

StreamTalk

The Newsletter for Stewards of Salmonids and their Habitat

IN THIS ISSUE

Seymour rock slide update 2
New mural restoration 3
Off-channel habitat 4
Smolt trap monitoring 5
Pacific Streamkeepers Federation update 5
New book on Salmonids 6
Brooklyn Creek update 6
Green Shores 7

VOL 23 > #2 > FALL 2016

Celebrating 40 years of SEP

2017 marks the 40th anniversary of the Salmonid Enhancement Program (SEP). Unique to the Pacific Region, SEP is a valued program working to restore and conserve Pacific salmon stocks.

SEP was originally created by then federal Fisheries Minister Romeo LeBlanc in 1977 to address the rapid decline in Pacific salmon stocks. SEP worked in conjunction with the B.C. Ministry of Environment, who are responsible for cutthroat trout and steelhead.



Incubation in a SEP facility in the 1980s

Increasing public awareness and active participation by community groups, local schools and First Nations communities was crucial to the success of SEP. A new precedent was set as many B.C. citizens became vital, hands-on partners in the stewardship effort. While the Department of Fisheries and Oceans built major facilities (hatcheries and spawning channels) individuals and groups went to work cleaning up damaged streams and building small incubation boxes.

A look back in time— the incubation of the SEP

Adult salmonids (sockeye, chum, coho, pink and chinook salmon; cutthroat and steelhead trout)

have been a mainstay for survival and vitality in British Columbia throughout history. First Nations caught these fish each year on the rivers on their traditional territories. Smoked and stored, they were a winter staple for coastal First Nations and traded for goods from the interior.

The abundance of fish, thick in the waters in fall, stunned the first Europeans who arrived. Soon an industry began, with salmon caught and smoked or salted for export. Canning was perfected and the race for the fish was on. Boats grew, equipment improved and fishermen increased their skill. While the commercial and sport fisheries developed to provide significant economic benefits, inevitably, the impact was felt on the fish stocks and the salmonid populations began to decline.

Celebrating success today and going forward

Tasked with addressing the decline of salmon stocks and the impact, today, the scope of SEP is varied. Major hatcheries and spawning channels, on some of North America's greatest salmonid-producing rivers, incubate and release



millions of juveniles each year. Smaller in scale are the local community economic enhancement projects operated by contracted First Nations and community groups. Scientific research has contributed another technique on Vancouver

continued on page 2

SEP FACTS

- > Rears millions of juvenile salmon each year, the vast majority from major salmon enhancement facilities, including hatcheries and spawning channels, that maintain and rebuild weak salmon stocks and sustain fisheries;
- > Provides 10-20 per cent of all salmon fishing opportunities in B.C. for commercial, recreational and First Nation harvesters;
- > Annually contributes approximately \$90 million of direct and indirect economic benefits and 1,592 person years of employment to the British Columbia economy (Source: 2012 BC Stats Ministry of Citizen Services);
- > Improves and rebuilds critical salmon habitat through projects, many in partnership with industry, other government agencies and the community, which include building side-channels, improving water flows, removing barriers to salmon migration, stabilizing stream banks and rebuilding estuary marshes;
- > Works with more than 15,000 volunteers from community groups, First Nations and schools, on hundreds of projects that range from operating salmon hatcheries to improving fish habitat to collecting stream and fish data, to public education;
- > More than one million schoolchildren throughout B.C. and the Yukon have

continued on page 2

Celebrating 40 years

continued from page 1

Island. The fertilization of lakes has increased production of sockeye considerably.

In some areas, SEP has turned to smaller technologies. Semi-natural spawning and rearing channels requiring little or no ongoing maintenance are producing fish in remote regions. Fish ladders and fishways provide access for spawners to areas once barren of salmonids. Volunteer projects have grown and matured to address local needs. Besides leaving a legacy of improved habitat in many urban areas, these projects often produce salmonids from small, genetically-unique populations that might otherwise have vanished forever. Every spring, many neighbourhood creeks receive a few healthy fry that have been lovingly raised in the classroom by school children who are learning valuable lifelong lessons on the importance of environmental stewardship.

Since its inception, SEP has adapted to changing needs and priorities to stay current and relevant, however, the goals and vision remain the same.

In announcing SEP in 1977, Fisheries Minister Romeo LeBlanc, stated that “this investment by the federal government will bring significant, lasting returns in terms of jobs, regional development, environmental and social benefits, and the creation of new wealth for British Columbia and Canada.”

In 2016, Dominic LeBlanc took over as Minister of Fisheries and Oceans with the commitment to continue his father’s good work in the early days of SEP.

Today, salmonids return each fall to many rivers and streams as they have done for thousands of years. They continue to provide broad-reaching economic benefits. As they enter our rivers, they make another contribution, too, for salmonids in the waters are part of the West Coast’s heritage—a living link to our history. With its unique partnerships between the federal and provincial governments, communities, First Nations, special interest and community groups and the general public, SEP has found a way to strengthen that link and carry it into the 21st century. By working together on the long-term protection and stewardship of salmon, we’ll have much to celebrate for generations to come. ●

SEP FACTS

continued from page 1

participated in *Salmonids in the Classroom*, endorsed by the B.C. Ministry of Education. A variety of educational materials have been developed by SEP to teach the intrinsic value of the salmon resource and the ecosystem which sustains the salmon;

- > Marks fish at hatcheries and spawning channels with fin clips and/or coded-wire nose tags to collect salmon stock assessment data and support the domestic and international management of Pacific salmon; and,
- > Improves techniques for fish culture and develops new methods for salmon enhancement that include rearing ponds/channels, fishways, fish ladders, in-stream incubation boxes, rearing pens and fry colonization.

Seymour River Rock Slide Mitigation Project update

Work has begun to clear Seymour River rock slide

A special ceremony at the end of August marked the start of the first round of rock breaking to clear debris from a massive rock slide in December 2014 that blocked salmon from reaching their spawning grounds upstream on the Seymour River.

Crews have been scaling the rocks—some the size of small houses—and drilling holes to set the low-velocity explosives. The first round of blasting is expected to take between five to ten days, after which they will wait for a period of high flow. The higher velocity water will reshape the rockslide, pushing smaller pieces downstream. When water levels drop, the slide debris will be reassessed and another round of rock breaking will take place. This process will be repeated until the slide area reaches approximately seven per cent gradient and migration by all species is restored.

Work will continue over the next three to five

years to break up the slide debris into 10,000 to 20,000 cubic metres of smaller rock material that can be used by the salmon in the Seymour River. As this type of work is very specialized, BGC Engineering will work closely with Northwest Hydraulic Consultants to use a low-velocity explosive for rock breaking that is safe and will have less impact on the surrounding habitat. The goal is to restore the migration conditions that existed for all migrating species—particularly coho and steelhead—before the rock slide occurred when an estimated 50,000 cubic metres of rock fell at the upstream end of the lower canyon.

Joining the Seymour Salmonid Society in the mitigation project is the federal Department of Fisheries and Oceans, the B.C. Ministry of Forests, Lands and Natural Resource Operations, Metro Vancouver, the District of North Vancouver and Tsleil-Waututh and Squamish First Nations. ●
—*Seymour Salmonid Society*



Photo: Taylor Ramsden

Bird's-eye view of the Dec. 14 Seymour River rock slide

A new mural showcases stream restoration work

A wonderful new mural has emerged on a building on Bewick Avenue in North Vancouver beside the Mosquito Creek estuary. Overlooking the aptly named Spirit Trail, the colourful mural depicts wildlife and the beauty of nature, with a focus on salmon habitat. The design is based on more than 1,000 drawings created during free Discovery Day workshops offered to local elementary schools across the North Shore by the [Coho Society of the North Shore](#) and a host of collaborative partners including Environmental Damages Fund (Government of Canada), North Vancouver Recreation and Culture Commission, Artist for Kids, Habitat Conservation Trust Fund, North Shore Streamkeepers and DFO. North Western Hydraulics LTD supplied the 90' x 30' wall.

Artist and salmon conservation volunteer Ron den Daas is the driving force behind the mural project as part of the Coho Society's innovative art and science programming. He commented that the program underlines the importance of



“protecting and enhancing salmon habitat to ensure the survival of wild salmon populations on the North Shore in the future.” The goal is to introduce students, and ultimately the community at large, to a number of exciting salmon conservation initiatives that have been implemented in the local area. Examples include community projects such as the Mackay Creek Hatchery, habitat remediation work along Mackay Creek and the Mackay Creek Wetlands, and estuary restoration on

Mackay and Mosquito Creeks, as well as many other estuaries along the North Shore.

The mural project and [Coho Society](#) workshops are a means to get the message out to a wider audience and engage youth and the broader community, encouraging the protection and enhancement of the North Shore's valuable, though vulnerable, wild salmon populations. ●

Read the [North Shore News](#) article for more about the mural project.



Green Bylaws Toolkit

The Green Bylaws Toolkit has been revised and updated as of April 2016 to reflect changes in legislation, best practices and bylaws. More case studies have also been added and information has been re-organized to improve the document.

To stay up to date, please [view](#) the PDF version of the Green Bylaws Toolkit 2016.

For more information about the Toolkit please visit: <http://GreenBylaws.ca/> [View](#) the poster announcement.

A [webinar](#) was held in fall 2015 to inform changes for the Green Bylaws Toolkit.

For more information please contact:

Deborah Curran, *Hakai Professor in Environmental Law and Sustainability, and Program Director of the Environmental Law Centre, University of Victoria* at: 250-853-3105 or dlc@uvic.ca

Neil Fletcher, *Chair of the Wetlands Stewardship Partnership and Manager of the BCWF's Wetlands Education Program* at: 1-888-881-2293 or wetlands@bcwf.bc.ca

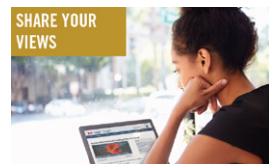
Andrea Tanaka, *Habitat Planner for Environment and Climate Change Canada* at: 604-350-1920 or andrea.tanaka@canada.ca

The Government of Canada is undertaking a review of environmental and regulatory processes.

The review will focus on the following:

- Reviewing federal environmental assessment processes;
- Modernizing the National Energy Board; and,
- Restoring lost protections and introducing modern safeguards to the Fisheries Act and the Navigation Protection Act.

Consultation will be at the core of this review. The Government believes in a



coordinated, open and transparent process that incorporates scientific evidence and takes into account the views of Canadians. Visit the Government of Canada's Review of Environmental and Regulatory Processes [website](#)

Off-channel habitat provides the “real meal deal”

The main-stems of rivers are important but it is off-channel habitat that is typically responsible for the ecological integrity of the river system. The Fraser Valley Watersheds Coalition (FVWC) is well aware of this and has been restoring such habitat in the Stave River watershed for years. This work is vital if the lower Stave River is to remain one of the most productive salmon habitats in the province, and home to the second largest Chum salmon population in the Fraser River watershed.



Stave River (2016) looking west along the lower Stave River off-channel habitat project site. At this site, new ground-water fed channels were created, fish barriers were removed and efforts to mimic the natural draw-down of water were established.

Natural off-channel habitats include side-channels and tributaries, beaver ponds, wetlands, alcoves, and floodplains. With funding from the Fish & Wildlife Compensation Program (FWCP) and support from DFO and many others, the Watersheds Coalition has been mobilizing equipment, biologists, volunteers and students to increase both the quality and quantity of off-channel habitat.

Their most recent focus has been the lower Stave Tidal Estuary between the Lougheed Highway and the Fraser River. Here, they have chalked up impressive outcomes during the last year alone: nearly 50,000m² of instream rearing, and 750m² of spawning, habitat created or restored, and more than 20,000 native plants covering an area of 4,000m² planted.

“This tidally-influenced freshwater estuary habitat is critical,” says project manager Natasha Cox with the Watersheds Coalition. “It acts like lungs, breathing in and out, following the ebb and flow of the tides. The movement of water circulates nutrients and creates unique habitat that supports migratory salmonids, waterfowl, and many other species.”

Partnering with First Nations is a priority for the Watersheds Coalition since the Stave River has an extensive history of archeological artifacts found there. Kwantlen First Nation and local archeological consultants provided advice on the location of constructing the channels, and were on site should any significant cultural artifacts be encountered.

The new, deep side-channels also help reduce the encroachment of invasive canary grass that has changed the physical and chemical composition of the area. Following the re-grading of the site by heavy equipment, community and student volunteers have been replanting the area with two-dozen species of native sedges, trees and shrubs.

“We are keen to fund projects like this that have strong community partnerships and carefully-planned work that will have far-reaching benefits for fish and wildlife,” says FWCP Program Manager Trevor Oussoren. “Already, coho and chum salmonids are utilizing the rearing habitat, and both species have been observed in the new spawning channels.”

The Fish & Wildlife Compensation Program is a partnership between BC Hydro, the Province of B.C., Fisheries and Oceans Canada, First Nations and Public Stakeholders to conserve and enhance fish and wildlife impacted by BC Hydro dams.

“The funding and in-kind support have helped achieve positive results for the lower Stave River, but we are far from done,” added Cox. “We plan to monitor the work completed, and implement more restoration and enhancement work in the future; all while involving community and First Nations since success will not happen without this collaboration.” ●

— *Angus Glass,*
Communications Coordinator, FWCP



Photo: FVWC

FVWC begins planting the lower Stave River site, using native potted stock and employing bioengineering techniques.



Photo: J. Bulcock

FVWC and DFO begin tidal channel restoration. Low shallow-grade benches are being created to support native aquatic sedge and plant communities.

Workshop 2017 is hatching
2017 is the 40th year of SEP, so this will be an extra-special workshop.

Planning has begun for the [SEP Community Workshop](#) for May 19-21, 2017 in Quesnel.

Keep an eye on the workshop website (<http://workshop.pskf.ca/2017/index.html>) for further developments, and check out photos of past workshops.

The graphic features a background of salmon eggs and larvae in various stages of development, with a white text box overlaid.

Lost Shoe Creek Smolt Trap Monitoring Project

Lost Shoe Creek drains into the Pacific Ocean, approximately 10 kilometres northwest of the Municipality of Ucluelet. The creek has historically supported wild salmonid populations including coho, chum, coastal cutthroat trout, steelhead and Dolly Varden; however, spawning and rearing habitat have been degraded by the impact of poor logging practices in the late 1960s. Since 1995, Central Westcoast Forest Society (CWFS) has been working to restore the ecological integrity of the Lost Shoe Creek Watershed through assessments, monitoring, research, and restoration.

The Lost Shoe Creek Smolt Trap Monitoring Project was initiated in 2007 to gather annual baseline water quality and species data. This year, the trap—in operation from April to June—was checked daily by a CWFS biologist with the help of local volunteers who recorded the species, size, and weight of all fish caught before safely releasing them downstream.

It's been a successful year with 1449 fish, including 946 coho smolts, recorded—significantly higher than the 515 coho smolts recorded in 2015. Coho smolts were found in the trap on the majority of the 80



Releasing after monitoring the smolt trap

days monitored; thus, the total number of smolts rearing upstream of the trap will be higher than what was observed, since some smolts may have migrated past the trap site before or after the monitoring period.

The smolt monitoring project is a great opportunity to promote environmental stewardship and community involvement. This year CWFS partnered with the [Raincoast Field School](#) to provide outdoor education for local elementary students. Through this partnership we were able

to bring out three classrooms of students from Ucluelet Elementary School and Wickaninnish Community School in Tofino. We also hosted students from Nanaimo Christian School and Bryn Mawr private school from Baltimore, Maryland. Students helped check smolt traps and plant streamside conifers while learning about species diversity, old growth forests and the importance of restoration. In 2016, 104 volunteers contributed more than 200 hours to the Smolt Trap Monitoring Project. A huge thank you goes out to all our volunteers; we could not have done it without you!

Thank you to the project funders and partners: Pacific Salmon Foundation, The Sitka Foundation, Schein Foundation, Thornton Creek Hatchery, Raincoast Education Society, Yuułu?il?ath First Nation and generous personal donors for helping make this project possible. ●

To find out how you can get involved in a Central Westcoast Forest Society project, visit www.clayoquot.org or e-mail info@clayoquot.org.

—Emily Grubb,
Environmental Technician with
Central Westcoast Forest Society



Pacific Streamkeepers Federation

This summer I met up with the Maple Creek Streamkeepers at their invitation to assist in a Streamkeepers Module 4 stream invertebrate study. This group is no stranger to exploring, monitoring, restoring and protecting their “Gem of Port Coquitlam,” a small stream that flows from the wellhead at Ozada Avenue through the city of Coquitlam. Over the years they have partnered with a large variety of organizations and agencies on many projects. The following are a few examples:

- Creation of a well to supplement creek flows during dry periods and to ensure adequate water supply for migrating fish.
- Creation or rehabilitation of 1000 square metres of rearing pond and over 1500 square metres of stream channel habitat.

- Placement of 16m of spawning gravel and improvements on the connecting channel from Maple Creek to a Coquitlam River side channel.

The group is always up for learning more about their creek and expanding their knowledge of stream monitoring protocols. They have actively mapped their stream and monitored the progress of the enhancement works. They are a recognizable presence at the SEP Community Workshops, Ugly Bug Balls, have instigated Streamkeepers Training for their members and community and participate at a variety of community networking meetings. Their members are



Photo: Zo Ann Morten

left to right: Shelley Livesey, Connie Boulos, Jeff Rudd, Donna Hall (front), Sandy Budd, Curtis Budd

well respected and have accumulated a large variety of accolades and awards for their energy and efforts.

Their latest undertaking comes out of their request for a project, they were

continued on page 8

An author's story: *Ecology of Salmonids in Estuaries Around the World*—finally in print.

A colleague once told me that you don't finish a book, you abandon it. That is how I felt at times when my book *Ecology of Salmonids in Estuaries Around the World: Adaptations, Habitats and Conservation* was in progress.

I started the book in 2005 while on assignment writing about salmon and estuaries, a year before I officially retired from the DFO Pacific Science Branch. Some of the first few chapters were written in Trondheim, Norway while visiting researchers there. During that time I learned a lot about salmon other than our five local favourites (chinook, chum, coho, pink, sockeye) so I decided to include all the salmonid species. Anadromous salmonids, which, by definition, are adapted to estuarine life, are found on all continents except Africa and Antarctica and include, for example, sea run brown trout, brook trout, and other salmonids now found in the southern hemisphere. As the number of species grew to 18, so did the scope of the contents and my task.

I also included basic physical-chemical descriptions of the estuaries, habitats, smolting, health, harvesting, and a major chapter on conservation, including habitat restoration.

I had to dive into the international research. DFO librarians were a great help in tracking down references in various languages including Russian, Spanish, Japanese, Norwegian, and French – I couldn't read all of them, but I took a stab at translating where I could. My home office was overflowing with references and my computer reached its storage limit as digital material flowed in from libraries. At the end of it, the 388-page book has more than 1,000 references and also includes an appendix on estuaries and salmonids for the citizen scientist.

Over the years, as reviews came in on various drafts of the book, at times it was discouraging, but I kept going. I was also assisted by a colleague who helped me in a major rewrite. I did a lot of writing at home so many a long day and evening was spent

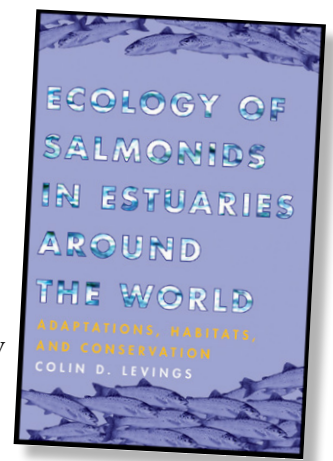
hunkered down in my home office. When I finally received word in March 2015

from the senior editor of UBC Press that the book was accepted for publication by their board, it was joyful moment.

I was very fortunate to receive funding and support from the DFO Science Branch for the book preparation, but the book could not have been printed without the financial assistance of the [Pacific Salmon Foundation](#) (PSF), to whom I am very grateful.

Colin is graciously donating all author royalties to the PSF. *Ecology of Salmonids in Estuaries Around the World: Adaptations, Habitats and Conservation* is available from [UBC Press](#). Official libraries can purchase a digital copy that can be accessed on line. ●

—*Colin Levings,*
Author and Scientist Emeritus



Brooklyn Creek: Salmon Habitat Restoration in an urban watershed

With the last load of stream gravel carefully spread out over a riffle by many eager volunteers, a hard day's work comes to a close in Brooklyn Creek. Meanwhile, downstream from this site, an off-channel pond has been built to restore winter rearing habitat for salmon fry and resident cutthroat trout. These two projects, completed in August 2016, form part of a long history of salmon habitat restoration in the Brooklyn Creek Watershed.

Brooklyn Creek is an important coho, chum and cutthroat trout stream located in the heart of Comox, B.C. Its headwaters run through two different municipalities before passing through the urbanized core of Comox and into the ocean at Comox Bay. Although the Brooklyn Creek

Watershed presently supports a relatively small salmon run, small wild stocks collectively play an important role in the survival of these species.

Unfortunately, increased pressure from urban development in the Brooklyn Creek Watershed over time led to a historical decline in the local salmon populations. Some of the main contributing factors included the ditching and straightening of several segments of Brooklyn Creek, the loss of riparian vegetation, and the overall increase in the amount of impermeable surfaces in the watershed leading to flash flooding in the winter and low water levels in the summer.

Since this initial degradation of salmon habitat in Brooklyn Creek, a number



Volunteers from the Brooklyn Creek Watershed Society spread spawning gravel in Brooklyn Creek as part of the Spawning Gravel Nourishment Project completed in August 2016.

of dedicated groups and organizations have worked together with the Town of Comox to try to offset the effects of urbanization on this creek. Beginning in 1988, the remediation of a fish barrier near Balmoral Road in Comox was completed with the support from Rotary Clubs of

continued on page 7

Shoring up solutions: Green Shores program helps communities and homeowners protect and restore shoreline ecosystems

Green Shores™ is a program of the **Stewardship Centre for BC** that provides science-based best practices guidance for shoreline property owners and managers to minimize the impacts of new developments and restore shoreline ecosystem function of previously developed sites. Green Shores encourages sustainable use of shoreline ecosystems through development and provision of educational workshops and seminars, resources, and research that recognizes the ecological features and functions of shoreline systems. It is applicable for both marine and lake shorelines and has been recognized as a tool for climate change adaptation. Green Shores is based on four guiding principles:

- > Preserve or restore physical processes—the natural actions of water and sediment movement that maintain healthy shorelines.
- > Maintain or enhance habitat function and diversity along the shoreline.
- > Prevent or reduce pollutants entering the aquatic environment.
- > Avoid or reduce cumulative impacts—small individual effects that add up to large impacts on shoreline environments.

New Green Shores training workshops will be held this fall at regional sites across the province in collaboration with our partners at the University of Victoria and the British Columbia Institute of Technology. Work also continues across



B.C. for demonstration projects that use one of our two credits and ratings systems: Green Shores for Homes (residential) or Green Shores for Coastal Development (parks or mixed use). A **Green Shores Local Government Working Group** with an initial cohort of three Regional Districts (Capital Regional District, Cowichan Valley Regional District, and Powell River Regional District), as well as representatives from the provincial government and other organizations interested in Green Shores has been established. Other communities interested in Green Shores can join the Working Group in 2017 to access our

resources and training opportunities, share challenges and solutions, and work with other communities

Sign up for the Green Shores newsletter for updates on training dates and locations and read recent Green Shores project reports, including the Green Shores B.C. Pilot Project and the Green Shores Education and Training Pilot Project, at <http://stewardshipcentrebc.ca/Green-shores/about-green-shores/>. ●

*—DG Blair, Executive Director,
Stewardship Centre for BC*

Brooklyn Creek

continued from page 6

the Comox Valley. Since 2005, the Town of Comox has partnered with the Pacific Salmon Foundation, Fisheries and Oceans Canada, the Habitat Conservation Trust Foundation and the Brooklyn Creek Watershed Society, to complete a number of other salmon habitat restoration projects within the watershed. Restoration projects included improving fish access, creating more spawning platforms, improving vegetation cover, creating more pools and large woody debris habitat structures, and creating off-channel pond habitat. To date,

an estimated 2.5 kilometres of Brooklyn Creek has been restored as a result of these projects.

With each new project, the restoration of Brooklyn Creek has gained momentum in the community, with a remarkable amount of volunteer effort from the Brooklyn Creek Watershed Society and an ever-growing list of in-kind donations from local companies and organizations around the Comox Valley. Accordingly, the salmon stocks in Brooklyn Creek have been steadily increasing since the restoration efforts began in 1988 and a recent smolt counting effort recorded over 3000 salmon smolts leaving Brooklyn

Creek in the past three years.

What started as a few dedicated local residents with boots on the ground more than two decades ago quickly grew into a movement of local stewardship action in this urban watershed. Although the Brooklyn Creek Watershed represents such a small portion of salmon habitat across the province, these restoration efforts are a step in the right direction with the overall recovery of wild salmon stocks in British Columbia. ●

*—Caitlin O'Neill, B.A.Sc.,
Ecosystem Restoration Grad,
Current Environmental*

Pacific Streamkeepers Federation

continued from page 5

ready to take on even more at their creek and through their DFO Community Advisor they were able to work with Lafarge on a community improvement project. Maple Creek doesn't have a lot of area where it is easy to gain access to the water but the group was able to come up with two sites where there was need for works to be done. One area had been the recipient of gravels years back, but fine sands had infilled the areas between the stones and was in need of cleaning. The riparian area also required a removal of invasive plants to give way for the planting of some of our local vegetation. The other area had been infilled with fine silt and much of the previous root wad placements from the past were no longer functioning.

With the Streamkeepers knowledge of the area and the business wanting to do community good works, DFO was able to work with and join the two entities to get this initiative on the way. A lot of coordination and planning goes into these projects and as life would have it, Donna Hill, a Maple Creek Streamkeeper, is enrolled in the [Restoration of Natural Systems Program](#) at the University of Victoria. Donna took the lead in preparation for the stream works by working with the group to conduct water quality pre

work assessments, [Stream invertebrate surveys](#) and [here](#) as well as inventory of the existing riparian zone.

With the help of the group she oversaw the preworks fry salvages, labour, machinery and rock placements all the while ensuring volunteers and workers alike were well watered and fed. Over the course of four days the group, under the guidance of Scott Durcharme from DFO, pole seined and trapped out the young fry in preparation for the excavator coming.

In total they collected 48 coho, five cutthroat, 31 stickleback, one pike minnow, one dace, 13 sculpin, one crayfish, one red sided shiner, one sockeye, one frog and one caddisfly.

A videographer provided by Lafarge has been capturing the work done, and was "captured" by the enthusiasm and care of the creek, and of the Maple Creek Streamkeepers care for one another. He began by documenting the gravel cleaning and replenishing but has since broadened the scope to include the story of Maple Creek and those who are dedicated to her protection and health.

With so many studies done prior to the instream works it will be exciting to follow the changes in stream health as the group monitors the diversities in the life forms that inhabit the streams now that these two sections of the stream that had had past works done have been revisited and refreshed. ●

*—Zo Ann Morten, Executive Director,
Pacific Streamkeepers Federation*

StreamTalk

To 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 streamkeeper groups in B.C. and the Yukon that care for salmon and their habitat.

You will find past issues of [StreamTalk here](#).

The current issue can be viewed [here](#).

For more information or to submit an article, please contact:

Joanne Day

Stewardship and Community Involvement
Fisheries and Oceans Canada

Phone: 604-666-6614

Fax: 604-666-0417

E-mail:

Joanne.Day@dfo-mpo.gc.ca

Website: www.streamtosea.ca

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.

Canada

FOLLOW US ON TWITTER:

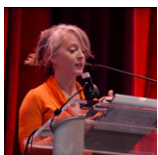


[@DFO_Pacific](#)
[@MPO_Pacificque](#)



**VISIT DFO ON
YOUTUBE**

@ Salmon Site-ings



Think and Act like a Watershed

Dr. Jenifer McIntyre, aquatic ecotoxicologist, explains the science at a WSU Innovators Lecture titled: "[Stormwater detox: How natural infrastructure can help save salmon](#)" (April 2016). The presentation provides a detailed understanding of why rain gardens eliminate toxicity.



Bobs & Lolo - Run Salmon Run (Official Video)

A new salmon app game will be available soon.
[Watch the video](#)



VSB crews help save classroom salmon

Jamieson Elementary Grade 1 students welcome the VSB movers and salmon fry back to the classroom. [Learn more](#)

Pacific Salmon Foundation's 2016 Stewardship Community Bursary

This bursary aims to reduce financial barriers to achieving success for aquatic stewardship volunteers enrolled in education and training programs that support their goal of a career in salmon recovery. Open until October 30. For more details and instructions, and a downloadable application form go to www.psf.ca/what-we-do/application-online-form

