

StreamTalk

The newsletter for stewards of salmonids and their habitat • Volume 18 • Number 1 • Spring 2011

Water Wise in the Cariboo Chilcotin

A program that reaches out to schools – and well beyond

by Marg Evans

Over 3,000 students! Over 500 parent volunteers and teachers! The Water Wise Program of the Cariboo Chilcotin Conservation Society (CCCS) runs two sets of classroom modules yearly for grades K to 7 in School Districts 27 and 28, with new content added frequently to keep things fresh.

In the schools there are four modules: *Water Chemistry*, *Wastewater and Groundwater*, *Watersheds and Bottled Water*, and *Ecological Footprints*. The aim is to get students to realize the importance of water – not just locally, but as a global resource – and the responsibility each of us has to protect the world's water supply. Conservation tips and class challenges are tied into each module.

Our field trips get students out to tour the city's water and sewage facilities, to test the water quality of the Williams Lake River and to study aquatic ecosystems in the marshes of this local watershed. At the Gavin Lake Outdoor School, alternating ecosystems modules target students in grades 4 to 7. They study *Species at Risk in the Cariboo Chilcotin*, *The Perfect Stream*, *Invertebrates*, and *Ecological Footprints*. Each session includes a 15-minute water wise presentation which includes the current state of the Williams Lake Aquifer, how much water we use compared to other countries, why and how to conserve every day, and how Gavin Lake has become a water wise site. There are tips on how to make our own homes water wise. Parents and teachers attend a xeriscape gardening demonstration to learn how to grow plants with less water.

The Water Wise program also works with businesses in the community, providing workshops, help with water wising their sites and with promoting



Our mascots, Ms. Interior Coho, Ms. Sockeye and Ms. Pink, prepare to follow the Cariboo Chilcotin Conservation Society's Think Healthy Watersheds banner, reminding over 10,000 Williams Lake Stampede attendees that Water Is Life. Photo: Gaeil Farrar.

their water-friendly products. Water Wise attends events with mini-aquifer demos, *Getting Off the Bottle* (bottled water) talks and xeriscape gardening information, complete with local native/drought-hardy plant lists (available on-line). It reaches out to high schools, the university, elder college classes and community groups. And each year during Earth Week we are out in the community painting storm drains with yellow fish, handing out storm drain awareness pamphlets and engaging the media.

CCCS has produced several educational brochures, most of which are viewable online at www.ccconserv.org. Throughout the community, hundreds of Water Wise Tips signs are posted in restaurant washrooms, staff kitchens and public noticeboards. Larger signage and a salmon statue have been erected in the Williams Lake River valley and the recreation centre. Portable displays accompany staff to events throughout the region.

The CCCS watershed conservation efforts began in 2004, with support from Fisheries and Oceans Canada staff, the municipality of Williams Lake, Eco Action Canada and grants from Pacific Salmon Foundation, Fraser Salmon and Watersheds Program, Weston Foundation, Vancouver Foundation, Daybreak Rotary and Williams Lake and District Credit Union.

We are grateful for DFO's financial support, as well as the invaluable assistance and guidance of Williams Lake DFO staff, in our ongoing stewardship initiatives.

In this issue:

SEHAB hears you	2
Baffling beavers	3
Take the digital plunge	4
Floyd George retires	5
Jennifer Atchison remembered.....	6
West Van's Environmental Protection Network	7

We hear you. Loud and clear.



Left to right: Anna Eastman, Pat Asher, Dora McMillan, Tracy Bond, Don Lowen, Jan Lemon, Dave Smith, Jim Shinkewski, Dianne Ramage, Jack Minard, Lee Hesketh, Gerry ten Wolde, ZoAnn Morten, Brian Smith. Photo: Pat Morten.

By Don Lowen

Fisheries and Oceans Canada funds and supports the Salmon Enhancement and Habitat Advisory Board (SEHAB) as its “voice of the volunteer community”. Formally speaking, SEHAB and the community have a shared commitment of ensuring functioning ecosystems supporting viable, genetically diverse and abundant indigenous fish populations.

Informally, SEHAB, as a volunteer board with a budget, strives to ensure that all voices are heard, and to cultivate a productive, non-adversarial relationship between community partners and DFO – a relationship that gets things done.

We hear you because most of our members represent constituencies defined by the areas that community advisors serve. Other organizations

like the Pacific Streamkeepers Federation are also at the table. We live and work among you. It is each member’s responsibility to ensure that you are able to communicate information to the board, via your representative, concerning your work as a volunteer steward. It is then the board’s responsibility to speak your truth to DFO Regional Headquarters in Vancouver.

SEHAB also provides opportunities for public input into policy/program development. The many community advisors and managers attending a 2007 forum in Victoria heard that the community advisor must remain as the keystone of a unique, effective public involvement program. Proceedings from this event do and will influence the department’s current review of the role of the community advisor.

More recently, at a North Vancouver forum, the department heard that a well-trained, experienced, committed core of volunteers is prepared to work with government to design and implement an effective (and much needed) regional salmon stock assessment strategy. As a result, discussions are underway to formally include the volunteer community in strategy development and implementation.

In 2009, the need arose to personally inform the Minister of Fisheries that:

- community advisors need to manage their own budgets, consult regionally, and answer to a regional authority;
- the realization of initiatives like the Wild Salmon Policy require implementation budgets, and;
- regulatory staff need the freedom and resources to enforce the *Fisheries Act*, with conservation as the priority over either access to fisheries or economic development.

Budgets, a secure future for the public involvement program, and stock assessment remain as outstanding issues coming from the stewardship community. Another is habitat protection, and SEHAB will, in the new year, request a progress report as Ottawa addresses the Auditor General’s 2009 assessment of the department’s ability to protect fish habitat.

In the end, we are all accountable for the protection of fish and fish habitat. SEHAB’s role is to maintain an effective interface between the two major partners in this effort – community and government. To learn more about us, contact your community advisor, or go to www.sehab.org for guiding documents, meeting agendas, minutes and other materials of interest to volunteer stewards.

We hear you.



A small icon of a globe showing the Americas, positioned to the right of the main title.

SEP Community Workshop '11

Wetlands to Waves: sustainability through stewardship

May 20-22, Campbell River.
Visit <http://workshop.pskf.ca/> for details & registration

Baffling beavers

By Jack Cooley

Beavers can be an asset and a problem.

On the positive side, beaver dams create ponds that are perfect for the rearing of coho fry during their first year in fresh water. So Squamish Streamkeepers don't destroy new beaver dams. We notch them to about one third of the way down from the dam lip to allow salmon passage. Unfortunately, the beavers usually repair the notch by next day... very frustrating!

Beavers also plug culverts to contain water. This not only blocks salmon passage but causes neighbourhood flooding. In the fall of 2009, the



A baffle protect this culvert from beavers while letting fish through.

District of Squamish (DoS) hired a trapper, but public opposition stopped the practice. At the moment, DoS is reviewing a consultant's report that suggests some solutions, including fatal trapping, live trapping and relocation (limited by the number of

relocation placements permitted by the provincial government each year), screens that let fish through and keep beavers out and shields to keep tree trunks safe from gnawing.

Squamish is not alone. Beaver management specialists are consulted in many countries, including Germany, where a growing beaver population includes both European beavers and castor canadensis imported back when beaver hats were all the rage. A recent conference in Oregon focussed on beavers and salmon – check out some interesting discussions at <http://www.surcp.org/beavers/index.html>

The Redfish School of Change

In the field, for the future



By Nadine Raynolds

The Redfish School of Change is a non-profit partnership between GreenLearning Canada, the University of Victoria School of Environmental Studies, and Pearson College. A wonderful fusion of academic and experiential learning, it runs every spring.

The 16 students are from diverse backgrounds and study disciplines, with unique interests and abilities, but they all share one thing: an interest in taking leadership to achieve ecological

sustainability and social equity in their own lives and communities.

Living and learning together for six weeks, students travel from the Slocan Valley to the southern coast of Vancouver Island. They participate in workshops, field trips, community dialogue, wilderness expeditions and service-learning, and develop action plans for a social or environmental initiative they will pursue after the field school. Upon completion, they receive three transferable full-course credits from the University of Victoria

as well as six months of follow-up support and mentorship on their community action projects from the staff of GreenLearning.

Redfish comes from the native word *kokanee*, which is a landlocked cousin of the sockeye salmon found in the interior of British Columbia – where this field school begins its journey, in the Slocan Valley. Sockeye salmon are an icon in British

Columbia, and need our protection. As the program makes its run down the Fraser River from Hope to Vancouver, students explore the past, present and future of this watershed.

"I must say the most intriguing part of the program was the change that occurred in me."

~ 2009 participant

To learn more about the Redfish School of Change and follow the participants please visit www.schoolofchange.ca.





Take the digital plunge

by ZoAnn Morten

What is your initial response when someone asks for data on your stream? Are you enthusiastic and able to share this info at a moment's notice? Or do you shiver at the picture of yourself crawling through the basement to drag out a million crumpled files from some cabinet that was donated to the group? I'd like to challenge you to make 2011 the year of organizing your data sets, of compiling your information so that it can be used in watershed protection, or, if you have already done this, in sharing your success with others.

Existing volunteers have committed to collecting information on streams of interest and many groups have amazing people who act as coordinators for the area. There has been talk across the province as to how to get more long-term involvement by youth. There is plenty of one-day or work experience involvement, but how do we capture their long-term interest? A great way to get youth involved with loads of opportunity for them to express themselves is through the use of social media tools. Facebook, Twitter, Apps, iPods and iTouches, YouTube, PowerPoint and websites are a few of the great ways to share the information that you have on your watershed and an opportunity for young people to show what they do so well.

Your group has been active collecting data on your watershed, learning what lives within it, when salmon return, where they rear, spawn, who is there that they can eat :-> who is surviving, who is struggling, changes to the landscape. So much knowledge, and yet sometimes when we try to retrieve this information it is in bits and pieces, here and there, in people's

heads or closets. Next time you have younger folks out on the stream, ask if they can help your group showcase their knowledge using social media tools.

The Streamkeepers Federation is setting up a webpage dedicated to showcasing a variety of ways to take data and present it so that others can see it, read it, and understand what is happening in and around our waterways.

Collecting data is fun. All the photos on our display boards are of smiling people in the creeks and riparian corridors actively collecting information. Rarely has there been a smiley-face photo of a volunteer at the computer entering the data! With today's technology, sharing our findings can be fun too. Check out <http://data.pskf.ca/> to see examples of data sharing, subscribe to this page to be sent all updates, and be sure to email PSkF your examples so others can find new and exciting ways to engage others in taking the digital plunge.



You can even take the technology to the survey site – as long as it doesn't rain!

StreamTalk as advertising tool

I've always known that *StreamTalk* was a popular newsletter for the SEP volunteer community, but recently I had another opportunity to see *StreamTalk* communications in action. In last fall's edition, we wrote about the DFO / Streamkeepers safety vests and the URL to purchase them. The response was quick and plentiful. Groups from all over BC emailed to order these high-visibility vests for their groups. Then nothing...

In January, a group called to say they had seen volunteers from the next watershed over wearing Streamkeepers at Work vests and they were interested in getting some as well. So I went to our website to get the URL to forward for ordering and searched and searched, but there was no link! We had forgotten to put it on our site. Every order that had come in was due to the one article in *StreamTalk*. Thanks again for such a great outreach tool.

P.S. There is now a link at www.pskf.ca to the information and order forms for these great vests.



It's time to renew your Streamkeepers Volunteer Insurance Policy!
Renewal forms can be found at www.PSkF.ca

New residents at Lawson Creekmouth

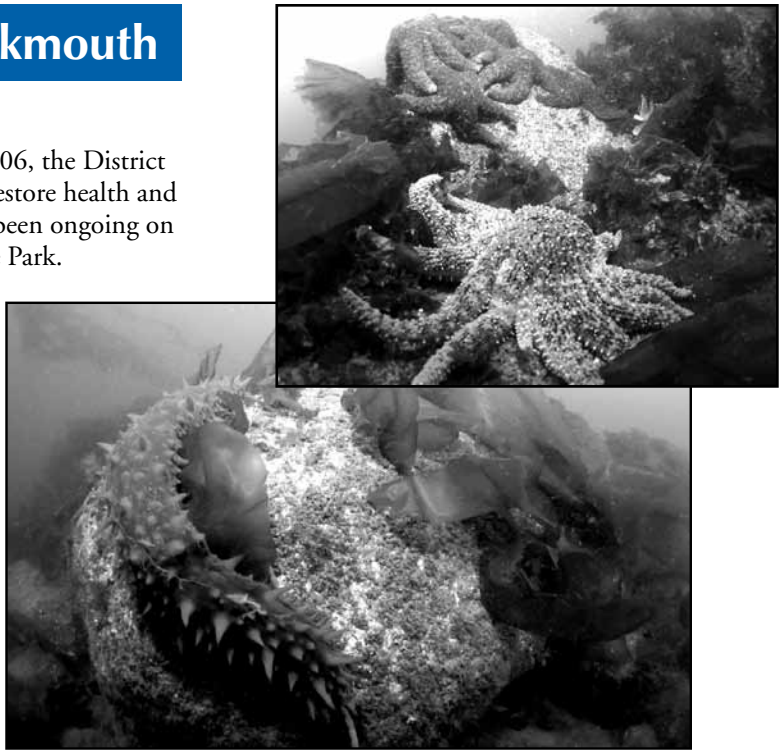
by Adrian Rowland

Diversity is on the rise at the mouth of Lawson Creek. In 2006, the District of West Vancouver initiated a Shoreline Protection Plan to restore health and diversity to intertidal and subtidal areas. Pilot projects have been ongoing on the public shoreline between Dundarave Pier and Ambleside Park.

At Lawson Creek, newly placed rock reefs provide holdfasts to encourage growth of a productive kelp forest. Erosion loss is being reversed with the shaping of a storm- and climate change-resilient crenellated mixed beach with a wide and vegetated upper foreshore. The West Vancouver Shoreline Protection Society has welcomed the support of the Pacific Salmon Foundation and funding donated by HSBC in support of volunteers who will assess forage fish spawning success in the accreting sands and gravels of the upper foreshore.

Meanwhile, there is a noticeable increase in diversity along the shore: kelp, mussels, crabs, fish, birds, otters – and people coming to watch them!

A sea cucumber and some healthy-looking sea stars take up residence. Photos: Scott Christie, Balanced Environmental.



He's retiring after 33 years, but... Floyd has more adventures yet to come

by Cindy Harlow

We would like to acknowledge and thank Floyd Henry George for 33 years of dedicated service in the Salmonid Enhancement Program (SEP) as he embarks into retirement.

After careers in both the fishing and timber industries, Floyd stepped in as project manager for the Sliammon Salmon Hatchery in 1977 (when SEP came into being). The hatchery,

located north of Powell River, was an initiative of then chief, the late Joseph Mitchell. Starting out small with in-stream incubators, to flourishing as a visitor-friendly, technologically modern facility, the hatchery challenged Floyd with many changes. But he has always brought the same honest and reliable approach to the job.

Seeing the program as more than a job, and feeling that the project

and surrounding area could benefit if you just believed in it, he made a lot of sacrifices including weekends, holidays, evenings and even family time.

Besides working with SEP, Floyd took up other causes such as search and rescue, the RCMP, and the local volunteer fire department, to help build a clean and safe community. During his younger years, Floyd was an avid scuba diver and enjoyed gathering traditional Salish foods for the Sliammon elders such as sea urchins and cod eggs. Floyd's current favourite pastime is travelling with his family, their adventures taking them to places like Mexico and the Grand Canyon.

So, Floyd, as you embark on the next leg of your new journey, we wish you the best of luck and continued success. Safe travels and congratulations to you – but most of all, thank you.



Floyd passes along the tricks and techniques of the trade.

Jennifer Atchison

In memory of an exceptional volunteer... and a friend

by Maurice Coulter-Boivert

Jennifer Atchison was a small person with a huge heart, happy spirit and dogged determination. I think of her as Minnie Mouse of cartoon and



comic book fame. Or as David, as in *David and Goliath*. But she was no killer or dragon slayer. Her successes were achieved by convincing others of the need for positive change. She would gather people around her to share her opinion, then invite those who were perhaps uncaring, and possibly negligent, to consider doing things differently for the greater good. In the end, this world is a better place because of her.

Although a “birder” to start, Jennifer’s passion about protecting and improving habitat in her beloved Stoney Creek watershed soon led to the formation of the Stoney Creek Environment Committee (SCEC). This in turn led to the formation of the Stoney Creek Working Group (SCWG), comprised of the cities of Burnaby and Coquitlam, Metro Vancouver, DFO, and whomever else she needed to ensure that decisions

about changes in the watershed considered Jennifer’s community and her values. She once admitted to me that she “didn’t speak the languages” used by engineers, biologists and developers, and that she felt inadequate in that regard. But she learned to speak these new languages quickly.

Jennifer was recognized for her many achievements by Lieutenant Governor Steven Point and the Province of BC for her contributions

with a community achievement award in Victoria in 2007.

Last May, the Pacific Salmon Foundation recognized Jennifer’s many accomplishments over the years with the awarding of the first ever George Hungerford award to support ongoing programs and activities at Stoney Creek in coming years.

Please join me in saying goodbye to our friend and exceptional volunteer, Jennifer Atchison.

An impressive legacy

Jennifer did not do these things alone...but these and many other accomplishments would not have occurred without her. She was a “standout” volunteer, like so many others in the public involvement program of DFO. Some of the many changes at Stoney Creek that have occurred through her efforts include:

- development of the annual Great Salmon Sendoff celebration, 20 years old last year
- comprehensive digital stream mapping and inventory
- repair and replacement of the Stoney Creek fishway under the railroad tracks. This took a life cycle of coho to accomplish.
- obtaining funding to hire consultants to develop a biological and habitat restoration inventory and plan
- assistance with development of one of the first and most comprehensive stormwater management plans with the cities of Burnaby and Coquitlam
- development of off-channel habitat for coho, in cooperation with City of Burnaby Parks, Metro Vancouver and DFO Resource Restoration Group (DFO RRG)
- improvements at the Lougheed Highway culverts. Initial work by DFO RRG made it possible for returning coho to navigate the barrier, but not other species. Today, the upper parts of Stoney Creek are becoming colonized by pink and chum, not seen there since the construction of the Lougheed Highway in the early 50s.
- information signs and kiosks in the watershed.
- successes through SCWG in lengthy processes attached to Skytrain, greenway corridor development, Simon Fraser University’s land development plan and Burnaby Mountain Secondary School. Although the school, despite objections, was built adjacent to a seriously impacted tributary of Stoney Creek, SCWG obtained concessions to improve habitat and employ state-of-the-art rainwater management strategies valued at over \$1M. And recently SFU installed a new snow-salt management facility which will mitigate serious impacts on a Stoney Creek tributary.
- annual assessments of benthic invertebrates, adult and juvenile salmon
- organizing of a high school rally to discuss abuse of salmon returning to spawn at Stoney Creek
- student mentorship; assistance in an award-winning student documentary about Stoney Creek in its urban setting
- ongoing invasive plant removal, riparian planting, and advocacy for good vegetation management practice with the utilities.
- advocacy for keeping Riparian Area Protection from being changed to lesser Streamside Protection legislation



Getting bigger every year – West Van Secondary's Environmental Protection Network

by John Barker

Encouraging the next generation to care for the streams in our community is vital work. So when a teacher from West Vancouver Secondary School asked West Vancouver Streamkeepers to help get students involved, we jumped at the chance.

For many years, among other activities, our Streamkeepers have surveyed local streams and recorded the adult salmon returning to spawn. We invited students from the Environment Protection Network (EPN) to join us in this wet but rewarding task.

The students seem to like it! Participants have gone from 28 students in the first year, to 32 in the second, 46 in the third and 67 in 2010. Some kids participated all four years.

Students are divided into teams, each led by a Streamkeeper. This year we had 14 teams surveying separate zones on Brothers Creek, Hadden

Creek, Lawson Creek, McDonald Creek and Rodgers Creek.

Each team completes one survey a week for seven weeks starting in mid-October.

One student assembles the findings of all 14 teams and distributes a weekly summary to DFO, Capilano Hatchery, Pacific Streamkeepers Federation, Streamkeeper members and other stewardship organizations.

The cumulative count of coho and chum salmon observed in the last three years has been 343 in 2007, 283 in 2008 and 872 in 2009. This year the salmon count is tracking very closely to 2007 and 2008.

The program is strongly supported by the mayor and council as well as municipal staff. At the Wrap Up Celebration held at the end to honour the students' volunteer contribution, mayor Pam Goldsmith-Jones has attended each year to present T-shirts and congratulations.



Volunteer Hugh Hamilton shares his years of experience with EPN members.

DFO has described this student outreach initiative as a unique partnership, bringing together good stewardship practices and education.

Safety is paramount in any volunteer activity – especially when young people are involved. West Vancouver Streamkeepers developed safety protocols for the program, and presented it to the secondary school's board of directors. Your group may find this a useful model.

Duties of Streamkeeper leaders:

Meet the students at the agreed start point of the survey zone.

Discuss the risks associated with creeks:

- that water levels rise and fall unexpectedly
- that flowing water can be very strong
- the danger of a fall into a fast-moving stream, on the rocks beside it, on wet rocks in shallow water or from the streambank

Encourage the students to be aware of their surroundings, and take note of:

- rising water levels – don't take risks
- animals present
- property owners
- other persons in the area

Tell students to take their time. "Observe what is around you and think about what you see."

Teach them respect for salmon, other aquatic species and the habitat in which these animals live. Ask them to try not to be intrusive into their environment.

Ensure the data collected and information collected are accurate.

Equipment:

- All students are provided with a high-visibility vest that they and the Streamkeeper sponsor must wear during the survey.
- Students provide their own wading/walking stick for stability when walking the stream bank or beside the stream.
- Students provide their own knee-high boots.

- Students performing in-stream surveys are provided with chest or hip waders.
- Students doing surveys through large culverts are required to bring a flashlight or a headlamp.

Types of survey:

- 1) Bank Surveys – viewing salmon from the land adjacent to the stream.
- 2) Partial In-Stream Surveys – members wearing waders are able to cover more of the stream than is possible from the banks.
- 3) In-Stream Surveys – Each student and Streamkeeper sponsor is provided with waders. Special care is taken to avoid potential spawning areas or disturbing fish.





www.youtube.com/watch?v=rFcoz7vPgBs

The Nile Creek Enhancement Society's eelgrass mapping project was featured in *StreamTalk's* Spring 2010 issue. They have produced a short video to take you out there with them. If that makes you eager for more, check out "Creek restoration isn't always pretty," or any of the other related and very well produced videos created by NCES member Gary Prendergast.

<http://blog.gov.bc.ca/livingwatersmart/>

The Ministry of Environment has released a Policy Proposal on British Columbia's new *Water Sustainability Act* (WSA). The proposal reflects background research, review and analysis by government staff and input from citizens, including 900 public submissions as well as dialogue at 12 regional workshops held earlier this year. External advisors from a range of sectors also provided assistance in the development of the proposal. On the Living Water Smart Blog ministry staff explain key features of the WSA in greater detail and invite your input.

<http://www.conbio.org/publications/conbioforall/aConservation%20Biology%20for%20All%20reduced%20size.pdf>

In support of the International Year of Biodiversity, Oxford University Press offers a free conservation biology textbook for download.

The book, by N.S. Sodhi and P. R. Ehrlich (Eds.), is entitled *Conservation Biology for All*.

www.frasersalmontable.com

The Fraser River Salmon Table Society has launched the inaugural issue of its bimonthly newsletter, *Table Talk*. Its mandate is to track current events and management developments that are relevant to all interests in the Fraser salmon fishery.

The Society itself brings together Fraser River First Nations, conservation organizations, the sport fishing community, and the Commercial Salmon Advisory Board. Its mission is to foster the rebuilding of salmon fisheries and their ecosystems in the Fraser watershed including all tributaries and salmon spawning and rearing streams.

*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.

Canada



Postal No. 40063830

www.meetup.com/The-Lower-Mainland-Green-Team/

Tired of constantly hearing about environmental issues and feeling helpless to do anything about it? Here is a constructive way to direct your energy!

The Team consists of people from all over the Lower Mainland who get together at least once a month to help an environmental group, non-profit organization, charity or city tackle an environmental issue that needs co-operation and teamwork to get done. Gloves, tools and refreshments are supplied. All ages welcome. Check the website for upcoming projects.