

Nanaimo River Watershed Roundtable

Virtual Meeting

May 7th, 2020 1:00 pm.

Minutes

In attendance: Paul Chapman (NALT), Kayla Harris (NRWR Coordinator), June Ross (VIWWC), Louise Shuker (Community), Rob Lawrance (City of Nanaimo), Matt Kellow (VIU), Steve Adams (Mosaic Forest Management), Honey Nampak (Harmac), Steven Moore (Snuneymuxw), Steve Baillie (DFO Stock Assessment), Erica Blake (DFO SEP CA), Christina Czembor (DFO), Erik Pikkila, Jean-Michael Hanssens (Departure Creek Stream Keeper), Bob Colclough, Karalea Cantera (DFO)

1) Approval of Agenda

- Addition from Louise regarding the invasive species workshop under business arising from the minutes
- Additions regarding concerns from Vancouver Island Water Watch Coalition were added to the agenda under new business

2) Meeting Chair – June Ross

3) Approval of February 20, 2020 meeting minutes

- Minutes were approved during the meeting; however, some minor edits had been missed.
- Amendments included a few typos, misspelling of Erica Blake and Rob Lawrance's names, correction to the statement regarding the Terms of Reference, and a correction to the name Nanaimo Cedar Farmer's Institute as 'Cedar' was missed in the name within the minutes.
- The amendments to the February 20th minutes have been highlighted in yellow and provided for the Roundtable to review. Final approval will need to be affirmed at the next meeting on June 24th, 2020.

4) Business Arising from Minutes

- **Invasive Species Workshop Update** – Louise Shuker
 - Invasive Species workshop was planned for May 23rd with the Nanaimo Cedar Farmer's Institute at Woodbank school. The workshop has been postponed. Louise will provide another update the next meeting.
 - Regarding educational initiatives, there were several interesting parties with regards to advertising
- **Eel Grass Study** – Rob Lawrance
- **Financial Update** – Paul Chapman
 - See Attachment 1 for financial statement
 - The finances are around \$4500 with less than \$250 allocated to bus costs for River's Day Tours. Roundtable things have been earmarked for coordination of the Roundtable.
- **Pending Nanaimo Estuary Project Update** – Rob Lawrance
 1. See Attachment 2 for estuary update.
- **Strategic Plan**
 - **Timeline changes to Strategic Plan** – Kayla Harris
 - Discussion regarding a priority list for the strategic plan
 - Due to COVID-19, Roundtable agreed to allow a bit more time for the strategic plan due to Kayla's somewhat limited capacity during this time. The decision was for Kayla to create a draft timeline for the strategic plan to present at the next meeting on June 24th, 2020
 - Kayla will share a draft timeline to slack and via email prior to the next meeting.
 - **Vision and Mission Statement**
 - Mission and vision to be added to the next agenda to be discussed at the next meeting.
- **Salmon Habitat Risk Assessment Workshop update**–Steve Baillie
 - A welcome to Karalea Cantera, our new biologist who is taking over from Jaclyn Boutillier. Jaclyn has returned to her previous job. Steve has asked Karalea to sit in on our meetings with me.

- The estuary sampling project has been postponed due to the Covid-19 virus, but before we were restricted from fieldwork, we were able to get one beach seine sampling session completed in mid-March. We set up 6 sample stations and caught 6 Chum salmon fry. It is likely this project will move forward in 2021.
- Information from the RAMS meeting in January has been posted to the Slack website previously. If anyone would like a copy directly please contact me at steve.baillie@dfo-mpo.gc.ca. The habitat report that was presented at the meeting is currently under revision and will be available when complete. Another deliverable from the RAMS meeting is a data gap/restoration/mitigation project ideas. Steve was working on this March but haven't got back to it. It'll need to be reviewed internally before being released to the public.
- COWESIC has postponed their April meeting at which they were presenting the second part of their review of the status of Chinook stocks in southern BC, to the fall. DFO is continuing to work on a Recovery Potential Assessment although the focus has expanded from the 'Spring' run Chinook in the Nanaimo River to include the Nanaimo Summer run and the Puntledge Summer run. These stocks will be part of the next COSEWIC document and will also be classed as ENDANGERED.
- Funding for the eelgrass work from 2015 has been secured and the field work will be scheduled for July this year. The previous project from the Nanaimo River Estuary Committee and the Nanaimo Port Authority was close to finishing and just required up to date information on the extent of the eelgrass beds.
- Other ongoing processes not mentioned during the meeting (my apologies). Summer run Chinook adults are being monitored in the Nanaimo River this spring and summer so information will be available this fall.
- The pinniped surveys in the estuary that were started last November by the Snuneymuxw First Nation are ongoing and have ramped up to twice/week and will continue through the summer while adult salmon are returning to the River.
- Discussion around the Sierra Club and increasing public awareness of water related stories. Perhaps the story could be of the NRWR and the processes we are going through to improve the watershed.

5) New Business

- **Stories for Sierra Club** – June Ross
- **Beck Creek Outreach** – Paul Chapman

1. Received grant from PSF for outreach on Beck Creek for sources of pollution that have rendered creek above highway not suitable for fish rearing. There have been plans to create passages to allow fish to have access to those upper reaches. There is a hold on the project because there is non-point source pollution, likely from agriculture sources. Beck Creek drains into the estuary. NALT applied for money to support outreach to reach out to farmers to work towards mitigating these issues.
 2. Oxygen levels in the water have been determined to be lethal.
- **General updates/COVID-19 adjustments – Roundtable**
 1. Discussion of possible newsletter was agreed upon that it would not be necessary. Important updates that members that would like to share can be sent to Kayla and she can share the information with the Roundtable. A newsletter will not be occurring at this time. The intent is not for a discussion forum. The group determined that Slack and email are enough. Overall, the concept of a newsletter was thought that it may detract from the meeting updates that occur currently.
 2. Not everyone is able to use Slack due to confidentiality.
 3. Shorter meetings in duration and more frequent we may be able to stay on track more often. Kayla will work to keep the Roundtable members updated with access to all the minutes well ahead of time and will provide reminder prompts for tasks and upcoming action items.
 4. Suggestions were made regarding specific reminders for the group. Kayla will remind the group to stay active.
 5. Email will continue to be used for reminders and any important information. There was some concern about getting lost on Slack.
 - **Vancouver Island Water Watch Coalition Concerns – June Ross**
 1. Biosolids
 2. Bluegreen algae
 3. Clearcutting of forests

6) Next Meeting: 1:00 – 2:00 pm Wednesday June 24th, 2020 virtual meeting.

7) Adjourned: 2:00 pm.

Allocated Funds for Nanaimo River Watershed Roundtable

Thrifty Smile Card Program \$1,161

(May 2015 - April 2016 - to be used for bus rentals for Rivers Day Tours only)

Date	Revenue	Expenses	Balance	Notes
			1,161	Balance Forward
Sep/2016		292.65	868.35	delayed transfer to pay Rivers Day 2015 bus tour
Oct/2016		319.73	548.62	Smith Transportation for Rivers Day 2016 bus tour
Sep/2017		324.45	224.17	Smith Transportation for Rivers Day 2017 bus tour

CCCU Account

Date	Revenue	Expenses	Balance	Notes
			\$3,169.12	Balance Forward
Jan/2019	\$736.95		\$3,906.07	Proceeds from Jan 2019 bottle drive
Jan/2019		\$20.9	\$3,885.17	Mileage for poster distribution
Jan/2019		\$35.31	\$3,849.86	Food for volunteers
Feb/2019	\$0.84		\$3,850.70	Interest
Feb/2019		\$2000	\$1,850.70	to pay new coordinator Erika Amador
Feb/2019	\$1000		\$2,850.70	CUPE 401 donation
Feb-19	\$0.77		\$2,851.47	interest
Mar-19	\$0.73		\$2,852.20	interest
Apr-19	\$0.70		\$2,852.90	interest
May-19	\$0.73		\$2,853.63	interest
26-Jun-19		\$56	\$2,797.63	V3 Media Domain Host renewal
30-Jun-19	\$0.70		\$2,798.33	interest
19-Jul-19	\$2,000		\$4,798.33	Mosaic Forest Management donation
31-Jul-19	\$0.93		\$4,799.26	interest
31-Aug-19	\$1.22		\$4,800.48	interest
30-Sep-19	\$1.18		\$4,801.66	interest
31-Oct-19	\$1.22		\$4,802.88	interest
30-Nov-19	\$1.18		\$4,804.06	interest
13-Dec-19		\$1,375	\$3,429.06	Admin fees paid to Kayla Harris
31-Dec-19	\$1.01		\$3,430.07	interest
29-Jan-20	\$1,124.80		\$4,554.87	Proceeds from Jan 2020 bottle drive
31-Jan-20	\$0.90		\$4,555.77	interest
29-Feb-20	\$1.08		\$4,556.85	interest
11-Mar-20		\$15.95	\$4,540.90	Jan 2020 bottle drive expense: Food
31-Mar-20	\$0.67		\$4,541.57	
30-Apr-20	\$0.19		\$4,541.76	

TOTAL ALLOCATED FUNDS: \$224.17

TOTAL BALANCE REMAINING: \$4,317.59

Eco-Cultural Restoration of the Nanaimo River Estuary

PROJECT DESCRIPTION

Project Summary:

We are very excited to be initiating a new partnership this year with Snuneymuxw First Nation to begin Eco-Cultural restoration of Carex Channel Edge habitat at the Nanaimo River estuary.

Eco-Cultural estuary restoration is a modification of traditional First Nation fish weir techniques to a more modern purpose to restore vital estuary habitat to enhance salmon survival. COSEWIC has recently listed one of the Chinook runs in the Nanaimo River as Endangered. The main stressor on salmonids that we are addressing is intense herbivory pressure from introduced resident Canada geese (*Branta canadensis*). Goose numbers have increased precipitously on east Vancouver Island since they were introduced in the 1960's - 1990's. The geese grub the rhizomes of Carex lyngbyei, causing erosion of the marsh platform and infilling of tidal channels. These impacts reduce foraging opportunities and predator evasion habitat during the smoltification process that occurs in this type of estuary for Chinook juveniles and other salmonids.

The Guardians of Mid-Island Estuaries Society (Guardians) formed as a registered society in 2009 with the intent to bring back estuarine productivity at estuaries within conservation areas being degraded by overabundant resident Canada Geese. The Guardians have taken action to both protect and restore at-risk *Carex lyngbei* channel edge habitat on Vancouver Island (East Coast) estuaries by controlling locally overabundant, introduced, resident Canada Goose populations in concert with the implementation of Eco-Cultural estuary restoration techniques. The Guardians invented a sedge transplant tool and developed successful goose exclosure designs and have implemented a remarkably successful transplanted exclosure system at the K'omoks, Little Qualicum, Englishman, and Campbell River estuaries. A "gold star" science based "Canada Goose Management Strategy for Mount Arrowsmith Biosphere Region: Towards Restoration of Goose Damaged Estuaries" was produced in 2015 along with a video documenting the links towards loss of estuarine productivity, salmon habitat, and the need to reduce targeted Canada Goose populations to allow estuarine recovery efforts.

The Guardians will develop a phased estuary restoration plan for Carex Channel Edge habitat at the Nanaimo River estuary in partnership with Snuneymuxw First Nation, The Nature Trust of BC, and with the support of the City of Nanaimo, Canadian Wildlife Service and the BCIT Rivers Institute. In the 2020 season, we will take immediate action to establish goose exclosures in the Nanaimo River estuary to protect high priority Carex Channel Edge habitat from Canada Goose (CAGO) herbivory, allowing the estuary marsh vegetation to begin to recover. We will also continue to implement restoration strategies outlined in our plans for the Little Qualicum and Englishman River estuaries. We will use our previous experience in developing estuary restoration plans to inform our approach for the Nanaimo estuary.

The Guardians of Mid Island Estuaries Society (Guardians) have pioneered unique and very successful estuary restoration techniques at the Little Qualicum and Englishman River estuaries since 2010. This proposal builds on the evolution of these restoration efforts with a goal to incorporate 100% natural/organic materials to create transformational Eco-Cultural restoration solutions at three mid (East Coast) Vancouver Island estuaries. The Guardians and their First Nations partners will create habitat structures made by manufacturing natural wood products obtained on First Nations lands and from Ministry of Transportation/Highway corridors. Habitat structures will be comprised of alder poles re-enforced with willow branches and twine to construct natural wooden fence structures. These wooden exclosures will protect Carex lyngbyei channel edge habitat over at least the next ten years and provide sites where we can transplant Carex plugs from undisturbed donor sites to mudflats formerly occupied by this plant.

Overview (Science background and context, urgency and recent progress)

Estuaries are known to be the most productive ecosystems in North America. They provide critical fish and wildlife habitat, and therefore their protection and rehabilitation are of the utmost importance (Gaboury, M. *et al.* 2012). Over 30 Conservation organizations, stewards, and partners have spent over \$20 million to secure, maintain, and restore east coast Vancouver Island estuaries since the 1980's. The Nanaimo River estuary is ranked as a class 1 estuary and among the top 8 in BC (Pacific Coast Joint Venture 2007). This estuary has been impacted by urban development which has hardened most of its floodplain due to road and dyke systems and a variety of industrial users over the past 100+ years. The watershed has a diverse group of users. Industrial log booming has been reduced in recent years, but the head lease still provides log storage and handling in the lower intertidal zone of the Nanaimo Estuary. The loss of intertidal estuary habitat during this time severely impacted the river and the estuary's ability to support juvenile salmon during critical life-cycle stages.

Snuneymuxw First Nation has four of its six reserves adjacent to the Nanaimo River estuary and conservation organizations and local governments have acquired land in and adjacent to the estuary along with riparian floodplains and farmland within the floodplain. The enhanced awareness of these efforts has highlighted the importance of the Nanaimo River estuary for fish and wildlife, flood control, and public recreation and has placed a greater urgency to conserve and restore modified habitats within the estuary.



Canada Geese grubbing *Carex* rhizomes which led to marsh platform erosion at the K'omoks Estuary, January 2018.



Example of Eco-Cultural exclosures protecting healthy *Carex* sedges and providing restoration sites for *Carex* transplantation into denuded mudflats, Comox Slough, May 2019.

Measurables and outputs resulting from this project:

1. Construct Eco-Cultural estuary exclosures to protect vulnerable *Carex* channel edge habitat and to facilitate *Carex* restoration success and transplant *Carex* plugs into denuded mudflats.
Measurables: *Carex* habitat protected and restored in m²/hectare, numbers of *Carex* plugs transplanted leading to improved fish use from enhanced habitat structure and resiliency of the estuary.
2. Train Snuneymuxw First Nation Guardians to become skilled at Eco-Cultural restoration and monitoring
Measurables: Numbers of Guardians skilled to carry out all aspects of project monitoring, data collection, and to maintain restoration sites over the long-term.
3. Promote research and awareness of Eco-Cultural restoration techniques to improve fish and wildlife habitat in the Nanaimo estuary.
Measurables: Quality of interpretive outreach information and signage which highlights the role and contributions of KFN Guardians and community stewards. Information bulletins, local media updates, and information sharing with project partners regarding how our work complements their efforts to protect other habitats within the estuary and watershed.
4. Develop and update a comprehensive habitat map to show locations of healthy *Carex* channel edge communities, degraded or at risk *Carex* marsh habitat, and denuded mud flats suitable for restoration.
Measurables: Habitat polygons documenting our work to identify, prioritize, protect, restore and monitor key habitat areas in the Nanaimo Estuary.