

The newsletter for stewards of salmonids and their habitat • Volume 19 • Number 1 • Spring 2012

The watershed is calling us to order

The Coquitlam River Watershed Roundtable takes shape

by Margaret Birch

Groups living and working within the Coquitlam River watershed have a mission. The goal is to develop a collaborative body in which everyone has a voice in planning for the health and sustainability of the watershed. It is a complex process but each milestone along the way provides a model that others will find helpful as we all work towards better stewardship of our most precious resource: water.

The Coquitlam River watershed boasts a vast headwater wilderness, including Coquitlam Lake Reservoir above the dam and at least 30 watercourses that flow into an urban lower watershed that drains into the lower Fraser River. The reservoir is the primary source of drinking water for Metro Vancouver. The river flows through Coquitlam and Port Coquitlam and the reserve lands of the Kwikwetlem First Nation.

Pressures and impacts such as salmon decline and urban development have been addressed by numerous volunteer, government and private sector initiatives, projects and plans. Yet progress towards a healthy, sustainable watershed remained elusive. Coquitlam River continues to be a candidate on British Columbia's Endangered Rivers List.

In this issue:

To disinfect or not to disinfect? Aquaculture licensing designation	3		
		Return of the herring	
		Small things count	6

The idea of forming a Roundtable grew from the Coquitlam River Watershed Strategy, a planning process aimed at improving collaboration and problem solving among the many stakeholders. Following four years of public consultation, the Coquitlam River Watershed Roundtable was formed in 2011. Participants include: the Kwikwetlem; the two municipalities; regional, provincial and federal government agencies; the aggregate industry; real estate developers; utilities; and nongovernment groups representing outdoor recreation, fishing, hunting and stewardship.

The Roundtable does not have authority to make decisions that are the jurisdictional or legislative responsibility of governments or the legal responsibility of any other entity that is participating in the Roundtable. Governments and government agencies do participate but the Roundtable is an independent entity, not under government direction.

The Roundtable's Mission Statement states that it will:

- facilitate collaborative resolution of urban growth and natural resource use pressures consistent with agreed community objectives and values,
- inform and educate people about these matters and the watershed and,
- promote and support conservation of a sustainable, healthy watershed environment.

The types of activities the Roundtable plans to undertake, given adequate



Photo: Eunice Hodge.

resources, include coordinating monitoring, participating in the preparation of a plan for the watershed, sponsoring educational events, and working towards consensus on issues that affect the watershed. Over the course of its first operational year, the Core Committee met seven times, planned and hosted two public Roundtable meetings composed of 50-70 participants, and organized task group meetings to advance progress on goals, projects and activities. Building on its Common Vision and Values, the Core Committee and the Roundtable approved a Mission Statement, and finalized Guiding Principles and rules to provide a firm foundation for future operation.

As a first project, the Core Committee responded to the Roundtable's suggestion to create a "virtual environmental watershed centre." A web-development contractor has been guided by the Core Committee to design and build a new web site, which will feature

... continued on page 2

To disinfect or not to disinfect? There is NO question.

by Paige A. Ackerman, BSc (Aqua), MSc, PhD

I grew up a tomboy and that meant I was always coming home with the wound-of-the-day that needed disinfecting. The medicinal properties

Years of data show that bacteria do not develop resistance to iodophors. Bonus!

of iodine were identified as early as 1819, when it was introduced as a remedy for thyroid disease, and its antiseptic properties were well established by the early 1900s. Iodophors like Ovadine are a complex of povidone with iodine (PVP-I). The povidone is inert and allows the iodine to be released slowly, thereby improving its action and reducing harm towards vertebrate cells. Iodophors are broad spectrum bactericides that are also very effective against molds, fungi, viruses, and protozoan parasites. Many papers have examined their efficacy against specific pathogens, and years of data show that bacteria do not develop resistance to iodophors. Bonus!

I was recently asked about Ovadine egg disinfection. There was a concern

that eggs are harmed during the process. I did a bit of digging and located a recent paper published in the North American Journal of Aquaculture that raised the issue (Chalupnicki et al., 2011). The authors concluded that eggs disinfected at concentrations > 100 mg/L for longer than 30 minutes had reduced survival. That may sound bad, but there are a few things to think about before jumping to any conclusions. First, the paper investigated Atlantic salmon, a completely different species, and there are differences in how eggs of different species are affected by iodophors. Second, other than sockeye eggs, we never disinfect for that long. Ten minutes at 100 ppm is all that is recommended for our eggs (unless they are sockeye).

An early toxicity experiment was conducted in the 1970s (Amend, 1974). That study showed 118 ppm unbuffered solution of Wescodyne at pH 3.0 was damaging, but it was 10 times less toxic at pH 8.0, and below pH 6.0 loss was primarily due to premature hatching related to low pH rather than iodophors. At pH 6.0 and a concentration of 100 ppm, iodophors were not toxic during 60-minute

exposures. Another study in the 1980s looked at iodophor toxicity and pH, and found that concentrations of 100 ppm for 10 minutes at any reasonable pH was safe (Alderman, 1984). At pH 6.0 and above, mortality was not significant until concentrations were >700 ppm, and at pH 7.0 they had to use concentrations >2500 ppm to generate mortalities of >5 per cent.

The bottom line is that the increase in egg survival provided by Ovadine disinfection through removal of surface viral, bacterial, protozoan, and fungal pathogens has been shown repeatedly. For Pacific salmon species, the effective concentration of 100 ppm and 10 minute exposure (60 minutes for sockeye) has been tested and used for decades without issue, is well within safety margins, and has been shown to reduce surface pathogens significantly, thereby increasing survival to ponding. There is a minor risk of harming a few weak eggs, but the danger is far outweighed by the effectiveness that iodophors have at reducing pathogens that could kill a lot more if given the opportunity. About the only major downfall with Ovadine is that it stains things! It's a small price to pay.

...from page 1

virtual tours and other interactive tools designed to inform people and encourage them to participate in Roundtable projects and activities. The Core Committee also researched and approached potential funding sources. Currently the Committee is completing an Evaluation Framework, as well as a work plan and budget for the coming year.

Since the beginning, five years of public consultation and stakeholder engagement have taken place, and over \$250,000 has been invested by the Fraser Salmon and Watersheds Program, Fisheries and Oceans Canada, BC Hydro and the Coquitlam River Watershed Society. These funds – combined with over \$90,000 of inkind support provided by the cities of Coquitlam and Port Coquitlam, Kwikwetlem First Nation, Metro

Vancouver, federal and provincial agencies, the aggregate industry, real estate community, utilities, and nongovernment groups representing outdoor recreation, fishing, hunting and stewardship – have helped this initiative to move forward.

The Roundtable will gain credibility through its actions over time and become an important voice in support of a healthy watershed. Members are determined to reduce conflict and facilitate decision-making based on shared values in the best interests of the watershed.

The Coquitlam River watershed is about people and fish. Through the formation of the Coquitlam River Watershed Roundtable, a healthy watershed is possible.

www.coquitlamriverwatershed.ca

To All Salmonid Enhancement Program Volunteers

It is National Volunteer Week, a fitting time to recognize the efforts of the thousands of volunteers who contribute to supporting the conservation, rebuilding and stewardship of Pacific salmon. The dedication and commitment you give through the SEP community involvement projects (fish culture, habitat restoration, education and community outreach) is inspiring! We appreciate the time and energy you commit and the passion you bring to supporting healthy, sustainable aquatic ecosystems in your communities. You make a difference!

Thank you very much!

Kaarina McGivney, Director Salmonid Enhancement Program Fisheries and Oceans Canada



Heave ho!

by Beverly Lynch

It was a bitter November morning, but eight volunteers from the Tahsis Salmon Enhancement Society (TSES) were up to their waists in the freezing cold water of the Leiner River. They were there to collect salmon brood stock for the Tahsis Hatchery. They worked side by side pulling in the heavy net, showing the efficiency of many years of practice. Out of the fog Bill Dwulit could be heard shouting "Buck!" and "Doe!" as they sorted the fish into a container.

The hatchery was founded in 1982 when a village employee, Bill Dowding, noticed a decline in salmon returns to the Tahsis River. Only four pairs were seen that year. Bill gathered support and formed the TSES. Volunteers – including Berto Bertoia, Wade and Les Dowding,

Randy Musfelt, Richard Illes, Mogens Madsen, Paul Taporowsky and others – built a hatchery to enhance the salmon population.

Now renamed the Les Dowding Memorial Volunteer Salmon Hatchery, its enhancement and protection goals remain the same. "Seals, fish farms, over-fishing, drift-netting and climate change can all affect the salmon mortality rate," said Don Beamin, a long-time member of the society.

The TSES has an agreement with Fisheries and Oceans Canada (DFO) to harvest 250,000 green eggs from the Tahsis and Leiner Rivers. This year, volunteers obtained 65,000 green eggs from the Liener River but were unable to retrieve brood stock from the Tahsis River. Heavy rains may have caused the salmon to shoot up the river and spawn out in one day.

The hatchery is run by volunteers. They receive support from DFO, the



Pacific Salmon Foundation, Westview Marina's Fishing Derby and individual donations. Conuma Hatchery provides technical and staff support. "Everything depends on the salmon run, not just commercial fishing and tourism. Without salmon the health of the rivers would suffer and so would a lot of animals including bears," said Brett Felhouser, a long-time Tahsis resident.

Understanding aquaculture licensing designation

This spring, Fisheries and Oceans Canada (DFO) staff in Aquaculture Management and the Salmonid Enhancement Program have been making presentations to enhancement communities in B.C. about the licensing of salmon enhancement facilities under the new B.C. Aquaculture Regulatory Program.

In case you missed one of the local presentations, read on for a brief overview of the rationale behind why enhancement facilities have now been licensed by DFO.

In December 2010, DFO assumed regulation and management of the aquaculture industry in B.C. Under the *Fisheries Act*, the new Pacific Aquaculture Regulations have defined "aquaculture" as "the cultivation of fish." All instances of "cultivation of fish" that involve access to fisheries waters, releases into the wild, or for sale or consumption, require an aquaculture licence issued under the Pacific Aquaculture Regulations.

Under this new regulation, DFO has licensed many enhancement related activities, including:

- · DFO facilities,
- community facilities,
- classroom incubators, and
- Freshwater Fisheries Society of BC.

The Department recognizes that not all enhancement activities are of equal scale or complexity. DFO took these differences into consideration when operational requirements were developed (e.g., major facility licence requirements are more detailed compared to community facility and classroom incubator licences). In addition, the conditions of licence have been tailored to take into account the variety of activities of each enhancement project.

"Enhancement" is a unique category of aquaculture licence, which is reflected not only in the licence conditions but also in the permissible activities. For example, the release of fish and the use of wild broodstock are permitted under an

enhancement licence but are not included in commercial aquaculture licences.

The new enhancement licences were also a good opportunity to incorporate and document facility best management practices, while further promoting the credibility of the community facility operations. Various permits associated with operations have also been combined into a single licence (e.g.: broodstock collection permits, production plans, etc. are now part of the enhancement aquaculture licence).

The B.C. Aquaculture Regulatory Program is charged with licensing all enhancement facilities in B.C. Questions about licensing of salmon hatcheries can be emailed to: aquaculture.licensing@dfo-mpo.gc.ca

For more information on conditions of licence and more, visit: http://www.pac.dfo-mpo.gc.ca/aquaculture/licence-permis/hatcheries-ecloseries-eng.htm





I do it for...

by Zo Ann Morten

I turn on the tap, put the glass to my lips, and drink. Not so last month.

I flip the switch and my lights turn on, and the stove heats my dinner. Not so last month.

The spring rains drench the lands and help the trees to grow. Not so last month.

I need to use the john, I go into a room, close the door, and then use 4L of purified water to flush. Not so last month.

So what was with last month? We were in India with friends, and have come back to Canada with a renewed sense of thanks for all we have. All we take for granted. Not only can I drink safely from the kitchen and bathroom sinks; if I was so inclined I could drink in the shower, the garden or even from my toilet. We have thousands of people focused on the health of our drinking water and the health of our streams. Most of our streams run wild, have year-round flows and most certainly have far fewer than 80,000 colonies per 100 ml of fecal coliforms in them. This is not luck. This is because clean, natural streams are part of the Canadian value system, and we have made rules that allow our waterways to remain close to natural. While we were away, it looked like this policy may change - is it truly the will of the people? Is this the direction we want the Fisheries Act to go?

While we were away, it looked like folks wanted to get the Kokish River to work for them producing power. I received an email on this, while in a town that had no power for four hours each day. How much do we need? What are we willing to give up?

Rains come to India in mid-June and continue for about four months.

It's wet, really wet. New billboards ask people to plant a tree this monsoon season. TV ads encourage people to plant a tree and not to cut down the existing ones. The value of trees has been noticed. Without steady power, people turn to wood to heat their meals. I look out my office window and see my raised beds filled with native BC trees destined for Cougar Creek in Surrey. Many of the children who will be planting these trees come from India. They know first hand the power of

I won't go into detail on the use of 4L of water :>) but let's just say that not all the world has the water or

infrastructure to allow for the use of even low-flow toilets.

My heartfelt thanks go out to all who work towards the goal that Canadians have: of cool, clean water. Our local aquatic species need a higher standard of temperatures, oxygen and cleanliness to survive. The catfish of Thailand are bountiful in the Cho



Phraya River. Here we have salmon to support.

We each have so many reasons why we have taken up the challenges of assisting agencies to fulfill the mandates given by the people. My top priority right now is named Ethan. I want him to grow up with a healthy environment supporting all our native species of fish, flora and fauna.

I do it for him; who do you do it for? Send along a picture of yourself with the caption "I DO IT FOR _____" (add a couple of words to describe) and we will post it to an ongoing slideshow of caring Canadians. Send to ZoAnn@PSkE.ca.

Reminder:Streamkeepers Volunteer Insurance Policy

Policies run April 15th to April 15th, so get your forms in right away to get the benefit of the full year.

This policy has been specifically put together to cover the work of Streamkeepers and salmon enhancement volunteers. Many thanks to Underwriters Insurance for working with the Pacific Streamkeepers Federation to be able to offer this comprehensive package!

2012 / 2013 forms are at http://www.pskf.ca/ins/index.html. If you need assistance, call ZoAnn at 604-986-5059 or toll free at 1-800-723-7753.



Celebrating the return of the herring

by Rachel Schott, BC Wetlands Education Program

Pacific herring populations are threatened by pollution from urban runoff, and by the loss of estuaries to poorly planned shoreline development. But there are strong efforts to drive attention towards conservation of these essential ecosystems and to unite communities of compassionate individuals to implement change. From late March to early April, herring migrate to shallow inshore waters to spawn. This year, the North Shore Wetland Partners organized a gathering of stewardship and First Nations communities to celebrate the return of the Pacific herring on March 31.



Check out this video of spawning herring at work, posted by Jack Cooley and Douglas Swanston of the Squamish Streamkeepers. Search "Defence Island Herring Spawn."

Beginning as an online network, the celebration was a chance for people from Vancouver Island, Howe Sound and beyond to finally meet one another in person. Through the use of GPS and other mapping technologies, they are attempting to identify herring spawning grounds and areas in need of restoration.

When asked whether he is expecting lower populations of herring this year, Paul Berlinguette of the North Shore Wetland Partners replied, "It's uncertain. Our focus is to manage the network of interested groups and help

bring awareness of the existence and importance of (estuaries) and to plan future restoration works."

With the flood of media coverage on climate change and environmental decimation, it can be hard to maintain hope for a sustainable future. However, Berlinguette and his colleagues choose to optimistically focus on implementing meaningful solutions.

The Pacific herring (Clupea pallasi) has been a long-time cultural and commercial staple along the Pacific coast. Herring play an important role in linking tiny plankton to large fish and provide food for many other species. They are widely distributed in the North Pacific, extending from Siberia to California. They may only

grow to 25 cm but they can live up to 15 years!

The ideal spawning habitat for herring includes intertidal and subtidal zones where spawners lay their eggs on marine plants like eelgrass and kelp. Clean water is also very important. Healthy estuaries are vital in protecting young herring from predation, as well as allowing successful reproduction.

When spawning, the female herring will deposit up to 40,000 sticky little eggs on the marine vegetation.

In Canada, herring have been primarily used for bait and food production. Their roe is considered a delicacy overseas. Herring and their roe have served First Nations communities with food, social, and cultural benefits and there have been fears that these traditions may be at risk due to habitat degradation.

The BC Wildlife Federation's Wetlands Education Program strives to

raise awareness about the importance of wetlands and commends the North Shore Wetland Partners for raising awareness about the importance of estuaries and their linkages to herring.

Check out these and other learning opportunities at www.bcwf.net

Some upcoming workshops:

Wetlands Institute Workshop July 9-15

A seven-day intensive hands-on workshop along the Sea-to-Sky corridor from Pemberton to Squamish. Restore and construct two types of wetlands with expert Tom Biebighauser. Learn current mapping and surveying techniques, and much more.

Wetlandkeepers workshops in Mission, Courtenay, Cortes Island, Castlegar and White Lake

Two-and-a-half-day workshops on wetland mapping, conservation, and soils, vegetation and wildlife surveys.

Map our Marshes, Nelson, June 9

A one-day rapid-assessment crash course on the values of wetlands and how to map them using GPS technology. Get connected with the Community Mapping Network and learn how you can protect wetlands in your area.

Ugly Bug Ball V

Mark your calendars!

Saturday June 23, 2012 at the new AROCHA Brooksdale Environmental Centre in Surrey.

Watch the Pacific Streamkeepers Federation website for details – www.pskf.ca.



Small things do count



Natal's children, Daxton and Scarlett, at the north-side culvert outfall that was upgraded in 2004. Photo: N. Cicuto

Community advisor Rob Bell-Irving recently received this gratifying letter.

Hi Rob. I believe you wrote a story called "The Small Things Count," published in *BC Outdoors*, July/August 1999.

I have a short story to give back...

I want to thank you for writing that story. It changed how I look at my community and the ecosystems around me. Shortly after I read it I began searching for a stewardship group that needed hands-on work and was lacking bodies. I discovered the Yorkson Watershed Stewardship Committee (YWSC) in Langley.

I jumped into the role of salmon surveyor, and have done it almost every fall and winter since. Today, we have a few more volunteers and we can split up the creek to reduce my trek. But in the early 2000s, I would often hike the entire productive portions of the creek, plus sections that were not producing due to man-made obstructions. I hiked, photographed and videoed sections that returning coho could not reach to prove my point. The culvert and outfall were preventing the salmon from passing under Highway 1 to reach the upper Yorkson River. In my reports I recommended that fish ladders

be installed in the culvert, and that the outfall should be raised. The YWSC submitted my information to the Ministry of Transportation, Highways, and Infrastructure and to DFO.

In the summer of 2004, the culvert and outfall were repaired. In

November and December of that year, the community of Willoughby received the first group of spawning coho to get through in over 30 years. Last year, we observed spawning coho as far south as Willoughby Park, south of 84th Avenue. This means we have gained back 50 per cent of the original spawning creek that was lost in the '60s to highway construction.

I ran into a 65-year-old farmer on one of my survey expeditions in 2005. He couldn't believe his eyes with all the new coho that returned. He had remembered seeing the salmon in his back yard over 30 years prior, and one day they just started to disappear. We are now seeing a steady rise over the past seven years, and the future looks brighter each year for this once almost-extinct coho run.

Of all the accomplishments in my lifetime, besides raising my son and daughter with my wife, this has been my most rewarding experience.

For this, I again thank you for writing "The Small Things Count." I thank you for being considerate of nature, and leading me in that same direction.

Sincerely,

Natal (Nat) Cicuto



http://youtu.be/Xvp2Gat8v_s?hd=1 Heart of the Fraser

This four-minute video was created to increase public awareness of the environmental importance of the stretch of the Fraser River between Hope and Mission. It features BCIT Rivers Institute Chair Emeritus Mark Angelo, river scientist Marvin Rosenau, and students from the BCIT Fish, Wildlife and Recreation Program.

http://www.fsl.orst.edu/imst/reports/urban.html

Urban and Rural-residential Land Uses: Their Role in Watershed Health and the Rehabilitation of Oregon's Wild Salmonids is a new report from the Oregon Independent Multidisciplinary Science Team.

Focused on Pacific Northwest ecosystems and salmonids, the report is organized around four key questions:

- How does urbanization alter aquatic ecosystems and what are the implications for salmonid rehabilitation?
- How might Oregon accomplish the mission of the Oregon Plan For Salmon and Watersheds in the face of an increasingly urbanized landscape?
- What is the current state of knowledge for rehabilitating adverse ecological effects associated with rural-residential and urban development?
- What are the major research and monitoring needs for urban and rural-residential landscapes?



A community advisor's story

It was February 20, 1982. I was standing on the floatplane dock in Prince Rupert after a week of touring with Don Lawseth, the guy I was replacing as the North Coast community advisor. It had been a whirlwind tour of logging camps, streamside installations, great people, great pubs and not much sleep. Just as we were stepping away from the plane, Don looked back and said, "I always wondered when my number would come up flying in these things." I swallowed, looked over my shoulder, and thought "What the hell, that's his number, not mine." That and many other memories make up the early days of my experiences as a community advisor (CA). These were heady times for the six of us. We were the stars of the Pacific Region. Every Ottawa official wanted to see our projects, every local politician wanted to know what this program could do for his region.

At the start, my zone included the area west of the Fraser River drainage as far south as Klemtu, as far west and including the Queen Charlotte Islands (now Haida Gwaii) and as far north as I could drive or fly, including the Yukon. During this period, most of our financial management issues were handled by Vancouver. All contracts, travel and overtime were controlled by Pacific Region. We had unlimited overtime and travel

There was an atmosphere of inventiveness, of support, that made failure a learning process.

but were confined to just \$20,000 for Public Involvement Program contracts. Much of what we know now was just being experimented with. There was an atmosphere of inventiveness, of support, that made failure a learning process. There was a boundless energy, internally via a young, almost fearless cadre of dedicated professionals and externally

from a volunteer force just bursting with ideas.

Of course this had no effect whatsoever on our egos. I remember one time coming back to the office and our secretary, Hilary, telling me a reporter from CBC had called. She said he wanted to speak with the famous CA of the North. I never thought twice about it but straight away called the local CBC station. Naturally they knew nothing about it. It wasn't until about a month later at a CA meeting in Vancouver when we were talking about media issues and Joe Kambeitz comes up with some line about the famous CA of the North, that I knew I had been had. We were good for each other that way. We needed to bounce ideas off each other because, really, at that time and stage of the program we were the only people doing this sort of thing, not just in Pacific Region but in the country.

In about a year we hired a CA for Haida Gwaii, then one for the Smithers area. Our jobs changed from volunteer projects to include Community Economic Development Program contracts. My area was smaller but I was busier. New approaches were coming to the forefront. We convinced school districts to give us several of their teachers for a day to help us design our educational package for facilities, *Gently Down the Stream*. They were instant hits because of the buy-in by teachers for something designed by their peers.

Many programs and initiatives have come and gone. Whatever the goals, the changes kept this job fresh and new. Things were also changing with our volunteers and contractors. Now they were educated, savvy about the issues, confident to try new things and push the limits. I hope you are starting to see why after 30 years I still enjoyed coming to work every day. I loved both the professionals I worked with and the dedicated, passionate volunteers I had the pleasure of assisting. From a retired agronomist in Smithers,

whose goal was to find a way to feed 10 billion people, to a group who could raise \$140,000 in one night to fund their activities for a whole year, every individual and organization holds a special place in my memory. From the fishery officer of the Zodiac too



the fishery officer Barry speaking at the SEP Community who jumped out Workshop last year. Photo: Paul of the Zodiac too Cipywnyk.

early when seining coho for our school projects and all we saw was his hat floating down the river, to the Coast Guard captain who offered to haul my jet boat back from a field camp to be serviced, these are all the things that I will remember. Things that made the job special, like the cool high school kids who could not help but be interested in our field trip, or the magical look of wonder on that sixyear-old's face when the egg hatched and the sadness when she released her fry to the creek. I will remember the frosty October day when 20 kids were on a bridge over a creek that was small but surprisingly deep, as I discovered while the kids shrieked with surprise and laughter. Thankfully a change of clothes was at hand and, by the way, I did catch that coho.

I had almost 20 years in the North, out of my office in Terrace. I finished with almost 11 years here in Campbell River. I am humbled by the dedication of those who volunteer their time for this resource. Some groups in the Campbell River area have over 35 years of volunteer dedication. That's what always fueled my spirit. I will miss that the most. Thanks to every one of you for what you do and for making my life as a CA as rewarding a career as I had ever hoped for. Finally I humbly ask you to keep doing what you do. Don't give up. You now know what has to be done - let's find a way







The creativity is as wild and lush as the rainforest. Photo: Sandie Hollick-Kenyon

Fish, art, and learning outside – an unbeatable combination!

The Heywood Hatchery Community Art Project is a North Shore Streamkeepers initiative started by artist Ron den Daas, supported by North Shore Fish and Game Club, Fisheries and Oceans Canada, City of North Vancouver, Artists for Kids Trust, North Vancouver Arts Office and Pacific Salmon Foundation.

The project offers free, full-day interpretive workshops for select North Vancouver schools participating in DFO's Salmonids in the Classroom Program. Six sessions are planned for this spring.

Classes learn about nature and create art inspired by what they see. As they explore the creek (rain or shine!), they keep a nature journal of their impressions and make sketches. Back in the studio they use their experiences to create beautiful works of art.

The grand finale of the day is a chum salmon release to Mackay Creek.

But the project doesn't end there. Students from Carson Graham Secondary School's Art Academy program will assist Ron in transforming the art created by the younger students into a mural that will wrap around the walls of the newly renovated hatchery. It will remind visitors to think about and help protect the long-term health of the Mackay Creek ecosystem.

Check out the video at http://vimeo.com/29190784. For more information visit http://www.nssk.ca/

Help us save trees and postage. Receive StreamTalk by e-mail. Please contact Joanne Day at Joanne.Day@dfo-mpo.gc.ca, with the subject line "StreamTalk by e-mail."

StreamTalk

is published collaboratively by Fisheries and Oceans Canada and stewardship, enhancement, education and Streamkeepers groups in B.C. and the Yukon that care for salmon and their habitat.

For more information or to submit an article, please contact Joanne Day
Stewardship and Community Involvement
Fisheries and Oceans Canada Suite 200, 401 Burrard Street
Vancouver, B.C., Canada V6C 3S4
Phone: 604-666-6614
Fax: 604-666-0417
E-mail: Joanne.Day@dfo-mpo.gc.ca

Editing, design and layout: Jennifer McKim Stone

Opinions expressed in *StreamTalk* are those of the authors, and do not necessarily represent those of Fisheries and Oceans Canada or of other organizations that contribute to the newsletter.

Canadä



Postal No. 40063830