

April 2002

BC Lower Fraser Area



WORKING IN PARTNERSHIP WITH THE COMMUNITY

Habitat Conservation and Stewardship Program

A New Direction

General Background

In June 1998, the Minister of Fisheries and Oceans announced a five-year, \$100-million Resource Rebuilding strategy aimed at conserving and protecting West Coast salmon and their habitat. This strategy forms part of the Pacific Fisheries Restructuring Program. The creation of the strategy was based in part on advice received during the Coho Response Team's Spring 1998 consultations on the critical state of B.C. Coho salmon stocks. Among the more pressing concerns voiced in these consultations was the need to restore degraded habitat, improve habitat protection, and better involve stakeholders and the public in habitat-related activities.

The Habitat Conservation and Stewardship Program (HCSP) represents a proactive approach to habitat protection that focuses on developing local capacity in habitat conservation and stewardship. The program will establish a network of Stewardship Coordinators (SCs), Habitat Auxiliaries (HAs) and Habitat Stewards (HSs) across the Pacific Region who will support, advise, and work closely with community watershed stewardship groups, First Nations, developers, industry, other stakeholders and government agencies. The Program is intended to protect fish habitat through advancing sustainable land and water use planning, promoting better land and water use practices and increasing community advocacy and capacity with respect to the protection of fish habitat.

HCSP Objectives:

- Incorporate fish habitat protection requirements into local land and water use plans;
- Increase public and stakeholder awareness of fish habitat requirements;
- Improve habitat mapping and inventory data required for land management and resource planning;
- Increase local stream surveillance and monitoring;
- Improve compliance monitoring of development projects;
- Provide technical information, advice, and support to partners and communities;
- Pilot the development of watershed management plans for several priority watersheds;
- Enhance and restore habitats as part of watershed management plans;
- Increase community responsibility for watershed management.

Program Vision

The Program seeks to establish partnerships to enhance habitat protection and expanded community capacity to steward fish habitat resources

Guiding Principles

Planning and implementation of HCSP is guided by the following principles:

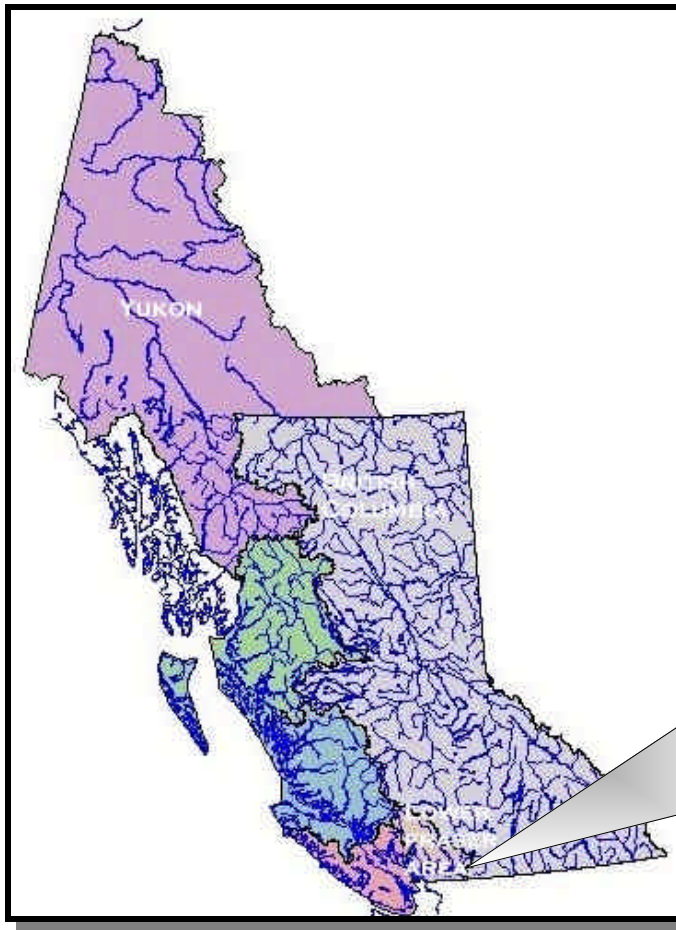
- Strategic delivery in priority areas including watersheds and marine zones;
- Scientific and technical information exchange with stakeholders;



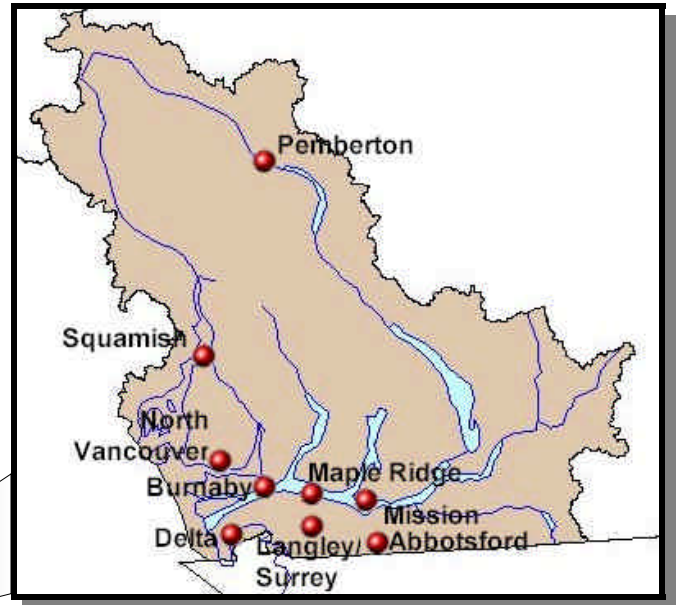
Salmon eggs and alevin

- Local design and delivery;
- building of long-term community stewardship capacity;
- Clear linkages with existing and effective habitat protection programs;
- Communication across governments, First Nations, industry, and communities;
- Adaptability to local opportunities, abilities, and fish benefits.

Lower Fraser Area of Delivery



British Columbia and the Yukon



Lower Fraser Area

The Role of a Stewardship Coordinator

The Canadian Fisheries Minister who initiated the HCSP took the position that "...successful long-term habitat protection requires us to effectively plan and manage the way we use water and land in our watersheds. This means balancing the needs of fish with the needs of other users. Land and water use planning can benefit from local communities, stewardship groups and others who care about fish and habitat working together and providing input to watershed councils, roundtables and other decision-making bodies. Habitat Auxiliaries and Stewardship Coordinators can help make this happen. These groups can also make valuable contributions to developing fish production plans and local watershed management plans."

Stewardship Coordinators (SCs) in particular are hired by community partners, usually non government organizations, and serve as a community liaison, generally assigned to specific geographical areas associated with watersheds or communities. We work extensively on habitat protection with existing

advocacy groups, community watershed stewardship groups, Streamkeepers, First Nations, local governments, agencies and other stakeholders. Where advocacy groups are not established, an SC may help to create new structures and processes that foster community stewardship.

Other related functions include support for restoration and enhancement projects, coordination of training for community volunteers and others, stewardship group capacity building and participation in local or regional land and water use planning processes.

While there are literally thousands of "stewards" working for our fisheries resource, both from within and outside of government, this document highlights some of the activities SCs are involved with in the Lower Fraser Area that are building community capacity to better steward our fisheries resource in the future.

Building on the Success of the Salmonid Enhancement Program

The Salmonid Enhancement Program (SEP) was launched in 1977 after public hearings around the province showed wide support for action to rebuild salmon stocks and fisheries. The program was designed to increase fishing opportunities, involve the public and raise awareness, generate jobs and economic development in coastal and First Nations communities, and improve understanding of salmonid populations.

SEP operates hatcheries, spawning channels and fishways, as well as contracts community groups to operate hatcheries, several of which are First Nations. The focus is also on restoring and improving fish habitat, critical to the survival of wild stocks. SEP works with First Nations, industry, community groups and other government agencies to design and implement habitat projects—for example, constructing side-channels, increasing water flows, stabilizing stream banks, and rebuilding estuary marshes.

A public involvement and education program—which broke new ground in 1977—offers technical support and funding to volunteers who operate community salmon enhancement and stewardship projects. Community Advisors throughout BC assist

SEP also developed *Salmonids in the Classroom* and other educational packages to teach children about salmon and the need to protect habitat and watersheds. The Streamkeepers Program fosters stream stewardship and trains and supports British Columbians to actively monitor, protect, and improve fish habitats (*an excerpt from a Fisheries and Oceans document on the Salmonid Enhancement Program*).

In many ways, SCs are an extension of the service that the Community Advisors and SEP have been providing for twenty five years. The HCSP has attempted to build upon the strong foundation provided by SEP and increase the level of support available to stewardship groups that are passionate about the fisheries resources in their watersheds. There has been an explosion of stewardship groups in recent years and as a result, there is a demand that keeps us all incredibly busy. These stewards are extremely effective advocates for the fisheries resource and we appreciate the opportunity to provide additional advice, direction and support.

The Role of Public Groups in Protecting and Restoring Habitat

Salmon and steelhead populations can exist and thrive in watersheds that remain intact and fully functional. However, throughout the last century and particularly during the last three decades, much riparian and in-stream salmonid habitat has been lost or damaged in British Columbia as a result of human expansion and encroachment. The most devastating impacts to our waterways have arguably occurred in the rapidly urbanizing areas of our province.

For the most part, fisheries agencies have not been capable of stemming these losses, or substantively restoring habitat. This has occurred despite the implementation of federal, provincial and local environmental legislation, policies and regulations, and a plethora of restoration and enhancement initiatives.

In the view of many, there has been a lack of political will by all levels of government to seriously stem the tide of habitat destruction. In addition, agency capacity has been insufficient to protect or restore these habitats.

On a positive note, there has been the upsurge of public involvement in the protection and restoration of British Columbia streams and an evolution towards a more collective engagement in the management of these resources. This has resulted in some remarkable successes. Consequently, across the province there are an increasing number of instances where individuals and community groups have passionately embraced the need to better protect local waterways and have expressed a “sense of ownership” to a much greater degree than we’ve seen in the past. This activity has taken the forms of advocacy and stewardship and these two facets are linked in order to nurture freshwater habitat.

When properly enacted, this “think globally, act locally”

approach appears to be a potentially powerful tool with which to deal with losses of salmonid habitat, particularly in urban environments. Ultimately, the active involvement of non-government organizations may be the only way to save or restore many of our remaining freshwater ecosystems.

At present many of these public groups are involved in fisheries inventory and assessment, restoring stream habitats, engaging in dialogue in the development of legislation, and effectively lobbying governments. These are roles that, in the past, were traditionally undertaken by the various fisheries agencies.

The most successful public groups in the province have taken a more “inclusive approach” to their work and this has been one of the keys to their success.

In summary, the authors take the position that our historical institutional frameworks are no longer capable of protecting and restoring freshwater environments on their own. If salmon and steelhead habitats are to be nurtured in the future, the public, through the efforts of individuals and community groups alike, must take on a greater role in the advocacy and stewardship of these fisheries resources and work closely with agency biologists, engineers and managers to achieve best results.

The above is an excerpt from the abstract of: “The role of Public Groups in Protecting and Restoring Freshwater Habitats in British Columbia, with a Special Emphasis on Urban Streams”. The authors of the report are Dr. Marvin Roseneau, Senior Fisheries Biologist, Ministry of Water, Land and Air Protection and Mark Angelo, Head of the BCIT Fish, Wildlife and Recreation Program. Dated June 2001.

North Fraser—Coquitlam to Maple Ridge

Stewardship Coordinator: Janice Jarvis

Coquitlam Watershed

The Coquitlam watershed is a bee-hive of stewardship activity. There are three streamkeeper groups, the Port Coquitlam and District Hunting and Fishing Club, naturalist and conservation groups, a river-watch program (RACE) and it's home to the Coquitlam River Watershed Society (CRWS) as well as the Kwikwetlam First Nation.

Coquitlam Lake is one of the three major reservoirs in the lower mainland used for domestic drinking water. BC Hydro also generates power by diverting water through a tunnel to Buntzen Lake, through its generating system and out to Indian Arm.

In the last few years BC Hydro has embarked on a new program focusing on water management at BC Hydro facilities. Water use planning was developed by the BC government in response to ever-increasing competing demands on the province's abundant water resources. The overall goal is to find a better balance between competing uses of water that are socially, environmentally and economically acceptable to British Columbia. WUPs are developed through a consultative planning process designed to consider economic, social and environmental values. The Coquitlam Water Use Planning process has been ongoing for more than two years. A large consultative committee representing a wide variety of interested groups, agencies and individuals have worked tirelessly to gather

background information, recommend studies, weigh proposed operating alternatives and finally make recommendations to the Water Comptroller. Both BC Hydro and the Greater Vancouver Water District were agencies with substantial interests in the use of our water resource. However, the strong voice for fish issues during this process was instrumental in shaping the final recommendations. Upon acceptance of the recommendations, the Coquitlam will undergo a phased study over ten years to help determine the best flow for fish in balance with other resource users.

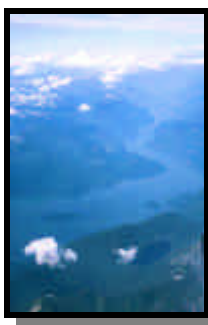
Over the past three years, I have worked with all levels of government, the North Fraser Salmon Assistance Project and CRWS to accurately map and inventory the watercourses in Coquitlam and Port Coquitlam. The information is collected and shared with all partners. Last year CRWS received funding to embark on a watershed planning process. The first step was to sponsor a watershed forum that brought together many watershed interests in order to discuss issues and devise an action plan. This year CRWS has again been funded to follow up with some of the recommendations suggested by forum participants. CRWS will be working with the City of Coquitlam to assemble information gathered by the WUP process, mapping initiatives, consultants and stewardship groups. The results will be presented in the form of a Watershed Atlas, summarized in hard copy with a more detailed version on CD for easy access.

Upper Pitt River Watershed

The upper Pitt River is a major lower mainland salmon and steelhead stream which flows southward into Pitt Lake and then discharges into the Fraser River. The coho population is the largest all-wild run left in the entire lower Fraser system and the sockeye are among the largest sockeye found anywhere (some in excess of 7.0 kg). The Pitt also supports one of the largest populations of bull trout and cutthroat in the lower mainland.

The Pitt River Area Watershed Network (PRAWN) was formed in 1995 in response to a proposed siting of new gravel mine on Olsen Creek, a tributary to the upper Pitt River. PRAWN includes member groups of some 20 plus organizations representing the Katzie First Nation, stewardship groups, eco-tourism guides, boom operators, anglers, commercial fishers and conservation groups.

At a point when it became clear that a mine may actually be opened in what was deemed a sensitive area in an important fish-bearing watershed, political intervention and advocacy were extensively used by all members of PRAWN to influence the issue. PRAWN spearheaded a letter writing campaign that generated some 5,000 letters that were sent to politicians. PRAWN also initiated biological and mapping studies to identify possible impacts of this proposal to counter what it thought was inaccurate information presented by the gravel proponent.



Pitt Lake

The results of this coordinated effort was effective. Four surrounding municipalities sent resolutions to senior government requesting full environmental review.

In May 2000, the BC government struck a deal with the proponent to abandon its proposal to mine the Pitt watershed. The provincial government also committed to review how gravel mining proposals are assessed and agreed to engage in dialogue with stakeholders around the province on the issue.

PRAWN members felt that this successful campaign signified only a temporary reprieve from further environmental damage to the watershed. The organization agreed that a land and water use plan was needed that would proactively address issues related to increased public use and future resource management in the upper Pitt watershed. Consequently, PRAWN pursued funding to bring together key stakeholders in order to provide the opportunity to discuss watershed issues and formulate a plan for action.

As Stewardship Coordinator, it has been my privilege to work with such a dedicated group. My role has involved developing grant applications, gathering background information, assisting with meetings and public events, gathering letters and public feedback forms, creating promotional materials and drafting substantial sections of an upper Pitt River Watershed Plan.

Kanaka Creek Watershed

Over the past three years, with the assistance of HCSP, the Kanaka Education and Environmental Partnership Society (KEEPS) has been extremely successful in the development and implementation of a number of stewardship initiatives such as:

- A Kanaka Creek Watershed Guide that highlighted many aspects of our watershed and was widely distributed throughout the local area and beyond. This publication has raised the profile of the group and the watershed itself;
- The development and maintenance of our KEEPS website at www.keeps.org;
- The development and implementation of a wide variety of hands-on educational programs for volunteers, students, brownies, scouts and the general public:
 - ◆ Creek Cam – a volunteer water quality monitoring program;
 - ◆ Kanaka for Kids – educational program centred on theme days for kids;
 - ◆ Fish Reaching Youth – habitat assessment activities with local students;
 - ◆ Importance of Riparian Zones – a training and planting program for local students;
 - ◆ Watershed Model Roadshow – an interactive watershed model and watershed concept training;
 - ◆ Streamkeeper training workshops;
 - ◆ Public Events – public awareness events;
 - ◆ Watershed Tours with International students.
- Habitat inventory, assessment, enhancement and restoration projects such as:
 - ◆ GPS mapping and inventory work on a major portion of tributaries lower Kanaka Creek;
 - ◆ Water quality monitoring;
 - ◆ Riparian planting;



Streamkeeper training with local high school students.

- ◆ Rainbow Creek redevelopment;
- ◆ Fish presence studies – gee trapping, species identification and adult enumeration programs;
- ◆ Dunlop Creek culvert enhancement and weirs to improve fish access;
- ◆ Cottonwood Creek fishway improvements;
- ◆ Steelhead parr density study.
- Participation in species recovery plans such as the steelhead and pink recovery plans;
- Participation in the Kanaka Creek Sensitive Stream Recovery Plan;
- Presentations at public hearings, community meetings, public forums;
- Provide comments on government policy, by-laws and environmental regulations.

Alouette Watershed

The Alouette River Management Society (ARMS) has been a high profile community group working in the watershed for the past eight years. The group was extremely involved in the negotiations with BC Hydro to release additional water to the river. That agreement saw a five-fold increase in flows and kicked off the Water Use Planning process for many other BC Hydro systems.

ARMS continues to be a force in the watershed and over the years I have assisted with many projects ranging from developing education materials and programs to mapping, inventory and restoration projects.

In terms of habitat protection, Blaney Bog has been saved. Most of the unique north Maple Ridge wetland has been purchased for \$3.57 million by the District of Maple Ridge, the Province and the GVRD. The deal preserves 91 hectares of the pristine 120 hectare bog. The land's former owner had earmarked the property for an expansion of its adjacent cranberry farm. Blaney Bog is the only documented bog-fen wetland system in the region, and one of the last pristine bogs in the lower

mainland. Its four different ecosystems – riparian, marsh, fen and bog are overlapped by sensitive and rare transitional zones called ecotones. It is home to a variety of plants, animals, fish and birds. Pressure from the Pitt Polder Preservation Society, the Alouette River Management Society, the Silver Valley Neighbourhood Association and the Alouette Field Naturalists was instrumental in saving the Bog for future generations. The area will now be called Blaney Creek Regional Park and will be managed by the GVRD. Currently, I am sitting on the Regional Park planning committee for Blaney Bog.

Just a few kilometers downstream from Blaney Bog is another wetland area referred to as the Codd Island / Blaney Creek wetlands. The Pitt Polder Preservation Society and The Land Conservancy are leading the charge to raise funds to purchase much of this property as well. To date, both the GVRD and the District of Pitt Meadows have committed funding (\$1.2 million). The community has raised over \$40,000.00 as well. My involvement has been to provide assistance with funding applications, maps and technical advice.

South Fraser—Abbotsford and Chilliwack

Stewardship Coordinator: Sheila Creighton

The program objectives are very broad and general. Perhaps what is most important in making this program a success is to think about what we're ultimately trying to achieve. What do we want to see in the end? What outcomes are we working towards?

There are five key program outcomes that I see myself responsible for as Stewardship Coordinator are:

1. Increased Community Awareness;
2. Improved Organizational Development;
3. Increased Stream surveillance/mapping/inventory;
4. Increased Habitat Enhancement/Protection; and
5. Increased Community Participation and Incorporation of Habitat Values into Water Resource Planning Processes.

All of these outcomes are very much inter-related. By working towards one of these outcomes, progress is usually made towards another outcome as well. Combined, these five outcomes will result in communities that have a tremendous capacity to steward our watershed resources.

The past two years have provided me with a very unique

opportunity to immerse myself in two special communities and to work with many talented, passionate, and dedicated individuals and groups in those communities. I am grateful for this opportunity. It has been an experience that has taught me many valuable lessons and enabled me to draw upon and strengthen my skills as an environmental planner. When I try to explain to others what my job involves, I always say that I work with people; not fish. Ultimately, it is our influence as humans on habitat that causes problems for the fish. The fish themselves would be just fine if it weren't for us humans. That said, I still strongly believe that there is a lot that we can do to protect and conserve the resources of our watersheds.

Community stewardship is a long-term commitment. Since the fall of 1999, however, I think we have made some significant progress towards building capacity for community stewardship in the South Fraser area. Over this time, new partnerships have developed, significant training has occurred, problems have been solved, and throughout it all the level of dedication to protecting our watersheds has not faltered.

Increased Community Awareness

Awareness is a critical part of the HCSP program. Since September 1999, much of my work has focused on this program outcome. This work has taken the form of planning and delivering training sessions, arranging for guest speaker sessions at community meetings, working with local media to raise the profile of community stewardship. More specifically, there are three main areas in which community awareness has been strengthened through my work as a Stewardship Coordinator. My involvement in each of these areas is detailed below:

- Planned for a total of four Pacific Streamkeepers training courses;
- Helped to organize and implement a series of three Urban Watershed Management Workshops that were taught by Dr. Hans Schreier of UBC;
- Assisted with planning and development of two Smart Storm workshops;
- Instructed a one day Project WET workshop in Abbotsford;
- Taught a one day bioregional mapping workshop to graduate students at UBC;
- Provided information to active community groups on new policy developments including: the Streamside Protection Regulations, new In-stream Works Application processes, and Watershed Restoration Planning;
- Worked with the Abbotsford Streamkeepers to deliver a free public forum on groundwater that was attended by about 80 people;
- I have been actively involved with the Living Green program. My involvement has spanned setting up the

working group, chairing meetings, distributing minutes, writing and funding applications, hiring Program Coordinators, and overseeing budget. Now with a new Program Coordinator hired, my responsibilities have been drastically reduced;

- The Business Environmental Pledge Program (BEPP) is similar in concept to Living Green, however it is targeted to businesses, specifically in Abbotsford. The program is intended to raise awareness within households of how individuals can make small adjustments to their daily habits to lessen their impact on the environment. My involvement with this program has included: attending regular monthly meetings, working with Community Futures Development Corporation-South Fraser to determine their role in the delivery of BEPP as the administrative partner, reviewing and providing comment on funding applications, coordinating a "networking meeting" with representatives from Whatcom County's pledge program, and serving as a linkage to the Living Green program;
- Attended meetings of the Abbotsford Environmental Partners, a collective of representatives from various stewardship groups who gathered to develop a Stewardship Charter for the City. The City has now taken on the initiative of developing a Charter of Sustainability. This has significant potential if it is carefully developed, with community input;
- Developed many promotional fliers for special community events, including tree plantings, open houses, etc. Also produced a summer newsletter for both the Abbotsford Streamkeepers and the Marshall Lonzo Streamkeepers.

Improved Organizational Development

In order for communities to effectively steward their watersheds, individual groups first need to function well and become well established. This involves developing skills in running effective meetings and special events, project planning and implementation, working with the media, and having a strong working knowledge of government policy and legislation. Beyond this, these individual groups need to work well collectively, through partnerships. I have spent a considerable amount of time working with individual groups and organizations to identify what stage they are at in their development, and build on their skill sets. The following are only some of the activities directed at improving organizational development:

- Worked with Abbotsford stewardship groups to voice concern and support for the continued need for a Stream Conservation Coordinator at City Hall;
- Helped to organize and coordinate a three day Partnerships in Fisheries Management InfoFair. This event was intended to bring together individuals from the stewardship community and the business community and work towards building new partnerships between the two groups;
- I have spent considerable time working with stewardship groups to expand upon their organizational development.

This has involved working with groups in January to develop an annual work plan, reviewing it part way through the year, and then evaluating how successful each group was at attaining the objectives of their work plan come year end. Overall, the groups have responded favourably to this approach. They seem to appreciate knowing what is coming up each month according to the calendar we create. Moreover, the satisfaction that they receive when we review the plan and it is clear that they have accomplished a lot is most rewarding for them. Participating in these planning processes has enabled individuals to learn to think from a values perspective, as all objectives are derived from values that they identify. It also requires individuals to seriously consider what they bring to the group and what their own limits are as individuals and as a collective;

- Worked with Watershed Alliance of Chilliwack to strengthen their group dynamics. Part of this involved dividing the roles and responsibilities amongst the members and giving individuals a chance to enhance their own skills (e.g. how to chair a meeting);
- Developed and distributed several resource materials to community groups, including “How to run a successful public seminar”, and a “who’s who in stewardship” guide for stewards in Chilliwack and Abbotsford.

Increased Stream Surveillance/Mapping/Inventory

If communities of the South Fraser are to effectively conserve and protect watershed resources, it is mandatory for there to be an accurate and up to date inventory of these resources. The collection of this data is a prerequisite for the development of any watershed management plans. Over the past decade, a considerable amount of data has been collected in the area by

various groups and individuals, however very little of this is currently coordinated. My efforts to date have involved encouraging groups to be active in collecting additional data, wherever possible, and providing them with data that already exists.

Increased Habitat Enhancement/Protection

When strong community partnerships exist, the potential to do work is enormous and good things happen. Ultimately, this program wants to see change, not only in awareness and community relations, but also on the ground. It is the habitat resources and the health of the watershed that we are all concerned about and so we need to direct some of our attention towards enabling positive changes, whether these are related to

habitat protection, enhancement, or restoration. My role in working towards this outcome has involved helping stewards identify and prioritize what work needs to be done, assist them with accessing funding, recruitment of volunteers for work projects, encouraging project monitoring, and celebrating successes.

Increased Community Participation and Incorporation of Habitat Values into Water Resource Planning Processes

Ultimately we would like to see all the stakeholders in our watersheds coming together with all the relevant data and information on the state of the resources in our watersheds to develop a plan for how these resources are to be used and protected in the future. Clearly, we have a lot of ground to cover in the previous four outcomes before we can launch into

integrated watershed planning. That said, we can continue to build the foundation that will be needed for this type of planning in anticipation that one day we will take this on. There may well be other planning processes going on in our region over the next year or so that stewardship groups should be involved in (e.g. Growth Management).

Langley and Surrey

Stewardship Coordinator: Andrew Appleton

Since the creation of the Stewardship Coordinator position in July 2000, I have become involved in a very wide range of activities ranging from planning to restoration and advocacy in addition to those listed here.

Salmon River Watershed Management Partnership (SRWMP)

The Salmon River Watershed Partnership is a successful multi-stakeholder initiative working in the Salmon River watershed in Langley. I assumed the role of Acting Coordinator for the SRWMP in January 2001, providing important logistical and coordination support for the group. Providing for the continued operation of the Partnership allows volunteer stewards, agencies and government representatives to discuss watershed management issues in a productive roundtable format. Some of the activities conducted for the Partnership include:

- Acting as liaison for the SRWMP during the creation of a CD-ROM based case study on the Partnership by Royal Roads University;
- Directing the Partnership's advisory role in the Township of Langley's floodplain study;
- Acting as SRWMP representative on the Municipality's *Water*

Resources Strategy Public Advisory Committee;

- Integration of the Partnership's Watershed Management Plan elements into the Township's *Water Resources Strategy* process;
- Acting as SRWMP representative to the CIVICUS international conference on citizen participation;
- Coordinating the Partnership's Lower Salmon River SHIM Mapping project.

In the interests of creating a self-sufficient legacy for the Partnership, I'll be working with the organization to establish new memoranda of understanding and a rotating chairperson to make the roundtable a complete management body in the future.

Little Campbell Watershed Society

The Little Campbell Watershed Society is in the initial stages of a community driven watershed management planning process. I've been involved in the preparation and distribution of terms of reference for an initial consultant study, as well as assisting with evaluation and review of consultant proposals. In addition, I've arranged for educational opportunities for members of the organization on topics relative to the planning process.



Water quality monitoring.

On other fronts, I have assisted the Little Campbell Watershed Society and Friends of Semiahmoo Bay with addressing water quality concerns arising from their collaborative testing campaign with Environment Canada and MWLAP. This involves identification of "hot spots" and evaluating educational and enforcement options.

Fraser Heights Stewardship Society

As SC, I provided assistance in the creation of this new group based in North Surrey. We've developed a productive relationship between the community, an industrial developer, the Land Conservancy of BC and agencies. I've worked to help build the Society, including arranging for training and education opportunities for stewards and helping with planning initial activities. Coming into existence just over a year ago, the group has already hosted two successful community public clean-up events and has garnered significant media coverage for their cause. In 2002 we'll be working with DFO staff to implement an in-stream enhancement project on Centre Creek.



The Fraser Heights Stewardship Society's first public creek clean-up event.

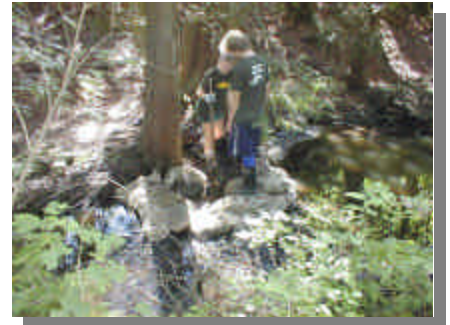
Elgin Creek Streamkeepers

This community stewardship group designed and implemented a collaborative project between themselves and the City of Surrey's Salmon Habitat Restoration Program (SHaRP). The enhancement work took place on private property owned by one of the group members and was a major success. This project provided permanent enhancement works in areas where the group had previously installed temporary ones. My involvement included



Assessing Elgin Creek prior to restoration work.

assisting with funding for the project, providing technical and design advice and coordinating the many partners working on the project. We intend to build on this success with a base flow enhancement project in the future. In addition, I've also provided extensive assistance with the group's advocacy efforts in their watershed, primarily directed at ensuring the sensitive development of a former landfill site located close to Elgin Creek.



Restoration work on Elgin Creek.

Langley Environmental Partners Society (LEPS)

LEPS is a well-established and accomplished ENGO that acts as the Community Partner for the Langley / Surrey Stewardship Coordinator position. I assist with a range of tasks to support and enhance the activities of LEPS, including funding applications, technical advice, organizational development and promotional

materials such as the LEPS Newsletter and Web Site. Most importantly, I provide significant support to the LEPS Watershed Coordinators who are assigned part-time to assist specific watershed groups in Langley.

Surrey Stewards Roundtable

This multi-stakeholder forum was created in early 2001 to discuss matters of common concern for Surrey groups. The group can act with a collective voice on issues and keep each other up to date on their individual activities. The Roundtable provides an excellent opportunity for collective advocacy. I was able to coordinate the Surrey Stewards response to the Surrey

OCP review process. Through the forum of the Surrey Stewards Roundtable, groups discussed the content and intent of the OCP and defined issues of concern to be brought forward. The Roundtable will also prepare a collective statement on the OCP.

Friends of Semiahmoo Bay

Recently we've worked to form a group in response to concerns regarding the Little Campbell estuary and the associated marine habitat of Semiahmoo Bay. The *Friends* are a trans-border society with members from BC and Washington State. They have built a strong relationship with the local Semiahmoo First Nation.

Considerable effort went into organizing a public "Celebrating Partnerships" planting event that took place the mouth of the Little Campbell River. The project required significant technical support, as the site chosen was a barren post-industrial area with major enhancement required to make it suitable for planting. I provided technical and funding



"Celebrating Partnerships" planting event.

assistance, networked partner organizations and acted as media Coordinator, as well as MC on the day of the event. This event provided both an opportunity for local stewards to implement habitat enhancement works but also to inspire a land ethic in the relatively low environmental consciousness area of south Surrey / White Rock.

We are now making the project the basis of an ongoing management plan for the estuary (including mapping, rehabilitation and enhancement). The project won a 2001 *Environmental Stewardship Award* from the BC Landscape and Nursery Association.

Burnaby / Brunette System

Stewardship Coordinator: *Dianne Ramage*

We have a mature stewardship community in Burnaby that works well together and with the four levels of government. They understand and value partnerships. Taking direction from the community, I have responded to a request to identify some gaps in necessary skills and then followed through with organizing and facilitating workshops to provide the requested training. To date, information sessions on watershed and development monitoring, media and communications and watershed

restoration concepts have been organized. These workshops were well attended by a wide cross section of stewards which also provides opportunities to forge additional partnerships.

There is an ongoing commitment to identify potential partners not yet included in the existing processes, such as First Nations and take the steps to include them and other interested groups or individuals in the future.

Networking is Key to Effective Stewardship

Three new Streamkeepers groups have been formed in the past six months, increasing the opportunity for the stewardship community to mentor and support each other.

A Streamkeepers Round Table was formed three years ago and in the past six months has strengthened and defined its purpose. One of these is to act as the Stewardship Community Point of Contact with Burnaby City Hall. This relationship has been successful in supporting both the initiatives of the city and the Streamkeepers. The City has agreed to provide a copy of the weekly Council agendas to the Streamkeepers so they become aware of all requests for permits, preliminary plan reviews,

rezoning applications and subdivision applications at the same time as the City Councilors. This process allows the watershed stewards an opportunity to review the application before the City Council's first reading. This is truly "Getting Ahead of the Curve" in Burnaby. As the agendas are printed each Friday, I pick them up, review them, give each application a watershed code and then distribute them to the relevant stewardship groups to act upon. The stewardship groups attend council meetings to support each other on relevant issues. This approach has been very successful and gives the stewardship community the appearance of a united voice on many issues, making our collective voice stronger.

Education and Habitat Enhancement

Byrne Creek Streamkeepers have developed and delivered an interactive watershed education program to every school, both public and private in their extensive watershed in the past three years. Every class and every student has participated in this education event which they conclude by painting wooden "dream fish" that are used to create a public art display on the school grounds. Their constant battle with poor water quality and their consistent monitoring of it has lead to the City of Burnaby contracting a full time person to work specifically on this issue for this watershed.

Beecher Creek Streamkeepers have teamed up with Scouts Canada and the local community to adopt and rehabilitate an urban watershed. They have plantings, cleanups and in-stream work events that are heavily attended by the community and even Federal, Provincial and Municipal government officials.



Boy Scouts join Streamkeepers for a planting event.

Sapperton Fish and Game Club have worked on the Brunette River for over 30 years. Their efforts have been aimed at improving the water quality and complexing the river to provide habitat for the once extirpated steelhead, searun cutthroat, chum, coho and chinook as well as the abundant birds and mammals that once again co-exist in this watershed with thousands of humans and their pets.

In the past three years they have built a series of Newberry weirs that have provided oxygenated water, protected areas for juveniles and access for these fish to spawning areas for the first time in over 40 years. They have installed large woody debris to provide additional habitat, they fund-raised and built a hatchery that is currently incubating 35,000 coho eggs, and they have released a total of 21,000 juveniles in the other two years of its operation. Sapperton members sit on two advisory committees, one with the regional government and the other municipal.



Hand lifting returning salmon over a small dam.

Stoney Creek Environment Committee

Stoney Creek Environment Committee (SCEC) are the stewards of one of the most productive salmonid bearing watersheds in the region. In the last three years this creek has been heavily impacted by the construction of Skytrain, the upgrading of the Lougheed Highway, the GVRD's sewer line improvements and the construction of a high school in the riparian area of the creek. The SCEC built ongoing partnerships to monitor and document watershed changes, educate fellow stewards while they lobbied governments which in turn lead to policy changes and inclusion at the planning level on all subsequent major projects including the Burnaby Mountain Community Corporation's Simon Fraser University Development in Stoney Creek's headwaters. The SCEC sits on the Interagency Advisory Committee reviewing and revising the stormwater management plans, the habitat compensation balance sheet and the adaptive management development style to be use during the Burnaby Mountain development.



Constant monitoring and research is essential to adaptive management.

British Columbia Institute of Technology

British Columbia Institute of Technology has an active watershed stewardship program, which has initiated the Burnaby Lake Systems Project, and the Watershed Pledge Program. The

institute, in partnership with the regional watershed stewardship groups and the City, support many public environmental events.

Local Streamkeeper, Les Leighton spent several years developing underwater video method to document stream use and to make educational videos for Streamkeepers.



Advocacy for Effective Environmental Policies



Chum returning to our local urban streams.

Locally and throughout the province the stewardship community is concerned about the provincial government's core program reviews. This has taken a great deal of time lately. What does this mean to existing and future programs and funding? What implications does it have for government agencies and regulators? These kinds of questions have been the topic of daily conversations with stewards. Recently, we worked hard to compile background information on stewardship and activities relating to the Fish Protection Act, specifically the Streamside Directives, for presentation before a provincial review committee.

It is critical that stewards with hands-on experience of the fisheries resource are able to provide meaningful input into legislative and policy directives. Submitting information, advice, and recommendations to the new government regarding the successes of environmental programs and policies assists those in power to make better decisions.

Living Green Program

Stewardship Coordinator: Arelia Werner



Purpose

The Living Green program is based on the belief that the health of our natural environment is ultimately the responsibility of every individual in a community. Focusing on the impacts of household waste products, water use, energy consumption, automobile emissions and yard care, the program provides residents with information on how to make simple changes in their day-to-day practices in and about

the home. The information is packaged in an attractive calendar, which will be brought to residents by members of their own community. Beyond simply providing information, Living Green asks residents to commit to changing their behaviour by taking a pledge. The program emphasizes the significant cumulative impact that individual actions have on the health of the watershed.

Background

Living Green is modelled after several similar programs initiated in recent years and has been designed with the help of consultation with various sectors of our local community, including the members of the Living Green Working Group. This group spent over a year drafting the calendar contents, designing the graphics for advertising materials, and crafting the generic program concept. The program is now ready for delivery on a regional scale with a generic product that is transferable to all communities in the western region. Living Green is designed to be flexible enough to be tailored to fit the unique needs of local delivery partners.

Implementation

In addition to the pilot project implemented in the Abbotsford-Mission area, the Living Green is available for implementation in other communities using a three-tiered approach. The Regional Program coordinator will pass on information about the program to HCSP Stewardship Coordinators and they will act as the link between the Regional coordinator and the local delivery partners in each community. A guidebook and graphic material such as posters, brochures, magnets, pledge calendars are available for use and adaptation. Additional ongoing support and information are available through a web site and a quarterly newsletter.

Significant Accomplishments to Date

- Finalizing the calendar and associated promotional materials - posters, brochures and fridge magnets;
- Signing on 17 Stewardship Coordinators from BC to facilitate the delivery of Living Green in their community;
- Beginning the implementation of Living Green in Abbotsford, BC;
- Completing the Communications Plan;
- Drafting a Guidebook designed for the delivery partners which outlines the fundamental principles of the program, key considerations for effective communication, and various options for program implementation;
- Holding a meeting with the SCs of the Lower mainland and using their feedback on the program to make it more suitable for all the SCs in the province;
- Setting up a support web site;
- Making a display that can be sent around the province to promote the program.



Objectives and Strategies of Living Green

Overall goal: To develop a generic program that encourages adaptation of more environmentally responsible behaviour and increases community stewardship among British Columbia residents.

| Objective | Project Strategy |
|--|---|
| 1. To raise awareness of the environmental impacts of common practices around the home and how changes in behaviour can help to improve watershed health. | <ul style="list-style-type: none"> • Include in the pledge booklet a local watershed map and an explanation of the watershed concept. • Highlight significance of cumulative effect of non-point source pollution. • Illustrate in the pledge booklet the specific effects of common behaviour (e.g. washing oil down storm drains). |
| 2. To encourage changes in behaviour of residents. | <ul style="list-style-type: none"> • Ensure that the recommended alternative behaviours are “do-able” (i.e. not expensive, or overly demanding). • Present a reasonable number of alternative practices to choose from, but not so many as to be overwhelming. • Provide incentives for “taking the pledge”. |
| 3. To target non-greens. | <ul style="list-style-type: none"> • Make materials interesting for non-greens by creating an attractive, useful, stand-alone product. |
| 4. To co-ordinate and package existing information on residential Best Management Practices. | <ul style="list-style-type: none"> • Assemble existing, tested and proven Best Management Practices. • Present this information in a non-threatening manner (simple language, inviting graphics). |
| 5. To distribute residential Best Management Practices information to stewardship groups who will deliver it in multiple regions across the province. | <ul style="list-style-type: none"> • Hire a Program Coordinator responsible for distributing and maintaining the program. • Draw on the Habitat Conservation and Stewardship Program’s network of Stewardship Coordinators. • Make all print materials available for downloading on the web site. |
| 6. To provide resources and support to stewardship groups who take on the delivery of the program in their region. | <ul style="list-style-type: none"> • Develop a Guidebook detailing the purpose, background, principles and various delivery options for the program. • Provide technical assistance to delivery partners. |
| 7. To build local community. | <ul style="list-style-type: none"> • Provide an avenue for stewardship groups to make landowner contacts and raise awareness of their activity in the community. • Approach local business to support the calendar production. • Offer local business contracts to produce incentive products for residents who pledge. |
| 8. To monitor and track the success of the program over time. | <ul style="list-style-type: none"> • Develop and maintain a web site, which includes frequent updates on the success of the program in various regions. • Maintain regular contact with delivery stewardship groups. • Conduct a baseline survey. |

North Fraser—Mission & East

Stewardship Coordinator: *Bill Walsh*

In the North Fraser area, which extends from Stave Lake to Hope, I enjoy working with many diverse stewardship groups. Many of these groups are in the early stages of growth, and this presents some unique opportunities. Given that it is the amount and quality of spawning and rearing habitat that is limiting the productivity of wild salmon, my work involves considerable liaison with farmers.

Agriculture is very significant to the BC economy, but it is also the number one contributor to pollution in the Fraser Valley. The economics of farming today seem to require larger scale operations to be viable. The greater intensity of agriculture puts even more pressure on our aquifers and fish habitat, and this in turn requires improved manure management and efficient drainage. Farmers say that the product price does not allow them to invest in adequate

research, or environmental safeguards.

Faced with difficult choices farmers often get the job done anyway they can. This can lead to confrontation with DFO, polarization of positions, and frustration.

This is where we come in as stewardship coordinators - rebuilding the trust, opening up lines of communication, and achieving minor victories for the watershed. Finding that middle ground which represents the classic Canadian compromise is the goal. When we do that successfully then farmers can farm, and fish can flourish, and we achieve win-win. And it is working. Which begs the question – whither ‘salmon nation’ when HCSP sunsets?

Habitat Enhancement

The Habitat Conservation and Stewardship Program has provided critical administrative support to the Hatzic Valley Watershed Society in their quest to secure funding to develop a watershed management plan. Our support was instrumental in

successfully raising \$110,000.00 in order for this community stewardship group to mature and to fund various projects.



Lagace Creek in Hatzic Valley.

Community Participation

Mission's Celebration of Community was an outstanding example of bringing together private corporations, aboriginal groups, social agencies and municipal governments to fund an event that is designed to enhance community spirit. The guiding principle of this event is that our quality of life depends on social, economic and environmental harmony. About 750 people experienced ecological and cultural displays. We intend to expand this event in 2002.



Streamkeeper training session.

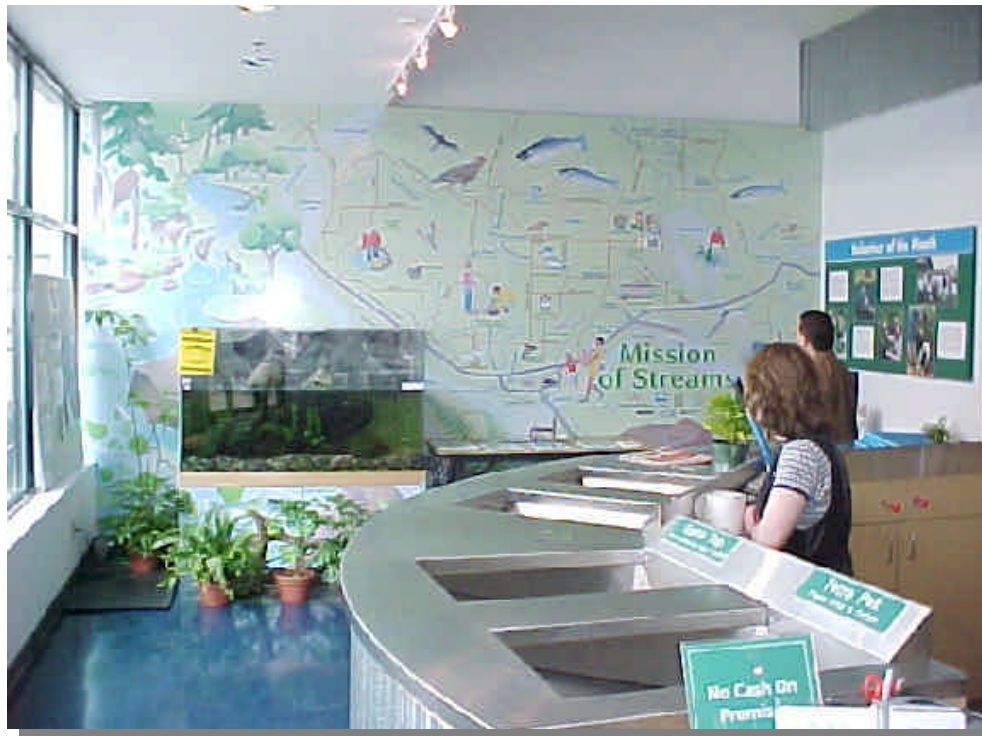
Community Awareness

The Mission of Streams Resource Centre is a stewardship showcase and volunteer recruitment centre for the Mission area. With the addition of touch screen technology, the centre will become a portal for information for anyone wishing to connect with specific environmental groups and local information. A fundamental principle of this group is that development must be governed by a judicious balance of environmental, social and economic factors.

The Mission of Streams is a partnership between government agencies, local business and community organizations. Its

mission is to work cooperatively with the local community groups and citizen volunteers to help restore and protect the streams of Mission through education and some financial support. This project is dedicated to informing the community on the activities of members of the Mission of Streams initiatives.

The Centre houses a giant mural of the area, a touch screen computer kiosk and a 200 gallon aquarium which has displayed everything from incubating salmon eggs to sturgeon. There is also a "Stewards of the Month" display showcasing local work.



Mission of Streams Resource Centre is head-quartered at the Changes Recycling Centre in Mission.

Lillooet River Watershed—Pemberton/ Mount Currie Area

Stewardship Coordinator: Liz Jones

I have been involved in a variety of activities in the area over the past two years. The most obvious and tangible result that can be seen is the development of local capacity. To foster stream protection and stewardship, small communities must be given the tools, resources and support to succeed. Stewardship

activities have included developing local groups, accessing funding for fisheries projects, networking with stakeholders in the watershed.

Lil'wat Fisheries Commission

As Stewardship Coordinator, I helped to form the Lil'wat Fisheries Commission (LFC). The LFC was established in January 2001 by members of the Lil'wat First Nation (Mt. Currie Indian Band). Members include fisheries technicians and concerned citizens. Their goals and objectives are to restore, enhance and protect the valuable fishing resource within their traditional territory and have positive impacts on issues outside of the watershed. The work the LFC has undertaken so far includes developing protocol agreements with the Department of Fisheries and Oceans to better manage the productive salmon stocks that spawn in the area. Development pressures within the watershed due to tourism, forestry and land developments put a tremendous pressure on the terminal fishery. The LFC has had

many meetings with other fishing organizations, both aboriginal and non-aboriginal. The LFC secured funding last fall to pursue many of the issues and concerns it has raised. This funding is helping the group work towards the development of a Strategic Restoration plan for the watershed. Throughout the year there have been numerous meetings that have begun to build positive relationships between groups and across cultures. The LFC has been meeting to discuss stock assessments for coho, chinook and sockeye, sport fishing concerns, enforcement and compliance concerns, habitat restoration, community education and outreach and scientific research.

Watershed Education and Training

I have been meeting with area schools to introduce the concept of watershed education. Curriculum development has been undertaken by BC Wild and we are hoping to pilot the program in some of the schools. Last year the Mount Currie community hosted an Earth Day event for 60 students from Grades 2-6. This was so successful that it will be an annual event where the students will engage in stream cleanups and riparian planting. Fisheries projects throughout the area identified the need for certification of fisheries technicians. This past year, twelve First Nation participants from five different communities were enrolled in the Malaspina Fisheries Field Technician Training Program (FFTCP). This five-week course was delivered in the community and was very successful. Students now have employment within their own areas. These fisheries technicians being asked to help their communities prepare and implement fisheries projects.



Bioengineering project with FFTCP class participants.

Lillooet Watershed Council

The Lillooet Watershed Council was initiated, as there was a need to bring information and people together within the entire watershed. Three meetings have been held this year with attendance from all levels of government, First Nations, local stewardship groups, and concerned citizens. The meetings have been very successful in allowing participants to share information about watershed related activities. This allows everyone to become better informed about what is going on in our own backyard. Currently the council is informal but is in the process of setting a Terms of Reference.



Lillooet Watershed Council meeting.

The last meeting, held in November, focused on the Independent Power Projects (IPP's) which are proposed for this area. There are 23 active applications on rivers within the Lillooet system. The council will seek more input from local communities about the impacts and potential benefits of such projects. It is my hope that the council will move towards developing a Watershed Management Plan that includes all aspects of a very diverse area. I am fortunate as Stewardship Coordinator to pursue bringing people together for this council.

Local Projects

I have helped to secure funding for habitat assessment and restoration projects within the watershed. Smaller communities lack the human resources to pursue funding for this work, so as Stewardship Coordinator I helped to write proposals and assisted in the delivery of the projects. These activities have helped to develop capacity within these smaller communities. Projects include a bull trout spawner count (in conjunction with Ministry of Environment), engineering culvert passage between BC Rail and Ministry of Highways, assessment projects throughout the watershed, livestock fencing, riparian planting, and stream classification mapping in the Pemberton-Mount Currie area. All of these projects have led to a better understanding of habitat issues within the area.



Phelix Creek Bull Trout counting fence, fall 2001.

Squamish

Stewardship Coordinator: Edith Tobe

This has been a very exciting and very busy year for us here in Squamish. As Stewardship Coordinator I have had the good fortune to work with numerous groups (Squamish Estuary Conservation Society, Trails Society, Windsurfing Society, Ezee Breathers Scuba Club, and several others) to help promote and develop the new Squamish Streamkeepers. With the help of Wendy Mitchell, a strong Streamkeeper group has now been formed in this area as part of an Adopt-a-Stream program (partially funded from Fisheries Renewal BC and partially funded through the budget of Community Advisor Rob Bell-

Irving). New stream signs are going up throughout Squamish identifying the numerous watercourses that criss-cross the community. A new neighbourhood stream map brochure has been produced, and, most importantly, we now have a website (we have to get it up and running, but by summer please check us out at www.squamishstreams.com).

For any that are not familiar with the beautiful surroundings of Squamish, I hope that you make a trip to this fair neck of the woods and take in all that we have to offer.

Inventory, Monitoring and Watershed Planning

Working with Fisheries and Oceans staff, we are putting together a strategic plan for the salmonids of the Squamish River. As well, an overall comprehensive plan is being developed by myself on the restoration activities that have been undertaken and are proposed for the Squamish Watershed. During the summer months, along with District of Squamish and Fisheries and Oceans staff, we have been taking monthly water quality samples on the main watercourses and tributaries in the District of

Squamish in order to establish base line data. This year was our second year of working with Capilano College students in their Outdoor Leadership Program in which they are introduced to the ecology of the estuary.

The Cheakamus Water Use Plan, on which I have been an active participant, is winding to a close but I will continue to remain active on the Squamish Estuary Management Committee.

Habitat Enhancement and Restoration

There are numerous enhancement and restoration projects that are providing more spawning and rearing habitat for salmonids. Although numerous projects are currently under way, little has been done in order to identify areas of high and low priority. As new development occurs, the norm has been to react if there are any impacts on the streams. The year ahead will include

developing a long term plan prioritizing watershed restoration projects with the input from the community, industry, the Squamish Nation and agencies. Hopefully we can become a proactive community, implementing restoration/rehabilitation projects in a more organized way, and really bring back the fisheries that once were so abundant in this valley.

Community Events



Scott Melville from Tenderfoot Hatchery wows the crowd at the Return of the Salmon Festival with his "wares" (Chum salmon).

This year was also the second year in which I worked with the Squamish Estuary Conservation Society in hosting the Return of the Salmon Festival. The event was held in November as a

celebration of the return of the Chum and Coho salmon to our streams. The Festival turned out to be a tremendous success with over 500 people in attendance.



Squamish Nation dancers along with Mayor Corinne Lonsdale and some locals perform opening ceremonies at the second annual Squamish Return of the Salmon Festival.

We're on the Web!

www-heb.pac.dfo-mpo.gc.ca/english/programs/hcsp

WORKING IN PARTNERSHIP WITH THE COMMUNITY



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