



SQUAMISH RIVER WATERSHED

Minutes for the Central Estuary Restoration Project (CERP) Working Group Meeting, February 28, 2020, 9:30 a.m. – 4:00 p.m., Sea to Sky Hotel – 40330 Tantalus Rd. Squamish B.C.

In Attendance:

1. Joyce Williams, Councillor – Squamish Nation
2. Murray Manson, Biologist - Fisheries and Oceans Canada
3. Francesca Knight, President - Squamish River Watershed Society
4. Paul Morris, Terminal Manager - Squamish Terminals
5. Kim Stegman-Lowe, Vice-President Finance & Administration - Squamish Terminals
6. Erin Yeo – Manager Customer Service & Community Relations – Squamish Terminals
7. Jordan Sturdy, Member of Legislative Assembly West Vancouver Sea to Sky – Province of BC
8. Scott Shaw-MacLaren Operations Manager - Province of BC
9. Erik Balke, Coordinator - South Coast Conservation Land Management Program
10. Carl McNaughton, Interior & Coastal Conservation Land Manager - The Nature Trust of BC
11. Karen Elliott, Mayor – District of Squamish
12. Armand Hurford, Councillor – District of Squamish
13. Chris Wyckham, Director of Engineering – District of Squamish
14. Caroline Ashekian, Environmental Coordinator – District of Squamish
15. Carl Halverson, Chair – Squamish Environment Society & Secretary – Squamish Trails Society
16. Alyssa Salom, Community Relations Director – Squamish Windsports Society
17. Geoffery Waterson, President – Squamish Windsport Society
18. Josh Viner, Treasurer – Squamish Windsport Society
19. Jim Gracie, Treasurer – Squamish Trails Society
20. Jack Cooley, Vice President – Squamish Stream Keepers
21. Roxanne Tripp, Environment Manager - Fortis BC
22. Stephanie Lingard, Biologist – Instream Fisheries Research
23. Cole Martin, Biologist – Instream Fisheries Research
24. Katrina Cook, Biologist – Instream Fisheries Research
25. Edith Tobe, Executive Director - Squamish River Watershed Society
26. Alyssa Togado, Restoration Technician, Squamish River Watershed Society
27. Kimberly Armour, CERP Assistant Project Manager – Connecting Communities Consulting
28. Judith Cullington, Meeting Facilitator – JCA Cullington and Associates
29. Sandra Bicego, Pacifica Blue Consulting



SQUAMISH RIVER WATERSHED

Invited/Regrets

1. Scott Barrett, Director of Resource Management – Province of BC
2. Nicola Bikerton, Biologist - Province of BC
3. Nicola Bentley, Constituency Assistant to Jordan Sturdy, MLA West Vancouver Sea to Sky
4. Patrick Wieler, Member of Parliament West Vancouver, Sunshine Coast Sea to Sky
5. Natasha Lepur, Casework and Office Manager Office of Patrick Weiler, MP West Vancouver-Sunshine Coast-Sea to Sky
6. Doug Race, Councillor – District of Squamish
7. David Roulston, Manager of Municipal Infrastructure – District of Squamish
8. Emma Jarrett, Management Systems & Training - Squamish Terminals
9. Jennifer Robertson, Senior Manager Sustainability – Fortis BC
10. Rodney Salmon, Supervisor Land Leasing – BCR Properties
11. Samantha Penner, Lower Mainland Operations Technician – The Nature Trust of BC
12. Karla Graf, Manager Environmental Impact Western Region – CN Rail
13. Luanne Patterson, Senior System Manager – Environmental Assessment – CN Rail
14. Matt Parker, President – Squamish Trails Society
15. John Buchanan, member - Squamish Stream Keepers
16. Guillaume St-Louis, Treasurer – Squamish Paddling Club
17. Alan Linsley, Secretary – Squamish Windsports Society
18. Lora Mcauley, Biologist – Laketrail Consulting
19. Steve Tulk, Vice-President – Squamish Windsport Society
20. Christina Walsh, Constituency Assistant to Patrick Wieler – MP West Vancouver-Sunshine Coast-Sea to Sky
21. John Harvey, Treasurer – Squamish Trails Society
22. John Reedshaw, Senior Engineering Advisor, Coastal, Marine & Dredging - SNC Lavalin
23. Gabriela Maciel Jobb, Senior Coastal Engineer Ports and Marine – SNC Lavalin

Minutes:

The purpose of the meeting was to provide updates on the Central Estuary Restoration Project, and hear from participants on the benefits and challenges of the project to inform project planning. The meeting started at 9:30am with Joyce Williams, appointed Councillor to CERP with Squamish Nation providing a welcome and the meeting facilitator leading an introductory roundtable with participants introducing their neighbours.



SQUAMISH RIVER WATERSHED

Central Estuary Restoration Project Updates:

1. CERP and the Oceans Protection Plan provided by Murray Manson: This presentation was an overview on the stressors facing Pacific Chinook salmon including loss of habitat, climate change and others and how this correlates with a decline in stocks such that they are considered to be an at risk species on the South Coast of British Columbia and a primary food source to the endangered Southern Resident Killer Whales. The presentation also highlighted some of the regional projects underway as a part of the Ocean Protection Plan's Coastal Restoration Fund initiative that includes CERP, and intended to support Chinook salmon throughout their various life stages in Coastal British Columbia.
2. Traditional use and cultural significance of the Skwelwil'em Estuary provided by Councillor Joyce Williams: Councillor Williams shared with participants some of the traditional uses that occurred in the Skwelwil'em estuary that dates back to time immemorial, and the value of this land as a place of cultural significance that provides traditional food sources. All of the estuary is within the traditional territory of Squamish Nation, and in present day Squamish Nation owns Site A, and is a co-manager with the Province of BC in the Wildlife Management Area. Both Site A & the Wildlife Management Area are protected lands under shared agreements for the benefit of fish and wildlife.
3. CERP Phases 1, 2 & 3 Update provided by Edith Tobe and Kimberly Armour: The SRWS provided an overview of past restoration work in the estuary that took place between 1999 – 2015 to reconnect and restore fish habitat. This overview includes the installation of culverts across the training berm, removal and restoration of the dredge spoil sand placed in the central estuary in the 1970s to pre-load the site for the coal port facility, development of rearing tidal channels throughout the estuary and reconnection of the Mamquam river flood plain to the estuary that was isolated in the 1950s, and restoration of the former log sort site back to functioning estuary. The presentation also provided an overview of the fish and habitat monitoring work that has been undertaken to assess if fish can access the estuary, and how the CERP phases were established following an adaptive management approach to restoration that is building on 20+ years of work in the area.

Under Phase 1 of CERP a damaged culvert was successfully upgraded in spring 2018 with a much larger box culvert to improve flow and connectivity between the River and the Estuary. The new culvert has brought more freshwater to the estuary than has been since the 1970s. While it is an improvement, fish passage and habitat capacity remain limited as the river remains confined by the training berm and is not able to migrate within the flood plain which is a critical feature of fish and fish habitat. Further, while the culvert is wetted the majority of the time due to higher low tide cycles at the time of construction it was placed at an elevation of 0.5m, and not 0m as designed. Fish and habitat effectiveness monitoring is underway to assess the benefit of the culvert.



SQUAMISH RIVER WATERSHED

Phase 2 of CERP is focused on realignment of the lower section of the training berm, and hydrodynamic modeling is underway to inform next steps in planning. Safe navigation, management of flood risks, and recreational access remain a priority, and stakeholders will continue to be engaged in this collaborative planning process for realignment. Modeling results are expected in summer 2020, and the technical design criteria will be circulated to key stakeholders including Squamish Terminals, Squamish Windsport Society, and District of Squamish in Spring 2020 for feedback.

Phase 3 of CERP is focused on reconnection of tidal channels that are bisected by the rail spur line between Squamish Nations Site A and the Nature Trust of BC Land in the upper Bridge Pond area. There has been some initial discussion on this with CN rail, the District of Squamish and Nature Trust BC. The District of Squamish is currently undertaking a stormwater management plan for this area and the intent would be to provide base flows to isolated tidal channels east of the rail spur line that could be limited when stormwater capacity in the bridge pond is needed. A level logger on the west side of the rail spur line has been installed in spring 2020 to assess headwater levels and to inform design planning.

Break

4. CERP Fish & Habitat monitoring update provided by Stephanie Lingard and Cole Martin - Instream Fisheries: Stephanie and Cole provided an overview of ongoing fish monitoring efforts that indicate that fish are not using the culverts, Chinook Salmon are not dispersing into the estuary and may in-fact enter Howe Sound with-out rearing in estuary likely impacting their rate of survival, Chinook Salmon in the watershed and South Coast of BC are of conservation concern and Improving fish access into the estuary is imperative for this population in the Squamish River Watershed.

Stakeholder Updates

5. Maintaining safe navigation and Squamish Terminals provided by Kim Steegmen-Lowe: An overview of business operations at Squamish Terminals and an update on their regular dredging program was provided. Under this dredging program Squamish Terminals has been approved to remove dredge material from the west berth and navigation channel scheduled for August 2020. At present sediment from the Squamish River back eddies and deposits into the west berth and approach channel, making regular dredging an necessity to maintain operations. It is not known the extent to which the training berm may protect, or impact dredge deposit and planned hydrodynamic modeling under CERP should help build this understanding and inform discussion on how realignment may occur while maintaining safe navigation for Squamish Terminals.



SQUAMISH RIVER WATERSHED

6. Fish and wildlife management provided By Erik Balke on behalf of the Province of BC: An overview on estuary protection and management as a wildlife management area that is co-managed under agreement with Squamish Nation for the benefit of fish and wildlife was provided. Scott Shaw-McLaren with the province also provided some comment on the provincial approvals that may be needed depending on the scope of work.
7. Flood Management and the District of Squamish provided by Chris Wyckham: The DOS's flood hazard management plans has identified that the training berm provides some flood protection until such time as a sea dike is built along the eastern edge of the estuary. While the berm not considered to be a standard flood dike below crescent slough, the actual extent of flood protection in this area is not fully known. The hydrodynamic modeling work undertaken by the CERP project is building on the work done in the Districts 2017 flood hazard management plan to ensure that works do not impact current flood risk.

Lunch

Stakeholder Updates continued

8. Interim Windsport access provided by the District of Squamish and Squamish Windsport Society: In December 2019 the District of Squamish as the lease holder of the wind sport spit developed an engagement process for recreational access in CERP and in January 2019 hosted a workshop with the CERP team and wind sports to discuss interim and long term recreational access options. A summary report of this workshop was prepared, and presented on. The focus of the workshop was on interim options for 2021 season if realignment is to proceed, and recommendations that were supported by wind sports include removal of the lower 1-2km of the training berm with the launch area left in place as a boat accessed island. Next steps include further decision on re-alignment, further discussion and decision on wind sports interim option, activating the interim wind sports option. Longer term access for wind sports was identified to be part of future estuary master planning that the DOS will lead in collaboration with all stakeholders and governments.

Group Discussion: Challenges and opportunities associated with CERP Project

- Partnerships, collaboration, multi-stakeholder approach and meeting multiple needs
- Engaging youth and adults, teaching learning and hands on connection to nature
- Co-benefits – will berm realignment reduce dredging needs?
- Estuary restoration will enhance coastal resilience and reduce risk of flooding
- This is a whole watershed integrated approach that ties in with ongoing work through out the watershed including recent restoration work in the upper Elaho River
- It is a science based approach to restoration in informed by fish and habitation monitoring
- If a deflection buffer is needed for safe navigation can this also provide recreational access?
- A deflection buffer could also contain any deleterious substances from entering the estuary and buffer the industrial use and conservation areas



SQUAMISH RIVER WATERSHED

- WMA management plan and estuary management plan is outdated and not effectively addressing needs or concerns in the area
- Declining salmon stocks, loss of resources, impact of berm, culverts not working
- Assessing best options e.g. box culvert vs. bridge do we continue to invest in upgrades to the training berm given that it is not likely to be maintained into the future
- Multiple decision makers, multiple processes to undertake works is challenging where in past the estuary review committee led by DFO and the Province would provide a coordinated review
- Protection DOS from flood risk until sea dike is built limits the amount of work that can be done
- Climate change and sea level rise and the need to enhance coastal resilience, at present sediment is being sent to deep sea rather than accreting in the estuary to mitigate the effects of SLR
- The estuary is a dynamic ever-changing environment and establishing permanent structures in this area would require ongoing maintenance
- If recreation access is established with a boat shuttle more discussion is needed to operationalize this plan
- 3rd ave is a well used truck route for commercial traffic, putting pedestrians and cars here may present safety issues
- Squamish terminals land is federally regulated by transport Canada and there are security issues with people accessing this area
- The 'hockey stick' alignment is not known to be technically feasible or needed at this time so can't have discussion on this until modeling is completed
- Depending on future recreational access, changes to the spit road may limit camping, mud bogging and other ongoing issues in the WMA
- Opportunity for economic development if wind sports are routed through downtown that has not yet been explored
- If a boat shuttle is to be used it could be pay per use and subsidized by grants or private enterprise and harness local capacity for this service
- An updated estuary master plan is needed that could look at sea diking, long term recreation access and other key infrastructure upgrades and restoration opportunities needed to mitigate the effects of SLR
- How can we combine funding opportunities for restoration, economic development, recreation, flood infrastructure etc. through master planning
- An upgraded culvert or bridge at the culvert 1 area, at the north end of the spit road would benefit quality habitat in crescent slough
- There is an increase of resident and tourists in the estuary putting pressure on fish and wildlife that was not planned for in existing plans
- DOS is currently paying to maintain the training berm for recreational access can this funding be reassigned to support future planning?
- DOS has committed budget to master planning but can not provide additional detail on this at this time



SQUAMISH RIVERWATERSHED

Wrap up and next steps

- Hydrodynamic modeling to get underway and inform next steps discussion with stakeholder when results are available in summer 2020
- Master planning – who needs to lead this and can this build off of the work the SRWS is undertaking with CERP?

Participant were thanked for their time and contribution, closing remarks were shared and the workshop ended at 3:30pm.