
  - d. Cultural value awareness is heightened
- 2. (Regulatory) Addresses safety re. ships
  - a. Suitable distance from ship
  - b. Channel and berth remains navigable
- 3. (Regulatory) Does not increase flood risk to town
- 4. (Land Use) Ability to have & maintain windsport facility and supporting infrastructure
  - a. Building/structure/infrastructure [washroom/garbage/shelter/storage]
  - b. Launch and landing area
  - c. Parking access / space
  - d. Road access, if applicable
  - e. Boat launch, if applicable
- 5. Safe and accessible access for people and equipment to and from parking / launch area
- 6. Safe launching
  - a. Meets wind direction; perpendicular to wind
  - b. Water flows are manageable (safety for launching)
- 7. Line of site: Retrievals, visibility, hazards, obstacles
- 8. Emergency access (first responders)
- 9. Resiliency and standards (futureproofed, long term viability / changes [sea level rise, storms, seismic, flood etc])
- 10. Financial feasibility and responsibility

## Appendix 4: Scenarios Discussed & Not Recommended

Several ideas were discussed and not moved into recommendations. The reason for this was due to the decision by the group to keep launch site options broader for the scenarios noted below. These specific sites are listed here for the record. Scenario 2 (Island - 1 KM Spit Removal and Boat/Ferry Shuttle) however did get more detailed discussion on boat/ferry site options.

#### Mamquam Boat/Ferry

Scenario 3a: Island - 2 KM Spit Removal and Boat/Ferry Shuttle from Mamquam. Scenario 4a: Mid Channel Island Zone with Boat/Ferry Shuttle from Mamquam Scenario 5a: Floating Barge with Ferry Shuttle from Mamquam

#### Pros were discussed for this scenario:

- Economic development downtown
- Parking is possible beside Hydro station / Bosleys (Park and Ride)

#### Darryl Bay Boat/Ferry

Scenario 3b: Island - 2 KM Spit Removal and Boat/Ferry Shuttle from Darryl Bay Scenario 4b: Mid Channel Island Zone with Boat/Ferry Shuttle from Darryl Bay Scenario 5b: Floating Barge with Ferry Shuttle from Darryl Bay.

#### Cons were discussed with this scenario:

- Dock Parking
- Space for all uses (e.g≤ LNG multiple trips per day, public use, gondola parking, etc.)

### 3<sup>rd</sup> Avenue Boat/Ferry

Scenario 3c: Island - 2 KM Spit Removal and Boat/Ferry Shuttle from 3<sup>rd</sup> Avenue Scenario 4c: Mid Channel Island Zone with Boat/Ferry Shuttle from 3<sup>rd</sup> Avenue Scenario 5c: Floating Barge with Ferry Shuttle from 3<sup>rd</sup> Avenue