

North Shore Streamkeepers Meeting November 16, 2016

7.30pm North Vancouver District Hall

Present: Barbara Frisken (chair), Janet Dysart (secretary)

Regrets: Sandie Hollick Kenyon, Marc Guimond

Attendance: 22 people

ACTION ITEMS

- Prepare guidelines for volunteer weed pull leaders in conjunction with Tyler Farley and NSSK Board members
- Prepare guidelines for construction practice
- Volunteer required to act as liaison for Rain Garden Project North Shore

UPCOMING EVENTS

- Thursday November 24, 2016, 6.30-8-30pm Argyle School Open House to see the plans for the new school (next to Hastings Creek)
- Saturday, November 26, 11 am – 1 pm Bowser Trail Weed pull. Meet at the trailhead on McGowan Ave, North Vancouver
- NSSK Workshop “Stormwater Impacts Communities and Creeks – What Can We Do?” Saturday March 18th 2017, Lynn Valley Community Room.
- 2017 Streamkeeper training NV – dates TBA
- 2017 SEP Community Workshop May 19th in Quesnel, BC

Municipal Reports - District of North Vancouver (Richard Boase)

The debris basin on Kilmer Creek just above the end of East Braemar Rd. is nearing completion. The basin was installed to protect the downstream reach of Kilmer Creek and the Kilmer Bypass from becoming inundated and plugged with debris during extreme flow events.

The project to reconnect the un-named creek that runs south through the ravine behind Edgemont Village was completed this past summer. [This creek enters MacKay near Murdo Park.] The work removed a 50+ year old pipe that prevents any fish access to the small creek that was once a fish bearing tributary of Mackay Creek. Partial funding of the project was achieved through a community amenity contribution made by one of the developments taking place in Edgemont Village.

Discussion about community flood protection revolved around retreat of land use versus engineered protection. Many members felt that retreat was an option that was not necessarily being considered by DNV flood protection projects. The DNV position is that for such a complex item involving both sea level and creek level changes we are planning to protect existing land use and ownership in a manner that is consistent with what other regions are doing but also in a manner that aligns with our demonstrated efforts in watershed protection. There will be more flood protection work, including engineering works in the future in which the NSSK will be asked to provide comments.

Discussion from the DNV about changes that are coming for single family zoned lands. The town and village centre development being done under the new OCP is applying newer and higher standards for watershed protection and stormwater management while there are currently no requirements for

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similar stormwater management on single family lands. This is changing soon with both a Metro Vancouver Regional approach and likely changes to DNV bylaws that will be requiring onsite rainwater control on single family lands.

Richard provided some feedback on the proposed speakers for the upcoming NSSK workshop being held March 18, 2016 “Stormwater Impacts Communities & Creeks – What Can We Do?”. Kim Stephens, P.Eng. currently the Executive Director of the Partnership for Water Sustainability in BC has been invited to speak. Kim is an experienced water resource engineer with many years of experience in the field of stormwater (rainwater) management. Kim is an excellent choice to provide a “big picture” type of overview on the new directions being undertaken in the region for watershed restoration using a “water balance” approach. Julie Wilson is the Academic Coordinator/Instructor for the Master of Land and Water Systems Program at UBC. Julie has a history of working with young professionals on projects involving land and water. She is also an instructor for the Urban Watershed Management course at UBC. Julie is planning to demonstrate an online tool that allows rainwater management features to be applied to single family lots in alignment with watershed specific targets.

Municipal Reports – City of North Vancouver (Angela Negenman)

Rivers Day Creek to Creek Festival Thank You – Thank you all so much for all of your efforts that made our Rivers Day Creek to Creek Festival such a huge success! Held on September 25, the weather worked in our favour and there was no shortage of activity at all eight of the fantastic stations. I have received so many positive comments about all of the wonderful stations and about how much families learned and had fun. That is all thanks to you! I cannot thank you enough for making it such an incredible day.

Spirit Trail on Bewicke from Copping Street to Marine Drive – The culvert replacement on Wagg Creek at Bewicke Ave (near 2nd Street) is nearing completion. Cleanup and landscaping is anticipated to be complete by the end of November. After CNV Operations is anticipated to clean up historical debris from previously used storage area (adjacent to the culvert replacement area). By spring 2017, the Shore development is anticipated to complete the habitat planting in this area, which is the last remaining invasive removal and native plant planting associated with the 3rd Street bridge over Mosquito Creek.

Mackay Creek Dike Project – Further to discussions that NSSK had with Richard Boase, the City is working with DNV to complete this project with dedicated grant funds, which has a tight timeline of one year.

Integrated Stormwater Management Plan – The City and DNV are still working on the Mackay and Mosquito Creek ISMPs. The City is moving forward a report to update Council on the plan in the next month. The plan will mitigate all new impervious services and make efforts to reduce the existing. One goal of the plan is to have source control for 25-30% of the City’s catch basins.

City receives UBCM Award for Leadership and Innovation (Green Initiatives) - The City has recently won the 2016 UBCM (Union of BC Municipalities) Leadership & Innovation (Green Initiatives) Award for our Invasive Plant Management Program.

- The North Shore Streamkeepers are a key part of the success of the City’s invasives program

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- In 2001, the City was one of the first municipalities in the Province to begin to address invasive plant management. In 2013, the City's Invasive Plant Management Strategy was approved by Council.
- The City's program has provided visionary leadership within Metro Vancouver by creating a model to map, plan, manage, implement and adapt through an integrated approach to invasive plant management. The City is taking a leadership role in managing invasive species on City lands, promoting public education about their impacts and integrating community stewardship into control efforts.
- The City has achieved significant reductions in hogweed and knotweed density and distribution (91% and 71% decreases from 2011-2015), substantially reduced most other invasive plant species, and preserved hundreds of trees by cutting off English ivy and clematis climbing species. Outcomes of the City's invasive plant management program include increased forest health and habitat value along with increased safety and usability of City natural areas.

Municipal Reports - District of North Vancouver (Tyler Farley, Trail and Habitat Coordinator)

- Maplewood creek update: Chum salmon were observed traveling inside and through the newly installed box culverts that aid in access to Hogan's Pools.
 - Tyler is proposing volunteer events, beginning in March, to begin removing invasive species inside the park and especially along the water way.
 - Several sections of the creek are quite shallow and wide which hindered salmon movement up the creek. Further talks regarding creek dredging may be needed
- Further partnerships with BCIT students from the Fish, Wildlife, and Recreation Program and Ecological Restoration Program are being explored as Tyler solicited ideas from the NSSK for projects to pitch to students beginning summer 2017. The hope is that there will be an ongoing relationship with these students, the DNV, and the NSSK towards collecting data on fish populations and their habitat on the North Shore for many years to come.

Pacific Streamkeepers Federation (Zo Ann Morten)

- So exciting to see such a strong Chum run across the lower mainland.
- Our Government of Canada is currently looking for input on the changes to the Fisheries Act you can participate online at <http://www.letstalkfishhabitat.ca/> after registering here you can agree with others comments, write your own or go to the DFO eWorkbooks.
- Navigable Waters and Environmental Assessment are going through review as well. A great resource for making your way through can be found at <https://www.canada.ca/en/services/environment/conservation/assessments/environmental-reviews/navigation-protection.html>
- Here is our new one stop shop for the federal environmental law reviews now underway: http://www.envirolawsmatter.ca/environmental_reviews
- At a recent SEHAB meeting DFO presented on the review process of the Fisheries Protection Policy you can see the PPT at <http://sehab.org/agendas-minutes-roundtables/presentations-from-guests/420-indigenous-engagement-sessions-review-of-changes-to-the-fa> You can listen

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to the briefings on the changes to the Fisheries Act online.

<http://www.parl.gc.ca/Committees/en/FOPO/Meetings>

- SEP Community Workshop 2017 – mark your calendars and maybe even book your hotel in Quesnel Workshop runs May 19 – 21 with an additional side trip to Barkerville on the Monday of the long weekend
- Wild Salmon Policy – a meeting will be coming to Vancouver area in January. We will post this onto NSSK messageboard once DFO states the date and place. To bring back to front of mind here is the link to the existing Wild Salmon Policy <http://www.pac.dfo-mpo.gc.ca/fm-gp/species-especies/salmon-saumon/wsp-pss/index-eng.html>

MEMBERS REPORTS:

Hastings Creek (Doug Hayman)

Spawner surveys started on October 29th with 2 Coho seen, 1 in Section 4 and 1 in Section 5. 2 more surveys with no results. However a few Chum were seen spawning above Hoskins ladder, exciting news. Thanks to Tim Green for assistance with cleaning the ladders.

Friends of Hunter Park (Janet Dysart)

Next year's dates set for Saturday weed pulls and planting on April 8, 2017 and September 16, 2017.

MacKay Creek (Brian Comey)

On Oct 25th Sandie brought 33,800 Chum eggs and milt to MacKay creek hatchery. We fertilized the eggs and put them in the Heath trays, now we are waiting for them to get eyed.

Larger numbers of returning Chum salmon, we first noticed them in the creek on Oct 24th. After a week and a half I counted 9 and thought that was the end of them but the next day there were 22 in the survey area. The interesting thing is that I haven't noticed any fish holding in lower MacKay, they all head for the hatchery area where we released them. Getting to this area is a challenge because of a boulder, debris area, a beaver dam and a cement barrier but they managed to make it through. Salmon have an unbelievable GPS system.

Getting an accurate count on the number of fish that have returned is difficult because past the end of our survey area the trail has been built away from the creek to protect it so I don't know how many fish continued up the creek.

My count to date is 108 Chum and 4 Coho in our survey area.

Upper MacKay Creek (Ron Den Daas)

Weekly spawner surveys in Upper MacKay Creek commenced in early October 2016. On October 28th, 2, Nov. 4th, 3, and Nov. 10th, 3 large Adult Coho spawners were detected.

Over the last weeks a number of instances of cloudy/ silty/ grey water flowing into the creek was documented on Mackay Creek. On Nov. 3rd Sandie Hollick Kenyon reported a cloudy water incident that

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was noticed during the spawner survey to the DNV. Subsequently DNV staff found the source of this run off and fined the construction site.

There is an introduction/ signing event for the "Mackay Creek Series" Book being organized for a local Library scheduled for early 2017. Proceeds from the "Mackay Creek Series" Book and another new book "Wild New Territories" will go towards art and science environmental conservation education programming. 5min short video on Coho 'Discover Day' Workshops presented as example of educational programming offered to local elementary schools.

Morten Hatchery (Doug Hayman)

32,000 Chum eggs obtained from the South Allouette River during two trips to the river, not always easy but fun. At the hatchery they are now close to being eyed. We have started to fish for Coho stock brood, so far we have 4 males and 1 female. Need 2 more females and 1 male. We released 2 jacks, 2 steelhead and 1 trout, all clipped except 1 steelhead and 1 trout we forgot to check.

There are also Chum spawning at Twin Falls, perhaps not seen before in our memory. People were seen fishing at that spot and we need to ask Sandie about this. In the meantime the Park Rangers have agreed to keep an eye out for this possible infraction as this area is closed to fishing. We were wondering if signage would explain the boundaries

McCartney Creek (Glen Parker)

The October 30, 2016 walk found the estuary pools completely re-worked (by Rivers Institute and Tseil-Waututh). There were new channels with large woody debris installed and native plantings. There were no small fish observed in the area re-worked. For comparison on the October 18, 2015 walk there were about 68 small fish in the estuary pools.

The total fish count was 13 of which 5 were dead, 4 Chum and 1 Coho male. It was not possible to identify the small live fish but based on the darting behavior of the 3 & 4 cm fish and their light color they may have been Cutthroat trout. The 3 fish estimated to be 6 cm stayed together in the pool and may have been Coho.

The creek water level was 100 to 300 mm higher than the other walks and the higher water level with many "bubble pools" and undercut banks may have hidden fish that would have been seen at lower water levels. A count at lower water levels is proposed.

List of Permit Approvals – (Bob Gelling)

In Sept./16 there were 57 Building Permits and 11 Demolitions, and in Oct./16 there were 51 Building Permits and 9 Demolitions.

Treasurers Report: Finance (Karen Munro) –

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Bank Balance Nov 16th: \$7224.65

DISCUSSION OF OTHER CREEKS AND CONCERNS

NSSK Workshop 2017 - STORMWATER IMPACTS COMMUNITIES AND CREEKS – WHAT CAN WE DO?

Date is March 18, 2017 at Lynn Valley Community Room. The objective of this workshop is to provide up to date information to participants on the topic and to support both N.V City and District in their planning of the ISMP. There will be 2 speakers followed by breakout sessions to allow participants to be involved in the discussion.

First Speaker: Kim Stephens

Kim is Executive Director of “Partnership for Water Sustainability of BC” and will talk on the newly released document “Sustainable Watershed Systems: Primer on Application of Ecosystem-based Understanding in the Georgia Basin”. Attached is a link to this document:

http://waterbucket.ca/rm/files/2016/09/Primer-on-Application-of-Ecosystem-based-Understanding_Sept-2016.pdf

Second Speaker: Julie Wilson

Julie is with the Land and Water Systems department at UBC and is engaged in a program to promote the idea that an integrated understanding of land and water systems and their role in society is necessary to maintain ecological integrity. She will talk on case studies and tools on how to integrate performance targets for stormwater runoff into municipal planning processes.

G3 Grain Terminal and Port Metro Vancouver – A PROJECT AND ENVIRONMENTAL REVIEW PROJECT PERMIT for the G3 Grain Terminal has been granted with 74 conditions. However, the G3 company has not made a final decision to proceed. The environmental permit includes virtually all the items raised by NSSK specifically called out in the conditions on the permit, in addition G3 indicated they would donate to the restoration of instream habitat on the lower Lynn Creek and that it would be made through the Tsleil-Waututh.

We now have a role in watching the project to ensure the permit conditions are respected. This is a link to the permit and the 74 conditions. <http://www.portvancouver.com/wp-content/uploads/2016/06/2016-05-30-WEB-COPY-Final-PER-Permit-15-180.pdf>

In retrospect, we may not have asked for enough. We perhaps should have asked for some land to be set aside as a conservation area.

Water and stream lessons for Eastview School grade 1 / 2 class (Dolores, Jan and Lisa) – Eastview school teacher Alison Donohue requested a Streamkeeper stream field trip to explain to her class “where water comes from and where it goes”. Jan Lander, Lisa Jensen and Dolores Parker planned a classroom session (Oct. 20) with activities to do with the water cycle as well as a field trip to Hunter park to explore Hastings Creek (Nov 3). Lisa did a great job of writing up lesson plans that included appropriate goals from the grade one and two curriculum. The sessions went well. The field trip included a parts of the stream scavenger hunt, discussion of what makes a healthy stream, a one minute challenge of keeping their hands in cold water and a mystery game that involved examining a stonefly nymph, eagle feather, cedar bough and chum carcass and guessing how they were all connected. The chum carcass was a huge hit. We can adapt and revise these lessons to fit other primary grade levels and curriculum goals. Eastview school made a \$25 donation to Streamkeepers.

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MacKay Creek Dike – On October 26, 2016, Paul and Fiona (NSWP), Jan, Doug, Karen, Glen, Sandie and myself (NSSK) and Tara and Diane (Echo Ecological) met with Richard Boase and Eric Villeneuve from the District to discuss plans barriers that will be built along east and west sides of Lower MacKay, below Marine Dr. Barriers are being planned to protect from flooding predicted to occur by about 2100 due to storm surges, high water levels in the creeks, and more water entering the streams due to the percent of impervious cover on our landscape. The DNV team is working to minimize impact on the creek but there is no doubt that there will be some, particularly on the east side where there is not a lot of room. We discussed ways to minimize impact, both of the structure and its installation. We appreciate the opportunity to provide feedback. Barbara has prepared a longer summary of the discussion; if anybody is interested in seeing it, please let her know.

Rain Garden Proposal – On October 24, 2016, Barbara, Janet, Jan, Doug, Bob Gelling, and Karen (others?) met with Barbara McMillan from Cool North Shore to discuss NSSK involvement in a plan to develop 3 raingardens across the North Shore, one in each municipality. A rain garden is a relatively simple way to mitigate the impact of increased impervious surface, which leads to an excess of storm water. A rain garden is created by making a shallow depression using specific kinds of plant and soil materials that hold the water, allowing it to slowly infiltrate back into the soil while the plants, mulch and soil naturally remove pollutants from the runoff. This is a community engagement project and will have a focus on education. The organizers were inspired by a project running in the Puget Sound area called 12,000 Rain Gardens. We discussed various ways of reaching out to the community to build awareness. CNV will probably focus on residential rain gardens. Barbara has promised to send them the name of a liaison person. Please let us know if you are interested. [Update – at this point Janet has agreed to be liaison person. If others are interested, please contact Janet.]

Construction Practice – On October 13, 2016, Barbara, Zo Ann, Bob, and Jan met with Erika Nassichuk, DNV Environmental Control Officer, to learn about DNV rules for construction sites since several members monitor construction sites on a regular basis to make sure the site is clean and not discharging dirty water into the storm drain. DNV has a brochure which describes the rules. In general:

- Water leaving the site must be clean
- Exposed soil should be covered
- Catch basin protection must be installed – these are considered to be for emergency only
- There should be a sediment trap if there is an excavation

Best practices:

- Keep sediment on your site, not on the road – keep the road clean
- Cover exposed soil and soil stockpiles
- Use a sediment trap to make sure water is clean before it is discharged from the site
- Use catch basins protection to catch accidental discharges of dirty water
- Provide tree protection
- Cover storm drain grates when applying asphalt, sealant, concrete etc so that pollutants do not enter storm drains

Members (e.g. Zo Ann, Bob, Karen) have developed non-confrontational methods of informing construction workers of these practices, with an emphasis on education. It is surprising how many construction workers believe that water going into the storm drain gets treated before discharge – when in fact it drains directly into our creeks, where silt interferes with the gills of the fish and deprives the

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eggs of oxygen. We discussed a number of aspects of the current policy that could be clarified and we wrote a letter to Council with suggestions, including developing an explicit checklist for the inspection, increasing the fines, and asking that all construction sites be clearly signed with contact information. We plan to develop a page on the website with information about this. If you see a problem, you can contact Erika directly (nassichuke@dnv.org) or send an email to the DNV Environment email address: environment@dnv.org. It would be great if you could let Bob Gelling know as well, so that we can keep a record of problem sites and so we know which sites have been reported. Bob's email is rj_gelling@hotmail.com

NEW BUSINESS:

- We discussed the possibility of working on signs identifying streams across the district and city. It is surprising how many residents do not realize that our creeks are salmon-bearing
- Please keep in mind that BCIT students are interested in year-long restoration projects
- Barbara McMillan, who is Executive Director of Cool North Shore and one of the rain garden partners, teaches a course on grant and proposal writing at BCIT (www.bcit.ca/study/courses/fund2316). Students go through the whole process during the semester - defining the project, looking for sources of funds, writing grants. Some students bring their own projects, but others are looking for projects. Please contact her if you are interested in her students helping you with a proposal.

NEXT MEETING - Wednesday, January 18th (to be confirmed) – 7:30 to 9:30 pm, District Hall, 355 West Queens Road, North Vancouver

DFO VIOLATION REPORTING: OBSERVE, RECORD, and RECORD (ORR) 604-607-4186

A SPILL OF ANY TYPE Environment Canada – use EMBC number below

EMERGENCY MANAGEMENT B.C. – 1-800-663-3456 www.embc.gov.bc.ca/index.htm

CITY OF NV - Operations Division 604-987-7155 (8 am – 4:30 pm Monday to Friday) or After-Hours Emergency Line 604-988-2212 (after 4:30pm, weekends & Holidays).

- ❖ President: Barbara Frisken, 604-985-9497, barbara.frisken@gmail.com
- ❖ Secretary: Janet Dysart 604-983-3092 mervynd@telus.net
- ❖ Pacific Streamkeepers Federation: Zo Ann Morten 604-986-5059, www.pskf.ca
- ❖ North Shore Streamkeepers Web Site: www.nssk.ca
- ❖ Message board <http://disc.yourwebapps.com/Indices/232171.html>
- ❖ Facebook NSSK: www.facebook.com/nssk.ca/
- ❖ District Web Site: www.dnv.org/Services/Environment/District Information
- ❖ City of North Van: Angela Negenman 604-982-3932 anegenman@cnv.org, www.cnv.org
- ❖ DFO Advisor: Sandie Hollick-Kenyon 604-666-0743, Sandra-Hollick-Keynon@dfo-mpo.gc.ca
- ❖ Hastings Creek: Doug Hayman 604-987-0434, pastoy@yahoo.com
- ❖ Lower Mackay Creek and North Shore Fish and Game Club incubation facility: Brian Comey bmcomey@hotmail.com

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- ❖ Upper Mackay Creek: Ron den Daas, ecosystem@shaw.ca
- ❖ McCartney Creek: Glen Parker 604-929-8450, gepa@telus.net
- ❖ Morten Creek: ZoAnn Morten 604-986-5059, zmorten@shaw.ca
- ❖ Seymour River: Sharee Dubowits, 604-288-0511; volunteering@seymoursalmon.com or www.seymoursalmon.com