

*Assessment of Local
Government Biodiversity
Conservation Initiatives and
Senior Agency Interactions
for Selected Regions of
British Columbia*

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Canadian Wildlife Service
Pacific Region

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Executive Summary

This report presents the results of a study commissioned by Canadian Wildlife Service, Pacific and Yukon Region, undertaken by Dovetail Consulting Inc.

Purpose and Objectives

The purpose of this study is to provide an assessment of how the Canadian Wildlife Service (CWS) can be most effective in contributing to biodiversity conservation planning and decision making at the local government level for selected areas of British Columbia. The areas of interest are Vancouver Island, Georgia Basin, Fraser Valley, Okanagan, and the Columbia-Kootenay Basin. The specific objectives of the project are to:

- develop a baseline inventory of major biodiversity initiatives currently underway at the local government level;
- provide a situation analysis of current interactions between conservation agencies and local governments in the areas of interest on issues directly related to biodiversity conservation;
- prepare a gap analysis to identify where local governments are unprepared to adequately address priority biodiversity conservation issues; and,
- identify opportunities for CWS involvement, with recommendations for the kinds of tools and support that would be appropriate.

Situation Analysis and General Trends

This report identifies three significant trends that will greatly affect the ability of local governments to address biodiversity conservation planning and decision making:

- *Increased local government autonomy and authority:* Local governments have new tools for environmental stewardship under recent changes to the *Local Government Act* and will soon have greater autonomy and powers under the proposed *Community Charter*. However, many local governments are not fully aware of the range of tools available to them, are reluctant to use them in the current economic and political environment – or most significantly, lack the expertise, resources and guidance to undertake effective conservation planning and decision making.
- *Significant reductions in provincial budgets, staff, and conservation programming:* Recent cutbacks in budget and staff within the provincial ministries of Water, Land and Air Protection, and Sustainable Resource Management have severely reduced the number of staff and range of resources available to support local government conservation efforts. Local governments have generally relied on the expertise of provincial habitat staff to assist them with conservation planning. These resources are no longer available. Furthermore, provincial policy direction is away from direct support for local governments and urban habitat programming. Provincial agencies will increasingly focus on the development of standards and Best Management Practices (front-end planning), and effectiveness monitoring, and where necessary, enforcement (back-end planning). The province is greatly reducing its role in referrals or direct client service support to local governments.
- *Termination or winding down of several major urban habitat conservation initiatives:* In recent years, major urban habitat and conservation programs have been available to support local government and community-based conservation efforts. These include the Urban Salmon Habitat Program (USHP), the Habitat Enhancement and Restoration Program (HRSEP), and

the Habitat Conservation Stewardship Program (HCSP). These programs have supported numerous stewardship and coordinator positions within provincial, federal and local governments as well as millions of dollars in project funding. Several of these are terminated, or will likely not have funding beyond March 2003. The loss of these programs represents a very significant loss of capacity for local governments.

This report concludes that unless alternative funding sources are found, there will be a substantial loss of capacity within local governments to undertake conservation planning. Most interviewees for this study felt that local government capacity to undertake conservation related planning and decision making is trending downward.

In the current political and economic environment, many municipal councils are very wary of perceived or actual 'downloading' of senior government responsibilities for environmental stewardship. Nonetheless, there is a growing recognition and expectation among local citizens, stewardship groups, local government planning departments, and to a certain extent, on municipal councils, that local governments can and should address conservation issues as part of their mandate. Many local governments are willing to address conservation issues if they are provided with clear direction on what needs to be accomplished in terms of specific biodiversity goals and objectives, and they are provided with the resources and support to achieve them.

The most effective approaches to biodiversity conservation at the local government level appear to be those that involve three way partnerships between senior levels of government, local governments and local stewardship groups, where senior government resources, funding and expertise are used to build capacity and support local ownership of the problems and the solutions.

Recommendations

This report makes seventeen recommendations for greater involvement by the Canadian Wildlife Service in support of local government biodiversity conservation planning and decision making. CWS should:

- Support and enable existing conservation partnerships – such as the Biodiversity Conservation Initiative for the Greater Vancouver Region and the South Okanagan Similkameen Conservation Program (SOSCP) – as effective vehicles for leveraging CWS' resources and achieving regional conservation goals.
- Build on the strength of community stewardship groups.
- Participate in development of the Provincial Biodiversity Strategy, particularly in articulating goals and objectives for species at risk.
- Undertake an assessment of local use of Sensitive Ecosystem Inventory (SEI) information and supporting materials.
- Support additional field verification and updating of SEI data.
- Support more detailed habitat mapping at larger scales (smaller areas) for key conservation areas or 'hotspots'.
- Support web-access and consistent standards for community mapping projects and products.
- Expand voluntary conservation efforts through stronger partnerships with provincial land conservancy organizations.
- Support and enable local land conservancies, especially in their joint efforts with local governments to establish conservation covenants and acquire properties for conservation.

- Assist with communication and outreach with respect to the Natural Areas Tax Incentive Regulation under the *Islands Trust Act*, both within the Islands Trust Area, and as a model for other jurisdictions.
- Establish clear lines of communication and reporting relationships with key partners.
- Provide enhanced technical assistance and support to local governments.
- Support a national conference on stewardship.
- Participate in ecoregional planning with the Nature Conservancy/Nature Conservancy of Canada.
- Develop education and outreach materials and programs targeted at municipal councils.
- Articulate regional and local biodiversity goals and objectives.
- Support rigorous ESA studies for priority areas.

***Assessment of Local Government Biodiversity Conservation Initiatives and Senior Agency Interactions
for Selected Regions of British Columbia***

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1 Introduction

This report presents the results of a study commissioned by the Canadian Wildlife Service, Pacific and Yukon Region undertaken by Dovetail Consulting Inc.

1.1 Purpose and Objectives

The purpose of this study is to provide an assessment of how the Canadian Wildlife Service (CWS) can be most effective in contributing to biodiversity conservation planning and decision making at the local government level for selected areas of British Columbia. The areas of interest are Vancouver Island, Georgia Basin, Fraser Valley, Okanagan, and the Columbia-Kootenay Basin. The specific objectives of the project were to:

- develop a baseline inventory of major biodiversity initiatives currently underway at the local government level;
- provide a situation analysis of current interactions between conservation agencies and local governments in the areas of interest on issues directly related to biodiversity conservation;
- prepare a gap analysis to identify where local governments are unprepared to adequately address priority biodiversity conservation issues; and,
- identify opportunities for CWS involvement, with recommendations for the kinds of tools and support that would be appropriate.

1.2 Context

The Canadian Wildlife Service (CWS) handles wildlife matters that are the responsibility of the federal government. These include protection and management of migratory birds and other transboundary wildlife, wildlife on federal land, nationally significant habitat, and species at risk.

It is widely recognized that the habitats of many migratory birds, transboundary wildlife and species at risk are found within urban and rural settings that fall within the jurisdiction of local governments in BC. The pace and nature of development within urban areas continues to place enormous pressure on these habitats, creating an urgent need for the integration of conservation objectives into local government planning. This is especially the case for regions such as the East Coast of Vancouver Island, the Fraser Lowlands, and the southern Okanagan which have high concentrations of species at risk and rapid urban growth.

Numerous changes are underway in British Columbia that affect the ability of local governments to adequately address biodiversity conservation issues. These changes include:

- significant reductions in provincial ministry budgets, staffing and program activities in the areas of wildlife and habitat management;
- increases in local government autonomy and responsibility for environmental stewardship through the *Local Government Statutes Amendment Act, 1997* and the proposed *Community Charter*; and,
- federal and provincial initiatives on species at risk, specifically, the proposed *Species At Risk (SARA) Act*.

1.3 Scope and Limitations

The geographic scope of this project was limited to local governments on Vancouver Island, Georgia Basin, Fraser Valley, Okanagan Basin, and Columbia-Kootenay Basin. Given budget and time limitations, the project focused on identifying significant conservation initiatives across the five regional areas, focusing on multi-agency initiatives and regional districts as a first priority.

Note that a comprehensive listing of all biodiversity conservation related initiatives of all local governments within the target areas is beyond the scope of this project. There are a very large number of specific initiatives underway, ranging from regional, multi-party biodiversity conservation initiatives, to site specific conservation projects of individual municipalities. In compiling the inventory in Appendix 1, our focus was on larger regional initiatives. For a recent, and comprehensive, review of the wide range of conservation initiatives underway at the local level in B.C., see Deborrah Curran, 1999, *Environmental Stewardship and Complete Communities: A Report on Municipal Environmental Initiatives in British Columbia*.¹

The assessment of current trends in local government programming and capacity to undertake biodiversity conservation work, and the development of recommendations for CWS involvement in support of local government conservation efforts, are largely based on the key informant interviews conducted for this study. Interviewees contacted for this study are noted in Section 5.

2 Inventory of Major Conservation Initiatives

Appendix 1 to this report (a separate document) provides a summary of major biodiversity conservation initiatives involving local governments that are underway within the target areas for this study (Vancouver Island, Georgia Basin, Fraser Valley, Okanagan, Columbia-Kootenay).

The inventory is organized by target area and by sponsor (e.g. government agency, First Nation, non-governmental organization). For each initiative, a brief description is provided, stating the:

- program scope and objectives;
- status of the initiative, including whether it will likely be continued given projected trends in funding and agency priorities;
- information sources;
- project partners; and,
- funding sources, where available.

3 Situation Analysis and General Trends

The following sections report on general trends in policy, programming, and funding in support of biodiversity conservation at the local level, with an emphasis on interactions between local and senior (federal and provincial) agencies.

3.1 Increased Local Government Autonomy and Authority

In recent years, the Province has responded to requests from the Union of BC Municipalities and individual municipalities for improved local government powers to address community-based

¹ Available at www.smartgrowth.bc.ca/minisurvey.html

interests in maintaining environmental quality. These local interests coincide with Provincial Government commitments to address increasingly widespread concerns about the loss of fish habitat resulting from urban development. Amendments to the *Municipal Act* that enable local government to protect, restore and enhance the natural environment, its ecosystem and biological diversity came into effect in October 1997, through Bill 26, the *Local Statutes Amendment Act*.²

In summary, amendments to the *Municipal Act* in Bill 26 gave local governments new and improved abilities to restore and enhance as well as protect the natural environment including its ecosystems and biological diversity through:

- official community plan policies, development permit area designations, and development permit approval conditions;
- requirements for development approval information, to be provided at developer's cost in support of applications for rezoning, development, and temporary commercial and industrial permits;
- the prohibition of the pollution of waterways;
- requirements for security deposits in relation to permits to correct damage to the natural environment;
- requirements for landscaping for environmental reasons and to prevent hazardous conditions;
- requirements for landowners who pave or roof an area to manage and provide for ongoing disposal of runoff and to set maximum percentages of areas that can be covered by impermeable material;
- the ability to exempt "eligible riparian property" from property taxes; and,
- directives to boards of variance not to issue a variance if they believe this will adversely affect the natural environment.

Although not an environmental stewardship measure, local governments were also given the ability to specify wildfire hazard development permit areas and establish conditions to address wildfire hazards.

Community Charter Legislation

The Province is in the process of developing "Community Charter" legislation that will further increase the autonomy and powers of local governments. In the 2001 summer Legislative Session the first step in delivering a Community Charter was made when the Community Charter Council Act was given Royal Assent, and a Community Charter Council was formed. The Council will be preparing draft Community Charter legislation which will be submitted as a white paper in the spring of 2002 Legislative Session. There will be further consultation during the spring and summer before the Charter is brought back into the Assembly for adoption in the fall of 2002.³

The Community Charter will address a wide range of issues such as broad regulatory and service powers, new revenue fields, local-provincial relations, and principles respecting 'offloading' of provincial responsibilities.

The Community Charter represents a distinct policy shift with respect to the Province's legislative

² For a detailed description of the environmental provisions of Bill 26, see Province of British Columbia, Ministry of Municipal Affairs. *New Tools for Environmental Stewardship in the Municipal Act. Local Government Statutes Amendment Act, Bill 26*. Available at www.marh.gov.bc.ca/GROWTH/PUBLICATIONS/BILL26/

³ For more information on the Community Charter legislation and consultation process, see www.mcaws.gov.bc.ca/charter/ch_index.html

and regulatory oversight over local governments. The intention is to create more of a partnership arrangement whereby local governments are provided with the “more powers, better tools, and more access to financial and other resources” that will “reduce the dependence of municipal governments on the provincial government, creating a more equal relationship.”⁴ As the Community Charter background paper notes:

The Community Charter proposes a shift from an emphasis on giving provincial approval to an emphasis on providing high quality advice and assistance to local governments. Provisions in the Charter will enhance consultation mechanisms for everything affecting municipalities, including changes to any legislation affecting municipalities and jurisdictional issues.

Offloading of provincial responsibilities to municipalities is a key concern of local governments. There will likely be provisions in the Community Charter to address this issue. For example, the Charter will likely require a mandatory consultation process with local governments prior to the introduction of any provincial legislation that impacts local governments, with specific mechanisms for dispute resolution. Drafting of the Community Charter legislation will be guided by the principle that “the required resources must be provided to fulfill responsibilities before new responsibilities are assigned to municipalities.”⁵

The Community Charter will be introduced in two phases. Phase 1 will focus on providing more and broader powers to municipalities, strengthening inter-governmental relations, and improving public participation. Phase 2 will address issues such as planning and land use, regional growth strategies, regional districts and heritage conservation. The *Local Government Act* will remain in effect until the Charter is passed. Once the Community Charter has been given Royal Assent, Section 24 of the *Local Government Act* governing regional districts will remain in effect until Phase 2 of the Charter is complete.

Clearly, the provincial government policy direction is towards providing local governments with greater autonomy and authority over decision making. The *Local Government Statutes Amendment Act* and proposed *Community Charter* legislation will entrench more powers at the local government level, and create more of a partnership arrangement between the provincial and local governments.

The Canadian Wildlife Service will need to position itself and its program activities within the context of increasingly empowered local governments that will have a broader range of authority over, and tools for, land use planning and resource management. While concern for environmental stewardship is growing at the local government level, there is also a heightened concern among local government politicians and staff that they not be burdened with the downloading of provincial, or other senior government, mandates and responsibilities. This is especially the case given the recent and dramatic reductions in provincial ministry budgets and programs, as discussed in Section 3.2.

CWS will need to emphasize building and sustaining partnerships with local governments and local stewardship groups, working towards common conservation goals. CWS will also need to make new resources available to assist local governments and stewardship groups to undertake conservation planning and decision making at the local level. These resources include information, education and training, technical support, and program and project funding.

In the current political and economic climate, any senior government initiative that is seen as “downloading” without resources and support, will quickly meet resistance at the local government

⁴ Minister of State for Community Charter. October 2001. The Community Charter: Discussion Paper. p.16.

⁵ Ibid. p.17.

level and likely fail.

3.2 Significant Reductions in Provincial Budget, Staff and Programs

The Ministry of Water, Land and Air Protection (WLAP), and to a lesser extent the Ministry of Sustainable Resource Management (SRM), are the primary provincial ministries responsible for delivering programs and services that impact on biodiversity conservation at the local government level. Both ministries have experienced – and will continue to experience – substantial reductions in staff and budgets to carry out their mandates as a result of provincial budget cutbacks and changes in provincial policy direction.

WLAP's budget is projected to fall 45 per cent from \$169M in 2001/2002 to \$50.8M in 2004/2005. The budget for the Environmental Stewardship Division – which is responsible for delivery of programs and services to protect biodiversity – is projected to fall 33% over 3 years. Overall, WALP will lose approximately 400 Full Time Equivalent (FTE) staff by 2004/2005, representing a 31% reduction in staff from 2001/2002 levels. One interviewee stated that 35 of 80 provincial staff working on urban habitat protection issues will be lost, including 5 positions on Vancouver Island, which represents a 60-70% reduction in regional staff working on urban habitat issues on the Island.

SRM is facing similar budget reductions. The resource information services of government have been consolidated under SRM, including the Conservation Data Centre (CDC). Base funding has been secured for the CDC under the most recent budgets, however, one interviewee commented that collecting additional resource inventory information is a low priority for government and that there is no provincial funding for any additional inventory work. One interviewee commented that further species and habitat inventory and mapping work is a low priority, and will depend almost entirely on funding from sources other than the provincial government.

It should be noted that the provincial budget cutbacks announced on January 17, 2002 are on top of reductions in staff under the previous administration. Cuts to the Wildlife, Fisheries and Habitat Protection Programs under the previous and current administrations will reduce program strength to 32% of their mid 1990 levels.

Wildlife Program

Four regions are most heavily impacted by cuts to the Wildlife Program – Vancouver Island (50%), Lower Mainland (43%), Cariboo (40%) and Skeena (33%). Two functions of the Wildlife Program are especially hard hit. Area Management, a function consisting of various activities conducted to legally designate, manage and monitor especially valuable habitats and highly valuable populations, including responsibility for management of 22 Wildlife Management Areas (WMAs) and 300 other reserves, lost 5 staff directly responsible for these functions. The function was also transferred to the already overtaxed Parks Program.

The second significant loss to the Wildlife Program is in the area of population and habitat inventory. Ten staff were cut from this function, affecting inventory work for big game, large carnivores, raptorial birds, non-game birds and species at risk. The latter three categories are of primary concern in both Vancouver Island and Lower Mainland Regions, which are being most heavily cut. Staff cuts have generally been more severe on the coast than in the interior.

Losses to this extent will devastate regional wildlife programs. Knowledge, experience and manpower are taken away. Remaining staff are disproportionately more heavily burdened with administrative and regulatory tasks. There is less time to conduct field activities and to liaise with public groups and other agencies. Partnerships will suffer.

Habitat Protection Program

Habitat Protection staff typically deal with urban/rural or fish/wildlife/forestry issues. Cuts to the Habitat Protection Program overall are 23%, a loss of 10 positions as of January 17, 2002, and a further 18 positions next year. Three regions are disproportionately impacted: Vancouver Island at 35%; Lower Mainland at 42%; and, Kootenays at 33%.

Habitat protection efforts in the past have focused on identifying special habitats and on working with local governments via a referral system to avoid or mitigate development impacts. As development pressures have increased, the referral system has become unwieldy. This is especially the case in the Lower Mainland, Southwestern Vancouver Island and the Okanagan. In recent years, Habitat Protection staff have focused on the development of “best practices” documents, which assist local governments, developers and consultants with identifying special habitats and avoiding impacts to them.

The trend is towards increasing reliance on best management practice guidelines and less emphasis on referrals. For example, WLAP, Vancouver Island Region has Memoranda of Understanding (MOUs) with four local governments: the regional districts of Comox-Strathcona and Nanaimo; and the cities of Nanaimo and Campbell River. The intent of the MOUs is to provide a coordinated response to a range of environmental issues through the use of BMPs for routine development applications. As a result, WLAP estimates a 70 per cent reduction in referrals from these four local governments.

The ‘best practices’ approach to environmental stewardship depends on successful partnerships, constant education and updating for approval authorities and ongoing monitoring efforts to correct deficiencies. With 11 urban/rural Habitat Protection staff lost, or soon to be cut, it will be difficult for the provincial government to maintain effective liaison with local government planning staff. As an interviewee noted, the four MOUs on Vancouver Island call for regular meetings between local government and WLAP staff to report on the status of various issues, and to address situations that cannot be dealt with through BMPs. This service requires 1-2 days per month of WLAP staff time, which cannot now be sustained given recent staff cutbacks.

New Policy Directions and Priorities

In addition to the significant budget and staff reductions noted above, WLAP’s Service Plan for 2002/2003 to 2004/2005 signals a major policy shift by the Province. As the WLAP Service Plan states, the ministry will “place greater emphasis on core ‘planning’ and ‘checking’ functions and activities; and less emphasis on the administration of direct service delivery, or ‘doing’ functions.”⁶ As one interviewee for this project noted, the ministry is moving to a “dis-integrated planning model” in which ministry staff will focus on front-end and back-end planning activities. Front-end planning activities include developing clear environmental standards and performance expectations, for example through the development of standards and Best Management Practice Guidelines. Back-end planning activities include monitoring, auditing, public reporting, and where necessary, enforcement.

The policy direction being given to WLAP staff is to develop and deliver environmental stewardship standards and best management practices guidelines to industry and local governments, but to no longer deliver, or greatly reduce delivery, of direct conservation programs and activities. The Ministry will be “encouraging others to take a greater role in environmental

⁶ Ministry of Water, Land and Air Protection. Service Plan 2002/2003 – 2004/2005. p.12. Available at www.gov.bc.ca/wlap/

stewardship, and facilitating community initiatives to protect and restore their local environment.”⁷ Fewer ministry staff will be dedicated to “non-core” activities, which include:

- providing advice to industry and local government on habitat and ecosystem protection;
- directly protecting habitat and wildlife and fish where the risks are relatively low; and,
- providing face to face client service where this can be more efficiently delivered through web-based information.

It is evident from ministry service plans and budgets that the provincial government is significantly reducing its own biodiversity conservation programming and service support to other levels of government.

Under the government reorganization, WLAP’s Environmental Stewardship Division is primarily responsible for delivery of programs to address the division’s goal to maintain and restore the natural diversity of ecosystems, fish, wildlife species and their habitats. Strategic directions of the Environmental Stewardship Division include:

- Implementation of an integrated Living Rivers Strategy for protection and restoration of watersheds by 2004. The Living River Strategy is to be jointly developed with the Ministry of Sustainable Resource Management and will involve the development of “scientifically-based standards for watershed management, and developing effective partnerships for management, enhancement and restoration of fish habitat.”⁸
- Development of a Provincial Biodiversity Strategy by 2004 that would address the objective of identifying, protecting and restoring species at risk and their habitats, as well as harmonizing provincial species at risk efforts with the federal government, and stream protection measures, by 2005.
- Implementation of area based planning for protection of species and habitats, and protection of priority fish and wildlife habitat;⁹ and,
- Phase out operational planning and referrals regarding wildlife, fish and habitat by 2003. Under the new policy direction, WLAP staff will be disengaging from involvement in referrals and developing alternatives wherever possible.

Provincial Biodiversity Strategy

The Provincial Biodiversity Strategy has been identified as a priority in the WLAP Service Plan, but the details of the strategy remain unclear. One interviewee indicated that the strategy would likely be developed in three phases. Phase 1 involves a compilation of information at the provincial level to determine biodiversity “hotspots”, or areas of species richness that are a priority for conservation-based management. Phase 2 is essentially a compilation of all government programs and initiatives that address conservation objectives, with a gap analysis of the shortfall in existing programs. Phase 3 will involve development of a provincial strategy for biodiversity conservation, with specific goals, targets, and monitoring mechanisms.

⁷ Ibid. p.12.

⁸ Ibid, p. 20.

⁹ It is not yet clear how this will be done. The planning template for this work may be based on the recently developed guidelines of the Department of Fisheries and Oceans, BC Ministry of Environment, Lands and Parks, and BC Ministry of Fisheries. November 2000. *Watershed-based Fish Sustainability Planning. Conserving BC’s Fish Populations and Their Habitats. A Guidebook for Participants*. Available at http://www-heb.pac.dfo-mpo.gc.ca/english/publications/PDF/sustainability_planning.pdf

Streamside Protection Regulations

The new Streamside Protection Regulations, an important regulatory tool for the protection of urban streams and riparian habitats under the *Fish Protection Act*, is before the Minister of Water, Land and Air Protection for review. The future of the regulations remains unclear. One interviewee commented that there was considerable resistance to the draft regulations from well-organized property rights interests that opposed the regulations in the public review process. Another commented that local governments have resisted the regulations in the absence of support from senior levels of government to provide expertise and resources for implementation. Nonetheless, many local government planning departments are anticipating that the new regulations will be approved and are planning accordingly.

3.3 Reductions in Urban Habitat Conservation Programs

In recent years, there have been several major programs that have significantly increased the support available to local governments and stewardship groups to undertake conservation-based planning and decision making. Major programs include the Urban Salmon Habitat Program (USHP), the Habitat Restoration and Salmon Enhancement Program (HRSEP), and the Habitat Conservation Stewardship Program (HCSP). Most of these programs have recently terminated, or have limited terms remaining. As these programs are wound up, the loss of staff, expertise and resources available to support conservation work at the local government level in BC will be substantial, leaving a large gap in support for local governments, at the same time as the provincial government is greatly reducing its staff and program support. This will have a large impact on the range and depth of conservation related projects being undertaken at the local government level.

The USHP is widely considered one of the most successful programs of its kind.¹⁰ Established in 1995, the overarching goal of the provincially-funded USHP was to ensure sustainable wild salmon and other salmonid stocks and habitats in populated areas of the Georgia Basin. The USHP included three program initiatives:

- Placing Urban Fisheries Specialists in MELP regional offices in the Georgia Basin to assist local governments and stewardship groups and to provide expertise in urban planning processes and salmonid habitat protection, conservation and restoration. The program supported 8 staff positions in the Nanaimo and Surrey regional offices of the Ministry of Environment, Lands and Parks, and a full-time coordinator position within BC Fisheries.
- Cost sharing of local government programs supportive of USHP goals, particularly the creation or enhancement of environmental management initiatives. Over a 5 year period, the program supported 84 local government projects with funding of \$2.2M.
- Providing funding for community volunteers and non-governmental organizations to implement stream stewardship programs. Over a 5 year period, the program supported 177 community stewardship projects with funding of \$2.3M.

Demand for the program was high from both local governments and community stewardship groups. The success of the program was attributed to a number of factors including:

- The holistic model – involving support for both local government environmental planning and regulation, and for building capacity within local community stewardship groups.
- Multi-year funding and flexibility – local government grants were for up to a 5 year term. Community stewardship groups were funded in two phases: planning grants were issued in the first year; project implementation grants in the second year.

¹⁰ For a full evaluation of the program, see Quadra Planning Consultants Ltd. March 31, 2000. *Evaluation of the Urban Salmon Habitat Program*. Prepared for BC Fisheries, Policy and Legislative Branch.

- On-going staff support – UHSP staff were noted for their dedication to support for local government planning staff and stewardship groups.
- Volunteer component – USHP only provided a portion of project funding (up to 80% maximum). On average USHP contributed less than 30% of project funding.

Funded by Fisheries Renewal BC – now defunct – the USHP program provided almost \$6.4 million of project funding over 7 years. Ten staff were hired, three each in Victoria and the Lower Mainland, and four on Vancouver Island. Working with 32 different local governments on 129 projects, the Program provided almost \$3 million to local governments, initially paying salaries for more than 20 local government Environmental Coordinators.

For the Community Stewardship efforts, run entirely by volunteers, the Program paid over \$3.3 million to fund 252 projects with 89 local stewardship groups formed specifically to pursue the goals of the program. Local stewardship groups undertook Watershed Assessment – over 100 were completed on Vancouver Island alone – with over 400,000 hours of volunteer effort, valued at \$4 million.

The USHP was to be expanded to the Thompson and Okanagan regions. However, funding for the USHP ended in March 2002. Eight of the 10 USHP staff positions have been cut, and the remaining two transferred to other duties. There are no project applications being taken, and no funding has been identified. Although the Living Rivers Strategy and the Forest Investment Account – which replaces Forest Renewal BC – may provide some limited assistance, it appears that the USHP will not be continued. The loss of the program will further reduce provincial support for local government and community stewardship group conservation activities in urban areas.

The Habitat Restoration and Enhancement Program (HRSEP) has also terminated effective March 30, 2002. Funding for the Habitat Conservation Stewardship Program (HCSP) is expected to end in March 2003. Funding for the Habitat Conservation Trust Fund (HCTF) may also be cut.

3.4 Reduced Local Government Capacity to Undertake Conservation Initiatives

Both access to provincial habitat expertise, and access to funding from federal and provincial conservation programs, have been seriously curtailed. Unless alternative funding sources are found, there will be a substantial loss of capacity within local governments to undertake conservation planning. One interviewee commented that capacity and services available to local governments peaked about a year ago: “The sense is now that local governments are backing away from progressive conservation planning and ground is being lost. Unless local governments raise taxes to offset the lost revenues, conservation programming will continue to slide.”

In general, larger regional districts and municipalities in the more developed areas of BC are the most well equipped to undertake biodiversity conservation initiatives. Some regional districts and municipalities are well resourced, with capable planning staff with at least some biological expertise. Many smaller municipalities have little or no in-house expertise or ability to handle conservation issues. Most local governments cannot afford any specialized planning staff with biological expertise and rely to a large extent on the technical advice and support of senior agency contacts which may no longer be readily available. As one interviewee noted, most local governments do not have staff or resources to maintain the levels of biological input to planning that has been the norm in the past.

Cutbacks in provincial budgets will make it increasingly difficult for many local governments to sustain existing conservation programs or activities. For example, one small Vancouver Island municipality has lost \$1.2 million in provincial funding sources in the recent provincial budget. Property taxes would need to be increased 24% to recover this shortfall, a situation that is probably typical of many smaller rural municipalities. As one interviewee commented, in the current environment “conservation programs from government sources will not be well received unless there are dollars attached, even if there is an ethical desire to do the right thing.”

With larger local governments with established planning departments, there is a willingness and a professional ability to address conservation issues, but with very limited resources. As one interviewee who works extensively with local government planners stated, the perspective is often “you (provincial or federal agencies) tell us what you need us to do, and give us the resources to do the job, whether for public consultation, mapping, education, assessment. Without the resources, local governments cannot do the job.”

Another interviewee stated that if local governments are handed responsibility for implementation of the *Species at Risk Act*, they do not have the capacity to deliver. Implementation will depend entirely on municipal council support, which may exist in some locations but not most; or on the willingness of the federal government to pay compensation.

4 Opportunities and Recommendations

There are opportunities and challenges to greater CWS involvement in biodiversity conservation initiatives with local governments in BC. There is a general downturn underway in the funding and resources available to support biodiversity conservation initiatives at the local government level. Significant budget and staffing reductions in WLAP and SRM, combined with a new provincial policy direction away from direct conservation programming and client service support to local governments, means that local government planning staff will have far fewer opportunities to draw upon provincial funding or expertise to assist with their local conservation efforts than they have in the past. This situation is exacerbated by the ending of several major multi-year conservation programs now or in the near future, such as USHP (March 2002), HRSEP (March 2002) and HCSP (March 2003). These initiatives have injected significant resources and support into local governments over the past few years.

Maintaining or raising the profile of biodiversity conservation will also be challenging in the current political and economic environment, especially in rural areas of British Columbia, which continue to experience declines in the forestry, fishing and mining sector activity. In the current political and economic environment, local governments are wary of perceived or actual downloading of senior agency responsibilities for environmental stewardship. All conservation program delivery involving local governments must be done in a collaborative way, and supported by adequate funding and resources.

On the positive side, there is growing citizen and local government awareness of the need to address conservation goals through local government planning, and a growing capacity to address these issues. A wide range of specific conservation related initiatives have been successfully undertaken by local governments. Many regional districts and larger municipalities have gained experience in habitat inventory and mapping and the development of regional habitat atlases to assist with local planning. Some are using the new tools under the *Local Government Statutes Amendment Act* such as official community plan policies, development permit area designations and development permit approval conditions to address conservation goals. Local stewardship groups and land conservancies are becoming more widespread and effective at developing

conservation projects and working with local governments on wide range of issues, from stream stewardship, to habitat mapping, conservation covenants, and land acquisition.

The following are specific recommendations for CWS involvement in support of biodiversity conservation involving local governments arising from this study.

4.1 Support and Enable Existing Conservation Partnerships

CWS should continue to support and enable conservation partnerships, such as the Biodiversity Conservation Initiative for the Greater Vancouver Region, and the South Okanagan Similkameen Conservation Program (SOSCP). These partnerships are important platforms for on-going collaboration between local governments, senior government, and community organizations working towards common conservation goals. Partnerships initiatives that involve the non-profit or voluntary sector are an effective way to leverage CWS' resources.

One interviewee commented that senior government agencies have traditionally resisted true partnerships or other arrangements that involve a relinquishing of control from the senior agency to local groups or other parties. This institutional culture is changing, thanks to the success of programs such as USHP and HRSEP and others. Senior agencies are increasingly realizing the benefits of surrendering control over resources and programs in order to empower local groups and governments. As one interviewee commented, initiatives like the SOSCP have a local presence and local support; the SOSCP is not seen as a senior government attempt to impose a program on local communities.

4.2 Build on Strengths of Community Stewardship Groups

Empowering local stewardship groups may be one of the most effective strategic directions CWS can pursue to advance its conservation goals. Given the large number of local governments in BC, the effort required to establish and maintain distinct working relationships between CWS and local government contacts becomes onerous. By working with local stewardship groups with an established presence in the community and a focused mandate on conservation, CWS will be able to leverage its resources far more effectively than by attempting to establish direct relationships with many local governments.

CWS should make a concerted effort to engage with, and strengthen, the community stewardship movement. The community stewardship movement is relatively young but significant force in many areas of British Columbia, especially urban areas. Programs such as the Habitat Conservation Stewardship Program, Streamkeepers, and the Urban Salmon Habitat Program have made very effective use of the tremendous energy and enthusiasm that exists among stewardship volunteers. Many stewardship groups have considerable expertise, resources and established relationships with local governments in their regions. Providing project funding and technical support to stewardship groups may be one of the most effective ways for CWS to leverage its resources to achieve conservation goals. The UHSP is seen as a very effective model for how to approach enabling local stewardship groups and local governments.

Working effectively with local stewardship groups requires a particular skill set and approach. CWS should consider establishing a community program development staff position or positions within CWS, specifically to provide liaison and support for stewardship groups working with local governments and private landowners on conservation initiatives. With recent cutbacks in stewardship programs, a number of highly capable people with a wealth of knowledge and expertise are available to fill such a position.

One interviewee suggested that CWS should organize a workshop to bring together the stewardship coordinators, habitat stewards and others that have been heavily involved in USHP, HRSEP and other community-based initiatives to review the lessons learned from their experiences, and to explore in more detail the role that CWS could play to support “USHP-like” programs into the future.

One interviewee suggested that CWS could be most effective by providing an incentive to local governments to work with local stewardship groups. Local government could apply for funding to a CWS program, as long as there was a partnership arrangement with a local stewardship group to create accountability. It was suggested that in the GRVD, or other highly fragmented landscapes, CWS can be especially effective by being involved, through stewardship groups, with many smaller projects with cumulative benefits for biodiversity, rather than focusing on large habitat acquisitions. Smaller, incremental habitat protection projects tend to be underfunded relative to larger projects.

4.3 Participate in Development of the Provincial Biodiversity Strategy

As noted in Section 2.2, WLAP is charged with development of a provincial biodiversity strategy by 2004. Where possible, senior CWS staff should engage with counterparts within WLAP to participate in development of the strategy, and ensure harmonization with federal policy and priorities for management of transboundary wildlife, migratory birds, and especially species at risk.

4.4 Undertake an Assessment of Local Government Use of SEI Technical and Conservation Manuals

CWS should consider undertaking an assessment of whether local governments are accessing and using the SEI technical and conservation manuals and identify opportunities for more effective use of these tools.

4.5 Support Field Verification and Updating of SEI Information

Several interviewees commented that it would be very helpful if CWS were able to support field verification, or ground truthing, of sensitive ecosystem inventory information. Approximately 30 % of SEI polygons have been ground truthed to date.

Resources are also needed to keep SEI up to date. Changes in land use and development patterns in rapidly developing areas can make SEI information inaccurate within a relatively short period of time. As one interviewee commented, “mapping has to be done on an on-going basis; it can’t just be at the front end.”

Several interviewees commented that the SEI program was very worthwhile, and should be expanded to areas where it has not been done, especially for areas with high conservation values or “hot spots”. These efforts should be linked to the provincial Biodiversity Strategy, and the Nature Conservancy’s ecoregional planning initiative.

4.6 Support More Detailed Habitat Mapping at Larger Scales

CWS should consider supporting more detailed inventory and mapping work at 1:5000 scale for key conservation areas or hotspots. SEI information flags the likely occurrence of rare plant communities which is tremendously helpful for planners. However, because SEI information is

mapped at 1:20,000 scale, more detailed mapping and field verification is often needed to precisely locate important values and features as the basis for development permit area designations or other protective measures.

Several interviewees commented that mapping at 1:5000 or 1:2500 scale would be helpful for precisely locating ecological values, and for overlay with cadastral information. As one interviewee noted for the Islands Trust Area, the field truthing and verification of habitat and ecological values is essential to introduce a scientific basis for identifying DPAs and for land acquisition efforts. Lack of resources to undertake field truthing was seen as a major limitation. Another interviewee commented that local governments have to be able to confirm the occurrence and location of ecological values precisely enough to pinpoint property location, otherwise DPA designations will “blow up in their face.”

Another interviewee commented that gaps in mapping at the 1:5000 scale are enormous; “we have 99% more of the work to do to map habitat and environmental values at 1:5000 scale for the Greater Vancouver Region.”

4.7 Support Web-Access and Consistent Standards for Community Mapping Projects

CWS should support efforts to make inventory, mapping and other information widely available and accessible to local governments and stewardship groups through web-based services. For example, initiatives such as the community mapping network (www.shim.bc.ca) provide opportunities to profile a wide range of community mapping projects and provide public access to community planning tools and resources, on one site.

CWS could assist with ensuring that local community mapping efforts meet consistent and sufficiently rigorous standards to be acceptable for use by local governments and other parties. Some local governments have been reluctant to use inventory and mapping information compiled by community groups due to concerns about accuracy and quality control.

4.8 Expand Voluntary Conservation Efforts through Partnerships with Provincial Land Conservancies

There are considerable opportunities for CWS to work with land conservancy organizations, local governments, and stewardship groups to expand the use of voluntary conservation methods to protect important habitat. Key partnering organizations include the Nature Conservancy of Canada (TNC),¹¹ the Land Conservancy (TLC)¹², the Habitat Conservation Trust Fund (HCTF)¹³, Georgia Basin Ecosystem Conservation Partnership (GBECP)¹⁴, and the Islands Trust Fund.¹⁵ There are also many smaller local conservancy organizations.

For example, the Islands Trust Fund is a conservation land trust actively pursuing voluntary conservation methods (land donations, conservation covenants, and land acquisitions) to help preserve and protect significant natural areas in the Islands Trust Area. The Islands Trust Fund

¹¹ www.natureconservancy.ca

¹² www.conservancy.bc.ca

¹³ www.hctf.ca

¹⁴ A program under the Georgia Basin Ecosystem Initiative, see www.pyr.ec.gc.ca/GeorgiaBasin/gbi_eIndex.htm

¹⁵ www.islandstrustfund.bc.ca

owns 11 properties, holds 24 conservation covenants, and is in the process of negotiating several additional land acquisitions and covenants. The Islands Trust Fund has been working to publicize partnerships in which a covenant is held jointly by the local government (the Islands Trust) and a non-governmental organization, such as the Nature Conservancy of Canada.

One interviewee commented that CWS has been very supportive in assisting with direct acquisition projects in the Islands Trust Area, and that the Islands Trust Fund would welcome additional opportunities to work with CWS to identify important habitats for land acquisition or covenants within the Islands Trust Area. It was noted that senior government and public support will be essential if the Islands Trust Fund is to continue with land acquisitions, given the high cost of real estate on the islands, which is in the order of \$500,000 to \$700,000 for a 2 hectare parcel. Islands Trust and Islands Trust Fund planning staff salaries are funded by operational budgets, which allows for some educational and communication work to be undertaken. However, additional project funding must be raised to undertake inventory, mapping and land acquisition or covenant work.

4.9 Support and Enable Local Land Conservancies

It is increasingly common to see partnerships between land trusts, local governments and community stewardship groups, working towards acquisition of critical habitats or the registering of conservation covenants against title of properties. The larger land conservancies – such as the Nature Conservancy of Canada and the Land Conservancy – are well organized and funded. There are significant opportunities for CWS to work with these groups to advance common conservation goals, for example through the development of an ecoregional plan as noted in section 4.14.

Equally important, there are a large number of smaller, local but very active land conservancies that represent a significant opportunity for CWS. Many of these smaller groups depend largely on volunteers and minimal resources but have an excellent understanding of conservation opportunities in their local area, as well as many contacts with private property owners and local governments.

CWS should consider developing a program to support the efforts of these local conservancies. This might include providing technical expertise in assessing potential properties, supporting outreach and communication efforts to private landowners, and providing funding for administrative, legal or assessment costs associated with land acquisitions and covenants. As one interviewee noted, “it would be very helpful if CWS played a facilitative role in enabling partnerships between local land trusts and the regional districts. Local trusts are keen but poorly funded.”

4.10 Assist with Communication and Outreach Around the Natural Areas Tax Incentive Regulation

New regulations under the *Islands Trust Act* - called the Natural Area Tax Incentive – will provide tax relief to property owners who register a conservation covenant against the title of their property. One interviewee commented that the provincial government considers the Islands Trust Area to be pilot for these new provincial regulations. Within the Islands Trust, the initial focus of promotional and educational efforts directed at landowners around the new regulations will be on Gambier and Keats island. CWS could support the development of outreach materials to explain the new regulations for distribution in the Gulf Islands Trust Area. CWS could also be involved in promoting the broader use of this regulatory tool in other BC local government jurisdictions.

4.11 Establish Clear Lines of Communication and Reporting Relationships between CWS and Partners

Several interviewees commented that they did not have a consistent working relationship, or clear understanding of the roles or responsibilities of individuals within CWS, with respect to liaison with their agency or program. One interviewee commented that her contact with CWS staff was always with program staff working on particular projects. She suggested it might be appropriate to establish a protocol agreement, for example between CWS and the Islands Trust, as the basis for establishing a more consistent long-term relationship between the organizations.

Another interviewee commented that she was interacting with two or three individuals within CWS, and it was not clear what the lines of responsibility were within CWS for liaison with her program. She indicated that CWS was a supporter of the program, but it was not clear what priority CWS placed on the program in the context of CWS overall work, and expressed some frustration at the slow turnaround in response for requests for advice.

CWS should consider entering into protocol agreements with key partnering organizations to more clearly define roles, responsibilities, commitments and reporting relationships. A logical place to consider establishing these more formal agreements is with the local governments that already have conservation-oriented MOUs with the provincial government (i.e. Regional District of Comox Strathcona, Regional District of Nanaimo, City of Nanaimo, City of Campbell River).

4.12 Provide Technical Assistance and Support to Local Governments

The lack of biological expertise at the local government level is a key gap. Most municipalities cannot support the funding of specialized expertise within their planning departments, yet they need access to technical knowledge and advice in order to address conservation issues. Provincial government cutbacks and policy direction will make it increasingly difficult for local government planning staff to access the expertise they need.

CWS should consider funding a staff person to provide on-going technical expertise and support to local governments. Currently, CDC has a Conservation Science Ecologist who provides this service, although funding for the position is not secure. CWS should consider providing core funding for a provincial specialist that would be available for consultation to local government planning and engineering staff, either resident within CWS or at the CDC. The CDC would welcome CWS' support in this regard.

One of the important roles of a technical support person is to interpret the significance of sensitive ecosystem inventory information. One interviewee commented that most local government planners have no frame of reference for putting SEI data in context of the relative rarity of ecosystems or features, particularly occurrences of red list species or habitats. Most local government planners are very focused on site specific issues and may not have an understanding of the significance of remnant ecosystems and critical habitats within their jurisdiction in the larger regional ecological context. Planners need assistance in understanding the relative importance of ecological values in their jurisdiction, and in setting priorities for protection.

CWS could provide assistance to local governments and planning staff to explain how they can exercise the powers they have to protect biodiversity, and with developing specific strategies, goals and action plans. For example, some local governments – such as the District of Highlands – have used SEI very effectively to identify Development Permit Areas within their Official Community Plan but others appear reluctant or unsure how to use SEI information and the full range of tools available to them.

Staff turnover in local government planning departments is also an issue. CWS and others have invested significant time and energy to educate local planners in the use of SEI information, but staff turnover negates this work to a certain extent. Ongoing outreach, advice and support is needed.

CWS can also assist with enabling local government to access and use consistent standards and technology for inventory, mapping and habitat assessment. One interviewee commented that there is often no means for local governments to effectively collaborate with each other to ensure common use of the best available technology and tools. For example, land cover/land use analysis does not follow consistent methodologies across local government boundaries.

4.13 Support a National Conference on Stewardship

A national conference on stewardship will be held over in June 2003, or possibly 2004 at the University of British Columbia. The conference will focus on the use of voluntary conservation tools by local governments and non-governmental organizations to protect important habitat. One interviewee – who is on the national steering committee for the conference – suggested that CWS could play an important role in raising the profile of voluntary stewardship measures among local governments by supporting this conference, perhaps by funding or partially funding a coordinator position.

4.14 Participate in Ecoregional Planning Initiative

The Nature Conservancy (TNC) and the Nature Conservancy of Canada (NCC) are jointly collaborating on the development of an “ecoregional plan” for the Puget Sound/Willamette/Georgia Basin ecoregion. The ecoregional plan will provide a conservation blueprint of high value areas for acquisition or conservation-based stewardship. The TNC/NCC ecoregional planning process draws heavily on data housed at the Conservation Data Centre. The plan will involve establishing conservation goals and targets for protection of species and ecosystems at risk. TNC/NCC are supportive of partnerships with local and other levels of government in developing land acquisition, conservation covenant, or other stewardship initiatives that address the goals and targets that will be outlined in the conservation plan.

CWS should explore opportunities to collaborate with TNC/NCC in development and implementation of the ecoregional plan for the Georgia Basin. Providing staff expertise to this planning group could be a low cost and highly effective way to assist biodiversity conservation in the region.

4.15 Develop Education and Outreach Materials and Programs Targeted at Municipal Councils

CWS should consider developing educational and outreach materials targeted to municipal politicians. Several interviewees commented that there is a need to educate and raise awareness of biodiversity conservation issues among municipal elected officials. Staff within planning departments may be sympathetic to the need to address conservation issues, but the awareness and political will is often lacking on council. This may involve making presentations to municipal councils on the significance of biodiversity within the region, and opportunities for conservation through local level planning. This is also an opportune time to begin development of education and communication materials in support of implementation of the new *Species At Risk Act*.

Several interviewees noted that communication materials aimed at municipal councils should stress

the social and economic contribution of natural capital to the region, for example, in contributing to clean drinking water, stormwater management, and recreation and tourism benefits. Where a “business case” can be made for environmental protection, this may help in garnering the support of municipal councils. Opportunities to access funding and other resources to support local government conservation efforts should also be highlighted in presentations and materials. As one interviewee commented, “the main obstacle [to greater CWS involvement in local government conservation planning in the Okanagan region] is the lack of appreciation among municipal politicians of how significant the regional ecological values are, and the contribution that biodiversity values make to the local economy. We haven’t done a good enough job of making the connection between species and habitat protection and the local economy.”

Several interviewees commented that CWS, as a senior agency, could add profile and credibility to local conservation issues and stewardship organizations by jointly making presentations or developing materials with local groups.

4.16 Articulate Regional and Local Biodiversity Conservation Goals and Objectives

Working with other agencies and partners, CWS should articulate specific regional and local goals and objectives for biodiversity conservation.¹⁶ Increasingly, local governments have the tools for biodiversity conservation but many are not at all clear on what specific outcomes they should be working towards. Many local governments look to senior governments for policy direction and clarity around biodiversity objectives, but this direction is lacking. As one interviewee commented, it can be easier for local government to implement conservation measures when they are complying with senior level policy or regulatory direction.

The development and articulation of specific biodiversity conservation goals and objectives must be accompanied by resources and support to achieve them. As one interviewee commented, “CWS (and other senior government agencies) need to show leadership and support development of overall biodiversity strategies and policy - such as no net loss of wetlands. Then they need to follow through with support (inventory, mapping, site assessment, articulation of biodiversity goals, objectives and management guidelines) and funding to allow local governments to own the planning process and the outcomes.”

4.17 Support Rigorous ESA Studies for Priority Areas

CWS should consider funding, or partially funding, Environmentally Sensitive Area (ESA) studies or assessment for areas with high conservation values. ESA studies are required under many local government development permit guidelines, but methodologies and quality are not always consistent. In many cases, ESA studies commissioned by a development proponent are not publicly released. By supporting comprehensive, scientifically credible, and publicly available ESA studies, CWS could address a local government need to justify environmental protection measures that infringe on property rights and development interests. By making such studies publicly available and to a consistently high standard, CWS would also be assisting the conservation efforts of local stewardship groups.

CWS should support the development of rigorous terms of reference for undertaking site evaluation or assessment work. The onus now is on the development proponent to undertake assessments, but many local governments are not able to provide terms of reference for the work, or clear

¹⁶ For example, this approach is being pursued with the Biodiversity Conservation Initiative for the Greater Vancouver Region, and for the Wildlife Inventory and Conservation Plan for the Township of Langley.

expectations for deliverables. CWS could assist local governments by providing guidelines for undertaking site assessments, especially in interpreting the significance of conservation values. As one interview noted, “there are plenty of standards for inventory collection, but few if any for actual assessment.”

5 Interviewees

The following individuals were interviewed for this project:

- Ken Arcuri, Director of Planning, Central Okanagan Regional District
- Andy Swetlishoff, Director of Development Services and Building Inspection, Regional District of Okanagan Similkameen
- John Popoff, Planner, Regional District of Kootenay Boundary
- Tom Cadieux, Area Coordinator, Lower Fraser, Habitat Conservation Stewardship Program, Habitat and Enhancement Branch, Department of Fisheries and Oceans
- Chris Hall, Planner, District of North Cowichan
- Cheri Ayers, Fisheries Biologist, Habitat Steward, Cowichan Tribes
- Rob Hawes, Program Manager, South Okanagan Similkameen Conservation Plan
- Ron Knight, Fisheries Biologist, Lower Mainland Region, Ministry of Water, Land and Air Protection
- Alison Mewitt, Supervisor of Environmental Planning and Parks, Regional District of Comox Strathcona
- Wayne Quinn, Director, Local Planning Services, Islands Trust
- Brigid Reynolds, Planner, Regional District of Nanaimo
- Carolyn Stewart, Program Manager, Islands Trust Fund
- Cheryl Trent, Habitat Steward, Habitat Conservation Stewardship Program, Sunshine Coast Regional District.
- Pamela Zevitt, Project Manager, Biodiversity Conservation Initiative for the Greater Vancouver Regional District
- Erik Karlsen, formerly, Ministry of Community, Aboriginal and Women’s Services
- Dick Heath, Regional Manager, Environmental Stewardship, Vancouver Island Region, Ministry of Water, Land and Air Protection
- Mike Lambert, Regional Director, Vancouver Island Region, Ministry of Sustainable Resource Management
- Andrew Harcombe, Coordinator, BC Conservation Data Centre, Terrestrial Information Branch, Ministry of Sustainable Resource Management
- Jan Kirkby, Conservation Science Ecologist, BC Conservation Data Centre, Terrestrial Information Branch, Ministry of Sustainable Resource Management

*Assessment of Local Government
Biodiversity Conservation Initiatives and
Senior Agency Interactions for Selected
Regions of British Columbia*

*Appendix 1:
Inventory of
Major Conservation Initiatives*

DRAFT

March 31, 2002

Prepared for:
Canadian Wildlife Service
Pacific Region

Prepared by:
Dovetail Consulting Inc.

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1 Acronyms

| | |
|-------|--|
| CRD | Capital Regional District |
| CWS | Canadian Wildlife Services |
| DFO | Fisheries and Oceans Canada |
| DPA | Development Permit Area |
| ESA | Environmentally Sensitive Area |
| FsRBC | Fisheries Renewal BC |
| GBEI | Georgia Basin Ecosystem Initiative |
| GIS | Geographical Information System |
| HCSP | Habitat Conservation and Stewardship Program |
| HRDC | Human Resources Development Canada |
| HSP | Habitat Stewardship Program |
| MCAWS | Ministry of Community, Aboriginal and Women's Services |
| MSRM | Ministry of Sustainable Resource Management |
| NGO | Non-governmental organization |
| OCP | Official Community Plan |
| RGS | Regional Growth Strategy |
| SEI | Sensitive Ecosystems Inventory |
| SHA | Sensitive Habitat Atlas |
| SHIM | Sensitive Habitat Inventory and Mapping |
| USHP | Urban Salmon Habitat Program |
| WALP | Ministry of Water, Land and Air Protection |

2 Introduction

This report outlines an inventory of projects, programs and activities in five target areas in BC which address biodiversity conservation objectives that either are, or could be, used by local governments and regional districts in zoning and development decision-making. The five target areas are the Georgia Basin, Vancouver Island, Fraser Valley, Okanogan Basin, and Columbia-Kootenay Basin.

The inventory is organized by target area and by the sponsor (e.g. government agency, First Nations peoples, non-governmental organization) of the particular initiative. For each initiative, a description is provided on the program scope and objectives, status (including whether the it will likely be continued given projected trends in funding and agency priorities), information sources, project partners, and, where possible, funding sources. The last section of the report provides broader federal and provincial initiatives which may affect local and regional government decisions. Sources of information included interviews with government planners, managers, the web and document research. This inventory is not intended to be a comprehensive documentation of all conservation initiatives in the target areas of BC.

3 Georgia Basin

3.1 Sponsors: BC Fisheries

3.1.1 Program name: Urban Salmon Habitat Program

Program scope and objectives

The Urban Salmon Habitat Program (USHP) originated as one component of the BC Salmon Habitat Conservation Plan (BCSHCP) strategy paper released by the Province in 1995. The Conservation Plan outlines a provincial strategy to address problems caused by land use practices and to prevent further loss of freshwater salmon habitat. The second component addresses the “Co-ordination and continuation of provincial initiatives that benefit the freshwater stage of salmon habitat.”

USHP focuses on protecting and restoring salmon and salmonid habitat in urban areas and the urban-rural interface where land has, or has the potential, to be developed; and where planning and development control is primarily a local government responsibility. The goals of the USHP are:

- to ensure sustainable wild salmon and other salmonid stocks and habitats in populated areas of the Georgia Basin;
- to build partnerships with other orders of government, including First Nations, and to facilitate effective land-use planning;
- to initiate community involvement, including landowners and developers, in land-use planning; and,
- to increase public awareness of salmon and salmonid populations and habitats.

The USHP initiative provides funding to First Nations, community stewardship groups, k educational institutions, and other non-profit organizations within the BC portion of the Georgia Basin which seek to attain these goals.

Program activity areas and program priorities

The USHP initiative is intended to help eliminate or reduce the following impacts to fish habitat which result from urban, agricultural and industrial development:

- habitat alterations from in-stream works to make the watercourse ‘fit’ the development or land use;
- alterations of storm flows into stream channels, with consequent impacts on channel patterns, aquatic habitat sequences and stream flow regimes;
- removal of streamside vegetation, with consequent impacts on stream bank stability, channel shading and aquatic food supply;
- increased sediment inputs to channels and fisheries-sensitive zones, which degrade the quality of the aquatic habitats;
- increased inputs of toxic materials into streams and wetlands from point and non-point sources; and,
- obstructions or barriers to fish passage for some or all size ranges of fish through the increased number of stream crossings.

The USHP includes three program initiatives:

- The placement of an Urban Fisheries Specialist in regional offices in the Georgia Basin to assist local governments and stewardship groups; and to provide expertise in urban planning processes and salmonid habitat protection, conservation and restoration.
- Cost sharing of local government programs supportive of USHP goals, particularly the creation or enhancement of environmental management initiatives;

- Providing funding for community volunteers and non-governmental organizations (NGOs) to implement stream stewardship programs.

Status of the initiative

USHP Community Stewardship projects are underway all over the province including Vancouver Island and in the Lower Mainland. In the Lower Mainland, USHP has provided grant funding to environmentally-based staff positions in the District of North Vancouver and to the City of Surrey's 'Salmon in the City' education program. With the loss of FsRBC, the Urban Salmon Habitat Program will be winding up at the end of March 2003.

Information sources

BC Fisheries website: <http://www.bcfisheries.gov.bc.ca/fishhabitats/stewardship.html>

Curran 1999, pp 14, 56, 59

Project partners

Project partners include: District of North Vancouver, City of Surrey, BC Fisheries.

Funding sources

Provincial Government.

3.2 Sponsors: Georgia Basin Ecosystem Initiative Partners

3.2.1 Program name: Georgia Basin Ecosystem Conservation Partnership

Program scope and objectives

Georgia Basin Ecosystem Conservation Partnership (GBECP) is a partnership of government and non-government organizations which acquire, covenant or otherwise secure key ecologically significant non-wetland habitats. GBECP was formed to coordinate securement of key sites within the Georgia Basin.

Program activity areas and program priorities

GBECP has recently completed an exercise prioritizing sites based on various characteristics including their biodiversity values, ecosystem "representativeness" and protection urgency. Securement of high priority sites is a component of the Habitat and Species component of the GBEI (see section).

A Georgia Basin Ecosystem Catalogue of potential sites for wildlife habitat conservation was compiled. The ecologically-based catalogue will form the basis for the selection of sites to acquire under the GBEI and other partner programs and will ensure the coordination of land acquisition efforts by environmental organizations and government agencies. Many candidate sites are from the Sensitive Ecosystem Inventory project (see section).

As an outcome of this partnership, local, regional and First Nation governments have access to new information and tools to support land use decisions and actions that lead to the conservation of habitat and species.

Status of the initiative

This initiative is on-going and will likely be continued at least until 2004.

Information sources

GBEI Website: http://www.pyr.ec.gc.ca/gbeims/public/search_e.asp

Project partners

Ministry of Environment, Lands and Parks (now WALP), Environment Canada, Pacific and Yukon Region, Island Trust Fund, BC Conservation Data Centre, Nature Conservancy of Canada, Land Conservancy, Nature Conservancy (US), Capital Regional District, Ducks Unlimited, Habitat Conservation Trust Fund.

3.3 Sponsors: Greater Vancouver Regional District and GBEI Partners

3.3.1 Program name: Biodiversity Conservation Pilot Project

Program scope and objectives

GBEI partners are developing a pilot strategy for conserving biodiversity in the Lower Mainland in collaboration with the Greater Vancouver Regional District (GVRD), Ducks Unlimited Canada and others. The strategy will encourage and support conservation and management of aquatic and terrestrial habitat, including corridors and linkages.

Program activity areas and program priorities

Through the Biodiversity Conservation Pilot Project initiated for the Greater Vancouver Region in 2000, a framework for Biodiversity Conservation in the Lower Mainland is being developed. In April of 2001, a well-attended, day-long forum to introduce the initiative and its concepts to the public was held. Following the Spring 2001 working session, the next phase of the project has been focusing on mapping and developing an ecological resources catalogue of important lands, education and other tools, and the development of a vision, goals and principles. A prospectus and workplan were completed in June of 2001, with a discussion paper on goals and objectives completed in January of 2002.

As part of the pilot project, protected areas and lands managed for conservation throughout the GVRD are being mapped and catalogued in a GIS database. A regional indicator species and habitat component is also in development, and should be completed by May 2002.

The next phase of the project will focus on the use of technology to map and classify land cover and identify core areas, linkages and corridors for conservation, and a socio-economic analysis of the value of conserving biodiversity in the GVRD. The draft Framework should be expected by December 2002.

Other facets of the project are ongoing consultation with local governments and NGO stakeholders in the GVRD to ensure a collaborative process. Each component as it is completed is one more step in the overall Framework. When local governments accept the concept as part of their direction in land use planning, the project will have achieved what it set out to do.

The project has so far met with considerable success in gaining support from local governments, stewardship groups and federal and provincial agencies. Based on the success of the project in the GVRD similar efforts are planned for other regions within Georgia Basin.

Status of the initiative

This initiative began in 99/00, is on-going and will likely be continued.

Information sources

Project information on GBEI website: http://www.pyr.ec.gc.ca/gbeims/public/search_e.asp

GBEI. 2001. *Biodiversity Conservation for the Greater Vancouver Region: A Working Session – Summary Proceedings*. Held Wednesday April 18, 2001, BCIT Downtown Campus, Vancouver, BC. Sponsored by the GBEI Partners under the Habitat and Species Action Plan. 44 pp. On line at the GVRD website: <http://www.gvrd.bc.ca/services/growth/projects/projects.htm>

- The proceedings outline discussions from key speakers on the importance of biodiversity, the role of local governments in protecting biodiversity, and the proposed Biodiversity Conservation Strategy. Three local initiatives to protect biodiversity are discussed as well as initial views on building a vision for biodiversity conservation. A summary of three action plan discussions is provided for conserving biodiversity: mapping and inventory; management tools, education and stewardship; and, planning for biodiversity and measuring progress. A summary and next steps for the strategy are also discussed.

GBEI. 2001. *Conserving Biodiversity in the Greater Vancouver Region: Prospectus for the Path Ahead, 2001-2002*.

GBEI. 2002. *Biodiversity in Greater Vancouver: Framework for Conserving Regional Natural Capital, 2002*. In partnership with GBEI, Environment Canada, WALP, MCAWS, GVRD, member municipalities, SFU, Douglas College Institute of Urban Ecology, FREMP/BIEAP, Ducks Unlimited, Evergreen Foundation, BC Real Estate Foundation.

Judith Cullington and Associates. 2002. *Goals and Objectives for the Protection and Restoration of Biodiversity: the Biodiversity Conservation Framework for the GVRD: A Discussion Paper*.

Project partners

WALP (former MELP), Victoria Region and Lower Mainland Region, Environment Canada, Environmental Conservation, Canadian Wildlife Service, Fisheries and Oceans Canada, Fraser River Estuary Management Program/ Burrard Inlet Environmental Action Program, Ducks Unlimited, and Ministry of Municipal Affairs, (now under Local Government Department, MCAWS), SFU, GVRD, member municipalities, Douglas College Institute of Urban Ecology, Evergreen Foundation, BC Real Estate Foundation.

Funding sources

Various sources of funding (e.g., from partners listed above).

3.4 Sponsors: Greater Vancouver Regional District

3.4.1 Program name: Livable Region Strategic Plan

Program scope and objectives

The Livable Region Strategic plan (LRSP) is Greater Vancouver's regional growth strategy (RGS). Since its adoption by the Greater Vancouver Regional District (GVRD) Board of Directors in 1996, the Strategic Plan has provided the long-range planning framework for making regional land use and transportation decisions in partnership with the GVRD's member municipalities, the provincial government, and other agencies. Municipalities implement the LRSP through their official community plans (OCPs) and provincial governments and other agencies implement it through their programs in the region. For example, the City of Burnaby is responding to the call in the RGS for "more complete communities" by focusing on the development of town centres and urban villages.

Program activity areas and program priorities

Monitoring shows mixed progress is being achieved on one of the major objectives of the [GVRD's](#) Livable Region Strategic Plan. Under this objective, 70 per cent of new growth would occur within a 'growth concentration area' (GCA). During 2000, approximately 11,000 housing units were built in the GVRD and 61 per cent of these were located in the GCA. Housing built in the region reflects a major shift to multi-family housing, which consumes less land, allows for more efficient service provision and leads to cost-effective infrastructure investment. In recent years, seventy per cent of all new housing was multi-unit dwellings.

The five-year review of the LRSP will run within the context of a "Sustainable Region Initiative" (see next section). The review will integrate social, economic and environmental dimensions such as air quality management, growth management and transportation planning with the way the GVRD delivers its regional services. A major event in the growth strategy review was hosted by the GVRD on January 17, 2002. It was entitled "The Livable Region and Sustainability: Are we on the right track?"

Status of the initiative

On-going.

Information sources

Main Growth Management Strategies website: <http://www.marh.gov.bc.ca/GROWTH/index.htm>.

Around the Regions Update for January 2002:

<http://www.marh.gov.bc.ca/GROWTH/JAN2002/regions.html#RDN>

The 2001 Annual Report on the Livable Region Strategic Plan is available on line at:

<http://www.gvrd.bc.ca/maps/GVRDreports.htm#rd>

- This report tracks progress on achieving the four main objectives of the LRSP: 1) Protect the Green Zone, 2) Build Complete Communities, 3) Achieve a Compact Metropolitan Region, 4) Increase Transportation Choices.

Project partners

The Greater Vancouver Regional District is a working partnership of twenty-one municipalities and one electoral area.

3.5 Sponsors: Greater Vancouver Regional District

3.5.1 Program name: Sustainable Region Initiative

Program scope and objectives

The Sustainable Region Initiative (SRI) is a new initiative of the GVRD and its objective is to provide a framework, vision and action plan for Greater Vancouver based on the concept of sustainability that embraces economic prosperity, community well-being and environmental integrity.

Program activity areas and program priorities

A set of indicators on a number of social, economic, and environmental indicators will be soon be posted on the site. Some will be updated regularly but data for many of the indicators are only available on an annual or five-year basis.

Status of the initiative

This initiative is new for 2002 and will likely be continued.

Information sources

Main site: <http://www.gvrd.bc.ca/sustainability/default.asp>

Proceedings of The Livable Region and Sustainability: Are We on the Right Track? Conference held

in January, 2002: http://www.gvrd.bc.ca/sustainability/january_17.htm

Advancing Federal Government Objectives in Urban Regions: A Position Paper prepared by the Greater Vancouver Regional District (as approved by GVRD Board, December 14, 2001). On line at: <http://www.gvrd.bc.ca/services/growth/pubs/fed-objectives.pdf>

Project partners

Greater Vancouver Transportation Authority: <http://www.translink.bc.ca/>

Business Council of British Columbia: <http://www.bcbc.com/>

United Way of the Lower Mainland: <http://www.uwlm.ca/>

Fraser Basin Council: <http://www.fraserbasin.bc.ca/>

Smart Growth BC: <http://www.smartgrowth.bc.ca>

Funding sources

The federal government, through the Federation of Canadian Municipalities, is providing “green municipal funds” for studies and investment to be undertaken at the local government and regional level for sustainable solutions in the delivery of municipal services (e.g., “green infrastructure” projects).

3.6 Sponsors: Sunshine Coast Regional District, CWS & MSRM

3.6.1 Program name: Sunshine Coast Sensitive Ecosystems Inventory

Program scope and objectives

The Sunshine Coast Regional District Sensitive Ecosystems Inventory (SEI) is the second SEI to be conducted and builds on the success of the east Vancouver Island and Gulf Island SEI Project (see section discussed below), which was completed in 1997.

Scientists are conducting a SEI to systematically identify, map, and evaluate remnants of rare and ecologically fragile terrestrial ecosystems. These include wetland and riparian ecosystems, older forests and woodlands, dune, spit and cliff ecosystems, coastal bluffs, and native grasslands.

Under the SEI, project teams of ecologists, biologists, geographers and soil scientists apply air photo interpreting skills and field survey techniques to produce baseline maps of the ecologically unique lowlands surrounding the Strait of Georgia. Both hardcopy and digital maps are being produced.

The SEI is a "flagging" tool that identifies sensitive ecosystems and provides scientific information and support to local governments and others who are trying to maintain biodiversity and address species at risk. The SEI information is used to support regional, district and municipal land-use planning processes, the acquisition and protection of critical habitat, park plans, private land stewardship efforts and various other conservation strategies, such as the Garry Oak Ecosystem Recovery Initiative

The Conservation Data Centre (CDC) Tracking List identifies 119 taxa 'at risk' in this area. There is currently no systematic inventory of environmentally sensitive areas for use in land use planning processes.

This SEI will complement the activities taking place in roughly the same geographic location by the Sensitive Habitat Inventory and Mapping (SHIM) project which focuses on aquatic ecosystems. It is anticipated that these two initiatives will be carried out cooperatively to avoid duplication of effort and resources.

Program activity areas and program priorities

Work has started on the development of the Sunshine Coast SEI to identify rare and fragile terrestrial ecosystems along the coastal lowlands from Howe Sound to Desolation Sound, including adjacent islands.

The inventory data is being derived from aerial photography (1994-1999 photos), and verified using selective field checks. This information will be placed into a GIS database, and maps will be available both in hard copy and digital formats. Maps will be at a 1:20,000 scale on the TRIM map base, and will be available in 2002.

Status of the initiative

In progress and will be continued until completed.

Information sources

SEI Project Description: <http://srmwww.government.bc.ca/cdc/sei/seiprojects.htm>

A Conservation Manual provides guidance on the protection of sensitive ecosystems (see section, further information on the manual under East Vancouver Island SEI section in this inventory).

Provincial Government contact: Jan Kirkby [jan.kirkby@gems9.gov.bc.ca]

Environment Canada contact: Peggy Ward [peggy.ward@ec.gc.ca].

Main website at srmwww.gov.bc.ca/rib/cbs/sei.

CWS Information: <http://www.cws-scf.ec.gc.ca/cws-scf/es/recovery/jan02/eng/field.html>

SCRD information: http://www.scrd.bc.ca/planning_dev_currentprojects.html#sei

Project partners

The project falls within the GBEI and is jointly managed by Canadian Wildlife Service, Environment Canada and the BC Ministry of Environment, Lands and Parks (and now MSRM), with help from a multi-agency steering committee that includes federal and provincial agencies, local governments and First Nations.

Funding sources

Major funding for the SEI is being provided by the Georgia Basin Ecosystem Initiative, with contributions from the Habitat Conservation Trust Fund and the Sunshine Coast Regional District.

3.7 Sponsors: Sunshine Coast Regional District

3.7.1 Program name: Sunshine Coast Habitat Atlas

Program scope and objectives

The Sunshine Coast Regional District (SCRD), in partnership with Fisheries and Oceans Canada (DFO) and the Ministry of Environment, Lands and Parks (now WALP), has contracted with a Habitat Steward to create a Habitat Atlas for the Sunshine Coast.

The Habitat Atlas is a Geographic Information System (GIS) database that will contain an inventory and mapping of natural areas, fish and wildlife species and habitat throughout the SCRД. The Atlas is a series of maps, covering the extent of the SCRД; from Langdale to Egmont and north past the top of Jervis Inlet. Each page of the Atlas will contain a map illustrating a number of features, including: streams, roads, trails, land parcels, fish and wildlife habitat, parks and protected areas, watershed boundaries, and aerial photographs. To date, over 40 different categories, or “layers” of information have been collected. Each layer is stored on computer in a Geographic Information Systems (GIS) database at the SCRД office in Sechelt.

The Habitat Atlas will provide up-to-date information to planners, developers, government organizations, First Nations, community organizations and local businesses. The information stored in the Atlas will assist these groups with making informed land use planning and stewardship decisions in support of the protection, enhancement and restoration of fish habitat and sensitive ecosystems.

Program activity areas and program priorities

To date, a *Technical Steering Committee (TSC)* has been established as a project 'working group'. Members of the TSC represent the following organizations: F&OC, MELP, SCRD, Town of Gibsons, District of Sechelt, Sechelt Indian Government District, and Capilano College. Meetings are held at the SCRD office in Sechelt 3-4 times a year.

A draft copy of the Habitat Atlas has recently been published. Each mapsheet in the book contains color orthophotos; annotation; streams classified into fish presence and unknown fish presence; urban roads; sensitive habitat areas; parks and protected areas; and district lots. Over 40 layers of information have been identified for inclusion in the Habitat Atlas. 36 layers have been collected and processed, 4 layers are still being processed to fit the project parameters and 2 remain unavailable. Listing and status of the layers can be found at <http://www.user.dccnet.com/ctrent/>.

Stream mapping following the Sensitive Habitat Inventory and Mapping (SHIM) methodology was carried out during August and December, 2001 and January and February, 2002. Priority streams were mapped with a GPS in Pender Harbour, Twin Creeks, and Roberts Creek. Other priority streams are scheduled for the 2002-03 fiscal year, but depend on securing more funding.

A significant portion of the outreach strategy developed during the first project year has been implemented during the second year. Presentations have been made to local government planning committees, schools and numerous community groups. The Habitat Atlas website is kept up-to-date, and an article has been published in a local conservation newsletter.

Status of the initiative

This is a 3-year initiative running from September, 2000 - April, 2003.

During the third and final year of the Habitat Atlas project, the following tasks will be completed: final publication of the Sunshine Coast Habitat Atlas, creation of an Internet Mapping Application, identification of budget requirements and submission of funding applications, collection of outstanding datasets, collection of new information to fill remaining data gaps, Quarterly Technical Steering Committee meetings, development of new and maintenance of existing partnerships, development of a distribution strategy, and, creation of a long-term data maintenance program.

Information sources

Stewardship Centre Information:

<http://www.stewardshipcentre.bc.ca/siteSearch/siteSearch.asp?sProv=bc&sSearch=greenways>

http://www.stewardshipcentre.bc.ca/caseStudies/cs_builder.asp?request_no=167

SCRD information: http://www.scrd.bc.ca/planning_dev_currentprojects.html

Further information on the Habitat Atlas project within the SCRD:

<http://www.user.dccnet.com/ctrent/>

Project partners

Partnerships have been developed with the following organizations: District of Sechelt, Fisheries & Oceans Canada, Habitat Conservation & Stewardship Program, Fisheries Renewal BC, Gambier Island Conservancy, Ministry of Water, Land and Air Protection, Sechelt Indian Government

District, Sunshine Coast Regional District, Town of Gibsons, and BC Fisheries, Urban Salmon Habitat Program.

Funding sources

Funding has been provided by Fisheries Renewal BC (FsRBC), Fisheries & Oceans Canada, and BC Fisheries, Urban Salmon Habitat Program (USHP).

3.8 Sponsors: City of Burnaby

3.8.1 Program name: Integrated Watershed Management Planning

Program scope and objectives

Municipalities are addressing riparian management on a watershed basis and are beginning to discuss the effects of urban growth and increased impervious surfaces on natural hydrology. Integrated watershed management addresses ecosystem integrity. An integrated approach ensures all uses and interests in the watershed are adequately considered (Curran 1999, 39, 40)

The Brunette Basin Task Group (BBTG) was set up in May of 1997 as part of the GVRD's Liquid Waste Management Plan. The Task Group is made up of members from municipal, senior governments and the public. The task group is using the Brunette Basin as a pilot project to develop a general framework for urban watershed planning. The main goal of the integrated watershed management plan for the Brunette Basin is to protect or enhance the integrity of the aquatic and terrestrial ecosystem and the human populations they support in a manner that accommodates growth and development.

A City led pilot project under the watershed planning initiative is the development of a sub-watershed level plan for Stoney Creek. Plans will deal with protection and enhancement of aquatic and riparian habitat and stormwater management in light of current and proposed development (Curran 1999, 22).

Program activity areas and program priorities

A draft plan was completed in December 1999 and was to be finalized after the next public workshop. The presentation on the Brunette Basin will include community involvement activities on protection and monitoring activities on Stoney Creek, restoration activities in Beecher Creek (J. Atwater), and community stewardship and a watershed pledge program coordinated by BCIT (R. Gunn and L. Smith)

The Watershed Pledge Program is related to the integrated watershed management plan. The program first began in the City of Burnaby in 1999 through partnership with the Brunette Basin Task Force and BCIT. Taking the Pledge involves reading and committing to 'Seven Pledge Categories' for taking action on urban runoff, gardens, the landscape, lawn care, homes, the car, and pets to protect urban streams and lakes. A Pledge Form can be filled out and e-mailed back to the City. In return, the participant receives an information package and newsletter.

Status of the initiative

The work of this watershed planning initiative is on-going.

Information sources

1999. Curran, D. *Environmental Stewardship and Complete Communities: A Report on Municipal Environmental Initiatives in British Columbia*. 68pp. On line: <http://www.smartgrowth.bc.ca/munisurvey.html>. Accessed March, 2002.

- Local Government initiatives from this report by Deborah Curran are featured throughout this inventory.
- The purpose of this report is to begin to describe the wide-ranging urban sustainability initiatives by local governments across the province. Staff at the Eco-Research Chair of Environmental Law and Policy at the University of Victoria undertook this project as part of the Chair's mandate to identify and support institutions and projects that address urban sustainability. Two premises underlie this work: the natural urban environment provides unquantified amenities and services which must be protected; and the built environment can be developed in ways that foster fiscal, social and environmental health.

Project partners

The City of Burnaby is working on this project with local government (GVRD, Port Moody, Coquitlam) and academic institutions (SFU, UBC, BCIT) and local stewardship groups (Curran 1999, 22).

Funding sources

Burnaby has committed approximately \$5.5 million for the 20-year plan (Curran 1999, 22)

3.9 Sponsors: City of Burnaby

3.9.1 Program name: Environmentally Sensitive Areas

Program scope and objectives

The City of Burnaby encompasses a variety of ecosystems which are included in Environmentally Sensitive Areas (ESAs). ESAs include natural areas that are sensitive, rare, in danger of disappearing. Areas in the City range from watersheds, watercourses, aquatic habitats, marine foreshore and nearshore, mature and old growth forests, wildlife, trees, habitat, rare woodlands, special land forms (cliffs), coastal forms.

Program activity areas and program priorities

The City of Burnaby commissioned an ESA report, *The Nature of Burnaby: An Environmentally Sensitive Areas Strategy* (1994) which identifies private and public lands which may be considered for ESAs.

Council adopted 10 principles for sensitively managing public ESA lands (e.g., protect large core areas and create linkages between them; Integrated Pest Management Policy). The City has been proactive in park acquisition with public lands encompassing 25% of the municipal land base. These lands are identified in the Official Community Plan (OCP) and GVRD Regional Growth Strategy (RGS) as Green Zone Lands (Curran 1999, 26).

A principle in the ESA is the Integrated Pest Management Policy (1998) which states that the City will not use chemical fertilizers or pesticides on city land (street trees, park land).

Status of the initiative

This initiative is on-going. The ESA strategy and its 10 policies are continuously implemented when considering development applications, and in OCPs and the GVRD's Regional Growth Strategy.

Information sources

Curran 1999, p. 26.

3.10 Sponsors: City of Burnaby

3.10.1 *Program name: State of Environment Reporting Program*

Program scope and objectives

The City of Burnaby supports restoration and stewardship initiatives as part of its State of Environment Reporting Program (SOER) program. Staff assist in the coordination of, and provide expertise and support for, stewardship initiatives. The SOER is policy-based and describes the environmentally-based activities of the City (pers. comm. Environmental Planner, City of Burnaby, 2002)

Program activity areas and program priorities

Restoration work on Beecher Creek is an example of the kind of initiative of the SOER. Many other restoration activities are undertaken in the City of Burnaby. The 8th Northview Scouts and Streamkeepers initiated a major riparian planting project, with the City, BC Institute of Technology (BCIT) and the public, at a private industrial site on lower Beecher Creek, and have installed nesting boxes to enhance the habitat for a variety of bird species. Key components of the Scouts work has been monitoring, education, including raising public awareness, and consultation with municipal staff (Curran 1999, 30).

Status of the initiative

The SOER was written in 1998 and is updated as necessary.

Information sources

Curran 1999, 30

Environmental Planner, City of Burnaby Planning Department

Funding sources

The Scouts obtained significant funding from the USHP and Canada Trust for their restoration activities.

3.11 Sponsors: City of Burnaby

3.11.1 *Program name: Comprehensive Development Zones*

Program scope and objectives

A Comprehensive Development Zone (CDZ) provides for the development of an area embracing one or more land use classifications as an integrated unit based on a comprehensive development plan. This form of zoning enables the City to negotiate environmental guidelines and requirements.

Program activity areas and program priorities

The City of Burnaby is able to achieve all of its site-specific environmental goals through the use of CDZs.

Lougheed Town Centre Plan, as an OCP sub-plan, emphasizes an ecosystem-based approach to future development.

- Proposed redevelopments within the plan are generally rezoned to CDZ. Once designated, municipal staff are able to tailor the development to site-specific constraints and opportunities, including best management practices for stormwater management, integrated pest management (IPM), watercourse protection, retention of vegetation, and landscaping.
- While support exists for environmental design guidelines and practices at the political and planning level, more examples of built works and site details would assist the development community in implementing such requirements.

The Oakland Development, on Royal Oak Avenue, is an example of a Burnaby CDZ complete community and environmentally sensitive development.

- The 33 hectare site, formerly part of the old Lower Mainland Regional Correction Centre (Oakalla), is adjacent to Deer Lake Park, and close to the Metrotown commercial core and Royal Oak Skytrain station.
- Stormwater from the site is treated through a biofiltration pond/engineered wetland constructed in Deer Lake Park which is recognized by DFO and MELP as a model. A vegetated swale, following the old existing drainage pattern, facilitates infiltration through a meadow area, provides additional stormwater treatment and acts as a flood bypass system during peak storm events.
- The ponds are considered Park amenities and provide additional wildlife habitat which can be viewed from the wildlife viewing platform. Through monitoring of nutrient and loading, the ponds have proven to be very efficient in dealing with sediment control and water quality concerns. The developer also provided additional park land to the City, in part to accommodate the stormwater management facilities.

Status of the initiative

Work in the City using CDZ as a development tool is on-going.

Information sources

Curran 1999, 31

Environmental Planner, City of Burnaby

3.12 Sponsors: City of Burnaby

3.12.1 Program name: Greenlinks Program

Program scope and objectives

Douglas College Institute of Urban Ecology, BC Hydro and Gas, run the Greenlinks Program to establish terrestrial greenways between riparian areas. The program provides tools and supplies to create biodiversity and ecosystem health in back yards and local utility corridors. The project aims to connect fragments of environmentally sensitive land with corridors of native vegetation. The main purpose is to increase the plant and animal biodiversity in areas where plant and animal species have declined due to loss of habitat.

Program activity areas and program priorities

The City of Burnaby has been working with this program to establish a Burnaby greenlink of green streets from Byrne Creek Ravine to Robert Burnaby Park. The City is using enhancement plantings in small neighbourhood parks, residential yard naturalization and streetscapes to accomplish the urban greenlink. All enhancement activities are planned specific to each site's existing vegetation. By planting native species the program increases biodiversity of such species and creates habitat for wildlife.

Status of the initiative

The program is on-going and the City is still in the process of working on its urban greenlink. Demonstration projects are also underway for Coquitlam, Surrey and Delta.

Information sources

GBEI Biodiversity Conservation for the Greater Vancouver Region 2001 workshop (see section): <http://www.gvrd.bc.ca/services/growth/projects/GeorgiaBasin/Workshop%20April%202001.pdf>

Environmental Planner, City of Burnaby

Project partners

Project partners include: the City of Burnaby, Douglas College Institute of Urban Ecology, VanCity, and the Real Estate Foundation.

Funding sources

VanCity and the Real Estate Foundation.

3.13 Sponsors: City of Surrey

3.13.1 Program name: Local Government Education

Program scope and objectives

Protection and restoration of environmentally sensitive areas requires educating local government staff about issues and key areas to focus on in municipal boundaries. The City of Surrey hosts two in-house, staff workshops each year to educate staff on different elements of environmental protection.

Program activity areas and program priorities

Developed by the Community Services Coordinator, in 1998 all operations staff attended one workshop on how to take an ecosystem approach in municipal projects. Staff responsible for trees also attended a wildlife trees workshop conducted by a member of the Wildlife Tree Committee (former MELP, and Ministry of Forests). In 1999, operations staff attended a workshop on managing oldfields habitat, at which they were to develop a municipal policy dealing with old fields.

Status of the initiative

This is not an official initiative of each local government. Education efforts happen periodically, although the City of Surrey has two workshops on an annual basis.

Information sources

Curran 1999, 30

Project partners

The City of Surrey worked together with Ministry of Forests, WALP.

3.14 Sponsors: Township of Langley

3.14.1 *Program name: Salmon River Watershed Management Partnership*

Program scope and objectives

A shift is occurring to community-based stewardship initiatives, supported by different levels of government and funding agencies. Often focused on ecological restoration of, and education about, riparian areas, stewardship groups spread a local conservation ethic on a neighbourhood or watershed basis. The Township of Langley supported the creation of the Langley Environmental Partners Society and the Salmon River Watershed Management Partnership (SRWMP)

A volunteer based community organization, the Salmon River Enhancement Society (SRES) was formed in response to a variety of issues in the Salmon River Watershed. SRES has been involved in several agricultural issues and is an active member of an ongoing round-table process, the Salmon River Watershed Management Partnership. The SRWMP includes representatives from both the farming community and the Ministry of Agriculture and Foods.

SRES works from the perspective that good agricultural practices can, and should, work hand in hand with environmental protection plans. They support initiative and sustainable farming initiatives and work with government agencies, local elected representatives and the media towards achieving their goals.

Program activity areas and program priorities

The SRWMP has been active over five years carrying out stream mapping and other conservation activities.

Status of the initiative

The work of SRWMP is on-going.

Information sources

Curran 1999, p. 10.

Background information:

http://www.ire.ubc.ca/y2k/ire/reports/workshop2000/workshop_2000.htm.

Project partners

Project partners include Ministry of Agriculture and Foods, Township of Langley, and farming community members.

3.15 Sponsors: Langley Environmental Partners Society

3.15.1 Program name: Langley Township Wildlife and Inventory Conservation Project

Program scope and objectives

Langley Environmental Partners Society (LEPS) was formed in 1993 as a partnership among community groups, educational institutions, First Nations, and local and senior government agencies. LEPS was established to:

- promote and conduct balanced environmental protection and restoration activities in the Township of Langley;
- provide technical support to other community volunteer groups conducting environmental work;
- to provide education and work experience for post-secondary and secondary students in areas related to environmental protection; and,
- to foster community cooperation in the Langley area through environmentally oriented partnerships between government, teaching institutions, community associations, and businesses.

Program activity areas and program priorities

LEPS has conducted an environmental inventory and habitat restoration work in and around streams. This includes fish habitat assessments, stream surveying and mapping, streamside planting, erosion control, streamside fencing and salmon habitat restoration projects.

Projects completed by LEPS include: planting trees along the shores of the stream, stream mapping, stream habitat restoration projects, fencing livestock from sensitive spawning habitat, marking storm drains and putting up signs indicating stream crossings and stream rehabilitation, a weekly environmental column in the Langley Times and a bi-annual newsletter (the Watershed Guardian), and setting up the Langley Watershed Stewardship Training Program.

5.1.1..1 Wildlife and Inventory Conservation Strategy Project

With adequate financial support, LEPS is working to:

- plan and coordinate a municipal-wide conservation strategy for critical wildlife habitats, including corridors to connect key habitats;
- develop and implement a strategy for incorporating these objectives into municipal policies and practices, as well as stewardship efforts by community groups;
- research and plan special strategies for preserving habitats for locally endangered species;
- implement a monitoring program for evaluating the status of local habitats and populations of selected indicator species;

- to cooperate with recovery teams to protect and restore habitats for local wildlife species that are endangered, with particular emphasis on the Oregon Spotted Frog and the Pacific Water Shrew;
- conduct a large-scale control program for invasive species, such as the American Bullfrog; and
- engage in education and private land stewardship activities to achieve the above objectives.

5.1.1..2 Mapping and Inventory work

The purpose of the mapping and inventory program is to collect, analyze and share data about the unique habitats of the Township of Langley by involving community members, landowners, the municipal government and senior government agencies.

Over the past seven years, LEPS has mapped nearly 800 kilometres of Langley's watercourses, including approximately 200 kilometres of unmapped or poorly mapped tributaries. Some of the watercourses in Langley have been mapped using the adapted [Streamkeepers](#) method. The [SHIM](#) method has been used in the Upper Salmon, West, Nathan, Palmateer and Little Campbell watersheds. Fish sampling to determine fish species presence and distribution has been conducted throughout the municipality, and the data is monitored and updated yearly.

Mapping by LEPS of land cover and land use within the Township of Langley is currently underway, using modified SHIM standards.

5.1.1..3 Wildlife Program

The wildlife program was initiated recently by LEPS, in recognition of the importance of wildlife to both human and natural communities. The long-term objective of the wildlife program is to adequately conserve wildlife species and their habitats throughout the Township of Langley through education, inventory and monitoring, and conservation planning.

The wildlife program is relatively new, but a number of projects have already been initiated. They include:

- bird monitoring site selection and habitat assessment – completed March, 2000
- development of methods for volunteer-conducted inventories of the quality and availability of wildlife habitat
- research into the status and control options for invasive species
- development of wildlife habitat objectives for the Township of Langley
- evaluation of available wildlife habitats through the interpretation of airphoto imagery and the analysis of existing field survey data.

Status of the initiative

The mapping and inventory work is completed, the wildlife program and Wildlife and Inventory Conservation Project are new and will depend on future funding.

Information sources

LEPS website: <http://www.leps.bc.ca/website/index.htm>

Access to the LEPS inventory: lepsgen@tol.bc.ca

LEPS Projects: http://www.leps.bc.ca/website/what_we_do.htm

Langley Times Newspaper article: http://newcity.ca/Pages/Langely_Environmental.html

Contact information: Contact: Kim Anderson, 4914--221st Street, Langley, BC V3A 3Z8, Phone: (604) 533-6054, or (604) 533-6136 Fax: (604) 533-6098.

Wildlife Program: Leanne Leith at 533-6054 or lleith@tol.bc.ca

Project partners

The Langley Environmental Partners Society (LEPS), formed in January 1993, is a partnership between School District #35, the Township of Langley, the Department of Fisheries and Oceans, Kwantlen College, the Langley Field Naturalists Society, the Nicomekl Enhancement Society, the Bertrand Creek Enhancement Committee, and the Salmon River Watershed Management Partnership.

Wildlife Program: Key partners in the wildlife program include: Canadian Wildlife Service, GVRD Parks, the Langley Field-Naturalists, the Central Valley Naturalists, Trinity Western University (Biology and Environmental Studies Departments), the Oregon Spotted Frog Recovery Team and the Ministry of Environment, Lands and Parks (Wildlife Branch).

3.16 Sponsors: District of Maple Ridge

3.16.1 *Program name: Alouette River Management Society*

Program scope and objectives

The Alouette River Management Society (ARMS) is headquartered at the Rivers Heritage Centre in Maple Ridge, British Columbia. Formed in 1993, ARMS is a broad-based organization committed to the protection and enhancement of the Alouette River watershed and beyond through advocacy, education and coordination. The mandate of ARMS is:

- To protect and preserve the environment and habitat of the Alouette River Watershed.
- To provide environmental education to the community.
- To develop and partner on various habitat restoration and maintenance projects within the Alouette Watershed.
- To assist and advise federal, provincial and municipal agencies in the care and development of the Alouette River Watershed.

ARMS plays a strong role in the community, working with the District of Maple Ridge and other partners (see Pitt River Area Watershed Network, PRAWN in the Fraser Valley Regional District) on watershed stewardship, including education, inventory and monitoring, habitat restoration and lobbying for the protection of aquatic habitat. Members of ARMS often attend private properties in order to assist landowners with the implementation of sound stewardship practices on their land. In addition to a core staff, ARMS consists of a President, 14 Directors and 300 members.

Program activity areas and program priorities

There are many program activities under ARMS. The Rivers Heritage Center is intended to be a "go to" for the community for stewardship information, education and direct advice. Activities at the Center include Streamkeeper training, sustainable development workshops, school field trips and hosting public events.

In the past, the primary focus of ARMS was to increase base flows from Alouette Dam. This goal was achieved in 1996, when the base flow was increased fivefold.

Some of the inventory and assessment activities for 2000-2002 include:

- [GPS Mapping and Inventory Project 2000-2002](#)
- [Water Quality Monitoring and Fish Inventory Project 2001/2002](#), Water Temperature Monitoring
- Community Bear Assessment Project 2002

Some of the Watershed Enhancement and Protection project from 2000-2002 include:

- Riparian Planting Projects, Zirk Brook Equestrian Bridge 2001
- Community Stream Cleanups Initiatives 2002, The Value of Woody Debris In Our Rivers
- [Watershed Pledge Program](#)

The Stream Cleanup Initiatives Project (2002): This project involves coordinating and initiating community cleanups on impacted urban streams within the Alouette Watershed. The project seeks to:

- increase community awareness while promoting environmental responsibility within the Maple Ridge and Pitt Meadows region; raise the productivity of the streams; and, restore viable access and fish habitat.

Several creek projects have been completed and more are underway for 2002.

Status of the initiative

Some activities are in the process of being completed for 2002. However, new projects are underway. The organization is continuously working with the community and local government on stewardship activities.

Information sources

ARMS: <http://www.alouetteriver.org/>

Contact information: Box 21117 Ridge, P.O. Maple Ridge, BC V2X 1P7. Phone: 604-467-6401
Fax: 604-467-6478

Project partners

Stream Cleanup project partners include VanCity, Adopt-a-Block, the District of Maple Ridge, School District #42 and various local businesses.

The Society historically received funding from several provincial and federal sources. However, with recent provincial cutbacks, they have also decided to seek corporate sponsorship. The Society also receives a considerable amount of in-kind support through donors and membership. The following are some of the key partners:

- Adopt-A-Block, The Allco Hatchery (which may be going out of operation), BC Conservation Foundation
- Alouette Communications Task Team (ACTT): A team of stakeholders and residents in the area who have chosen to take a unique and proactive approach to deal with the inevitability of flooding.
- [The BCIT Fish, Wildlife and Recreation Program](#): ARMS has partnered with BCIT to research water quality, fish presence/absence and invertebrate health within the Alouette Watershed.
- [RiverWorld](#): Dedicated to the conservation and improved management of our waterways.
- [BCIT Woodlot](#)
- [Restoring the Theodosia River](#): A group of government, corporations and citizens who worked together to dismantle the Theodosia Dam and restore a salmon river.
- Bell Corr Net Pens and Fish Stocking Project - Alouette Lake

- [The District of Maple Ridge](#): ARMS and the district of Maple Ridge have a close relationship regarding many matters within the Alouette Watershed (e.g., GPS Mapping, partnering on stream cleanups)
- [The Land Conservancy of BC](#) - Helping to Preserve the Codd Island Wetlands
- [UBC Research Forest - Malcolm Knapp Research Forest](#)
- Pitt River Area Watershed Network (PRAWN)
- [Silver Valley Neighbourhood Association](#): The SVNA is a non-profit society dedicated to encouraging sustainable development in an ecologically sensitive area.

Funding sources

Some of the key funders for ARMS programs have been: USHP, Fisheries and Oceans Canada, VanCity, Habitat Conservation Trust Fund, Habitat Conservation and Stewardship Program, Ministry of Public Safety and Solicitor General

4 Target Area: Vancouver Island

4.1 Sponsors: MSRM and CWS

4.1.1 Program Name: Southeast Vancouver Island and Gulf Islands Sensitive Ecosystem Inventory

Program scope and objectives

The Sensitive Ecosystems Inventory (SEI) systematically identified and mapped relatively unmodified ecosystems on the coastal lowlands of east Vancouver Island and adjacent Gulf Islands. It is the first inventory of its kind to focus on mapping remnant ecosystems in a highly disturbed landscape.

The main purpose of the SEI project is to provide scientific information and support to planners and local governments for use in planning initiatives such as Official Community Plans, Regional Growth Strategies and Parks Plans. The project is also intended to improve the ability of resource agencies to maintain biodiversity and to prioritize sites for limited acquisition funds.

Program Activity Areas and program priorities

Sensitive ecosystems were identified on aerial photographs. Over 30% of the identified sites were field checked to verify boundaries, classify, photograph and evaluate present conditions. On-site assessments of all SEI sites are strongly recommended before land use decisions are made.

Nine sensitive ecosystem types: Riparian, Wetland, Woodland, Older Forest, Sparsely Vegetated, Terrestrial Herbaceous, Coastal Bluff, Seasonally Flooded Agricultural Field, and Older Second Growth Forest.

Local governments on east Vancouver Island and adjacent Gulf Islands are now using the SEI data in regional growth strategies, official community plans and greenways/parks plans, as well as initial information for site-specific decisions.

SEI project staff are working with local governments, landowners, developers and others to use existing tools and mechanisms to protect and conserve the sites identified. Every one of these sites is potentially a valuable component of the area's natural landscape.

An example of an application of the SEI inventory is the **Ford Lake Acquisition–Georgia Basin Ecosystem Initiative**. The initiative joined the CRD, Islands Trust Fund and the GBEI in partnership to purchase Ford Lake on Salt Spring Island. The purchase protected 20ha of wetland and 44ha of meadow and forestland. Ford Lake is one of the larger intact parcels of land on Saltspring, and one of the few wetlands providing habitat for waterfowl, fish and other species.

Status of the initiative

This initiative on East Vancouver Island and Gulf Islands has been completed and in the process of being refined. Two SEI initiatives currently underway for Sunshine Coast & Central Okanagan (see appropriate target areas in this inventory for further information on these initiatives).

Information sources

SEI Website: <http://srmwww.gov.bc.ca/cdc/sei/index.htm> and
<http://srmwww.gov.bc.ca/cdc/sei/vancouverisland/publications/conservation/coverletter.doc>

Vancouver Island SEI: <http://srmwww.gov.bc.ca/cdc/sei/vancouverisland/project.htm>

Ford Lake Acquisition Initiative: GBEI project inventory:
http://www.pyr.ec.gc.ca/gbeims/public/search_e.asp

1998. *Sensitive Ecosystems Inventory: East Vancouver Island and Gulf Islands 1993-1997, Volume 2: Conservation Manual*. On line at:
<http://srmwww.gov.bc.ca/cdc/sei/vancouverisland/publications.htm>

The Conservation Manual is a companion volume to Sensitive Ecosystems Inventory: East Vancouver Island and Gulf Islands 1993-1997, Volume 1: Methodology, Ecological Description and Results, which was published in 1998. On line:
<http://srmwww.gov.bc.ca/cdc/sei/vancouverisland/publications.htm>

The Conservation Manual is divided into two parts. Section One discusses the importance of sensitive ecosystems, describes the impacts of concern, and recommends steps that can be taken to avoid or minimize impacts. Section Two examines the legal conservation tools available to local governments, senior governments, landowners and other citizens. This section also offers suggestions on how management recommendations can be incorporated into legal tools such as Official Community Plans and Development Permits.

The manual is intended as a reference tool for people and organizations that have the desire or responsibility to conserve and protect the remaining vestiges of important sensitive habitats. It is equally useful for landowners and developers who are planning activities that could impact sensitive ecosystems.

Key contacts:

- Bill Hubbard, Ministry of Environment, Lands and Parks, (250) 751-3236
- Jan Kirkby, Conservation Data Centre, (250) 387-0732
- Peggy Ward, Canadian Wildlife Service, (250) 752-9611.

Project partners

The Sensitive Ecosystems Inventory (SEI) is a joint project of Environment Canada (Canadian Wildlife Service) and Ministry of Environment, Lands and Parks (Conservation Data Centre and Vancouver Island regional office), supported by the Habitat Conservation Trust Fund and Georgia Basin Ecosystem Initiative.

Funding sources

[Environment Canada \(Canadian Wildlife Service\)](#), [Habitat Conservation Trust Fund](#), and [MSRM \(Vancouver Island Regional Office, Nanaimo\)](#), and Conservation Data Centre, Victoria) combined resources to conduct this project.

Additional funds were contributed by BC 's Corporate Resources Inventory Initiative, BC Ministry of Forests, Capital and Comox-Strathcona Regional Districts, Provincial Capital Commission, Islands Trust, and the municipalities of Nanaimo and Campbell River.

Major funding for the SEI is being provided by the Georgia Basin Ecosystem Initiative, with contributions from the Habitat Conservation Trust Fund (and Sunshine Coast Regional District). Fisheries and Oceans Canada provided additional stream data to supplement the TRIM base maps.

Funding Sources for the Ford Lake Acquisition included the Ministry of Environment, Lands and Parks, Environment Canada, Pacific and Yukon Region, Island Trust Fund, Capital Regional District, Salt Spring Island Conservancy, Ducks Unlimited, Habitat Conservation Trust Fund, and Nature Trust of BC.

4.2 Sponsors: Local Governments and DFO

4.2.1 Program name: Courtenay River Estuary Management Plan

Program scope and objectives

This project will seek to ensure that local, regional and First Nation governments have access to new information and tools to support land use decisions and actions that lead to the conservation of habitat and species.

Program activity areas and program priorities

Fisheries and Oceans Canada, in collaboration with local governments, GBEI partners and community groups is leading the implementation of the Courtenay River Estuary Management Plan. (Note that the development of the Nanaimo River Estuary management plan is also now underway.)

Status of the initiative

On-going for 2002-2003 fiscal year.

Information sources

Courtenay River Estuary Management Plan web sites:

<http://www-heb.pac.dfo-mpo.gc.ca/english/cremp/default.htm>

www-heb.pac.dfo-mpo.gc.ca/english/cremp/Vol2/vol2.pdf

4.3 Sponsors: Capital Regional District

4.3.1 Program name: Habitat Acquisition Trust

Program scope and objectives

The Habitat Acquisition Trust (HAT) is a non-profit local land trust whose principal purpose is to encourage and support habitat conservation on southern Vancouver Island and the southern Gulf Islands. HAT works in partnership with landowners, local/regional/provincial governments, and other non-government organizations to achieve its goals. Current initiatives of the Habitat Acquisition Trust focus on:

- Acquisition of ecologically significant habitats e.g., Laughlin Lake on Galiano Island
- Conservation covenants: HAT holds, manages, and provides expertise in conservation covenants; and

- Promoting habitat stewardship, education and research. Community projects that strengthen the capacity of stewardship groups and landowners to care for local habitats

Where projects on southern Vancouver Island and the Gulf Islands are of provincial or national interest, the HAT works closely with provincial (The Land Conservancy of BC) or national (The Nature Conservancy of Canada) partners. Where projects are locally important, HAT works with local partners such as the Friends of Ayum Creek, the Pender Islands Conservancy, and the Galiano Conservancy Association.

Established by the Victoria Natural History Society; the HAT is the regional land trust for the Capital Regional District.

Program activity areas and program priorities

The HAT helps protect local habitat through acquisition and stewardship. The following lists local habitats for which HAT is currently fundraising or for which it has raised funds. HAT also holds conservation covenants on key habitats.

5.1.1..1 Current Fund Raising for Land Acquisition

- Laughlin Lake is the largest body of fresh water on Galiano Island. HAT, Galiano Conservancy Association and Islands Trust Fund are seeking funds to complete this \$150,000 purchase
- Sooke Hills- The Land Conservancy has purchased this key acquisition in the Sea-to-Sea Greenbelt but still requires to raise \$225,000. HAT is continuing to assist in this important fundraising effort.
- HAT's first acquisition project, the estuary of Ayum Creek on the Sooke Basin, was completed in April 1998. This region is an important salmon habitat and link in the *Sea to Sea Greenbelt Initiative* (described in this inventory) of the CRD.

In partnership with the Society for the Protection of Ayum Creek (SPAC), HAT secured the \$630,000 needed to purchase this five-acre property. It is now a CRD Park Reserve, and HAT holds the conservation covenant on the property with TLC - The Land Conservancy of BC. A management plan has been completed. Ayum Creek now has CRD Park status. Ecological integrity of the park is secured through conservation covenants and the involvement of community groups in the management of the park (<http://www.hat.bc.ca/hatlp001.html>, Curran 1999, 39).

5.1.1..2 Covenants

- District of Highlands has required conservation covenants on all projects involving clustering and amenity zoning. Covenants generally protect 65 to 70 percent of the lot from alteration. CRD has partially funded the Land Stewardship Office, operated by Habitat Acquisition Trust, to provide 'one stop shopping' for information about land stewardship and conservation covenants. The LSO is also developing generic manuals that stewardship groups and land trust organizations can tailor and use for landowner contact programs (Curran, p. 9).

5.1.1..3 Stewardship

- Connecting for Conservation Website in CRD - Habitat Acquisition Trust is promoting co-operation and communication among the more than 100 conservation and stewardship groups working in the CRD.
- The Tod Creek Watershed Project- The Project is now beginning Phase Three
- Planning and Stewardship in Your Community - This project involves direct outreach to local government politicians throughout the Capital Region

Status of the initiative

This initiative will likely be continued, depending on funding.

Information sources

Curran 1999, 9, 39, 50

Website: <http://www.hat.bc.ca/hathome.html>

Current initiatives: <http://www.hat.bc.ca/hatinit.html>

Conservation Connections: <http://www.conservationconnection.bc.ca/>

This on-line network of conservation and stewardship organizations working in the Capital Regional District was created to provide a way for organizations to foster collaboration and cooperation and to strengthen relationships with one another. There are new conservation and stewardship projects getting underway all the time, and everyone in the community is encouraged to use this website often to stay informed about conservation work in the CRD.

Project partners

The Land Conservancy of BC, The Nature Conservancy of Canada. HAT works with local partners such as the Friends of Ayum Creek, the Pender Islands Conservancy, and the Galiano Conservancy Association.

Funding sources

Funding by HAT was provided for the acquisition of Ayum Creek, Sooke; Ayum Creek Connector; Brooks Point, Pender Island. Funding for the Ayum Creek purchase was a partnership with HAT, CRD, and DFO.

4.4 Sponsors: Capital Regional District

4.4.1 Program: Regional Growth Strategy

Program scope and objectives

Generally, growth management refers to the tools and techniques municipalities can use to control urban sprawl (i.e., the spread of residential and commercial development into rural lands), and focus growth in already built up urban areas. The legislative purpose of a Regional Growth Strategy (RGS) is to “promote human settlement that is socially, economically, and environmentally healthy and that makes efficient use of public facilities and services, land and resources.”

The Regional District of Nanaimo and the Greater Vancouver Regional District (GVRD) are the only two jurisdictions with completed "regional growth strategies" (RGSs). Six other regional districts are currently developing RGSs.

Once completed, the municipalities involved develop regional context statements in their OCPs to implement the RGS. Several municipalities in the Greater Vancouver Regional District (GVRD) have completed their context statements (Curran 1999, 4, 5).

Program activity areas and program priorities

The [Capital Region District \(CRD\)](#) and its 13 member municipalities have drafted a regional growth strategy (RGS) which encompasses the richness of this diverse region. The RGS process

involves setting regional priorities and developing common strategies about managing growth to the year 2026.

Commencing in April 2001, the draft RGS, was circulated to member municipalities, the Islands Trust, adjacent regional districts, First Nations and the Inter-governmental Advisory Committee for comments. Comments and suggestions were forwarded to the board in November 2001. The board has instructed that amendments be made to the draft RGS and that the regional growth strategy bylaw be developed. It is expected that the bylaw will be referred to the CRD's member municipalities and the adjacent regional districts in the spring of 2002 for acceptance.

While managing and balancing future growth is important, the RGS also aims to protect the character of the existing landscape and maintain the ecological heritage and biodiversity of the Capital Region by incorporating policies of the Regional Green/Blue Spaces Strategy, approved by the CRD board and the Provincial Capital Commission in November 1997.

Key elements of the Regional Green/Blue Spaces Strategy include the protection of a Sea to Sea Green/Blue Belt running from Saanich Inlet south to Juan de Fuca Strait, and the development of an integrated system of parks and trails linking urban areas to rural green space areas (this initiative is discussed in this inventory).

The CRD's proposed Regional Growth Strategy (*Bylaw No. 2952 - A Bylaw to Adopt a Regional Growth Strategy for the Capital Regional District, excluding Salt Spring Island and the Southern Gulf Islands electoral areas*) has recently undergone second reading by the CRD Board (February 27, 2002). A public hearing on the Strategy with the delegation of directors of the CRD Board is scheduled for April, 2002.

If the public accepts the Regional Growth Strategy, it would establish a vision where the region is "economically vital, where communities are livable, where the environment and natural resources are stewarded with care, and where residents enjoy a healthy and rewarding quality of life."

The Regional Growth Strategy aims to realize this vision through the implementation of a 25-year program of joint action by the CRD and its member municipalities comprised of eight integrated strategic initiatives that aim to: keep urban settlement compact; protect the integrity of rural communities; protect regional green and blue space; manage natural resources and the environment sustainably; build complete communities; improve housing affordability; increase transportation choice; and, strengthen the regional economy.

Key features of the Regional Growth Strategy include the establishment of a Regional Urban Containment and Servicing Policy Area boundary; the establishment of targets to ensure the majority of future population growth occurs within this defined area; the designation of major mixed-use centres for future development concentration; the establishment of targets for the protection of a proposed Sea to Sea Green/Blue Belt and Regional Trail Network; and a series of strategic initiatives related to housing affordability, transportation, environmental management and economic development (source: <http://www.crd.bc.ca/regplan/RGS/Choices/hearing.htm>)

Status of the initiative

The initiative is currently underway in the CRD.

Information sources

CRD: <http://www.crd.bc.ca/regplan/RGS/>

The *Proposed Framework for the CRD RGS* is available in PDF format:
<http://www.crd.bc.ca/regplan/RGS/Choices/pdf/framew99.pdf>

The Intergovernmental Relations and Planning Division of MCAWS is mandated to advise on growth strategies: <http://www.marh.gov.bc.ca/GROWTH/>. Information is provided on “high growth regions” which include Southern Vancouver Island as well as the Lower Mainland and Okanagan Valley (see those sections in this inventory).

Spotlight on CRD at MCAWS site: <http://www.marh.gov.bc.ca/GROWTH/JAN2002/spotlite.html>

Curran 1999, 4, 5.

4.5 Sponsors: Capital Regional District

4.5.1 Program name: Regional Green/Blue Spaces Strategy

Program scope and objectives

The Capital Regional District and Provincial Capital Commission began developing the Regional Green/Blue Spaces Strategy in 1995 to identify which regionally significant green/blue space areas should be protected and maintained, who can contribute, and how protection and maintenance can be achieved.

The Strategy outlines a Green/Blue space system which is considered to be a major part of the regional infrastructure that is essential for creating a livable and healthy region (i.e., sewers, water supply, transportation, solid waste disposal, and green/blue spaces). Adopted in 1997, the Strategy is composed of four parts:

- Green/Blue Space Core Areas (existing parks, valuable unprotected land and marine environments, and the region's water supply lands);
- Greenways (corridors that link green/blue spaces);
- Renewable Resource Working Landscapes (agricultural and managed forest lands); and,
- Valuable Remnant Ecosystems (sensitive environmental lands not included in green/blue space core areas).

The Strategy defines Regional green/blue spaces as:

Natural and semi-natural areas, both land and water, that are of ecological, scenic, renewable resource, outdoor recreation and/or greenway value. These areas are considered to have high ecological and/or social value as green/blue spaces. Green/blue space areas could include developed, partly developed or undeveloped public and private spaces.

While not a regulatory document, the Strategy has been adopted as a starting point for the CRD's proposed Regional Growth Strategy. The Green/Blue Strategy is a vision of cooperative stewardship that integrates the contributions and commitments of citizens, landowners, businesses, communities and all levels of government to sustain the green infrastructure of the region (Curran 1999, 26).

Securing the Regional Green/Blue Spaces System will be an incremental, cooperative process requiring many years to complete. Citizens, landowners, all levels of government, institutions, public utilities, and non-profit organizations can all contribute to protecting and maintaining regional green/blue spaces.

The Sea-to-Sea Green/Blue Belt is a multi-jurisdictional land protection and acquisition initiative to protect the lands between Saanich Inlet and Sooke Basin. The initiative is endorsed in the proposed RGS. The vision of the Sea to Sea Green/Blue Belt is to establish an area of contiguous parkland from Saanich Inlet to Sooke Basin and Sooke River.

Program activity areas and program priorities

The 'Sooke Hills Seraphim Lands Acquisition' is a two-year project (2000-01 and 2001-02) that aims to secure the Seraphim lands in Sooke Hills, located north of Sooke Basin on Vancouver Island. The CRD Parks Master Plan identified the Seraphim Lands as having regional park potential and a key parcel in contributing to the establishment of the proposed Sea to Sea Green/Blue Belt. In February 2001, CRD parks and Environment Canada with MELP and The Land Conservancy (TLC) joined together to purchase 1380 hectares of the Seraphim lands.

From a conservation perspective, several species listed as at risk by the province and by COSEWIC are known or suspected on these lands, including Western Screech Owl, Northern Pygmy Owl, Northern Goshawk, Marbled Murrelet and Pacific water shrew. The creeks and lakes support species of native and stocked fishes, and the integrity of the headwater drainages in this area affects the habitat of migratory salmonid fish in the lower reaches of streams.

The lands purchased are located in Ayum Creek and Charters Creek watersheds and include Mount Manuel, Quimper and Empress Mountain as well as three lakes. These lands will play a part in the establishment of large wilderness areas near the suburban portions of the region and help sustain habitat for wildlife.

Status of the initiative

Sea-to-Sea Green/Blue Belt initiative is on-going to 2003.

Information sources

CRD Parks information: <http://www.crd.bc.ca/parks/>

CRD Parks Master Plan: <http://www.crd.bc.ca/parks/pdf/masterpl.pdf>

Sea to Sea Green/Blue Belt (Seraphim Lands): <http://www.crd.bc.ca/parks/pdf/infoshe3.pdf>

Curran 1999, 26

Project partners

Project partners include: Environment Canada, TLC, CRD, and Habitat Acquisition Trust (helping to acquire more funds)

Funding sources

CRD Parks is providing \$3 million over five years (to 2001-2006) through its CRD Parks Land Acquisition Fund. Environment Canada has contributed \$2 million through its Habitat Stewardship Program. The Province has contributed \$200,000 and TLC has contributed \$100,000 plus costs and other in kind services. Habitat Acquisition Trust is also seeking funds for the purchase of the lands.

4.6 Sponsors: Capital Regional District and DFO

4.6.1 Program name: Capital Region Natural Areas Atlas Initiative

Program scope and objectives

The development of natural areas atlases (mapping) is the recognized initial step towards the protection of natural areas. Atlases are one of the primary tools used by local government planners and engineers who are responsible for making day-to-day decisions regarding land use and development in and around environmentally significant landscapes.

An atlas can locate and describe natural areas in relation to property boundaries, road networks and other cadastral information. By highlighting important areas, natural areas atlases function as 'flagging devices' for municipal planners, consultants, architects, engineers and the development community to inform them that further study of a proposed development or activity may be required. Atlases also provide essential background information for tasks such as defining setbacks on watercourses and can also be used to compliment land use bylaws and OCPs. In addition to resource and land use planning, government and non-government agencies and community groups are able to use the atlas to highlight and prioritize areas that may be in need of protection and/or restoration.

Program activity areas and program priorities

The Natural Areas Atlas is an interactive electronic atlas highlighting the natural areas of southern Vancouver Island. The Atlas includes important information such as the locations of salmon bearing streams, spawning zones, old growth forests, endangered ecosystems, record-sized trees and shoreline habitats.

The mandate of the Capital Region Natural Areas Atlas Initiative is the creation of a comprehensive information tool about natural areas for use by anyone interested or involved in land use planning and stewardship in the Capital Regional District (CRD). The goal is to promote well-informed, responsible and sustainable land use decision making. This will in turn, have positive, long-term effects on the protection and restoration of natural areas and terrestrial and aquatic habitat in the Capital Region.

The scope of the project is defined by the political boundaries of the CRD. In recognizing that political boundaries are not always congruent with natural boundaries, the coverage of the atlas will be extended at the north end of the region to encompass natural watershed boundaries

Status of the initiative

The [Natural Areas Atlas](#) is an ongoing effort to bring together environmental information pertaining to the CRD.

Information sources

CRD atlas site: <http://www.crd.bc.ca/es/natatlas/> and <http://www.crd.bc.ca/eng/habitat/>

Project partners

The CRD is managing this project in partnership with Fisheries and Oceans Canada. The CRD hired a Habitat Steward to head up this project with initial support from both the CRD and the

Habitat Conservation and Stewardship Program (HCSP) of Fisheries and Oceans. This position is housed within the Environmental Services Department of the CRD.

Project Sponsors include:

- [The Real Estate Foundation of British Columbia](#)
- Capital Regional District Environmental Services
- [Habitat Conservation and Stewardship Program](#)
- [Urban Salmon Habitat Program](#)

Project contributors include: local municipalities, regional, provincial, federal government and NGOs:

- [South Island Aquatic Stewardship Society](#)
- [Victoria Natural History Society](#)
- [Veins of Life Watershed Society](#)
- [CERCA](#)

Funding sources

Funding sources include CRD, Habitat Conservation and Stewardship Program (HCSP), Fisheries and Oceans.

4.7 Sponsors: Regional District of Nanaimo, WALP and DFO

4.7.1 Program name: Memorandum of Understanding - Intergovernmental Partnership Agreement for the Protection of the Environment

Program scope and objectives

A Memorandum of Understanding (MOU) has recently been agreed to between the Regional District of Nanaimo (RDN), Vancouver Island Region Ministry of Environment, Lands and Parks (Now WALP) and Fisheries and Oceans Canada (Habitat and Enhancement Branch, South Coast Area Nanaimo, BC).

The purpose of the MOU is to affirm on the part of the partners to develop and implement a new collaborative process for the efficient delivery of services in the areas of environmental permitting and protection. The focus of the agreement is to build a more cooperative framework to support the protection of designated aquatic, fish, and wildlife habitats, and enhance water management and pollution prevention activities.

Establishment of MOUs between local and provincial agencies is proving to be an useful method of formalizing a proactive partnering relationship to address environmental protection issues and of providing specialized training opportunities for local government staff. The agreement provides the RDN with authority to assess and determine environmental impacts associated with the development of land within the RDN.

5.1.1..1 Application

The parties agree to jointly promote, support and participate in the integration of fish and wildlife habitat protection interests in local government land use, development control, infrastructure and operations decisions by:

- Identifying and prioritizing the areas requiring protection for fish and wildlife and sensitive ecosystems habitat protection information, planning and regulation;
- Coordinating annual work planning for the provision of habitat information to local governments needed to classify streamside protection areas;
- Participating in and supporting the classification of streams and streamside areas for local planning and regulatory attention;
- Coordinating annual work planning for the collection and classification of sensitive ecosystem information to be made available as a resource for local government planning processes and regulations; and,
- Continuing to utilize and update the ESA Atlas as the environmental framework document.

The RDN has responsibility for the management of land development projects and that the collection of information for assessment of development applications will be based on agreed-upon guidelines (Schedule A) and existing bylaws (Schedule B).

The guidelines, standards, and criteria as set out in Schedule 'A' of the MOU provide a reliable and acceptable mechanism for RDN decision-making with respect to the approval, modification, or rejection of proposals based on their impact on fish, wildlife, and related habitat areas.

In order to facilitate the cost-effective and timely protection of fish and wildlife habitat, and sensitive ecosystems, as it pertains to this agreement, DFO and MELP agree to:

- Joint consultations where the RDN is unable to make a decision without technical assistance;
- Contribute the necessary support to update existing and prepare new model practices guidelines on how to avoid harm to the environment; and
- Provide for the timely review of applications.

The scope of the MOU may be expanded to include other environmental management issues and resources, with the concurrence of all signatories. These may include groundwater initiatives, stormwater management initiatives, section 9 of the *Water Act* process, and coordinating subdivision approval. The agreement also includes a dispute-resolution mechanism to address any unresolved conflicts.

Program activity areas and program priorities

Key program areas as they pertain to conservation include data management and sharing, establishing a process framework, training, community stewardship, environmental policy review, waste management and enforcement.

Status of the initiative

This is a new initiative. Its implementation between the three partners will be on-going.

Information sources

Memorandum of Understanding, Intergovernmental Partnership Agreement for the Protection of Environmentally Sensitive Areas (ESA) 2000/2003. On line at:

http://wlapwww.gov.bc.ca/vir/pa/rdn_2000mou6.htm

Project partners

Regional District of Nanaimo, Vancouver Island Region Ministry of Environment, Lands and Parks (Now WALP) and Fisheries and Oceans Canada (Habitat and Enhancement Branch, South Coast Area Nanaimo, BC).

4.8 Sponsors: Regional District of Nanaimo

4.8.1 Program name: Growth Management Plan

Program scope and objectives

The Regional District of Nanaimo's ([RDN](#)) regional growth strategy, known as the Growth Management Plan, remains the framework for planning and implementation activities in the region.

Program activity areas and program priorities

RDN staff, in conjunction with a committee of residents appointed by the regional board, has developed a comprehensive system to monitor and track the progress of the growth strategy. The tracking program includes a variety of indicators to gauge progress and represents a major step forward in monitoring the effects of the growth strategy.

The RDN board approved terms of reference for the regional growth strategy five year review in January 2001. The review is currently underway and will consider whether any changes need to be made to the growth strategy to enhance the region's ability to realize its vision and goals. Topics being examined from a conservation perspective include methods of improving the level of environmental protection at the regional level.

A series of public meetings were held in fall 2001 to obtain public input on possible changes to the strategies and the board is presently considering the results of the technical analysis of the key topics as well as the public feedback.

Status of the initiative

The initiative is in progress.

Information sources

The RDN's 2000 Annual Report on the Growth Management Plan, which uses the newly developed set of indicators, has been complete and is available from the RDN upon request. Work on the 2001 Annual Report is presently underway.

Up-to-date information about the regional growth strategy monitoring system, the RGS review program and the RDN's annual report is available from the regional district's website: <http://www.rdn.bc.ca/>.

Around the Regions Update February 2002, MCAWS website: <http://www.marh.gov.bc.ca/GROWTH/JAN2002/regions.html#RDN>

Project partners

RDN and local government and community members/organizations.

4.9 Sponsors: City of Nanaimo

4.9.1 Program name: Nanaimo Area Land Trust Initiative

Program scope and objectives

The Nanaimo Area Land Trust initiative exemplifies the shift that is occurring to community-based stewardship initiatives. More and more these initiatives are being supported by different levels of government and funding agencies. Often focused on ecological restoration of, and education about, riparian areas, stewardship groups spread a local conservation ethic on a neighbourhood or watershed basis (Curran 1999, 56).

A land trust is an organization which has the authority to set up conservation covenants, and to designate and monitor land use agreements in perpetuity. The land trust can set trusteeship agreements on behalf of land owners. A variety of lands may benefit from trust agreements. These may include:

- urban green spaces
- agricultural or forestry lands
- special habitat areas
- integrated land use designs
- co-housing ventures

The Nanaimo Area Land Trust (NALT) seeks, "To identify, preserve and foster the stewardship of areas of natural beauty, valuable wildlife habitat and urban green space in the Nanaimo area".

The Land Trust is a group of local residents who came together to form a community land trust organization because of mutual concerns about decimation of natural lands within the Nanaimo area. NALT became a registered society in 1995, and was subsequently granted the right to hold conservation covenants and charitable tax status. The organization currently holds one conservation covenant on an environmentally sensitive property, held jointly with the Rosewall-Bonnel Land Trust, and is working with six other property owners in Nanaimo who are pursuing conservation covenants on their properties.

Program activity areas and program priorities

The City of Nanaimo works with a number of community organizations on specific initiatives and events. The City partners with the Nanaimo Area Land Trust initiative Project 2000 to coordinate a public information and education program on the watercourses in the municipality. The City and Project 2000 may partner with other local groups on a stream-by-stream basis to host local information sessions and produce fact sheets.

Under Project 2000, the Stream Team program trains secondary and post-secondary students, through the Streamkeepers Workshop, to participate in hands-on watershed conservation and education activities. Publicized as providing career-related experience, Stream Team members also develop a personal watershed ethic and work with elementary school students and the public to promote conservation.

Status of the initiative

In addition to Project 2000, there are projects underway for the Winchelsea Islands and Nanaimo River.

Information sources

Curran 1999, 56

NALT website: <http://www.nalt.bc.ca/>

Nanaimo Area Land Trust, Suite #8 - 140 Wallace Street, Nanaimo, BC V9R 5B1, Canada

Project partners

City of Nanaimo, the Nanaimo Area Land Trust, and other local groups.

4.10 Sponsors: City of Nanaimo, WALP and DFO

4.10.1 Program name: Memorandum of Understanding for Cooperation on Environmental Matters

Program scope and objectives

The objectives of the Memorandum of Understanding (MOU) are to:

- Clarify responsibilities and areas of jurisdiction regarding environmental issues in the city of Nanaimo, including land use, development, projects initiated by the City, matters under the mandate of the Provincial Government (WALP) and enforcement of bylaws and provincial and federal legislation.
- Improve existing systems of referral and expedite decision-making within the various levels of government on matters of environmental concern in Nanaimo.
- Clarify the objectives and standards to be met with respect to achieving a sustainable and healthy natural environment in Nanaimo.
- Provide for sub-agreements on specific topics or procedures respecting environmental management in Nanaimo.

Program activity areas and program priorities

City of Nanaimo, Sub-Agreement A: This Sub-Agreement addresses the coordination of meetings among the three parties to review major or special City-based projects, annual work plans or development applications of environmental concern and to resolve outstanding issues of concern.

City of Nanaimo Sub-Agreement B: This Sub-Agreement addresses referrals of land development applications in the City to the WALP and DFO. The agreement applies to the review of all applications for development in the proximity of a watercourse or any other Environmentally Sensitive Area (ESA) in the City of Nanaimo as indicated in Schedule B in Bylaw 6000, the Official Community Plan or Schedule G of Bylaw 4000, the Zoning Bylaw. 'Development applications' include stream restoration and enhancement as well as subdivision, rezoning, Development Permits, and Building Permits.

Status of the initiative

This is a new initiative and will be an on-going partnership between the signatories.

Information sources

City of Nanaimo – MOU for Cooperation on Environmental Matters in the City of Nanaimo. On line at: http://wlapwww.gov.bc.ca/vir/pa/nan_mou.htm

Sub-agreement A: http://wlapwww.gov.bc.ca/vir/pa/nan_subamou.htm

Sub-agreement B: http://wlapwww.gov.bc.ca/vir/pa/nan_subbmou1.htm

Project partners

Signatories to the MOU are the City of Nanaimo, BC Environment, Vancouver Island Region, and Fisheries and Oceans Canada.

4.11 Sponsors: Regional District of Nanaimo and City of Nanaimo

4.11.1 *Program name: Environmentally Sensitive Areas Atlas*

Program scope and objectives

The Environmentally Sensitive Atlas is a computer-generated tool that integrates property boundaries, land parcels, and road networks with the location of environmentally sensitive areas. The information contained in the Atlas makes it easier for agencies and individuals to see whether a piece of property is considered to be environmentally sensitive or contains any of these features.

The Atlas is produced at a scale of 1:11,000 for easy access, quick reference and to minimize reproduction costs. The Atlas can be viewed or copies can be purchased at the offices of the Regional District of Nanaimo (RDN).

Program activity areas and program priorities

Current RDN Environmental Initiatives: The RDN is currently involved in several joint initiatives with Fisheries and Oceans Canada and the Ministry of Environment, Lands and Parks. A *Memorandum of Understanding* has been drawn up between these three levels of government. This agreement is intended to develop and implement a new collaborative process for the efficient delivery of services in the areas of environmental permitting and protection.

The RDN has been working with Central Vancouver Island (CVI) Mapping (Community Fisheries Development Centre) to ground truth watercourses in some of the electoral areas within the RDN. CVI Mapping has recently finished working in Area 'A' and will begin work in Area 'H' in the spring of 2000. The information gathered by CVI Mapping will be used to update the ESA Atlas and to define watercourse protection development permit areas in OCPs.

The City of Nanaimo: The City of Nanaimo has identified and mapped sensitive areas which include environmentally sensitive areas, floodplains, agricultural land, forested land, slopes of 10 degrees or more, and sites with archaeological potential.

When a development application involves a sensitive area, the application is reviewed by the environmental planner and site-specific negotiations ensue.

If recommended by the environmental planner or MELP, an environmental monitor may be retained to ensure high standards of environmental protection during construction. The environmental monitor may modify or stop construction in the case of non-compliance with development permits or plans.

The City of Nanaimo developed *Guidelines for Municipal Works and Services In and Adjacent to ESAs* which provide detailed protocols for planning and constructing new municipal works, maintenance and operation of infrastructure, and construction emergencies. For example:

- In wooded ESAs: clearing should not exceed 10% of the area, should be confined to the outer portions of the leave strip, and must not be on slopes greater than 50%.
- No chemical herbicides or soil sterilants can be used to control vegetation in ESAs (Curran 1999, 27).

ESA work is also being conducted in the District of Highlands, District of Saanich, District of North Vancouver, City of Burnaby, Township of Langley, (Curran, 1999, p 27).

Status of the initiative

On-going

Information sources

RDN website: http://www.rdn.bc.ca/planning_dev/enviro_protection.asp

Curran 1999, p 27.

RDN Planning Department. Phone: 250-390-6510 Fax: 250-390-7511 E-mail: planning@rdn.bc.ca

Project partners

In 1997 the Environmentally Sensitive Areas (ESA) Atlas was developed in partnership with the Regional District of Nanaimo (RDN), former Ministry of Environment, Lands, and Parks (MELP), Canadian Wildlife Service (CWS) and the Department of Fisheries and Oceans (DFO).

4.12 Sponsors: Regional District of Nanaimo and City of Nanaimo

4.12.1 Program name: Development Permit Areas for the Protection of the Environment

Program scope and objectives

The Municipal Act allows local governments to designate Development Permit Areas (DPAs) and guidelines in Official Community Plans (OCPs) for protection of the natural environment, its ecosystems and biological diversity and the protection of development from hazardous conditions.

Proposals for development within a DPA must obtain a permit to undertake any work. Each municipality establishes guidelines or other criteria by which permits, including conditions of development, will be issued. DPAs are often used to designate ESAs and watercourses. DPAs for watercourses (lakes, rivers, streams, wetlands) include the bed and bank of the watercourse, and any defined leave strips (Curran 1999, 28).

Each of the nine OCPs in the RDN includes sections identifying areas where development permits are required prior to the commencement of development. The development permit is issued in keeping with the various guidelines laid out in the OCP.

Program activity areas and program priorities

The City of Nanaimo has created *Watercourse Development Permit Area Guidelines* regulating development within DPA #23 - Watercourses. The objectives of the Watercourse DPA are to:

- regulate development activities in watercourses and their leave strips so as to protect aquatic habitat, and prevent erosion and slope instability; and,
- conserve, enhance, and, where necessary, restore watercourses and their leave strips.

In addition to construction, development includes: cutting or removing trees, grading, removing and depositing soil or other material, and installing services.

The City lists the detailed requirements for development permits, and the criteria by which applications will be assessed.

Before or in addition to encroaching on the leave strip, the applicant and City must explore the possibility of varying other land requirements under the Zoning Bylaw, such as setbacks, to minimize the encroachment.

Development may be allowed in the leave strip to protect other environmental features, including building on a rocky shoreline to protect a stand of trees on the other side of the property. Mitigation and compensation requirements may be required in a development permit. Council will consider reducing development permit fees for projects involving in-stream restoration and enhancement only, such as projects by non-profit organizations (Curran 1999, 28).

Other DPA work is occurring in the City of Kelowna, District of North Vancouver and Resort Municipality of Whistler.

Status of the initiative

On-going.

Information sources

RDN: Go to the link, '[Watercourses in the RDN](#)' to see brochure regarding development permit areas.

Main RDN website: http://www.rdn.bc.ca/planning_dev/enviro_protection.asp

City of Nanaimo: *Watercourse Development Permit Area Guidelines* regulating development within DPA #23

RDN's Planning Department. Phone: 250-390-6510 Fax: 250-390-7511 E-mail: planning@rdn.bc.ca

4.13 Sponsors: DFO, Habitat Conservation Stewardship Program

4.13.1 Program name: Cowichan Tribes Sensitive Habitat Atlas

Program scope and objectives

The Habitat Steward (DFO) has been working on the production of a Sensitive Habitat Atlas for the Cowichan Indian Reserves. The Atlas is a GIS based product with layers consisting of the 1999

orthophoto, SHIM, TRIM, cadastre, Sensitive Ecosystem Inventory, and cultural and traditional use areas.

Cowichan Tribes is the largest band in BC and as such has a growing population which requires housing. Much of the reserve land is within the floodplain of the Cowichan and Koksilah Rivers. The reserve is divided up, much the same as private lands, into individual parcels. Locatees holding a certificate of possession for a parcel of land, often wish to develop the property either for a residential use or for a commercial lease. The Atlas is a planning tool to assist Cowichan Tribes department staff in assessing potential impacts to sensitive features of the reserve.

Recommendation from the *Cowichan Tribes HCSP Summary Report*: The Atlas will need to be updated as additional sensitive areas are identified. Funding to conduct the updates will need to be acquired on an as needed basis

The Cowichan Tribes Sensitive Habitat Atlas is built as a seamless product with the Cowichan Valley Regional Districts Environmental Planning Atlas.

The *Cowichan Tribes HCSP Summary Report* outlines that the Cowichan Tribes has, over the past three years (1999-2001), developed the capacity to interact with other local levels of government. Recently, a meeting with the District of North Cowichan was held to increase awareness of projects and undertakings of respective agencies at the staff level. This process provided numerous action items and identified areas of potential co-operation. The Cowichan Tribes are also involved with the Central Sector Liquid Waste Management Plan. The Habitat Steward sits on this Committee and reviews the associated planning processes.

Recommendation from the *Cowichan Tribes HCSP Summary Report*: Both the CVRD and the City of Duncan need to be approached to hold a similar meeting, to that of the District of North Cowichan, to increase communication at a staff level.

Program activity areas and program priorities

Several teams have assisted the Habitat Steward in conducting an inventory and mapping all watercourses on the reserve to SHIM standards, using TRIM base maps and GPS-based stream identification. This information will be a layer in the Cowichan Tribes Sensitive Habitat Atlas. Additional information has been compiled on sensitive ecosystems for the Atlas. Training and detailed assessment procedures have been provided by CWS (Peggy Ward) and Nancy Turner.

Recommendation in the 2001 Summary Report:: Using the Sensitive Habitat Atlas and SHIM information a fish production plan will be produced over the next two years by the Habitat Steward.

Status of the initiative

The Cowichan Reserve Habitat Atlas is completed but needs to be refined. It will be available as a PDF file.

Information sources

Cowichan Tribes HCSP Summary Report 2000-2001. Fisheries and Oceans Canada. HCSP Contribution Agreement No. F1528-CA99-0010. Cheri Ayers, Habitat Steward, Cowichan Tribes. On line at:

<http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hcsp/areas/reports/scoast/ayers.pdf>

- This report outlines information on the Cowichan Tribes Sensitive Habitat Atlas.

Contact: Peggy Ward, CWS.

Project partners

CWS, HCSP (DFO).

Funding sources

Funding for the inventory and mapping work comes from HRDC, Habitat Conservation Stewardship Program (DFO).

4.14 Sponsors: Cowichan Valley & GBEI

4.14.1 *Program name: Cowichan Data Integration Pilot Project*

Program scope and objectives

The Integrated Data Management Initiative (IDMI) envisions the implementation of a sustainable process for improving the integration, delivery and accessibility of environmental information within the Province of British Columbia. The fundamental premise of IDMI is that improved integration and access to environmental information will result in better environmental decisions. In order to focus improvement efforts, the information needs of environmental information users must be harnessed. These can then be used on a priority basis to drive data acquisition, quality, integration and delivery efforts.

The Cowichan Data Integration project is a part of the IDMI initiative. The Cowichan project provides a variety of users with easy and effective access to a broad range of environmental information and data sets related to the Cowichan Valley. The goal is to have readily available information that supports local governments, related Ministry (e.g., MSRM) business processes, inter-agency planning teams, First Nations and community groups.

Program activity areas and program priorities

The 2-year project has actively engaged community interests through a Community Advisory Group, and will provide valuable insights on the broader issue of integrated data and information management, and access throughout the Georgia Basin and elsewhere in BC.

The Community Advisory Group's role is to provide guidance to MSRM (formerly, BC MELP) and Environment Canada's Integrated Data Management Initiative (IDMI) on products and services developed to improve environmental and land-use planning in the Cowichan Valley.

Work is currently underway on seven priority data sets: stream locations, fish presence, private cadastre, sensitive ecosystem inventory, water quality, water quantity, water users, and a pilot web-based access tool to these data sets is scheduled for September 2001.

In early May 2001, members of the Community Advisory Group of the Cowichan Valley Integrated Data Management Initiative (composed of representatives of federal, provincial, First Nation, regional governments and other key stakeholders), met in Duncan to review three data delivery tools:

- a printable CD-ROM of the Cowichan Valley Environmental Planning Atlas,
- an interactive CD of the Cowichan Valley Environmental Planning Atlas and

- a prototype of a web-based tool for interacting with digital maps and data.

Status of the initiative

The project will end in 2002 depending on access to further funding sources.

Information sources

Integrated Data Management Initiative website:

<http://www.pserc.gov.bc.ca/innovation/CaseStudies/csImprovedIntegration.htm>

Cowichan Data Integration Pilot Project:

<http://www.elp.gov.bc.ca/isb/xgovprojects/idmi/index.html>

Project partners

The Ministry of Sustainable Resource Management (formerly Environment, Lands and Parks) has taken the lead in establishing an interagency steering committee to help guide the initiative. Currently, the committee includes representatives from Ministry headquarters and regions, Environment Canada and the Department of Fisheries and Oceans. Additional participants at this time include the Ministries of Agriculture, Food and Fisheries and Forests, and the Cowichan Valley Regional District. A separate Community Advisory Group has also been established within the Cowichan Valley to provide guidance in setting data priorities and direction to the pilot portion of the initiative.

Funding sources

Funding sources include MSRM, Environment Canada, and Fisheries and Oceans Canada.

4.15 Sponsors: Habitat Conservation Stewardship Program - Fisheries and Oceans Canada

4.15.1 Program name: Cowichan Tribes Habitat Protection and Restoration Plan

Program scope and objectives

Cowichan Tribes Habitat Protection and Restoration Plan identifies areas on the reserve needing protection, means for protection, and plans for restoration. The Plan focused on sensitive ecosystems identified through the Sensitive Ecosystems Inventory (SEI) (see section below). For these areas, additional information was collected at a more detailed level and scale. The Cowichan Tribes Habitat Steward works with two other positions funded under HCSP, Agricultural Steward and internal DFO Habitat Auxiliary.

Program activity areas and program priorities

The Habitat Steward worked with DFO Habitat Enhancement Branch Restoration staff and completed the second phase of the Four-Side Channels Restoration Project. This project secured a water source and restored habitat to over 2 km of Cowichan River side channel habitat. Other habitat protection projects include the use of BMP's for storm-water and sediment and erosion control for a 27-lot subdivision on the Cowichan Tribes reserve.

Recommendation in the 2001 Summary Report: Continue the process of restoring side channel habitat on both the Cowichan and Koksilah Rivers.

Status of the initiative

Four-Side Channels Restoration Project is a 3-year project ending in 2003.

Information sources

Cowichan Tribes HCSP Summary Report, 2000-2001. Fisheries and Oceans Canada. HCSP Contribution Agreement No. F1528-CA99-0010. Cheri Ayers, Habitat Steward, Cowichan Tribes. On line at:

<http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hcsp/areas/reports/scoast/ayers.pdf>

- This report documents the Cowichan Tribes Habitat Steward activities over the 2000-2001 fiscal year and makes recommendations to guide work plan development for the next year (2002-2003).

Contacts include:

- HCSP Habitat Steward, Cheri Ayers, Cowichan Tribes
- Jana Kotaska, Environmental Advisor, Cowichan Tribe

Project partners

DFO through HSCP and HR SEP.

Funding sources

Side channel funding from HRSEP, Fisheries Renewal, Pacific Salmon Foundation, HSCP (HEIR program), DFO (HEB).

4.16 Sponsors: District of Saanich

4.16.1 Program name: Environmentally Significant Areas Inventory

Program scope and objectives

ESAs are natural areas that are sensitive, rare, or in danger of disappearing. ESAs include watersheds, watercourses, aquatic habitats, marine foreshore and nearshore, mature and old growth forests, wildlife trees, habitat, rare woodlands, and special land forms such as cliffs and coastal forms.

Program activity areas and program priorities

Inventory: District of Saanich conducted an Environmentally Significant Areas Inventory (ESA) from 1997 to 1999 using global positioning system (GPS) fieldwork. The first of its kind in Canada, the environmental atlas was developed by Saanich's environmental planner with assistance from six University of Victoria students and many volunteers.

The ESA inventory focuses on stream and riparian zones, and provides data on the plant, tree and shrub layer of those zones. More accurate than many environmental maps developed from aerial photographs, the resulting sensitive ecosystems atlas identifies the "green infrastructure" for the municipality, areas which will be subject to stricter development standards. It will also be used to amend existing and develop new bylaws (watercourse, blasting, fill and sediments control), and possibly a DPA.

The ESA is considered to be a work in progress. The vegetation layer is incomplete but many Garry Oak habitats are identified by the Conservation Data Centre because of their rarity on a subnational or provincial level.

The ESA identifies degraded areas that require restoration or the re-establishment of riparian vegetation around watercourses.

This information, together with the CRD Green/Blue Spaces Strategy, form the basis of the municipality's strategy to protect natural areas. A citizen advisory committee has been established to assist the staff working group to prepare the comprehensive strategy. (Curran 1999, 27).

Staff Education on ESAs: The District of Saanich has initiated staff education efforts with a workshop introducing their ESA inventory and how staff can use it. The municipality will produce a booklet in 1999 for the Public Works and Engineering departments on how to work around small streams. The booklet will be accompanied by a training session. In addition, Saanich Environmental Services and the Eco-Research Chair at the University of Victoria held a workshop in April, 1999 on integrating ecological and stormwater management, as well as demand management for water conservation. Both municipal staff and elected councilors were invited from the region. (Curran 1999, 31)

Status of the initiative

This initiative will be continued.

Information sources

Curran 1999, 27, 31.

Funding sources

Funding sources: Provincial government, Fisheries and Oceans Canada, The Real Estate Foundation of British Columbia (\$108, 000) (Curran 1999, 27).

4.17 Sponsors: District of Highlands

4.17.1 *Program name: Environmental Protection Areas*

Program scope and objectives

The District of Highlands has added to the Sensitive Ecosystems Inventory for the East Coast of Vancouver Island by conducting watershed assessments to provide detail that includes small-scale watercourses, ponds and wetlands.

Program activity areas and program priorities

The municipality has used this SEI information to develop Environmental Protection Areas which include:

- lakes, watercourses, or wetlands (seasonal or year round);
- a riparian area (land and vegetation generally within 30 metres of a lake, watercourse or wetland although the actual riparian area may be within 5 or 100 metres);
- essential habitat areas containing rare, threatened, endangered or otherwise significant plant or animal species;

- hazard lands; and,
- an area of exceptional aesthetic value to the community.

Status of the initiative

On-going.

Information sources

Curran 1999, 27

4.18 Sponsors: Comox Valley Project Watershed Society and the Local, Provincial and Federal Government

4.18.1 Program name: Sensitive Habitat Stewardship Program

Program scope and objectives

Comox Valley Project Watershed Society was established in 1993 by a small group of citizens concerned by declining fish stocks, water quality, and urban development in local watersheds. Currently, the organization focuses on three program areas: Sensitive Habitat Stewardship, Baynes Sound Stewardship, and Streamkeepers.

The mission of Project Watershed is "To promote community stewardship of Comox Valley watersheds through education, information and action." The Society sees community watershed stewardship as "people working together and acting upon their collective sense of responsibility to take care of local aquatic environments." The organization is guided by an eight member volunteer board. Its AGM takes place every March.

Program activity areas and program priorities

The Sensitive Habitat Stewardship Program provides accurate and current sensitive ecosystems information to local governments and community members in order to effect better protection and restoration efforts in the Comox Valley region. Current mapping and inventory field work includes:

- **Sensitive Habitat Inventory and Mapping:** Accurate watercourse locations, salmon and trout presence and sensitive habitat features of urban streams are mapped using standardized procedures. (See section on SHIM: <http://www.shim.bc.ca/method2.html>)
- **Urban Salmon Habitat Program Assessments:** Fish habitats are assessed using standardized procedures and reports describe watershed problems and recommend remedial efforts. This work results in detailed biophysical descriptions of streams and wetlands that aid in land-use decision making and watershed planning.
- **Comox Valley Sensitive Habitat Atlas:** Mapping (Arcview Smart Maps), inventory and assessment data is compiled, digitized and used to update and expand the Comox Valley Sensitive Habitat Atlas. The Atlas was first published in 1995 in conjunction with local, provincial and federal governments. It is estimated that 20-30% of all streams in the valley are not mapped. Of those that are mapped, many habitat records are of limited accuracy. This project provides current, accurate maps and data to decision-makers, citizens, government agencies and volunteer stewardship groups in a user-friendly format.
- **Community partnership:** A network of community mapping and stewardship groups has been developed, along with a protocol for information exchange. The purpose of this activity is to increase public awareness of and involvement in watershed stewardship and to establish a process to recruit new stewards, and to organize their activities in meaningful ways.
- **Landholder Stewardship Projects:** A follow-up to initial stream surveys that provides information about habitat and stewardship options to landowners. This project creates an appreciation of the significance of habitats on

private land, and wherever possible, to establish voluntary stewardship agreements, in which the landowner agrees to protect, restore and/or monitor the habitats found on their property.

Status of the initiative

This initiative is currently underway and will continue based on further funding.

Information sources

Projects discussed above and others are located at <http://www.projectwatershed.bc.ca/projects.htm>

Project partners

Projects are based on collaboration with citizens, other non-profit organizations, local businesses, and the local government agencies.

4.19 Sponsors: Regional District of Comox-Strathcona, WALP and DFO

4.19.1 *Program name: Memorandum of Understanding - Intergovernmental Partnership Agreement for the Protection of the Environment*

Program scope and objectives

The purpose of the Memorandum of Understanding - Intergovernmental Partnership Agreement for the Protection of the Environment (MOU) is similar to that of the RDN. The MOU is a statement of intent on the part of the signatories to continue with the development and implementation of a process focusing on a more efficient collaborative delivery in environmental permitting and protection. Several key objectives are sought for the delivery process:

- Increase trust among the signatories;
- Replace existing agency-by-agency referral approach;
- Achieve the benefits of collaboration;
- Boost the effective use of resources;
- Result in sharing of information and technical support;
- Continue to foster the development of a shared resource database;
- Use applicable agreed-upon guidelines, criteria, and standards as set out in attached Schedule "A", and its updates;
- Include a dispute-resolution mechanism to address any unresolved conflicts;
- Use existing legislation; and
- Result in no increased costs to any signatory.

Program activity areas and program priorities

The focus of the process is to continue the previous work in building a cooperative framework for environmental assessments to support the protection of designated aquatic, fish, and wildlife habitats along with water management and pollution prevention approvals, licenses and permits.

It is also accepted that the scope of the MOU may be expanded to include other environmental resources, with the agreement of all signatories. The process will apply to all lands within the Regional District of Comox- Strathcona zoned for various residential, commercial, industrial, institutional and agricultural uses. The signatories agree that their participation in the process is

voluntary and no financial incentive to participate has been implied or offered by any of the signatories, or their respective organizations.

Status of the initiative

The term for this initiative is for 3 years from the date of signing (2000).

Information sources

Memorandum of Understanding, Intergovernmental Partnership Agreement for the Protection of the Environment Between: Regional District of Comox-Strathcona, WALP and DFO. On line at:

http://wlapwww.gov.bc.ca/vir/pa/rdcs_2000mou1.htm

Project partners

Regional District of Comox-Strathcona, WALP and DFO

4.20 Sponsors: Regional District of Comox Strathcona & GBEI Partners

4.20.1 Program name: Implementation Guide to Prevent Coastal Habitat Loss and Degradation in the Regional District of Comox Strathcona

Program scope and objectives

With support from the GBEI partners, the Regional District of Comox Strathcona is leading the development of an Implementation Guide for the Prevention of Coastal Habitat Loss and Degradation.

Program activity areas and program priorities

The project aims to help improve management of the coastal zone in this area of eastern Vancouver Island and has the potential to serve as a pilot for other areas. It will integrate information on the processes and systems that shape coastal areas and help direct use of local government measures to protect them

Status of the initiative

A new initiative under the GBEI.

Information sources

GBEI website: http://www.pyr.ec.gc.ca/GeorgiaBasin/gbi_news/action_plan_2000-01.htm

Project partners

RDCS in partnership with the GBEI.

Funding sources

Funding sources include the GBEI.

4.21 Sponsors: Regional District of Comox Strathcona & Cowichan Valley

4.21.1 Program name: Vancouver Island Wetland Management Program

Program scope and objectives

The Vancouver Island Wetland Management Program was formed in 1991 by the Canadian Wildlife Service, along with several other partners (The Nature Trust of British Columbia, Ducks Unlimited Canada, Ministry of Environment, Lands, and Parks, Habitat Conservation Trust Fund, community groups, landowners, and several government agencies).

The purpose of the program is to promote and implement management, stewardship, restoration, and enhancement of fish and wildlife habitat on Vancouver Island. Activities are coordinated through a Wetlands Manager which include:

- establishing Crown reserves and Wildlife Management Areas,
- developing land management plans with agencies and community groups,
- identifying land securement opportunities, and
- preparing workshops and resource materials.

Program activity areas and program priorities

Under the auspices of the Vancouver Island Wetland Management Program (VIWMP), new stewardship projects have been underway in the Comox and Cowichan Valleys. The goal is to work with landowners to ensure the long-term conservation of the areas for wildlife, in particular wetland species.

In 1998 the program involved working with community groups in the Comox area to implement the Sensitive Ecosystem Inventory, greenways planning, and conservation covenant enforcement. Some of these initiatives are still underway.

Currently, the VIWMP is developing a co-management plan in the Cowichan Valley for the Somenos basin and working with landowners, including the Cowichan Tribes, to design a drainage strategy for the basin and interpret vegetative changes and bird use of the Cowichan Valley.

Status of the initiative

The initiative in Cowichan is on-going.

Information sources

Canadian Wildlife Service website: http://www.pyr.ec.gc.ca/wildlife/habitat/stewardship_e.htm

Further information on this program can be obtained from The Nature Trust of British Columbia.

Project partners

The Canadian Wildlife Service, The Nature Trust of British Columbia, Ducks Unlimited Canada, Ministry of Environment, Lands, and Parks, Habitat Conservation Trust Fund, community groups, landowners, and several government agencies.

Funding sources

Various sources of funding exist based on project partner contributions (funding and in-kind services).

4.22 Sponsors: Canadian Wildlife Service and Ducks Unlimited Canada

4.22.1 Program name: Comox Valley Waterfowl Management Project

Program scope and objectives

This program began in September 1991 to manage over wintering Trumpeter Swans in the Comox Valley by integrating both swan and farmer needs with a goal to reduce impacts on agricultural operations.

Program activity areas and program priorities

The program consists of a winter cover crop program, moving swans off sensitive grass fields, community education, as well as evaluating various swan management techniques. Winter cover crops are short duration crops (grasses) that are planted after summer/fall harvesting to provide forage (food) for Trumpeter Swans while improving soil structure and reducing soil erosion. The cover crops also serve to lure swans away from perennial grass fields.

Status of the initiative

The initiative began in 1991 and is on-going.

Information sources

Canadian Wildlife Service website: http://www.pyr.ec.gc.ca/wildlife/habitat/stewardship_e.htm

Project partners

The Canadian Wildlife Service, Ducks Unlimited Canada, farmers in the Comox Valley, Vancouver Island, Comox Strathcona Natural History Society, staff of the Ministry of Agriculture and Food, the Comox Valley Farmers Institute.

Funding sources

There are various funding sources including CWS and Ducks Unlimited.

4.23 Sponsors: Islands Trust Fund & Islands Trust

4.23.1 Program name: Landscape Planning

Program scope and objectives

Regional Conservation Planning is a process to identify conservation priorities in the context of large ecological systems and human use of the landscape. In order to begin developing a Regional Conservation Plan, three steps were needed:

- Collect all known environmental information and convert into a Geographical Information System (GIS) format;

- Through air photo interpretation (from the year 2000) describe all land cover on all the islands by adding polygons to the current Sensitive Ecosystem Inventory (SEI); and
- Analyze the information to determine areas of high conservation value, areas where more information needs to be gathered and areas of likely high conservation value but confirmation is required

Critical to the success of program is the development of a working relationship with other agencies who are developing similar mapping projects. This ensures that no duplication of effort occurs and that information can be shared and transferred.

Program activity areas and program priorities

Islands Trust Fund is working with and asking for input on this process from conservancies, planners, government agencies and the general public. The following are the key activity areas:

- **Environmental Information Management System (EIMS):** With the completion of this program the region will have a scientifically defensible product that highlights key areas of conservation value. The end product of this program will be a GIS based product, called the Environmental Information Management System (EIMS), allowing users to overlay and visually comprehend a number of complex informational patterns. It allows the user to see current land use patterns combined with critical habitat areas.
- **Crown land profiles are also being developed:** This project involves the creation of a map-based information sources in cooperation with numerous Provincial Ministries, First Nations and island community organizations.
- **Terrain Ecosystem Mapping (TEM):** The system of mapping will be the BC government's terrain ecosystem mapping. TEM is the stratification of a landscape into map units, according to a combination of ecological features, primarily climate, physiography, surficial material, bedrock geology, soil, and vegetation.

Status of the initiative

- The initiative is new and currently underway. A strategic plan is outlined for 2002-2003: http://www.islandstrustfund.bc.ca/Regional_Conservation_Plan/Index.htm. The EIMS system is currently being developed. The plan is to launching the tool by the end of 2003.

Information sources

Islands Trust Fund information and projects: <http://www.islandstrustfund.bc.ca/>

The Regional Conservation Plan outlines the vision, program, product, strategic timeline. The plan is available on line: http://www.islandstrustfund.bc.ca/Regional_Conservation_Plan/Index.htm

EIMS: <http://www.asu.edu/caed/proceedings99/ALLEN/ALLEN.HTM>

TEM: <http://www.env.gov.bc.ca/rib/wis/tem/descript.htm>

Contact: Ardice Neudorf, Land Protection Specialist, Islands Trust Fund, Phone: (250) 405-5176. Fax: (250) 405-5155, E-mail: aneudorf@islandstrust.bc.ca

Project partners

Islands Trust Fund and Islands Trust

Funding sources

Funding sources include Islands Trust Fund.

4.24 Sponsors: GBEI and Islands Trust

4.24.1 *Program name: Galiano Island Wildlife Habitat Conservation Project*

Program scope and objectives

The purpose of this project is to strengthen the capacity for community development through the use of GIS technology; to provide an educational, consensus-building process; and, to protect wildlife habitat in the Coastal Douglas Fir Biogeoclimatic Zone through the establishment of habitat conservation objectives within the Island's planning framework.

Program activity areas and program priorities

This project works toward sustainability through its focus on the conservation of healthy habitat. The GIS analysis of Galiano Island's habitat using land-use information and community values will ensure that conservation priorities will reflect the economic, ecological and social components required for sustainability.

The project will provide a process for the exchange of knowledge and environmental data between local organizations, interested individuals and government. The result will be a decision-making tool that will communicate conservation objectives and priorities in the context of land-use, development and community values; and create and test a process that will be promoted for similar communities throughout the Georgia Basin.

Status of the initiative

This is a new process and is currently underway.

Information sources

MCAWS <http://www.marh.gov.bc.ca/LGPOLICY/MAR/RIS/risisle.html>

Project partners

GBEI, Islands Trust, Galiano Island

Funding sources

GBEI partners

4.25 Sponsors: Islands Trust, Galiano, Hornby and Saturna Islands

4.25.1 *Program name: Pilot Marine Stewardship Site Initiative*

Program scope and objectives

In 2000, Islands Trust Council agreed with San Juan County, other levels of government, First Nations representatives, and non-government partners to work together towards the establishment of a trans-border network of marine stewardship areas within the Georgia Basin and Howe Sound region, also known as the Salish Sea.

The Trust Council passed a resolution on September 14, 2001 requesting staff and the Trust Programs Committee to initiate three pilot Marine Stewardship Site Initiatives for Galiano, Hornby, and Saturna islands in cooperation with Fisheries and Oceans Canada for conclusion and report by September, 2002.

Fisheries and Oceans Canada, under the Oceans Act, participates in many integrated management initiatives that promote stewardship and conservation to the benefit of the marine environment.

The purpose of the initiative is to encourage stewardship of three significant marine sites within the trust area. The objectives are to:

- identify at least one significant marine site within each of the Galiano, Hornby and Saturna local trust areas; and,
- develop and implement a site-specific stewardship strategy for each site, in cooperation with community members, stakeholders and other levels of government.

Program activity areas and program priorities

Marine Stewardship Site Advisory Committees are in the process of being formed (starting January 2002) will be formed in each of the three local trust areas (Galiano, Hornby, Saturna) and asked to develop the following two products:

5.1.1..1 1. Reports identifying three Marine Stewardship Sites, to include:

- collation of available information (scientific, local knowledge)
- identification of significant values of sites
- assessment of risks to sites

5.1.1..2 2. Stewardship strategies for three Marine Stewardship Sites

Strategies are to identify actions for all participants and may include all or some of the following:

- awareness program (i.e. signage, mapping)
- Educational program (i.e. brochures, educational programs)
- stewardship actions (i.e. volunteer wardens, community monitoring, voluntary limits on harvesting)
- non-regulatory designation (Local Trust Committee bylaws)
- regulation (by other levels of government)

Priorities of key bodies for 2002 include:

- Identify site selection criteria, Advisory Committees, December/01 - January/02
- Identify specific stewardship site, Advisory Committees, January-February/02
- Confirm stewardship site selection, Local Trust Committees, Executive Committee, Fisheries and Oceans Canada for February/02
- Develop stewardship strategy, Advisory Committees in consultation with partners, February-April/02
- Develop two further protocol agreements: with San Juan County to promote a Transborder Marine Stewardship Area and with the Land Reserve Commission on interagency referrals.

Status of the initiative

This is a new initiative and will be continued as an agency priority.

Information sources

General site: <http://www.islandstrust.bc.ca/default.htm>

Marine site:

[http://www.islandstrust.bc.ca/Organization/trust_area_programs/Marine Stewardship Site Initiative/Index.htm](http://www.islandstrust.bc.ca/Organization/trust_area_programs/Marine_Stewardship_Site_Initiative/Index.htm)

Winter 2002 Update: http://www.islandstrust.bc.ca/Organization/Highlights_Updates/Winter2002.pdf.

Project partners

Local Trust Committees, Local Advisory Committees (appointed by Local Trust Committees), Fisheries and Oceans Canada, local citizens and groups, First Nations, provincial and regional government agencies, non-governmental organizations (i.e. conservancy and resource user groups)

Funding sources

Funding sources derive from project partners listed above.

4.26 Sponsors: Islands Trust

4.26.1 Program Name: Natural Areas Protection Tax Incentive

Program scope and objectives

The program seeks to provide a property tax incentive for the voluntary stewardship of natural areas by private landowners within the Trust Area.

Program activity areas and program priorities

The plan is to commence a project on Gambier Island under an agreement between Islands Trust and the Sunshine Coast Regional District. As agreements are made with other regional districts within the Trust Area, the initiative will be expanded. The initiative will be monitored closely and after a period of ten years, the provincial government will evaluate the results and outcomes. An assessment could then be made regarding the value of this alternative approach and its possible expansion to other parts of the province.

Status of the initiative

The Winter 2002 Update states the goal is completion of enabling legislation for the tax incentive encouragement of voluntary stewardship of natural areas on private land.

Information sources

Winter 2002 Update:

http://www.islandstrust.bc.ca/Organization/Highlights_Updates/Winter2002.pdf

Natural Area Protection Tax Incentive Illustration:

http://www.islandstrust.bc.ca/Organization/trust_area_programs/natural_area_protection/Illustration.PDF

Natural Area Protection Tax Incentive Proposal Briefing:

http://www.islandstrust.bc.ca/Organization/trust_area_programs/natural_area_protection/Briefing.PDF

Project partners

Potential partners include: Islands Trust, Sunshine Coast Regional District, other regional districts within the Trust Area, Gambier Island and other Islands in the Trust Area.

4.27 Sponsors: Local to Federal Agencies and Organizations

4.27.1 *Program name: Garry Oak Ecosystem Recovery on Vancouver Island*

Program scope and objectives

There are various projects underway for the protection and recovery of Garry Oak (*Quercus garryana*) ecosystems on Vancouver Island. There are over 20 COSEWIC listed species within this habitat. Several government agencies, regional districts and municipalities as well as community groups are involved. Below is an outline of a sample of the projects.

GOERT: The mandate of the Garry Oak Ecosystems Recovery Team (GOERT) is to prepare and implement a recovery plan for Garry oak and associated ecosystems, and the 91 species at risk that reside in these ecosystems, throughout the Canadian range of the ecosystems.

The recovery program entails a broad and diverse range of activities, including activities involving inventory, mapping, site protection, restoration & management, protection of species at risk, research, public education, and extension.

The scope of GOERT activities are spread throughout southeast Vancouver Island, the Gulf Islands, Savary Island, Sumas Mountain, and near Yale. Activities include portions of municipalities and regional districts in the Georgia Basin, Vancouver Island and Fraser Valley regions.

Nature Conservancy of Canada: Work on Garry Oak ecosystem recovery is being led by the Nature Conservancy of Canada on behalf of the Garry Oak Ecosystem Recovery Team. The project aims to carry out stewardship activities including: coordinate recovery activities; encourage improved management of private and public lands with Garry Oak ecosystems; foster improved public awareness of Garry Oak ecosystems and related conservation issues; and undertake applied research that directly leads to improved stewardship and restoration activities.

Garry Oak Meadow Preservation Society: The Garry Oak Meadow Preservation Society (GOMPS) formed in 1992 due to local citizen concern over disappearance of woodlands and meadows as a result of development in the Capital Regional District. The society is dedicated to the preservation, protection and restoration of Garry oak stands and their natural habitats. The Society engages in educational activities, lobbying all levels of government and works on habitat restoration. The society is authorized by the Ministry of the Environment to hold conservation covenants.

The scope of the Society's work includes all places in Canada where Garry Oaks are growing. However, the Society's primary focus is in the Capital Region District and the East coast of Vancouver Island.

Garry Oak Restoration Project (GORP): The Garry Oak Restoration Project is a public education program designed to introduce and educate the local residents of Saanich about the significance of Garry oak ecosystems and ecological restoration.

The scope of GORP includes 10 GORP sites and 2 partner sites within the Municipality of Saanich

Program activity areas and program priorities

Garry Oak Reports:

- Fuchs, M.A. 2001. *Towards a Recovery Strategy for Garry Oak and Associated Ecosystems in Canada: Ecological Assessment and Literature Review*. Technical Report EC/GB-00-030. Environment Canada, Canadian Wildlife Service, Pacific and Yukon Region, Delta, BC.

The report provides an overview of information about Garry Oak and associated ecosystems in British Columbia. It is based primarily upon the published literature and to a limited extent upon unpublished documents and consultation with experts. The report stresses ecological information relevant to conservation planning. The intention is to encapsulate the priority issues, summarize the current state of knowledge, and identify knowledge gaps pertaining to biological conservation. The information in the report will inform and direct future conservation efforts with respect to this priority species and associated ecosystems. The report was prepared for the Garry Oak Meadow Preservation Society and the Garry Oak Ecosystems Recovery Team.

- Garry Oak Ecosystems Recovery Team. 2001. *Recovery Strategy for Garry Oak and Associated Ecosystems and their Associated Species at Risk in Canada, 2001-2006*. Draft 20 Feb 2002. Garry Oak Ecosystems Recovery Team, Victoria, BC.

The Garry Oak Meadow Preservation Society assisted in the production of this report.

Current Activities and Projects of the Garry Oak Meadow Preservation Society include:

In addition to helping with the development of the GOERT Recovery Strategy, the Society has completed a tree by tree inventory of all Garry Oaks and their exact locations in Victoria, Oak Bay, Esquimalt and the urban areas of Saanich. This data and maps has been supplied to the relevant municipalities to aid in their planning processes.

GORP's Current Activities and Projects include:

- Mapping, monitoring and restoring GORP demonstration sites;
- hiring of a Volunteer Coordinator and development of a program involving local schools and community groups with the GORP sites through education and hands-on restoration activities;
- formation of and ongoing work with the GEEK Committee (Garry oak Ecosystem Education Kit);
- working on a Photopoint Monitoring system;
- working in partnership with: Camosun College and Campus View Elementary School on restoration sites;
- encouraging private land-owners to acknowledge, appreciate and incorporate Garry oak ecosystems on their private land; and,
- developing GORP website and brochure.

GORP's Completed Activities and Projects: An Inventory and Description of Garry Oak Restoration Project Sites (July 2001); Inventory Maps of each GORP Site; Restoration Kit (Developed to supply equipment and information for Volunteer groups); GORP Project Plan

Securement: Two parcels of land containing rare Garry oak ecosystems have been acquired as part of the ongoing effort to protect the few remaining remnants of this endangered ecosystem.

- Twelve hectares of coastal bluffs on Galiano Island were purchased by the Islands Trust Fund with funding from the Land Conservancy, the Habitat Acquisition Trust, and Environment Canada's Georgia Basin Ecosystem Initiative.
- At Mill Hill Regional Park in Langford, west of Victoria, almost 8 hectares have been acquired by the Capital Regional District Parks, in partnership with Environment Canada's Georgia Basin Ecosystem Initiative and The Nature Conservancy of Canada, to extend the boundaries of Mill Hill Regional Park. This new park land adds a significant area on to the 1,000 hectare Thetis Lake, Francis/King and Mill Hill regional park complex (http://www.pyr.ec.gc.ca/GeorgiaBasin/stories_gbi/Garry_e.htm)

Garry Oak Symposium: The International Garry Oak Symposium brought together the collective expertise of all researchers and managers who work within the Garry Oak ecosystem. The whole Canadian range of this ecosystem is within the Georgia Basin. The goals and objectives were to find out what is collectively known, what is the current work and what management is being applied to preserve the Garry oak ecosystem remnants (GBEI website).

Status of the initiative

On-going.

Information sources

Garry Oak Meadow Preservation Society: <http://www.garryoak.bc.ca/>

Conservation connection: <http://www.conservationconnection.bc.ca/>

GOERT contact person:

- Marilyn Fuchs, Email: marilyn.fuchs@goert.ca

Garry Oak Meadow Preservation Society contact:

- Suite A 954 Queens Avenue, Victoria, BC V8T 1M6, Phone Number: 250-475-2024, Email: garryloak@netscape.net, Website: <http://www.garryoak.bc.ca>, Contact Person: Pierre d'Estrube, Email: swdestrube@pacificcoast.net

Garry Oak Restoration Project (GORP) contact:

- Carolyn MacDonald, Environmental Education Officer, Municipality of Saanich, Phone Number: 250-475-5494, FAX Number: 250-475-5450, Email: macdonac@gov.saanich.bc.ca

Project partners

GOERT partners include the following:

BC Ministry of Sustainable Resource Management - Conservation Data Centre
 BC Ministry of Water, Air and Land Protection– Biodiversity Branch
 Capital Regional District Parks
 Comox-Strathcona Regional District
 Department of National Defence
 District of Saanich
 Environment Canada – Canadian Wildlife Service
 Friends of Government House Gardens Society
 Friends of Mt. Douglas Park Society
 Garry Oak ecosystems Education Kit
 Garry Oak Meadow Preservation Society
 Garry Oak Restoration Project

Habitat Acquisition Trust
Native Plant Study Group of the Victoria Horticultural Society
Nature Conservancy of Canada
Parks Canada
Royal British Columbia Museum
Songhees First Nation
The Land Conservancy of British Columbia
Thetis Park Nature Sanctuary Association
University of British Columbia
University of Victoria
Victoria Natural History Society

Garry Oak Meadow Preservation Society Partners include: Wildlife Branch of the BC Environment Department, Royal BC Museum, University of Victoria, Conservation Data Centre, Victoria Natural History Society, Fairfield Community Association.

GORP Partners include: The District of Saanich, Environment Canada, University of Victoria, Garry Oak Meadows Preservation Society, Camosun College.

Funding sources

There are a broad range of funding sources. A key funding sources has been the Habitat Stewardship Program, which has provided funding (approximately \$240,000.00) to the Nature Conservancy of Canada's Garry Oak Recovery project. Funds from HSP are directed toward the conservation of habitat for the recovery of species listed as endangered, threatened or of special concern.

The Garry Oak Meadow Preservation Society is seeking funding for the implementation of the activities described in the recently released document "Recovery Strategy for Garry Oak and their Associated Ecosystems and Species at Risk in Canada".

GORP funding sources include: The District of Saanich, Georgia Basin Ecosystem Initiative, BC Hydro Tree Canada Foundation.

5 Target Area: Fraser Valley

5.1 Sponsors: Fraser Valley Regional District

5.1.1 Program name: *Regional Growth Strategy: Choices For Our Future*

Program scope and objectives

The Choices for our Future strategy seeks to ensure complete, economically and environmentally healthy communities connected by a high-quality, multi-modal transportation system that provides effective mobility for people and goods.

One of the most consistently supported issues raised during the consultation process in regards to conservation considerations has been the protection of the natural environment, including strong protection for flora and fauna, and access to natural recreation areas.

The environmental concept suggests that development in the settled areas of the Fraser Valley Regional District (FVRD) should be directed away from environmentally sensitive areas and natural recreation areas. Urban and rural land uses, particularly in new developments near natural areas, should be sensitive to the ecological context of the region, including resource consumption, treatment of waste products, natural drainage patterns, visual and noise intrusions, and potential impacts on flora and fauna. Urban design guidelines and alternative development standards should be applied to minimize the impacts of human settlement on the natural environment while providing convenient access to natural areas.

Program activity areas and program priorities

As a result of the board's 2001 workshop to discuss the draft growth strategy and its implications, the board chair and Fraser Valley mayors met several times with the Land Reserve Commission and with senior officials from the Ministry of Transportation and the Ministry of Community, Aboriginal and Women's Services (MCAWS).

Memoranda of understanding are now being drafted and will be negotiated between the region and these provincial agencies on points key to the implementation of the regional growth strategy.

The provincial MLAs from the region have met with the mayors and were debriefed on regional issues including those affecting the growth strategy.

Status of the initiative

On-going.

Information sources

FVRD website: <http://www.fvrd.bc.ca/growth/index.htm>

Environment, Parks and Recreation Concept overview (2001):

http://www.fvrd.bc.ca/growth/environment___parks_concept.htm#Concept Overview

Around the Regions Update, January 2002, MCAWS website:

<http://www.marh.gov.bc.ca/GROWTH/JAN2002/regions.html#FVRD>

Project partners

Project partners include: Fraser Valley mayors, Land Reserve Commission, Ministry of Transportation, Ministry of Community, Aboriginal and Women's Services (MCAWS).

Funding sources

Funding sources include: FVRD.

5.2 Sponsors: Fraser Valley Regional District

5.2.1 Program name: Regional District Habitat Atlas

Program scope and objectives

This project will assist proactive and informed land use planning by: collaborating with the SHIM Partnership to integrate new SHIM data with local and senior government maps. This information will then be used to publish atlases of sensitive habitats for all the local government areas in the FVRD.

For planning purposes, local governments and communities in the FVRD will be greatly assisted by these atlases of sensitive habitats, based on best available information. They will help to "flag" the lands around water courses and wetlands that require special attention during land use planning and operations planning.

Through extensive data sharing, new SHIM data for these habitats can be integrated with the existing map data of local, regional and senior governments to produce user friendly, accurate and up to date maps. The FVRD has recognized a need for mapping work of this scale and atlases as part of its Regional Growth Strategy. This information in turn will assist local governments in preparing their Regional Context Statements.

The Sensitive Habitat Areas Atlas published by Fisheries and Oceans for Squamish and communities on Vancouver Island are proven products that are used extensively by local governments. They have been effective for informed land use planning and revision of OCPs. Squamish is now revising their Sensitive Habitat Atlas. The SCRD and the CRD are now building new Sensitive Habitat Atlases for their planning needs. The BC Conservation Foundation proposes to build on this proven method by providing similar products to all the local governments of the FVRD.

Program activity areas and program priorities

An initial product of this project will be the production of several interim Sensitive Habitat Areas Atlases, from the "best available information", for the use of local governments and the FVRD. These interim Sensitive Habitat Areas will be published in limited numbers as 11"x17" binders, and widely distributed on a dedicated web site (or as a CD ROM if requested by a local government).

SHIM data acquired through community partnerships can be captured, compiled and integrated with the maps of local governments and the FVRD. The interim Sensitive Habitat Areas will therefore be revised and republished in limited numbers as 11"x17" binders at project completion. Water course classification will be included in the second edition of Sensitive Habitat Areas for high priority and agricultural lands, based on the field work.

All of these data including integrated local government data and new SHIM data about water course alignment, fish presence and riparian habitat will be published for unrestricted public access via the SHIM web site on an on going basis, long after the term of this project.

Status of the initiative

This initiative will be continued until the atlas is completed.

Information sources

Habitat Atlas on line:

http://www.fvrd.bc.ca/growth/RGS_Concepts/Habitat_Atlas/habitat_atlas.html

Project partners

Joint initiative of WALP, FVRD, DFO (HRSEP funding), BC Conservation Foundation.

Funding sources

Funding sources include WALP, FVRD, DFO and BC Conservation Foundation.

5.3 Sponsors: Fraser Valley Regional District

5.3.1 Program name: Pitt River Area Watershed Network

Program scope and objectives

The Pitt River and Area Watershed Network (P.R.A.W.N.) is a broad-based coalition of groups dedicated to the conservation of the Pitt River ecosystem “for our children’s children”. P.R.A.W.N. was formed in 1995 in response to a proposed siting of a new gravel mine on Olsen Creek, a tributary to the upper Pitt River. P.R.A.W.N.’s overall objectives include:

- Conservation and protection of the Pitt River Watershed;
- Public awareness and advocacy for proper land use and resource management in the Pitt River Watershed;
- Promoting the development of a gravel management plan for the Lower Fraser area;
- Ensuring that all environmental concerns are addressed prior to permission for resource extraction;
- Fair and open public consultation.

Members of PRAWN include the Katzie First Nation which represent a diverse cross-section of interests in the Pitt River Watershed.

Program activity areas and program priorities

The key activity area of PRAWN is to create a watershed plan. P.R.A.W.N. believes that a management plan for the Upper Pitt watershed is needed in order to promote sustainable development of the area while preserving important natural features and ecosystems. P.R.A.W.N. has been in the process of bringing together key stakeholders and providing the opportunity to discuss watershed issues. Watershed planning activities have included open house meetings throughout 2001, a stakeholder workshop in January 2002 and a public meeting in February 2002. The goal is to present a revised draft to local Councils and the FVRD. The outcome will be a watershed plan that will reflect the consensus of the community and provide a series of recommendations for watershed management.

Status of the initiative

Work on the watershed is currently underway. A draft plan is in the revision stage.

Information sources

PRAWN: <http://www.alouetteriver.org/PRAWN/prawn.htm>

Summary of Draft Plan: *A Vision for the Future of the Upper Pitt River Watershed: A Citizen-Based Watershed Plan* (Draft February 7, 2002). Prepared by PRAWN, the Pitt River and Area Watershed Network. The draft plan can be viewed at:

<http://www.alouetteriver.org/PRAWN/report.htm>

Contacts:

Elaine Golds. C/O Burke Mountain Naturalists, Box 52540, 11002 - 2929 Barnet Highway, Coquitlam, BC, V3B 7J4, Phone: 604-937-3483, Fax: 604-937-3483, Email: egolds@sfu.ca

C/O Katzie Band Office 10946, Katzie Road, Pitt Meadows, BC V3Y 2G6, Phone: 604-465-8961, Fax: 604-465-5949, Email: katzie@direct.ca

Project partners

Katzie Band, Burke Mountain Naturalists, FVRD, Alouette River Management Society.

5.4 Sponsors: Fraser Valley Regional District

5.4.1 Program name: Elk Creek Study Community Watershed Information System:

Program scope and objectives

The study of Elk Creek in Chilliwack was initiated to assess the impacts of agricultural and urban land uses in relation to water quality. The project seeks to identify possible problems and evaluate various development scenarios and safeguards for the Elk Creek watershed.

Program activity areas and program priorities

In partnership with UBC an evaluation report will be completed using an interactive Hypermedia CD-ROM incorporating land use surveys, water quality and quantity monitoring and other environmental results from studies being conducted to study the relationship between land use and environmental impacts.

Status of the initiative

Commencing in 1998, the initiative will continue beyond 2002.

Information sources

GBEI website: http://www.pyr.ec.gc.ca/gbeims/public/search_e.asp

Project partners

Partners include: University of British Columbia, MELP, Environment Canada Pacific and Yukon Region, the City of Chilliwack and Fraser Valley Regional District

Funding sources

GBEI

5.5 Sponsors: The Cheam Band

5.5.1 Program name: Cheam Lake Sensitive Habitat Mapping

Program scope and objectives

Cheam band is one of the 19 Stó:lō Bands. The traditional Cheam territory includes the Cheam Lake watershed, located between Mount Cheam and the Fraser River.

Program activity areas and program priorities

The Band has undertaken two habitat mapping and inventory projects.

- **An Overview Study** of the entire watershed was undertaken in partnership with MELP, DFO and the FVRD.
- **A Mapping and Inventory Project** included spatial mapping using SHIM standards, downstream fish trap for collecting out-migrant coho and water quality testing. Training was received from the Langley Environmental Partners Society (LEPS). DFO and WALP provide support. Information will be shared with other Community Mapping Network partners.

Status of the initiative

Completed. GIS information will be updated regularly with data collected by partners.

Information sources

Porter, Glen L. 2002. *Planning Sustainable Communities. A compilation of community mapping case studies from the Lower Mainland of British Columbia prepared for the Planning Sustainable Communities Workshop.*

- Sponsored by The Township of Langley and the Community Mapping Network (a partnership of community and government conservation agencies in British Columbia). GL Porter Consulting. 81 pp.

Project partners

Cheam Band, DFO, WALP, LEPS.

Funding sources

Funding sources include: DFO and WALP

5.6 Sponsors: City of Chilliwack

5.6.1 Program name: Master Drainage Plan

Program scope and objectives

A new initiative for sustainable development and providing future infrastructure savings. The City aims to become a leader in the province with state of the art integrated drainage system which is technically sound, fiscally responsible and environmentally commendable.

The Master Drainage Plan (MDP) is expected to provide habitat enhancement, erosion control, as well as flood protection, ground water protection, and water quality improvements. The plan will also facilitate prior approval of development projects from senior agencies and minimize costs of future storm infrastructure based on accurate hydraulic and hydrological data.

The MDP will contribute to the sustainable development of Eastern Hillside area of Chilliwack.

Program activity areas and program priorities

Council authorized the MDP in 1998. There will be three MDPs. It is anticipated that by 2004 the first of these will be completed. A Draft Action Plan has been completed. The MDP will be integrated into the Official Community Plan. SHIM methods and standards are being used to map watercourses in the City. A Policy and Design Criteria Manual for Surface Water Management will be completed in Spring 2002.

Status of the initiative

Currently underway for 2002.

Information sources

Porter, Glen L. 2002. Planning Sustainable Communities. A compilation of community mapping case studies from the Lower Mainland of British Columbia prepared for the Planning Sustainable Communities Workshop.

- Sponsored by The Township of Langley and the Community Mapping Network (a partnership of community and government conservation agencies in British Columbia). GL Porter Consulting. 81 pp.

Project partners

City of Chilliwack, WALP, DFO, Environment Canada, HRDC, Pacific Initiatives, Real Estate Foundation of BC, Cascade Institute, University College of Fraser Valley, Ecoworks

Funding sources

Funding sources include project partner contributions.

6 Target Area: Okanogan Basin

6.1 Sponsors: Regional District of Central Okanagan

6.1.1 Program name: Central Okanagan Sensitive Ecosystem Inventory

Program scope and objectives

The SEI inventory will provide a baseline of information for conservation planning and voluntary land stewardship activities in the region. The Terrestrial Ecosystems Mapping (TEM) approach developed by under what is now MSRM (Terrestrial Information Branch) is being used for this project.

Terrestrial Ecosystem Mapping (TEM) is the stratification of a landscape into map units, according to a combination of ecological features, primarily climate, physiography, surficial material, bedrock geology, soil, and vegetation (see website for further information: <http://srmwww.gov.bc.ca/rib/wis/tem/index.htm>)

The study area for the Central Okanagan SEI includes the low and mid-elevation lands within the electoral areas of the Regional District. These are areas that are under strong pressure to urbanize as growth in the region pushes out well beyond the City of Kelowna's municipal boundaries.

Program activity areas and program priorities

The inventory work complements the exhaustive habitat inventory work completed in the South Okanagan and provides another key building block for an Okanagan-wide conservation strategy.

Status of the initiative

This initiative is currently underway and will likely continue until completion.

Information sources

Contact: Steve Gormley, Environmental Planner, Regional District of Central Okanagan, (250) 868-5257

See also in this target area: [Habitat Atlas for Wildlife at Risk, South Okanagan and Similkameen](#)

MSRM website: <http://srmwww.gov.bc.ca/rib/wis/tem/index.htm>

Project partners

The Regional District of Central Okanagan is working in partnership with former Ministry of Environment, Lands and Parks (Resources Inventory Branch, Wildlife Inventory Section and the BC Conservation Data Centre). Note, now MSRM has taken this work over through its Terrestrial Information Branch.

Funding sources

The Habitat Conservation Trust Fund has provided funding for this project.

6.2 Sponsors: Regional District of Central Okanagan

6.2.1 Program name: Central Okanagan Regional Growth Strategy

Program scope and objectives

The Regional Growth Strategy is a coordinated plan involving the Regional District of Central Okanagan (RDCO), City of Kelowna, District of Peachland, District of Lake Country, and provincial agencies to manage future growth by using resources wisely and supporting a high quality of life.

communities in the Central Okanagan are working together on issues of environmental protection, water and air resources, governance, transportation, housing, and economic development. The Regional Growth Strategy guides future planning and investment decisions to protect quality of life in the Central Okanagan.

Program activity areas and program priorities

Growth strategy work in the RDCO is proceeding at a quick pace. The board has approved the District of Peachland's and the District of Lake Country's regional context statement. RDCO staff are continuing to work with [City of Kelowna](#) staff to finalize a regional context statement for that community.

A more comprehensive public communications program is proposed for the upcoming year (2002) as detailed work on the seven key issue areas advances. Air quality, environmental protection and water resources discussion papers are moving forward and should lead to concrete action plans over the next year. High level discussions on transportation issues may also proceed in the coming months.

Status of the initiative

On-going

Information sources

RDCO Regional Growth Strategy website: http://www.regionaldistrict.com/departments/pla_grow.htm

MCAWS Regional Growth Strategies January 2002 Update:
<http://www.marh.gov.bc.ca/GROWTH/JAN2002/regions.html#RDCO>

Background documents for the regional growth strategy:

- [Environmental Protection Paper - Table of Contents](#)
- [Environmental Protection Paper - Foreword \(5 pages\)](#)
- [Environmental Protection Discussion Paper \(81 pages\)](#)

The Environmental Protection Discussion Paper seeks to circulate ideas and themes relating to environment and engage organizations and agencies in considering actions and priorities. The paper focuses on means of achieving environmental protection in the Central Okanagan region while communities grow and develop over the next twenty years. The paper targets large land areas and is intended to complement environmental protection policies that occur through provincial land use plans, community plans or environmental management plans. Many of the actions anticipated to arise in the paper will involve decisions made at the local level by

communities and local agencies. Recommendations are directed either at managing public investment or at large regional scale actions to guide growth and development.

Project partners

Regional District of Central Okanagan, City of Kelowna, District of Peachland and District of Lake Country

Funding sources

Funding sources include: Regional District of Central Okanagan.

6.3 Sponsors: North Okanagan Regional District

6.3.1 Program name: Okanagan Basin Water Board

Program scope and objectives

The Water Board sees a need for someone to take the lead in integrating all the interests whose purpose it is to protect, allocate, regulate, monitor and otherwise manage water in the valley.

Working with other local governments and regional districts to preserve water quality in our larger valley lakes is the primary objective of the Water Basin Board. This Board is administered by the North Okanagan Regional District and looks after funding for waste water treatment facilities and aquatic weed management. Each of the three Regional Districts in the Okanagan Basin appoint three members to the Water Basin Board each year.

The Water Board consists of three representatives from each of the three Regional Districts in the valley. It was set up to be the vehicle for implementation of the recommendations of the Okanagan Basin Study which was conducted from 1969 - 1974.

Objectives of the OKWB:

- Create political will and good governance - enable the varied interests in water management to come together and improve communication and coordination, to make best use of resources, and to establish a firm direction for the management of water in the Okanagan for the future.
- Adopt an ecosystem-based approach - With an initial focus on water, recognize the linkage between social, economic, and environmental components and incorporate this into sound and ethical decision making.
- Care for the region's ecosystems - Identify problem areas and the steps needed to rectify difficulties. As part of sharing the available knowledge and technology ensure that best management practices are used.
- Raise awareness to change human behaviour - educate people
- Empower people - utilize and assist the grassroots non government groups to help achieve water management objectives, and recognize that actions must be adapted to local needs, abilities, and opportunities.

Program activity areas and program priorities

Current involvement of the Water Board is in funding of advanced liquid waste treatment projects and control of Eurasian watermilfoil. Both activities have involved funding partnerships with the Province of BC through the Ministries of Environment and Municipal Affairs.

Status of the initiative

On-going.

Information sources

North Okanagan Regional District: <http://www.nord.bc.ca/departments/obwb/indexobwb.html>

Contact: obwb@junction.net

Robert Hobson, Chairman, Email: rhobson@cord.bc.ca. Phone: (250) 868-5249

Greg Armour, Field Supervisor, Email: Greg.Armour@nord.bc.ca Phone: (250) 545-5368 ext. 258

Project partners

Project partners include the local governments and the three regional districts in the basin. The Board is administered by the North Okanagan Regional District

Funding sources

North Okanagan Regional District

6.4 Sponsors Regional district of Okanagan-Similkameen

6.4.1 Program name: Okanagan-Similkameen Regional Growth Strategy

Program activity areas and program priorities

A detailed assessment of growth-related issues was reviewed by the board in late 2000 at which time a decision was made to defer embarking on a full regional growth strategy. The board revisited the issue in the fall of 2001 and will continue to receive information on strategic management of growth over the coming year. Notably Smart Growth BC made a presentation to the board in January 2002.

Status of the initiative

The initiative is pending the outcome of the board's decision to proceed or defer work on a regional growth strategy.

Information sources

MCAWS Regional Growth Strategies website, January 2002 Update:
<http://www.marh.gov.bc.ca/GROWTH/JAN2002/regions.html#RDOS>

Project partners

MCAWS, Regional District of Okanagan-Similkameen

6.5 Sponsors: Local, Regional, Provincial, Okanagan First Nations Fisheries Commission and Federal Government

6.5.1 Program name: Okanagan-Similkameen-Boundary Fisheries Partnership

Program scope and objectives

The Okanagan Similkameen Boundary Fisheries Partnership (OSBFP) was formed in 1997 as a multi-stakeholder group with representatives from community volunteers organizations, Okanagan First Nations, government and educational institutions within the Okanagan, Similkameen and Boundary regions. The priority of the OSBFP is to protect and restore wild indigenous fish stocks and their habitat for present and future generations. The OSBFP encourages cooperation with neighboring regions to further the implementation of OSBFP objectives.

This partnership was brought together to deliver provincial funding from Fisheries Renewal BC in a community oriented way. Until the elimination of Fisheries Renewal BC in October 2001, partnership delivered \$1.5 million to 109 projects in the region

Program activity areas and program priorities

5.1.1.1 Okanagan-Similkameen Watershed Roundtables

Stewardship Coordinators from the Okanagan Nation Fisheries Commission (ONFC) and Okanagan-Similkameen-Boundary Partnership are helping to organize watershed roundtables in the region. The roundtables are in various stages of progress in: Coldstream Creek, Lake Country, Mission Creek, Trout Creek, Inkanee Creek, Similkameen River, Penticton Creek. The Okanagan Nation Fisheries Commission represents First Nations in fisheries in the region and has its own formal policy.

Several more creek groups are getting underway in Trepanier Creek and Naramata Creek. There has been interest expressed in networking volunteers across the region to share ideas about solutions to restoration problems.

5.1.1.2 A Regional Steering Committee

OSBFP is in the process of adding new members to its regional Steering Committee with a first meeting to be held in March 2002. New members would commit to a three year term and participate in a minimum of four meetings per year.

New Steering Committee members would help guide the partnership in continuing to achieve the following objectives:

- Promotion of community projects to protect and restore wild indigenous fish stocks and their habitat.
- Education of the public about fisheries and fish habitats.
- Encouragement and assisting in facilitation of community stewardship of fish and their habitat
- Consideration of traditional and local knowledge relevant to sustainable use of the regions fisheries

An Okanagan Basin Technical Working Group has been formed comprising DFO, WALP, ONFC. The Group is responsible for managing fish stocks and their habitats in the region, working on a transboundary watershed level, ecosystem approach and multiple species. The Group's secretariat is currently the Stewardship Coordinator for the OSBFP. The Coordinator will work with the staff of the SOSCP, fisheries agencies and local communities.

Status of the initiative

With the termination of the HCSP and Fisheries Renewal, the positions for this initiative will likely be curtailed by the end of March 2003, unless other funding sources are found.

Information sources

Stewardship site: <http://www.syilx.org/stewar.htm>

Annual Report 2000-2001:

<http://www.fishrenewal.gov.bc.ca/annrept/annual01/annual/Okanfr.htm>

Contact for the region: Jon Newman, OSBFP Partnership Coordinator, (250) 493-2566 or by e-mail at fisheries@cfdcokanagan.com

DFO websites: <http://www.cfdcokanagan.com/osbfp.htm>.

<http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hcsp/areas/midfras.htm#Events and Information>

<http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hcsp/areas/midfras.htm#WFSP>

Project partners

[Fisheries and Oceans Canada](#) has funded a full-time Stewardship Co-ordinator for the Okanagan, Similkameen and Boundary areas as part of their [Habitat Conservation and Stewardship Co-ordinator Program](#) across Canada.

Funding sources

The funding for this region was applied for in partnership by the Okanagan Nation Fisheries Commission and the [Okanagan Similkameen Boundary Fisheries Partnership](#) (OSBFP) which is the Regional Fisheries Renewal BC delivery partner. Funding for the Okanagan Basin Technical Working Group activities derive from HSP (Environment Canada)

6.6 Sponsors: Local to Federal Governments

6.6.1 Program name: South Okanagan-Similkameen Conservation Program (SOSCP)

Program scope and objectives

The South Okanagan - Similkameen Conservation Program (SOSCP) is a formal partnership of 29 conservation organizations and government agencies established in 2000, working together towards conservation of South Okanagan and Similkameen ecosystems. The Conservation Program seeks strong community support and involvement to help find a balance between wildlife requirements and human needs and aspirations.

The purpose of SOSCP is to protect the biodiversity of the area, including species at risk, and to sustain a viable ecological corridor between the deserts to the South and the grasslands to the north.

SOSCP represents the shared interests of the partners in their conservation activities in the region. SOSCP was formed to act as a coordinator and facilitator of the partners and their approach to

conservation. SOSCP is an umbrella group that represents the diverse partners' interests that are local, regional, national and international in scope.

SOSCP outlines six teams implementing its strategic plan: Science, Stewardship, Outreach, Traditional Ecological Knowledge, Ecologically Sustainable Land-use and Land Securement.

With the formal announcement of the SOSCP in 2000 and the provision of monies from the Government of Canada Habitat Stewardship Program for Species at Risk, it was agreed by the partners that The Land Conservancy of British Columbia would help coordinate stewardship activities in the SOSCP area.

Program activity areas and program priorities

The HSP is providing \$580,000 for a total of nine HSP projects to help protect species and habitat in Canada's only "desert country", which is a Canadian species at risk hot spot. These priority projects are consistent with, and deliver on, the goals and objectives of the 29-partner South Okanagan-Similkameen Conservation Program (SOSCP), launched in July 2000.

Funding from the federal government's (Canadian Wildlife Service, Environment Canada) Habitat Stewardship Program (HSP) is helping to support nine local stewardship projects under the framework of the South Okanagan-Similkameen Conservation Program (SOSCP). The priority projects are working to conserve habitat essential to many of Canada's species at risk in the South Okanagan-Similkameen region which are listed nationally as endangered or threatened including:

- the Sage Thrasher, which thrives in the grasslands and prefers the thick sagebrush;
- the White-headed Woodpecker that depends on the mature, ponderosa pines where it feeds on wood-boring insects; and,
- the Yellow-breasted Chat, which depends on wetland/riparian habitat for nesting and feeding (see next section on "Partners in Flight" initiative in the Southern Interior).

The projects reflect the priorities outlined in the SOSCP Prospectus will be delivered by SOSCP partners as well as other local organizations. The projects help to build on the work that the partners have been implementing over the past several years and include:

- SOSCP co-ordination and community outreach focused on species at risk,
- weed management,
- management of tree encroachment,
- conservation and restoration of riparian habitat,
- recovery of sockeye salmon,
- private landowner contact programs,
- grassland/shrub-steppe restoration
- use of traditional knowledge for the conservation of First Nations' lands (Osoyoos Indian Band Land Use Plan),
- land securement and conservation covenants.

The SOSCP has been able to achieve its 2001 goals. For example:

- Management of tree encroachment: SOSCP has prescribed burns planned for the recovery of grassland habitats
- Sockeye salmon recovery: A program has been developed between Fisheries and Oceans Canada, former BC Ministry of Environment, Lands and Parks and the Okanagan Nation Alliance that aims to secure, rehabilitate and enhance riparian habitat on the Okanagan River, to increase production of Columbia River sockeye salmon.

- Contributions to this program, including Habitat Stewardship Program Funds from Environment Canada, could result in further physical rehabilitation of riparian habitats on the Okanagan River, benefiting rare habitat elements such as the Black Cottonwood community, and endangered Yellow-breasted Chat.
- Private landowner contact programs: This program will be run by a coordinator, and will also support research, monitoring, material development, training, workshops, and landowner contact efforts. It is anticipated that the funding will serve to attract more money into the program, and possibly secure some conservation covenants by focusing on the wine industry.

Future goals include developing an aquatics program and enhancing outreach activities to increase public awareness of conservation values. There may also be possible projects involving watershed renewal and securement of critical riparian habitat (source:

<http://www.soscp.org/media/nr004.htm>, http://www.ec.gc.ca/Press/000731_n_e.htm)

Status of the initiative

Final details on many of the projects are still being worked out. The partners of the SOSCP perceive this initiative as a 20 year program. The partnership is in its second year (2002) and will likely continue given funding from Environment Canada (HSP) for 2002-2003 as well as other partner resources (15 January 2002, SOSCP Steering Committee Agenda. On line at: <http://www.soscp.org/media/011502.pdf>).

Information sources

SOSCP website: <http://www.soscp.org/>

Canadian Wildlife Service website: http://www.pyr.ec.gc.ca/wildlife/initiatives/initiatives_eindex.htm

The commitment to work cooperatively together is witnessed and affirmed in the SOSCP Statement of Cooperation: <http://www.soscp.org/partners/partners.htm>

Strategic Plan: South Okanagan-Similkameen Conservation Program 2001. South Okanagan Similkameen Conservation Program. On line at: <http://www.soscp.org/soscp/draftplan.pdf>.

The plan describes the long-term vision and objectives of the SOSCP and provides its organizational structure. The plan also outlines the habitat conservation goals, strategies, shared values and work plan of the SOSCP.

First Annual Report: Similkameen Conservation Program 1st Annual Report- May 17, 2001. On line at: <http://www.soscp.org/docs/index.htm>

Orville, Dyer. *WALP Penticton January 2001 List of Species at Risk: South Okanagan-Similkameen Conservation Program Study Area.* Updated to November 2001.

SOSCP News: <http://www.soscp.org/media/nr004.htm>

Funding News from Environment Canada: http://www.ec.gc.ca/Press/000731_n_e.htm

Backgrounder to SOSCP Funding: http://www.ec.gc.ca/press/000731_b_e.htm

HSP is a federal program that works in conjunction with the intent of the proposed federal Species at Risk Act tabled in 2000 (see section). HSP is providing funds to implement conservation actions with non-government organizations and private landowners, conservation

groups and local governments, in a broad-based effort to maintain and restore habitat critical to species at risk throughout Canada.

Contact: Robert Hawes, program manager, Penticton, BC, (250) 490-8225.

Other related sections include:

- SOSCP is also updating the *South Okanagan Habitat Atlas for Wildlife at Risk* for use by Regional Districts (see this section).
- SOSCP partnership with Canadian Wildlife Service on bird conservation, Partners in Flight (see this section).

Project partners

SOSCP is a partnership open to all organizations sharing the goals of working towards habitat conservation. Partners include: Environment Canada, the BC Ministry of Sustainable Resource Management, Habitat Conservation Trust Fund, The Nature Trust of British Columbia, The Nature Conservancy of Canada, The Land Conservancy of British Columbia, Okanagan - Similkameen Conservation Alliance, Ducks Unlimited Canada, The Nature Conservancy (US), British Columbia Conservation Foundation, Federation of British Columbia Naturalists (Thompson – Okanagan Region), Okanagan Similkameen Parks Society, Grasslands Conservation Council of British Columbia, Okanagan Region Wildlife Heritage Fund Society, Osoyoos Desert Society, BC Wildlife Federation, BC Wildlife Federation – Okanagan Region, Royal British Columbia Museum, Canadian Parks and Wilderness Society, BC Lake Stewardship Society

Funding sources

Funding sources include: \$ 1 million from the Habitat Stewardship Program of Canadian Wildlife Services (Environment Canada) as well as from other partners including in-kind contributions.

6.7 Sponsors: Provincial and Federal Government

6.7.1 Program name: Partners in Flight Great Basin Bird Conservation Plan

Program scope and objectives

[Partners in Flight](#) (PIF) is an international initiative that focuses on landbird conservation. It advocates a grassroots approach involving local governments and organizations. Regions develop their own goals and strategies around keeping common birds common. PIF is a coalition of conservation groups, academic institutions, government agencies, First Nations and countries which are working to maintain the health of bird populations and their habitats. Planning, outreach, research, monitoring and applied conservation are the program's main strategies. Activities in British Columbia and Yukon are coordinated through the Western Working Group which is made up of PIF representatives in the western U.S., Canada, and Mexico.

Through the collaborative effort of many agencies and individuals, PIF BC/Yukon has developed the *Great Basin Bird Conservation Plan* for the Southern Interior ecoprovince of British Columbia, the goal of which is to maintain the health of bird populations and their habitats. Through this planning effort, priority species and conservation recommendations have been identified for four habitat classes in the Southern Interior, one of which is riparian birds and their habitats. PIF uses the needs of "focal species" to set population and habitat objectives for riparian habitat. Together these recommendations are thought to achieve the mosaic of riparian habitat conditions required by

the entire riparian bird community. For example large, native riparian thickets will have Yellow-breasted Chat as a focus species.

Program activity areas and program priorities

In cooperation with the South Okanagan-Similkameen Conservation Program, PIF BC/Yukon has initiated four pilot projects concurrent with the completion of the Great Basin Bird Conservation Plan. The projects seek to:

- raise the profile of the PIF initiative within local communities;
- inspire local community members to participate in landbird conservation planning processes and subsequent implementation activities; and,
- collect critical baseline landbird data to aid the formation of locally appropriate conservation objectives for PIF focal species.

To implement these objectives, a *Landbird Inventory Project* was commenced in 2001 to collect critical baseline inventory data on the relative abundance and distribution of landbirds in the SOSCP area using BC Resource Inventory Committee standards.

An introductory *Bird Survey Training Program* and *First Nations Bird Mentoring Program* has also been undertaken to introduce participants to five Lowland Riparian PIF focal species and six Grassland/Shrubsteppe PIF focal species and their habitats.

SOSCP Bird Inventory and Research Symposium: A South Okanagan-Similkameen Bird Inventory and Research Symposium was held in December 2001 at the Okanagan University College to share important scientific knowledge on North America's bird species. A full day of presentations were offered on topics of bird and bird habitat inventory, monitoring, research, management, and recovery focusing on the SOSCP area.

In 2002, PIF BC/Yukon will seek to complete the Great Basin Bird Conservation Plan and will begin implementing the plan recommendations related to mapping and analysis of habitat suitability; monitoring, research and evaluation; outreach and education.

Status of the initiative

This initiative is new and will likely be continued. The Landbird Inventory Project is a 3 year project ending in 2004.

Information sources

SOSCP Riparian Working Group Meeting, December 11 2001:

<http://www.soscp.org/media/121101.pdf>

Canadian Wildlife Service website information on Partners in Flight:

http://www.pyr.ec.gc.ca/wildlife/initiatives/initiatives_eindex.htm

Project partners

Project partners include CWS and various agencies and individuals, such as the South Okanagan-Similkameen Conservation Program.

Funding sources

CWS is the key funding source for the PIF program.

6.8 Sponsors: Royal British Columbia Museum & Okanagan University College

6.8.1 Program name: Living Landscapes Thompson Okanagan Past, Present and Future

Program scope and objectives

The Royal British Columbia Museum and Okanagan University College have embarked on a project that features the human and natural history of the Thompson-Okanagan, British Columbia's southern interior region, on a World Wide Web site. They hope to encourage both the documentation of human and natural history, and the exchange of ideas and information.

The three main goals of the Living Landscapes Thompson-Okanagan: Past, Present, & Future project are:

- to improve understanding of the past and present links between people and the environment in the Thompson-Okanagan region;
- to preserve artifacts, specimens and information that are at risk of being lost due to change; and,
- to develop educational programs about the on-going relationships between people and the environment in this unique, dry, interior region of the province.

Program activity areas and program priorities:

Some recent projects include:

- South Okanagan Grassland Conservation Research: This is a multi-agency and multi-disciplinary project. In 2000-2001, workers collected data from ten comparable sites that have a variety of grazing histories, from no historical livestock use to current heavy livestock use. All sites are also browsed by deer and a few are browsed by California bighorn sheep.
- Endangered species in endangered spaces: This SchoolNet project was initiated under a grant to the Royal British Columbia Museum (RBCM) from Industry Canada. Collection information from the RBCM regarding the endangered species (both plant and animal) in the Thompson-Okanagan region was digitized by staff at the RBCM.

Other projects include:

- Grazing and forestry impacts on the biodiversity of riparian ecosystems (Beaton Creek project)
- Flammulated Owl Nest Site, Wheeler Mountain
- Landscape fragmentation effects on wildlife population integrity
- Woodhaven Nature Conservancy
- Invertebrate biodiversity and conservation in the Thompson-Okanagan
- Productivity of a Kokanee spawning channel, Kokanee Salmon Heritage Project

Status of the initiative

Several of these projects are underway, such as the Grasslands research, as well as the Kokanee Salmon Heritage project.

Information sources

Living Landscapes: <http://royal.okanagan.bc.ca/info/mandate.html>

Grasslands research information:

<http://royal.okanagan.bc.ca/cgi-bin/view?thread=sokgrassland&hilite=conservation>

Contact: daperry@okanagan.bc.ca

Project partners

Royal British Columbia Museum: One of Living Landscape's main sponsors, the RBCM is located in Victoria, BC, Canada. Its homepage has information on exhibits, special events, a newsletter, and curatorial departments.

Okanagan University College, Kelowna, BC, Canada: Another major sponsor to Living Landscapes. Its homepage has information about the University College and links to the various faculties and departments.

Partners in the South Okanagan Grassland Conservation Research project include: federal and provincial agencies (Environment Canada, BC Ministry of Forest, BC Environment -- technicians, scientists, contractors), University of British Columbia (professors, graduate students, summer students), Osoyoos Indian Band (summer students) and independent contractors.

Funding sources

Funding sources include

- Friends of the Royal British Columbia Museum
- Okanagan Historical Society
- Friends of the Royal BC Museum have generously provided funding to support the co-ordination of the *Living Landscapes'* website.
- The Okanagan Historical Society provided funding for digitizing the index of their publication *Okanagan History*. The OHS's homepage includes information about the Society, its activities and publications.
- School District #23 (Central Okanagan) provided funding for the First Nations' portion of the *Living Landscapes Historic Photographs* project.
- School District #67 (Okanagan Skaha) provided funding for the *First Nations curriculum project* for Secondary Social Studies, using the historic photograph collection on the *Living Landscapes* website.
- The Canadian Heritage Information Network: CHIN has provided the primary financial support for *Endangered Species in Endangered Spaces* and the *Historic Photographs* project, as part of a nation-wide digital collections project known as "[SchoolNet](#)".
- Okanagan Science, Technology, and Innovation Council: OSTIC provided personnel for the initial stages of the *Living Landscapes Directory of Researchers*.
- MoF provided direct funding to the *Living Landscapes* project.
- Partners in Science Awareness
- Ministry of Employment and Investment
- Forest Renewal BC, which is now obsolete.
- Environment Canada, Pacific and Yukon Region provided funding to the *Living Landscapes* project.

6.9 Sponsors: Ministry of Water, Land and Air Protection

6.9.1 Program name: *The South Okanagan Lower Similkameen Habitat Atlas for Wildlife at Risk*

Program scope and objectives

The South Okanagan Lower Similkameen Habitat Atlas for Wildlife at Risk is an initiative of the Ministry of Water, Land and Air Protection, Lands and Parks, Penticton Office.

The atlas focuses on 32 species considered "at risk" in the South Okanagan and Lower Similkameen and designated by the provincial government as candidates for endangered, threatened or vulnerable status.

The government has developed a Conservation Strategy for South Okanagan which outlines the following 'tools for conservation':

- Identify core areas to protect; increase parks and protected areas;
- Use land use planning and zoning to enhance and preserve corridors, and buffer areas around core protected areas;
- Integrate wildlife habitat concerns into community planning processes;
- Encourage land stewardship to maintain and enhance wildlife habitat on private land and Indian Reserves; and,
- Increase public awareness of wildlife species at risk and their habitat needs.

Program activity areas and program priorities

Several components of the Strategy can assist local governments in conservation work:

5.1.1..1 Identify important wildlife

- The BC Environment Wildlife Program has limited authority to manage and protect wildlife habitat on private land. The Program identifies habitat needs of wildlife and then conveys this information to agencies that have control over habitat.
- The composite wildlife at risk habitat map identifies suitable habitat for wildlife. This map can be used to identify important wildlife habitats for Official Community Plans and other land use planning initiatives.
- Red-listed Species Included in the High-Priority Habitat Map: Tiger Salamander, Night Snake, Brewer's Sparrow, Grasshopper Sparrow, Lark Sparrow, Prairie Falcon, Sage Thrasher, Yellow-breasted Chat, White-headed Woodpecker, Western Screech-Owl, Pallid Bat.

5.1.1..2 Integrate wildlife concerns into community planning

The Role of Local Governments:

- Local governments and First Nations control development of private lands and Indian Reserves and are thus key players in a conservation strategy for the South Okanagan.
- Municipalities and Regional Districts can contribute to conservation strategies through three main avenues: regulatory bylaws, planning and development controls in Official Community Plans, and park designation.
- The goal should be to include wildlife and habitat conservation concerns in land use planning, thus reducing the amount of time spent on assessing and monitoring the negative environmental effects of individual development proposals.

Community Planning:

- Under the Municipal Act, municipal governments and regional districts regulate private land use through Official Community Plans (OCPs).

- Community plans may include, “policies of the local government relating to the preservation, protection, restoration, and enhancement of the natural environment, its ecosystems and biological diversity” [Section 878(1)].
- The Municipal Act also provides tax relief for owners protecting riparian lands adjacent to streams, marshes and lakes or who are not developing land due to wildlife concerns.
- Official Community Plans can set environmental policies that all subsequent actions such as zoning bylaws must be consistent with. These policies can include land designated for parks and greenway buffers, erosion control and stormwater management.
- In some rural areas, Rural Land Use Bylaws can be developed. These combine the broad goals and policy statements usually seen in OCPs with more specific zoning bylaws. However, Rural Land Use bylaws are less effective at controlling leave strips and land uses than zoning bylaws.
- Local governments can also purchase covenants or obtain long-term leases from land owners to ensure habitat preservation or right-of-way agreements to allow for the development of trails and greenway systems. These tools may be effective ways to develop the buffers around core conservation areas and the corridors linking them that are essential to a conservation strategy.
- Local governments can acquire park land for conservation and recreation by direct purchase (e.g. using development cost charges), land trades, donations (from individuals or provincial government), dedication during subdivision development plans, or by expropriation.
- When undeveloped land or areas with high wildlife potential are being considered for a subdivision, municipalities and regional districts have an opportunity to negotiate with developers to set aside critical habitat (e.g., 5 percent of the land for a park).

Proposed Guidelines within Development Permit Areas:

- People wishing to rezone, subdivide or build on land located within a Development Permit Area that has been established to conserve wildlife habitat can be required to submit information on the impact of the proposed development on the environment (an Environmental Impact Assessment). The information will assist in minimizing negative impact on wildlife habitat.
- If wildlife concerns outlined in the OCP are identified and addressed at the planning stages of the development, applicants will likely spend less time and money in the review process than if environmental impact assessments are done after plans have been drawn up by engineers and architects.
- The Impact Assessments are submitted to either the municipality or regional district and are reviewed by WALP. The assessment should determine how the proposed development will affect wildlife habitat and should recommend measures to reduce negative impacts and recommend compensation for residual impacts.

The Role of the WALP working with local governments:

- Provincial government staff work to protect biodiversity and species at risk by providing information to help local governments and private land owners make land use decisions.

Land Trusts and Private Land Stewardship

- The term "stewardship" is used to mean the responsible and careful use of the natural environment around us. Stewardship programs encourage landowners to manage their lands in ways that maintain, restore or enhance the diversity of native plants and wildlife.
- Programs in the region: The South Okanagan-Similkameen Stewardship Program was set up in 1994 by the Nature Trust of British Columbia, the Habitat Conservation Trust Fund and Ministry of Water, Land and Air Protection to help private landowners protect and enhance natural areas on their land. In 2000, the program became the South Okanagan-Similkameen Conservation Program, (SOSCP) (see SOSCP above).
- Land trusts are private, non-profit societies created to acquire and hold land for the benefit of the community. They are the fastest-growing part of the conservation movement in North America (source: http://wlapwww.gov.bc.ca/sir/fwh/wld/atlas/conservation/conserv_index.html)

Status of the initiative

This initiative will likely be continued.

Information sources

Atlas website: <http://wlapwww.gov.bc.ca/sir/fwh/wld/atlas/index.html>

Habitat Atlas for Wildlife at Risk, along with the web, site provides information on wildlife at risk and their habitats in the South Okanagan. The Atlas can be purchased for \$20.00 from the following two sources:

- The Nature Trust of British Columbia, 808-100 Park Royal South, West Vancouver BC V7T 1A2, Tel:/Fax: (604) 925-1128
- Tumbleweed Nature Store, 67 Front Street, Penticton BC V2A 1H2, Tel: (250) 492-7742
COSEWIC (Committee on the Status of endangered Wildlife in Canada); information on the status of plants and animals in Canada: <http://www.speciesatrisk.gc.ca>

Information on plant and animal species at risk in BC:
http://www.rbcm.gov.bc.ca/end_species/index_es.html

WALP website information:
http://wlapwww.gov.bc.ca/sir/fwh/wld/atlas/conservation/conserv_index.html and,
http://wlapwww.gov.bc.ca/sir/fwh/wld/atlas/introduction/intro_index.html

Contact for endangered species and habitat and SOSCP information: Ministry of Water, Land and Air Protection Office, 201-3547 Skaha Lake Road, Penticton V2A 7K2, Tel: (250) 490-8200

The Habitat Conservation Trust Fund is supported primarily by surcharges on angling, hunting, trapping and guide-outfitting license fees. Website: <http://www.hctf.ca/>

Project partners

See 'Funding sources'

Funding sources

Support and funding for the atlas has been received from: Habitat Conservation Trust Fund, The Vancouver Foundation, The Nature Trust of British Columbia, the Okanagan Wildlife Heritage Fund Society, and the Ministry of Water, Land and Air Protection.

6.10 Sponsors: BC Lake Stewardship Society and Okanagan Lake Stewardship Group

6.10.1 Program name: Okanagan Lake Foreshore Protection Project

Program scope and objectives

The BC Lake Stewardship Society (BCLSS) and the newly forming Okanagan Lake Stewardship Group will be using money received from EcoAction 2000 to provide residents on the shore of OK Lake with information on the lake and free homesite assessments to assess if they can reduce their impacts on the lake. One goal is to develop an easy-to-use template for conducting this project on other lakes around BC.

Program activity areas and program priorities

A landowner education and habitat-mapping project will occur on all properties around the entire 270 km shoreline of Okanagan Lake in the Okanagan Valley. The first year of this program will focus on the central portion of the lake's shore, due to high population densities. The subsequent years will see completion of the project on the northern and southern ends of the lake.

Landowners will be educated on information such as habitat and water quality impacts caused by personal property/household use, current water and fisheries legislation, long-term habitat conservation and protection options, and ongoing stewardship and management initiatives.

Funds will be used to hire a project coordinator and Landowner Contact Agents for the education and mapping portions of the project, which are predicted to reduce the actual pressure that humans put on the lake.

The Living by Water Project will be training BCLSS staff on homesite assessments and providing their Shoreline Ambassador and Pledge program information, while the Land Conservancy will be working with any landowners who might wish to pursue conservation agreements. The Okanagan Nation Fisheries Commission will assist BCLSS in working with leaseholders and lakeshore owners on Indian Reserve around the lake. The City of Kelowna and Central Okanagan Regional District are supporting the project with staff time and mailing costs.

Information collection during the project will be guided by the Ministry of Environment and other government agencies, and will assist in future management of the lake. This project strategically compliments the Ministry of Environment's "Okanagan Lake Action Plan" focused on bringing back declining Kokanee populations.

Status of the initiative

On-going for 2001-2004.

Information sources

BCLSS newsletter: <http://www.nalms.org/bclss/volume4issue2.html>

Kelowna News: <http://www.kelownacapnews.com/03401b/com-1.htm>

DFO Southern Interior Habitat Conservation Stewardship Program site:
<http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hcsp/areas/midfras.htm#WFSP>

Project partners

The project has the support of BC WALP, Environment Canada, Human Resources Development Canada (HRDC) City of Kelowna, Central Okanagan Regional District, BC Land Conservancy and the Okanagan Nation Fisheries Partnership.

Funding sources

Funding sources include \$68,000 from Environment Canada's EcoAction program, and three funded workers (\$85 000) from HRDC. The Habitat Conservation Trust Fund has awarded \$25,000 which will help with the delivery of educational packages to owners and lessees around the foreshore of the lake and provide Homesite Assessments.

7 Target Area: Columbia Kootenay Basin

7.1 Sponsors: Fisheries and Oceans Canada, Habitat Enhancement Branch

7.1.1 Program name: Watershed-based Fish Sustainability Planning

Program scope and objectives

Watershed-based Fish Sustainability Planning (WFSP) reflects a joint federal-provincial government mandate, encourages consensus-based partnerships between governments and other parties with an interest in fish conservation, co-ordinates other ongoing fish and habitat conservation measures and introduces a consistent approach to planning.

The overall goal of WFSP is to ensure effective long-term conservation of fish and fish habitat – including spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly. WFSP helps fish conservation interests develop and implement long-term plans for:

- Maintaining and restoring genetically diverse, stable and self-sustaining wild fish populations
- Maintaining and restoring the natural capability of habitats to produce genetically diverse, stable, and self-sustaining fish populations, and
- Managing fish populations in a manner that makes full use of this natural habitat (source: <http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hcsp/areas/midfras.htm#WFSP>)

Program activity areas and program priorities

A multi-disciplinary team of partners will soon (2002) embark upon a pilot project watershed-based fish sustainability plan for the Salmon River watershed in the Southern Interior. This pilot project will pro-actively work with the existing partnership of the established Salmon River Watershed Roundtable (SRWR). The objectives of the Roundtable are “to reach agreement on the critical issues linked to fish and fish habitat sustainability, and how to manage those issues for protection, restoration and enhancement of fish and fish habitat in the context of watershed sustainability”.

The SRWR process will invite participation from First Nations, landowners, stakeholders and citizens. All levels of government are encouraged to attend, which includes local and regional governments. The process will include representation from the Department of Fisheries and Oceans, the Thompson Basin Fisheries Council, and the Province.

Status of the initiative

This initiative will likely be continued until end of fiscal year March 2003, unless other funding sources are found.

Information sources

General information on DFO website:

<http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hcsp/areas/midfras.htm#WFSP>

2001. BC Ministry of Fisheries, BC MELP, Fisheries and Oceans Canada. *Watershed-based Fish Sustainability Planning: Conserving BC Fish Populations and their Habitats. A Guidebook for Participants*. March 2001. BC MELP, Fisheries and Oceans Canada. Online at DFO website: <http://www-heb.pac.dfo-mpo.gc.ca/english/publications/PDF/wfsp/wfsp.htm>

The guide describes the origin, purpose and benefits of Watershed-based Fish Sustainability Planning (WFSP), how it is being implemented in BC and steps for its on-going improvements. The guide describes the four-stage WFSP sequence that governments, organizations, and individuals with an interest in fish conservation can use to effectively promote the health of fish and habitat. The guide also outlines the roles of governments, non-governmental organizations and other fish conservation interests in implementing this planning sequence.

Contacts for the pilot project:

- Neils Christiansen (SRWR) or Mike Wallis (SRWR), (250) 832-0153
- Roger Wysocki (DFO), (250) 851-4950

Project partners

DFO, BC Ministry of Fisheries, Thompson Basin Fisheries Council, and the Province of BC.

Funding sources

Key funding source is DFO.

7.2 Sponsors: Ministry of Forests & Ministry of Sustainable Resources and Management

7.2.1 Program name: Landscape Unit Planning

Program scope and objectives

The *Forest Practices Code* establishes a forest planning system for BC, comprising a hierarchy of strategic and operational forest management plans. Landscape unit planning (LUP) is a strategic planning level in the hierarchy that the government is now implementing, after having completed preliminary program development, including delineating planning unit boundaries, determining biodiversity emphasis (low, medium, high) for individual landscape units, and developing a generic landscape unit planning methodology (i.e., the Landscape Unit Planning Guide, 1999).

Landscape units are relatively homogeneous areas of land, up to 100,000 ha in size, delineated by biophysical features—typically watershed boundaries—that are useful units for planning integrated resource use and biodiversity conservation (Daryl Brown Associates, 2000).

Landscape units emerged from the relatively new discipline of landscape ecology, which includes management of old growth forests. The fundamental premise is to minimize risk of species extinctions by mimicking the size and extent of natural forest disturbances, such as windthrow and wildfire. Landscape-level planning is a fundamental component of biodiversity management, which is required under the *Forest Practices Code* and most forest management certification systems

Landscape planning attempts to ensure a balance over time of different seral stages – recently harvested areas, young stands, mature stands, and old growth. Since a forest is a dynamic entity,

undergoing constant growth and death, the locations of the different seral stages will change over time (<http://www.for.gov.bc.ca/nelson/district/kootenay/planning/Lubrief.htm>).

Program activity areas and program priorities

Short-term provincial priorities in the next three years (starting 2000) are to address targets for old growth conservation and wildlife trees, as both Ministry of Forests (MoF) and former MELP [now MSRM] agree that these are the most critical elements for retaining forest biodiversity. Over the next two - three years approximately 1300 landscape units and their associated objectives will be established across the province. (MSRM 2000; MoF and MELP 1999). The intention is to develop objectives and strategies for other elements of biodiversity conservation and for other forest resources in subsequent years (Daryl Brown Associates, 2000)

The Information Management Group (IMG) Forest Planning Solutions section has been working on the design and development of a LUP template in conjunction with Forest Practices Branch and District pilot sites since 2000. The LUP template will provide a basis for putting landscape unit data into a universal format for analysis and monitoring. The LUP data standards and procedures should aid data providers in the collection, preparation and supply of LUP data with province-wide consistency for core content. The tool should assist local planners with their need to delineate candidate Old Growth Management Areas for landscape unit planning.

Piloting for LUP Template analysis has been underway in the following districts relative to the target areas in this inventory include: Kootenay Lake, Arrow and the Sunshine Coast (MSRM 2000).

A province-wide release and a training package is to be provided shortly thereafter

Kootenay Lake: Landscape units are large areas of land, generally on the order of 50,000 hectares in size, where trade-offs between overlapping resource values takes place. This is of particular importance with regard to management of old growth forests over time

The Kootenay Lake Forest District is one of three Districts which is piloting the Landscape Unit Planning Guide. Staff of the following have contributed to this guide: MoF Forest Practices Branch, MoF Information Management Group, MoF Arrow Forest District, MoF Kootenay Lake District, MoE Kootenay Lake District, Crestbrook Forest Industries Ltd., J.H. Huscroft Ltd., Atlas/Simfor Project Steering Committee, Interior Reforestation Ltd., Timberland Consultants Ltd.

Status of the initiative

This initiative is on-going and will likely be continued.

Information sources

Main planning information at MoF website:

<http://www.for.gov.bc.ca/nelson/district/kootenay/planning/Lubrief.htm> and
<http://www.for.gov.bc.ca/nelson/district/kootenay/planning/Lureport.htm>

2000. MSRM. *Landscape Unit Planning (LUP) Template: Project Overview*. September 2000. On line at: http://www.for.gov.bc.ca/hfp/Planning/LUP/Project_overview.htm

Ministry of Forests (MoF) and Ministry of Environment, Lands and Parks (MELP). March 1999. *Landscape unit planning guide. Forest Practices Guidebook*. Victoria, BC. On line at: http://www.for.gov.bc.ca/hfp/Planning/LUP/lup_landscape.htm

The guide contains government policy direction on landscape biodiversity and consolidates all current and new policy on this subject. It includes technical procedures for carrying out analyses; preparing landscape unit objectives and strategies for biodiversity and other forest resources; and writing and establishing landscape unit objectives.

The guide is a technical reference for staff in MoF and in MSRM responsible for developing LUP objectives and strategies for biodiversity. The guide also serves as a reference for statutory decision-makers as it contains the most up-to-date, comprehensive and government policy direction with respect to legal establishment of landscape unit objectives under the Code. Tenure holders, public interest groups and others will find the guide useful to understand LUP.

2000. Daryl Brown Associates. *Designing a Landscape Unit Plan Monitoring Framework Preliminary Scoping of Issues and Considerations*. Prepared for Strategic Policy & Planning Section, Forest Practices Branch, Ministry of Forests. Daryl Brown Associates, Natural Resources and Environmental Management, Victoria, BC. On line at:
<http://www.for.gov.bc.ca/hfp/Planning/Documents/Final%20LUPlanMonReport.doc>

This report provides a preliminary investigation of landscape unit plan monitoring issues and considerations. The report serves a foundation for further discussions on this subject, within and outside of government.

Business and Technical Procedures & Standards: LUP Data Preparation. On line at
http://www.for.gov.bc.ca/hfp/Planning/Documents/LUPtemplate_dataprep_June_12_00.doc.
Posted Sept. 18, 2000. This document outlines the latest data preparation standards and procedures documentation for landscape unit planning.

Several user's guides has also been posted on the web: *Landscape Unit Plotting with Geomedia 4.0 - User's Guide* (posted Sept. 18, 2000)

LUP Application - User's Guide On line at:
http://www.for.gov.bc.ca/hfp/Planning/Documents/LUPtemplate_dataprep_June_12_00.doc
(recent version: August 2001).

This Users Guide contains information about the LUP template application developed by Intergraph Canada Ltd. for the BC Ministry of Forests (Forest Practices Branch/Information Management Group). Topics covered in the Guide include a description of the application deliverables as well as information regarding their installation and usage.

All the above documents are available at:
http://www.for.gov.bc.ca/hfp/Planning/LUP/lup_Index.htm

Contacts include:

- Graham Hawkins, IMG Forest Planning Solutions at 250-356-0721
- Dena Cator, FPB Strategic Forest Planning and Policy at 250-356-2166

Project partners

There are several partners involved in LUP: Resource Stewardship Branch, MELP (now MSRM) and Strategic Forest Planning Section, MoF as well as various MoF branches (Kootenay Lake, Arrow) and industry members (Crestbrook Forest Industries Ltd., J.H. Huscroft Ltd., Atlas/Simfor Project Steering Committee, Interior Reforestation Ltd., Timberland Consultants Ltd.).

7.3 Sponsors: BC Fisheries

7.3.1 Columbia Kootenay Fisheries Renewal Partnership

Program scope and objectives

The Columbia Kootenay Fisheries Renewal Partnership (CKFRP) is a community-oriented partnership dedicated to renewal and enhancement of fish populations, fish habitat and aquatic ecosystems in the Columbia-Kootenay Basin.

The partnership developed through meetings held throughout the Columbia Basin between February and June 1999. Anglers, native people, environmentalists, watershed stewards, naturalists, government staff, regional district representatives and young people participated in the development of the partnership.

The regional partnership has identified a variety of issues that include water quality and quantity, flow regulation and storage, as well as fish passage. These issues extend to most geographical areas of the region and exert impacts on fisheries resources at a variety of spatial scales. A central theme to each of the identified issues was the current lack of understanding of their implications on fisheries resources by the general public. The need for increased public awareness and education was elevated as one of the highest regional priorities to improve local knowledge of issues and advance community participation. The opportunity for community involvement in local projects was identified as an essential program requirement to promote environmental awareness and foster local stewardship.

With respect to fisheries resources, our partnership strongly supports wild fish conservation and maintenance of the indigenous species complex (i.e. keystone species; threatened or endangered species) within natural habitats. Aquatic biodiversity was recognized as a precursor to healthy aquatic ecosystems and the development of sustainable fisheries or maintenance of non-sport fish populations was envisioned as a means of preserving genetic diversity. The CKFRP emphasizes the importance of fish and fish habitat protection to prevent environmental perturbations that would otherwise require restorative investments in the future.

The CKFRP conservation strategy includes the following components or tasks:

- Documenting indigenous fish species distribution and identifying potential interactions
- Project proposal information requirements
- Development of an indigenous fish education and stewardship program
- Work with agencies to protect indigenous populations and restore indigenous fish assemblages where possible
- Research, Assessment and Monitoring

Program activity areas and program priorities

5.1.1..1 Fish Conservation Strategy:

Current program activities include implementing the fish conservation strategy in coming years.

5.1.1..2 Burbot Population Estimate - Canal Flats

Burbot are a species of special concern in the Kootenays. Populations in Kootenay Lake and River, and Columbia River below Keenleyside dam are Red Listed provincial through the Conservation Data Centre. The objective of this project is to obtain an estimate of the total number of adult burbot

in Columbia Lake. This will provide the only burbot population estimate for any lake in the Kootenays (\$3,510).

5.1.1..3 Strategic Planning - Salmo

The strategic plan will guide Columbia-Kootenay Fisheries Renewal Partnership investments in the area, as well as provide valuable information for government organizations like former MELP, Fisheries, BC Hydro, and the Columbia Basin Fish and Wildlife Compensation Program (\$8,800) (source: <http://www.cbt.org/deliveryofbenefits/projects/projectsfunded2001-2002.htm#Revelstoke>)

5.1.1..4 Columbia River White Sturgeon Stewardship

White Sturgeon first appeared on the fossil record 175 million years ago, and have remained virtually unchanged in structure from their fossilized ancestors. Human impact, however, especially on the Upper Columbia and Kootenay Rivers, has made the Sturgeon an endangered species.

This program seeks to engage local communities in efforts to restore endangered Canadian Columbia River populations of white sturgeon. With funding provided by Environment Canada in early 2001, this program will be continuing into 2002-3 and involves:

- Compiling local and aboriginal knowledge about the historic distribution and habitat use of white sturgeon
- Support to the Recovery Team and the Action Planning Group responsible for developing a White Sturgeon Recovery Plan
- Development of educational resource materials
- Finding opportunities to incorporate education about white sturgeon into public school curricula
- Assessing the feasibility of a web-enabled 'sturgeon cam' at the confluence of the Columbia and Pend d'Oreille Rivers

5.1.1..5 Upper Columbia River White Sturgeon Recovery Initiative

Research projects will provide increased understanding, and a pilot sturgeon hatchery is in operation to improve spawning habitat and survival rates, and ultimately increase the number of the Upper Columbia River White Sturgeon. Funding has been provided from Columbia Basin (\$22,500).

5.1.1..6 Osprey Watch

Osprey Communications - Columbia/Windermere Lakes Osprey Survey - Invermere to Canal Flats: The ultimate goal of this project is to build a long-term database of osprey nest records in the Upper Columbia, and to effect positive attitudes in local residents on behalf of ospreys and aquatic ecosystems. Existing nests are to be monitored, and new ones searched, Funding has been provided from Columbia Basin (\$3,850).

5.1.1..7 Westslope Fisheries - St. Mary Cutthroat Telemetry Study -

St. Mary River - Kimberley, Fort Steele, Wycliffe \$16,050: Using radio telemetry, biologists hope to identify critical summer, over-wintering and spawning habitats of the resident Westslope Cutthroat Trout, which are being impacted by mining, forestry, angling, and urban development. The result will be recommendations for protection and enhancement measures. Funding has been provided from Columbia Basin.

5.1.1..8 G G Oliver and Associates - East Kootenay Kinbasket Bull Trout Telemetry

This is the fourth and final year of this project, which has involved biologists tracking tagged Bull Trout in the Kinbasket Reservoir to their spawning areas, in order to determine which areas need special protection. Funding has been provided from Columbia Basin Trust (\$2,415).

5.1.1..9 Upper Columbia Watershed Council

This project will initiate a Watershed Council for the Upper Columbia River watershed (Columbia Lake to Kinbasket Reservoir including Donald, Golden, Radium, Invermere, Windermere, Fairmont). The Council will be open to interested public and agency participation; collect available information on aquatic habitat, water quality and fisheries to prepare a “State of the Upper Columbia River” report to use as a baseline; and, undertake a longitudinal survey of water quality in the Upper Columbia to provide baseline water quality information. Funding has been provided from Columbia Basin (\$4,980).

5.1.1..10 Sand Creek Restoration Group -Lower Sand Creek Fish Habitat Restoration

Sand Creek supports resident and spawning populations of a variety of trout species, mountain whitefish and Kokanee. Settlement, land clearing, agricultural activities and flood control have left a legacy of declining fish populations and loss of creek-side habitat. The Sand Creek Restoration Group plans to restore stream and creek-side habitat (Jaffray, Baynes Lake) following detailed plans which were developed in 2000-2001. Funding has been provided from Columbia Basin (\$15,000).

5.1.1..11 Goat River Residents Association -Goat River Restoration

Years of land clearing, channel diversion and land reclamation have resulted in steadily declining fish populations, and loss of habitat. This project in the West Kootenay and East Kootenay will determine how best to restore the river, and will most likely result in approval for a major rehabilitation project. (Columbia Basin Trust funding: \$5,225).

5.1.1..12 Goat River Burbot Assessment

Goat River is recognized as the only spawning habitat for the endangered Kootenay River Burbot in the West Kootenay and East Kootenay. This project will determine the status, life history characteristics and spawning habitat of this burbot, and recommend future protection and enhancement measures. (Columbia Basin Trust funding: \$7,050).

5.1.1..13 Ministry of Water, Land and Air Protection - Slocan Lake Limnological Assessment, West Kootenay

This project, involving the Lower Kootenay Indian Band, will study threats, food sources and other conditions affecting Kokanee salmon, in order to ascertain the lake's ability to support Kokanee. (Columbia Basin Trust funding: \$5,520).

5.1.1..14 Other Habitat and Restoration Projects include:

- [Lasca Creek Kokanee Passage](#)
- [Paris Creek Sediment Control](#)
- [Lardeau River Side Channel Pilot Project](#)
- Research, Monitoring and Assessment Projects

5.1.1..15 Conservation-based Community Projects:

- [Golden Bear Aware](#)
- [Nature at Night Festival](#)
- [Living with Wildlife](#)

➤ Creating Bear Aware Communities

Status of the initiative

Many projects funded by the partnership are one to two years in duration. New ones are being commenced with local partners and governments. The initiatives are generally on-going.

Information sources

Contact: Bill Green: Phone (250) 417-3474, bill@ckfrp.com

Main website: <http://www.ckfrp.com/index.htm>

Funders' information: Columbia Basin Trust: <http://www.cbt.org/trust/index.htm>

The Columbia Basin Management Plan on line at:

<http://www.cbt.org/trust/management/managementplan.htm>

- The programs presented in the Plan include long-term goals and short term objectives which will guide the Trust's annual work plan and budget. The objectives listed in this Plan are to be accomplished within three to five years (ending 2000).
2002. *Columbia Basin Trust: A Legacy for the People. Service Plan 2003-2005*, February 2002. On line at:
<http://www.cbt.org/trust/AnnualReport/CBT%20Service%20Plan%202003%20-%202005%20Feb19%20final.%20webpdf.pdf>
- This document outlines the service plan for the Trust ending March 31 2003. The plan outlines the overview and the strategic context of the Trust as well as the goals, objectives, key strategies, performance measures and targets for Trust funding activities.

Project partners

DFO, community and environmental organizations Regional Districts, government (WLAP, DFO). The Canadian Columbia River Travel Fisheries Commission administers the partnership.

Partnership projects with BC Hydro include: Kootenay River Bull Trout Radiotelemetry, Elk River Cutthroat Trout Telemetry, Genelle Side Channel Feasibility & Design, Lower Bull River Side Channel Enhancement, Norns Creek Enhancement w& Stewardship.

Funding sources

Funding for the development of the partnership was provided by Fisheries Renewal BC, the Columbia Basin Trust and the Canadian Columbia River Inter-tribal Fisheries Commission. DFO and Columbia Basin Trust are key funding sources.

5.1.1..1 Columbia Basin Trust Information

Community Initiatives are delivered by the Regional Districts of East Kootenay, Central Kootenay, Kootenay Boundary, Fraser-Fort George, and Columbia Shuswap, and the Ktunaxa/Kinbasket Tribal Council in the Basin.

In 1995, the Columbia Basin Trust was endowed with a \$295 million financial commitment from the Province of BC or approximately five per cent of the *downstream benefits* owned by the Province from the United States. The Province also committed to transfer \$32 million over 16 years for operating expenses and \$250 million to Columbia Power Corporation (CPC), Columbia Basin Trust's joint venture partner in power project developments. To date, the return on the investments

has provided \$8,825,000 in funding to more than 750 projects in the Columbia –Kootenay Basin (source: <http://www.cbt.org/trust/index.htm>).

7.4 Sponsors: BC Hydro and WALP

7.4.1 Program name: Columbia Basin Fish & Wildlife Compensation Program

Program scope and objectives

The Columbia Basin Fish & Wildlife Compensation Program (CBFWCP) is a partnership between BC Hydro and the British Columbia Government (MFLAP) to:

- conserve and enhance fish and wildlife populations affected by BC Hydro dams in the Columbia Basin.
- communicate with the public on Program activities;
- where appropriate, consult with local conservation groups and communities on projects; and
- share the results of our work with the public, resource managers and the scientific community.

CBFWCP evolved from existing Mica, Arrow and Pend d'Oreille compensation programs and related activities in the Arrow, Duncan and Revelstoke reservoir areas to create a more comprehensive and integrated program for the B.C. portion of the Columbia River Basin.

Program activity areas and program priorities

Projects range from small wetlands creation to the largest lake restoration project in the world, from bull trout genetics to cougar-prey ecology. The 2000/01 project year is the sixth year that the Columbia Basin Fish & Wildlife Compensation Program has been delivering projects to conserve and enhance fish and wildlife populations affected by BC Hydro dam-related activities in the region.

The area of operation includes the East and West Kootenay (82 000 sq km) and activities focus on impacts from BC Hydro dams to fisheries and wildlife. Projects emphasize recovery planning, habitat restoration, inventory and assessment work (mapping and GIS). The following outlines some key program areas:

Program activities regarding fisheries include:

- restoration of reservoir production through Kootenay and Arrow fertilization,
- White Sturgeon Recovery Initiative,
- Restoration work on two spawning channels to restore Kokanee populations (Meadow Creek and Hillcreek species). These are all long term activities.

Program activities involving a strong restoration focus for wildlife include:

- Targeted areas on the Provincial red and blue list of species. There are two recovery plans being developed for leopard frog and East Kootenay badger recovery.

Activities with a habitat focus include grassland habitat and wetlands restoration.

5.1.1..1 Columbia Basin Biodiversity Atlas

This report documents the results of a scoping exercise commissioned by the CBFWCP to assess the need for and capacity to develop the CBB Atlas and provides recommendations for implementing the development of the CBB Atlas. Strong Support and Endorsement for the

development of a Columbia Basin Biodiversity Atlas by stakeholders and partners is the most significant outcome of the first phase of the project.

In February 2001, the CBFWCP hosted the Columbia Basin Biodiversity Atlas Workshop that brought together a broad range of potential partners and stakeholders to discuss the concept and logistics of developing the CBB Atlas

Status of the initiative

All projects are current as of 2001-2002 fiscal year. Budgeting is underway for 2002 and 2003. The website will be updated in April 2003 with new projects.

Information sources

Columbia Basin Fish & Wildlife Compensation Program website:

<http://www.cbfishwildlife.org/partners/>

2001. Swan, Bill; Osprey Communications. *Columbia Basin Biodiversity Atlas Project- Phase One Final Report*. On line at: http://www.cbfishwildlife.org/reports/teaser.php?report_id=313

Project partners

There are many partnerships underway in this initiative. They are found on the web at:

<http://www.cbfishwildlife.org/partners/index.php>

Funding sources

Sources vary.

7.5 Sponsors Royal British Columbia Museum and Columbia Basin Trust

7.5.1 Program name: Living Landscapes - Columbia Basin Past, Present and Future

Program scope and objectives

In 1997, the Royal British Columbia Museum's Living Landscapes program began its second project in partnership with the Columbia Basin Trust. This venture created 31 research and public education activities across the Columbia Basin region, meeting the three goals of all Living Landscapes programs:

- to increase our understanding of the province through research in the regions,
- to create an electronic information link through Living Landscapes World Wide Web sites,
- to engage people in the discovery of their cultural and natural heritage through special events, exhibits and other educational programs.

Research on the biology of the Columbia Basin has focused on: Endangered species/threatened habitats, Forest birds, Small mammals, Terrestrial molluscs, Dragonflies, Ospreys, Freshwater fishes, Frogs, Grasses.

The mission of the Royal British Columbia Museum is to explore and preserve British Columbia's cultural and natural heritage, to inspire curiosity and wonder, and to share British Columbia's story with the world. As a research institution, educational centre and cultural attraction, the Royal

British Columbia Museum seeks to strengthen the relationship between British Columbians and their Museum with community-based programs throughout the province.

Program activity areas and program priorities

5.1.1..1 From Bulrushes to Bunchgrass: A Wetland & Grassland Stewardship Program

The project focused on wetland and grassland ecosystems in the Columbia Valley between Cranbrook and Golden. The program has aimed to put the education about and conservation of these ecosystems in the hands of the users through brochures and an education and stewardship program.

5.1.1..2 The Columbia Basin: Endangered Spaces and Species

This project will identify rare, threatened and endangered species of the Columbia Basin. Relevant information will be provided on provincial yellow, blue and red listed species, as well as species that are threatened on a national, or international level. The information will be used in school programming, park education, outreach programs, eco-tourism (staff) training and visitor information, website development and will be widely available to the public, government agencies, educators and decision-makers.

Status of the initiatives

These are a sample of projects which are on-going. Funding for these projects in the Columbia Basin ended in 1999 but may be on-going depending on other sources of funding..

Information sources

Living Basin website: <http://www.livingbasin.com/>

Contact: David Perry daperry@okanagan.bc.ca

Project partners

Partners in the Bulrushes to Bunchgrass Program included: Canadian Wildlife Service, Parks Canada, Ministry of Forests, Ministry of Environment, Lands & Parks, Ministry of Agriculture, Fisheries & Food, Regional District Weed Coordinator, Columbia Valley Field Naturalist, Wings Over the Rockies Festival Committee, Windermere Valley Farmers' Institute and the Lake Windermere Rod & Gun Club.

Partners in the Columbia Basin: Endangered Spaces and Species included: Future Legacy Consulting Group, Roger Beardmore.

Funding sources

Living Landscapes - Columbia Basin Past, Present and Future was jointly funded by the Royal British Columbia Museum and the Columbia Basin Trust. During its two-year span (1997-1999), over \$360,000 was invested in the Columbia Basin region. The program was supported by the efforts of Museum staff, valued at another \$300,000.

Total program funding for the Living Landscapes Columbia Basin amounted to \$330,000. The RBCM and Columbia Basin Trust donated \$12,500 to the Bulrushes to Bunchgrass Program and \$7,250 to the Columbia Basin: Endangered Spaces and Species program.

7.6 Sponsors: Regional District of East Kootenay and The Land Conservancy of BC

7.6.1 Program name: East Kootenay Stewardship Program

Program scope and objectives

The goals of the East Kootenay Stewardship Program are to educate private land owners in issues relating to endangered grassland habitat, in the hopes of working with them to conserve and properly manage these habitats. Since its inception in 1999, over 40 landowners have become involved.

Program activity areas and program priorities

Projects funded in 2001-2002:

- Ha Ha Creek Watershed Stewardship Group \$8,515: Aquatic Ecosystem Health Assessment
- Ha Ha Creek Watershed Stewardship Group \$10,470: Edith Lake Dam Reconstruction
- The Land Conservancy of BC \$379: East Kootenay Stewardship Program (see section below)
- The Land Conservancy of BC \$1,000: East Kootenay Stewardship Program

The Community Initiatives envelope through the Columbia Basin Trust funds activities communities deem important and support that might otherwise not have been undertaken. However, CBT recognizes that local governments are the key decision makers in refining program delivery processes to ensure community participation in project selection and accountability, monitoring and evaluation. The local government in East Kootenay developed their own processes for public involvement in recommending and selecting these projects for funding.

Status of the initiative

This initiative is on-going and will likely be continued depending on further funding sources.

Information sources

[Regional District of East Kootenay](#)

Project partners

Project partners include The Land Conservancy, Ha Ha Creek Watershed Stewardship Group and Regional District of East Kootenay.

Funding sources

Columbia Basin Trust funding totaled \$14,042.00.

7.7 Sponsors: Thompson-Nicola Regional District

7.7.1 Program name: South Thompson Valley Settlement Strategy

Program scope and objectives

Continuing involvement by local, provincial and federal agencies on the South Thompson Valley Settlement Strategy should lead to development of definitive directions for the this sub-region. It is anticipated that the Strategy directions will be integrated into plans at all levels of government.

Program activity areas and program priorities

Work on the South Thompson Valley Settlement Strategy is proceeding and public consultations on future directions for the South Thompson Valley occurred in the fall of 2001. The regional district is expected to initiate work on fringe areas, and lake resort areas by 2002.

Status of the initiative

On-going.

Information sources

Regional Growth Strategy Around the Regions Update, MCAWS, January 2002:
<http://www.marh.gov.bc.ca/GROWTH/JAN2002/regions.html#TNRD>

7.8 City of Revelstoke and Columbia-Shuswap Regional District

7.8.1 Program name: Urban Forestry Plan Feasibility Study

Program scope and objectives

The North Columbia Environmental Society (NCES) has initiated an *Urban Forestry Plan Feasibility Study for Revelstoke*. The objective of the project is to complete a study and public consultation and information delivery process that will set the stage for the development of an *Urban Forestry Plan for Revelstoke*, to preserve and enhance our local trees and green spaces.

Program activity areas and program priorities

The study will review urban forestry plans for other communities as well as Revelstoke, and outline the steps necessary to complete an Urban Forestry Plan.

Status of the initiative

This project began in 2001. Funding will end at the end of fiscal year 2002.

Information sources

Contact: Debra Wozniak, Project Coordinator, 250-837-5345

Columbia Basin Trust projects funded for the Columbia-Shuswap region:
<http://www.cbt.org/deliveryofbenefits/projects/projectsfunded2001-2002.htm#Revelstoke>
<http://www.northcolumbia.org/>

Project partners

City of Revelstoke, Columbia Basin Trust and the Columbia-Shuswap Regional District.

Funding sources

The feasibility study has been funded by the Columbia Basin Trust (\$5,600) through the Columbia-Kootenay Fisheries Renewal Partnership and will be completed by March 2002.

7.9 Sponsors: City of Revelstoke and Columbia-Shuswap Regional District

7.9.1 Program Name: Bear Aware and Environmental Stewardship

The City of Revelstoke in partnership with Area B of the Columbia-Shuswap Regional District received from funding Columbia Basin Trust for two projects with a conservation mandate during the 2002-2003 fiscal year: Bear Aware \$12,000; and, Environmental Stewardship \$2,030.

7.10 Sponsors: EKES, Kootenay Boundary Regional District, Ministry of Forests, Walp and the Forestry Industry

7.10.1 Program Name: Special Management Zones in Elk Valley, Flathead Watershed

Program scope and objectives

East Kootenay Environmental Society (EKES) is a registered non-profit, charitable society operating in the south-east corner of British Columbia from Golden down to Fernie and Creston. The group and its network of branches throughout the region, works to protect biodiversity and create sustainable communities.

One project EKES works on through its Elk Valley Branch with the regional and local government is the Flathead watershed, located south of the Elk Valley. The Flathead was designated a Special Management Zone (SRMZ) under the Kootenay Boundary Land Use Plan (KBLUP). Features of this watershed include:

- southern Canada's largest unsettled drainage occurring outside a park;
- the densest non-coastal population of grizzly bears in North America;
- unique habitat for transboundary (US) endangered and threatened populations of grizzly bear, gray wolf, bull trout and bald eagle;
- distinct, unique populations of species, such as the Tailed frog (red-listed) and the Mottled Sculpin (proposed to be red-listed);
- approximately 40 rare or endangered plant species.

Program activity areas and program priorities

At the local and regional level, work on the Flathead watershed stalled the approval of forest development plans in the Flathead and prompted preliminary landscape unit planning.

EKES Elk Valley Branch, Crestbrook Forest Industries, Ministry of Forests, Ministry of Environment and bear biologist Bruce McLellan began discussions around grizzly bear management, old-growth and connectivity issues in the Flathead. The goal of EKES is to ensure that "Special Management" will promote ecosystem-based management to ensure the survival of the transboundary wildlife populations.

At the provincial level, EKES is working with the BC government to pursue its commitment with Montana to manage the Flathead in a sustainable manner, through a renewed commitment to actively participate in the Flathead Basin Commission, implement Landscape Unit Planning, Special Resource Management Zones (SRMZ) objectives and access management planning.

Status of the initiative

The Flathead watershed initiative is one of several other initiatives of EKES regarding protection of endangered species. The Flathead is on-going and may expand, depending on funding.

Information sources

EKES Home: <http://www.ekes.org/>

EKES Elk Valley Branch: ekeselkvalley@ekes.org

Project partners

EKES, Kootenay Boundary Regional District, Crestbrook Forest Industries, Ministry of Forests, WALP and a bear biologist.

7.11 Sponsors: EKES Kimberley/Cranbrook Branch & the City of Kimberley

7.11.1 Program name: Get Bear Smart! Kimberley!

Program scope and objectives

The goal of EKES Kimberly/Cranbrook is to help the City of Kimberley meet the criteria to become designated as the first “Bear Smart” Community in British Columbia. The management of bear/human conflicts is a shared responsibility and will require the cooperation of everyone. The provincial government, the municipal government, and the local citizens must all participate in order for Kimberley to successfully become “Bear Smart”.

Program activity areas and program priorities

The Get Bear Smart! Kimberley! Program is a long-term program that seeks to reduce the number of “problem” bears that are created and killed in the area. The program recognizes that the root cause of conflicts is poor community planning and poor management of attractants (e.g., garbage). By working with community members to reduce/eliminate non-natural food attractants, food conditioning of bears will be reduced, thereby, increasing public safety and reducing property damage.

Status of the initiative

The program is into its third year of providing education, awareness, and solutions to the community in regards to the bears that are attracted to town.

Information sources

EKES Home: <http://www.ekes.org/>

Project partners

The Kimberley Get Bear Smart! Program is sponsored and supported by the following agencies, companies and organizations: EKES Kimberley/Cranbrook Branch, City of Kimberley, Columbia Basin Trust Environmental Stewardship Fund, BC Environment, Kimberley Wildlife and Wilderness Club, Rocky Mountain Naturalists, Kimberley Nature Park Society Kimberley Rotary Club Beta Sigma Phi Sorority, and many local businesses

Funding sources

EKES received \$15,000 from Columbia Basin Trust under its 'Environmental Sectors' Initiatives'.

8 Other Federal Initiatives

This section outlines federal initiatives which apply broadly to regional and local governments in each of the target area in British Columbia.

8.1 Canadian Wildlife Service and the Provincial Government

8.1.1 Program name: *Species at Risk*

Program scope and objectives

Canadian Wildlife Service (CWS) is a leading player in the efforts to protect endangered species. CWS is a founding member of the [Committee on the Status of Endangered Wildlife in Canada](#) (COSEWIC), which produces the official list of Canadian endangered species. COSEWIC has developed a proposed Species at Risk Act to prevent wildlife species from becoming extinct or extirpated (lost from the wild in Canada) and to secure their recovery. The legal list of wildlife species at risk will be based on COSEWIC designations.

CWS is also active in the national recovery program, [RENEW](#), that brings all relevant Canadian agencies, groups and individuals together in a concerted effort to rehabilitate endangered and threatened species once their status has been established.

In the spring of 1995, officials from Environment Canada, the provinces and territories held public workshops in many areas of the country to determine what should be included in a national approach to protecting species at risk. This led to the development of the *National Accord for the Protection of Species at Risk*. In October 1996, wildlife ministers agreed in principle to the Accord and committed to a national approach to protect species at risk (http://www.especesenperil.gc.ca/sar/media/backA_e.htm)

British Columbia has signed and is committed to the Accord. All provinces have agreed to protect species and their habitats and develop recovery plans for nationally designated threatened or endangered species. The National Accord emphasizes preventative measures, stewardship initiatives and the need for partnerships on both public and private lands, which includes collaboration with local governments.

Program activity areas and program priorities

Under the Accord, federal, provincial and territorial governments agreed to coordinate activities by creating the Canadian Endangered Species Conservation Council. The Council is made up of federal ministers of Environment, Fisheries and Oceans, and Heritage and the provincial and territorial ministers with responsibilities for wildlife species.

The Accord outlines commitments to designate species at risk, protect their habitats and develop recovery plans. By endorsing its terms, governments acknowledge that no single jurisdiction can effectively protect species at risk. Partnerships are considered necessary. Governments have agreed to play a leadership role by developing complementary legislation, regulations, policies and programs to identify and protect threatened and endangered species and their critical habitats. BC may rely on existing programs, working with Regional Districts and local governments.

5.1.1..1 Progress to Date

- At the inaugural meeting held in September 1999, the Council agreed that the Committee on the Status of Endangered Species in Canada (COSEWIC) will continue to provide independent scientific assessments of species at risk.
- August 2001, the Council met in Iqaluit, where COSEWIC presented its findings to the Council for the first time. Federal, provincial and territorial wildlife ministers also reconfirmed their conviction that the protection of species at risk in Canada is a shared responsibility and that progress on wildlife issues can only be achieved by working cooperatively.
- The next meeting of the Council was in September 2001.

5.1.1..2 Programs under Species at Risk

Programs under SARA include the National Recovery Program (RENEW), Habitat Stewardship Program, Endangered Species Recovery Fund, Ecological Gifts, EcoAction.

5.1.1..3 Recovery Strategies/Conservation Agreements under SARA

Under SARA, recovery strategies provide baseline science information and broad measures to address threats and identify critical habitat. Action plans based on these strategies will identify specific implementation measures and time lines and evaluate the socio-economic costs and benefits of action. Implementation will often involve partnerships between the federal and provincial government, First Nations, landowners and key stakeholders. Stewardship activities on private, provincial crown, municipal, First Nations lands will be promoted through conservation agreements and funded through SARA.

CWS is a partner in recovery efforts for approximately 17 species, including the Whooping Crane, Burrowing Owl, Piping Plover, Peary Caribou, and American Ginseng. Recovery objectives have ranged from raising individuals in captivity and introducing them into the wild, to mitigating the effects of human activities in the species' natural habitat.

Status of the initiative

If SARA is passed by Legislature, CWS will acquire new mandates under SARA.

Information sources

Accord for the Protection of Species at Risk. Available on line at:

http://www.especesenperil.gc.ca/sar/strategy/accord_e.htm

Background information: http://www.especesenperil.gc.ca/sar/media/backA_e.htm

CWS website on species at risk: <http://www.cws-scf.ec.gc.ca/theme.cfm?lang=e&category=12>

<http://www.especesenperil.gc.ca/species/sar/programs/index.htm>

Recovery Operations Manual, A Working Draft. 20 November 2001. Recovery Secretariat.

The manual provides an overview of the responsibilities, processes and products pertaining to the recovery of nationally endangered, threatened and extirpated species; as well as describes guidelines for use by recovery practitioners such as recovery teams.

The draft manual is a work in progress with only some sections having been approved by the Wildlife Ministers or the Canadian Wildlife Directors Committee. In particular, the manual sets out an operational basis for the national recovery program and describes the history, processes, structures and functions of the National Recovery Program (RENEW) under the *Accord for the Protection of Species at Risk*. The manual has been prepared, and will continue

to be developed and maintained, by the National Recovery Working Group. The manual's audience is broad, ranging from participants in recovery teams (including those jurisdictions such as local governments and regional districts who are accountable for species recovery) and other interested members of the public.

Other key sites include:

- [Committee on the Status of Endangered Wildlife in Canada - \(COSEWIC\)](#)
- [Conserving Borderline Species: A Partnership between the United States and Canada](#)
- [Endangered Species in Canada \(Hinterland Who's Who\)](#)
- [National Recovery Program](#)
- [Search for Species at Risk in Canada](#)
- [Species at Risk \(Home page\)](#)

Project partners

Environment Canada, Fisheries and Oceans, Heritage Canada, BC WALP.

Funding sources

Government sources include Environment Canada, Fisheries and Oceans and Heritage Canada.

8.2 CWS - Environment Canada

8.2.1 Program name: Habitat Stewardship Program for Species At Risk

Program scope and objectives

The federal government has recognized the important role that stewardship plays in species and habitat conservation by making stewardship a cornerstone of its three-part strategy to protect species at risk. The goal of the Habitat Stewardship Program is to contribute to the recovery and protection of habitat for priority listed species at risk, and for other species of special concern. This goal is being achieved through three key objectives:

- To respond to habitat conservation needs at the regional/ecosystem level by implementing local actions within a broader ecological or landscape/ waterscape context. By focusing on landscapes at risk of biodiversity loss, it is hoped that habitat projects will benefit multiple species at risk and prevent species from becoming at risk.
- To enable Canadians and Canadian organizations at the local community level to become actively and concretely involved in stewardship projects for species at risk that will result in tangible, measurable environmental benefits.
- To improve the scientific, sociological, and economic understanding of the role, effectiveness, and potential of stewardship as a conservation tool.

Projects approved for funding under the Habitat Stewardship Program will address the stewardship needs of the following groups of species, with priority going to species of national concern and species in areas at high risk of biodiversity loss:

- All COSEWIC listed species at risk (endangered, threatened and species of special concern);
- Species listed under Provincial or Territorial legislation; and
- Species not yet listed, but for which stewardship actions will prevent them from becoming at risk.

Any organization, business, community, individual, or non-federal government agency is eligible to receive funding under the Habitat Stewardship Program.

Program activity areas and program priorities

The first year (2000/2001) of the Program has seen the establishment of over 60 partnerships with First Nations, landowners, resource users, nature trusts, provinces, the natural resource sector, community-based wildlife societies, educational institutions, and conservation organizations at every scale.

Stewardship projects resulting from these partnerships have benefited the habitat of approximately 60 nationally endangered and threatened species, and well over 100 provincially-listed species at risk.

A priority landscape and species that have been targeted in the first year of the Program include: the South Okanagan-Similkameen region of BC, home to 23 species at risk.

Habitat Stewardship Program funds are directed toward the conservation of habitat for the recovery of species listed as endangered, threatened or of special concern. Projects include those that cover entire landscapes, in order to address habitat for several species at risk within a single ecosystem, such as the Garry Oak Ecosystems project on Vancouver Island, and those that cover entire marine ecosystem projects in order to minimize threats for species such as the endangered Right Whale. The Program also includes a number of smaller initiatives to benefit a specific species or habitat.

The program enhances local government land-use practices to help maintain habitat critical to the survival and recovery of all species, especially those at risk.

Status of the initiative

HSP is now in its second year of operation. Almost every major ecosystem is represented. The initiative will likely continue and may be expanded depending on further funding after 2005.

Information sources

Species at Risk HSP Backgrounder: http://www.speciesatrisk.gc.ca/species/sar/media/back2_e.htm

Key contact: Canadian Wildlife Service, Pacific & Yukon Region Tel: (604) 940-4700

Habitat project descriptions: http://www.cws-scf.ec.gc.ca/habitat/descriptions/index_e.cfm

Project partners

The Habitat Stewardship Program for Species at Risk is a partnership-based conservation initiative sponsored by the Government of Canada. Now in its second year of operation, the HSP is administered by Environment Canada and managed cooperatively with Fisheries and Oceans Canada and Parks Canada.

Funding sources

The following are funding sources for the Species at Risk HSP:

- 2000-2001: the program's first year, \$5 million was distributed to 70 partners;
- Spring of 2000: the federal government announced new funding for the strategy, including \$45 million over 5 years for HSP;
- 2000: the Government of Canada committed \$180 million for the National Strategy for the Protection of Species at Risk, of which \$45 million was committed to HSP over five years;

- 2001-2002: Environment Canada, Fisheries and Oceans Canada, Heritage Canada provided \$10 million toward the conservation of habitat and species at risk. The funding supported more than 150 projects across the country under the program.

8.3 Environment Canada

8.3.1 Program name: Georgia Basin Ecosystem Initiative

Program scope and objectives

The Georgia Basin Ecosystem Initiative (GBEI) is a federal-provincial program based on results and science. It focuses on priority environmental issues for BC residents: achieving clean air, water, protecting habitat and species and sustainable communities. The overall goal of the GBEI is “managing growth to achieve healthy, productive and sustainable ecosystems and communities.”

The initiative has been working to promote a sustainable future for the Georgia Basin through partnership, innovation and consultation. Through GBEI a forum is created for addressing urban growth and sustainability from a bioregional perspective. The initiative also provides a context for working with the United States to address shared challenges, including effective management of airsheds, watersheds and wildlife populations within the transboundary Georgia Basin/Puget Sound region.

GBEI was announced in 1998 by two founding partners, Environment Canada and BC MELP. In January 2000, DFO and BC Ministry of Municipal Affairs (recently, MCAWS) formally joined the Steering and Management Committees although they had made significant contributions to the initiative from its inception.

Program activity areas and program priorities

Several key initiatives are discussed in this inventory relative to their target areas such as the Conservation of Biodiversity Pilot Project and Sensitive Ecosystems Inventory.

Status of the initiative

The GBEI has been in operation since 1998 and will be completing its first phase in 2003. An interim evaluation of the GBEI is currently underway with results due in Spring 2002.

Information sources

GBEI Action Plan Highlights 2000-2001. Government of Canada, Environment Canada, Fisheries and Oceans Canada, MELP, MMA.

The Action Plan highlights all projects undertaken and underway during the 2000-2001 fiscal year. The document outlines initiatives in the four key action plan components: Sustainable Communities, Achieving Clean Air, Achieving Clean Water, Conserving and Protecting Habitat and Species

Project partners

There are various project partners (e.g., DFO, Parks Canada, Environment Canada, MWALP, MSRM) which involve an array of local community groups, local governments and regional districts.

Funding sources

Contributions are either in-kind or leveraged through provincial and federal partners.

8.4 DFO: Habitat Conservation & Stewardship Program

Program scope and objectives

The Habitat Conservation & Stewardship Program seeks to establish partnerships to enhance habitat protection and expanded community capacity to steward fish habitat resources.

Program activity areas and program priorities

The Program has created Stewardship Coordinator, Habitat Auxiliary and Habitat Steward positions throughout Pacific Region to work with communities on watershed management planning and habitat protection activities.

The individual programs of the coordinators, auxiliary and stewards are found on a web-based map linked to the following regions:

- Vancouver Island: South Coast Area: <http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hcsp/areas/scoast.htm>
- Central Coast: <http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hcsp/areas/central.htm>
- Lower Fraser: <http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hcsp/areas/lowfras.htm>
- BC Interior South: <http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hcsp/areas/midfras.htm>

Status of the initiative

This program will be curtailed by the end of March 2003.

Information sources

DFO HCSP website: <http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hcsp/default.htm>

8.5 Habitat Restoration and Salmon Enhancement Program

Program scope and objectives

Habitat Restoration and Salmon Enhancement Program (HRSEP) focused on increasing the quantity and quality of salmon habitat and conserving salmon populations in BC and the Yukon. The program has now been terminated as of end of fiscal year 2002.

The main objective of HRSEP was to revitalize salmon populations through habitat restoration, population rebuilding and resource and watershed stewardship. Each year, HRSEP contractually funded hundreds of habitat restoration works, stewardship initiatives, and stock-rebuilding activities operated and administered by a variety of community groups and agencies (<http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hrsep/default.htm>).

8.6 Wetland Atlas for British Columbia

Program scope and objectives

The Wetlands Atlas for British Columbia will provide community groups, naturalists, land use planners, develops and all levels of government with a web-based interactive Atlas covering the range of wetland types in BC.

Building on existing Environment Canada/Canadian Wildlife Service GIS wetland data, the Atlas will be expanded over time to become a repository for community-based wetland data which will be more detailed and comprehensive than presently available from senior agencies.

The Wetlands Atlas project will enable local conservation and naturalist groups to access and add to wetland data for BC. The BC Conservation Foundation, in association with the Sensitive Habitat Inventory and Mapping project, will provide quality assurance and maintenance of this tool.

The Wetland Atlas for BC will be hosted by the SHIM Partnership on their internet map server, and will:

- promote greater understanding of wetlands among communities;
- greatly assist wetlands education projects throughout BC;
- establish an attributed and spatial database suitable for web publishing and agency GIS;
- enable wetland stewards to identify and map wetlands of all sizes at a 1:5,000 scale, and particularly smaller wetlands requiring more detailed expert assessments;
- publish all available wetland data in BC via the internet, complete with meta-data; and,
- provide a comprehensive web-site of text and graphics about wetlands and community-based mapping.

This project will ensure local communities, governments and regional districts have access to information about the importance of wildlife and habitat and better appreciate the impact of their decisions on the health of the ecosystems resulting in more informed decision-making.

9 Other Provincial and Multi-Organizational Initiatives

This section outlines provincial and multi-organizational initiatives which apply broadly to regional and local governments in each of the target area in British Columbia.

9.1 Multiple Organizations

9.1.1 *Community Mapping network*

Program scope and objectives

The Community Mapping Network (CMN) integrates data from many sources and makes it accessible through a user friendly mapping system. There are many uses for the information including habitat restoration and enhancement, watershed planning, coastal planning, as well as community planning, development referrals, impact assessment, storm water management, emergency response, research, education and awareness. The various types of information that are provided through the CMN include: fish and wildlife distribution, streams and wetlands, eagles and herons, rare and endangered species, and possible restoration sites.

The main objective of the CMN is to promote planning sustainable communities. Methods provided through CMN reflect a novel set of tools to explore and promote awareness of sensitive habitats such as urban and smaller rural watercourses, eelgrass beds, riparian areas and wetlands, by mapping their location and inventorying their attributes. The awareness and commitment to local watercourses and other sensitive habitats is an important process created through co-operation of local communities, First Nations, local governments, planners, and managers.

Community mapping methods comprise a set of tools and methods that can be used to help conserve fisheries, wildlife and aquatic habitat resources throughout British Columbia.

The Community Mapping Network:

- Builds capacity within communities to collect and manage resource information;
- Uses a network of servers to provide internet access to resource information, base maps and imagery;
- Develops common methods and standards for data collection;
- Links community based mapping with government data bases such as the Canada/BC Fisheries Information Summary Systems (FISS) and the Coastal Resource Information System (CRIS);
- Shares ideas and project information locally and internationally;
- Provides information about watershed management, stream ecology, fish and wildlife habitat and restoration opportunities and promotes active stewardship;
- Creates an open forum for discussing the use and management of natural resources; and
- Promotes planning sustainable communities.

Program activity areas and program priorities

Selected information and thematic maps are available at a scale of 1:5,000 for the Georgia Basin and Central Okanagan. Province-wide coverage is available for watercourses, fish distribution, coastal resources and other themes.

Several mapping projects exist for specific resources or for specific areas. The following four types of projects can be accessed through the CMN, some of which are described further in this inventory:

- Community mapping projects: Inner Coast Natural Resource Centre, Comox Valley Project Watershed and Upper Skeena Streamkeepers, and The Georgia Strait Alliance
- British Columbia mapping projects: Sensitive Habitat Inventory and Mapping, FrogWatch, BC Wetlands, Wildlife Observations, Coastal Resources, Natural Resources Information Network, Vancouver Island Wildlife Trees, Sensitive Ecosystems Inventory, BC Watersheds, South Coast Cutthroat
- National projects: Stewardship Canada
- International projects: Community Mapping Projects Directory

The CMN integrates community and government natural resource information using an interactive geographical information system (GIS) called Autodesk Mapguide.

Maps and natural resource information are “web-served” to assist communities and local governments with land use planning, to promote conservation and protection of sensitive habitats and to raise awareness and respect for ecological values.

On-line digitizing tools can be used to update and edit existing resource information and to delineate the location of community mapping projects in British Columbia, Canada and around the world.

Status of the initiative

This initiative is on-going and will likely be continued and expanded. However a continuing concern is funding for the management of the website (e.g., updating, maintaining, and adding data) (pers comm. DFO representative, Brad Mason, March 2002).

Information sources:

CMN website: <http://www.shim.bc.ca/>

Porter, Glen L. 2002. *Planning Sustainable Communities. A compilation of community mapping case studies from the Lower Mainland of British Columbia prepared for the Planning Sustainable Communities Workshop*. Sponsored by The Township of Langley and the Community Mapping Network. Prepared by Porter, GL Porter Consulting.

Project partners

The CMN is made up of a number of community groups, organizations and individuals that collect and map natural resource information. A steering committee is responsible for managing CMN that includes representatives from the BC Conservation Foundation, Fisheries and Oceans Canada, Canadian Wildlife Service, Ministry of Agriculture, Food and Fisheries, WALP, Fraser Valley Regional District, Greater Vancouver Regional District, local governments, and community groups. Steering committee representatives include:

- Rob Knight, Ministry of Water, Land and Air Protection
- Brad Mason, Fisheries and Oceans Canada, Habitat and Enhancement Branch
- Kathleen Moore, Environment Canada, Canadian Wildlife Service
- Gretchen Harlow, Environment Canada, Canadian Wildlife Service
- Melinda Coleman, BC Conservation Foundation
- Trina Nair, Greater Vancouver Regional District

- Marina Stejpovic, Langley Environmental Partners
- Shannon Sigurdson, Fraser Valley Regional District
- Ted VanderGulik, Ministry of Agriculture, Food and Fisheries
- Don Chamberlain, Project Watershed
- Mike Berry, Inner Coast Natural Resource Centre
- Stacy Meech, Ministry of Agriculture, Food and Fisheries
- Lesley Douglas, City of Surrey

Funding sources

Funding sources include those listed above.

9.2 Community Mapping Network

9.2.1 Sensitive Habitat Inventory and Mapping (SHIM)

Program scope and objectives

Sensitive Habitat Inventory and Mapping (SHIM) methods were developed by the Community Mapping Network (CMN) with the interest, cooperation and participation of many individuals and groups. The SHIM method is a community-based approach to mapping aquatic habitats (streams, wetlands) and their riparian areas, primarily for settlement areas of British Columbia.

This inventory and mapping project is watershed-based and provides current and spatially accurate information about local fish and wildlife habitats for use in land use planning, restoration, and monitoring. Watercourses are mapped at a 1:5,000 scale and builds on local and senior government information.

Further development and refining of these methods is progressing including new modules for mapping wildlife, wetlands and for delineating top of bank. Sensitive Habitat Inventory and Mapping methods utilize state of the art GPS technology as the foundation for collecting accurate information.

SHIM method development is ongoing and integrates at least eight years of experience and consultation with specialists, local community groups and agencies within the Georgia Basin and West Coast of British Columbia. SHIM methods are intended for distribution and use as a watercourse mapping standard. The method is comprised of a series of modules describing tools to inventory, precisely map and compile data for BC urban and rural watercourses.

The use of SHIM or other standardized mapping methods to locate, map and inventory watercourses will:

- greatly improve information about watercourses to strengthen rationale for better protection and restoration of streams and riparian habitats in the face of continued land development
- assist managers, planners and communities alike in the successful resource inventory, land use planning, freshwater restoration, enhancement and assessment of BC's urban/rural watercourses;
- improve the confidence of government agents in the information that non-government organizations collect and compile; and ultimately improve the health of British Columbia's salmonid stocks and habitats.

Program activity areas and program priorities

Since 1993, there has been a tremendous amount of community input into the development of the SHIM manual and use of the methods for data collection. Adopting one standardized inventory and mapping method is key to successful land use planning by community groups and local/senior governments and it is essential for restoration and monitoring of British Columbia's urban fish and wildlife habitats.

Recently, the Fraser Valley and Sunshine Coast Regional Districts assisted in writing the deliverables section of the manual. Other sections were written by Langley Environmental Partners and the Institute for Resources and Environment at the University of British Columbia.

To date, over 30 communities in the Georgia Basin, East coast of Vancouver Island and Central Okanagan have used the methods.

Early SHIM mapping methods were adopted from the DFO Pacific Streamkeepers' system and many local volunteers were employed to fill critical information gaps. Over the next few years the mapping projects expanded to include many local governments on Vancouver Island and the Lower Mainland. The methodology was further refined and developed through the Urban Salmon Habitat Program (USHP) in the Lower Mainland which utilized displaced fishermen through HRDC funding sources.

Recent activities included two community workshops and the development of community accessible internet mapping and publishing tools.

Once compiled, SHIM data can be integrated into local government geographic information systems and used to:

- help meet municipal government requirements under the Fish Protection Act of BC such as the Stream Side Directives;
- provide information not previously available to urban planners involved in preparing Neighborhood Plans, Official Community Plans and Regional District Growth Strategies;
- indicate the extent of riparian vegetation available for wildlife habitat conservation, locally and regionally;
- assist in determining water course setbacks for development referrals and facilitate Greenway/ESA planning; operational procedures for ditch maintenance in agricultural areas;
- assist design identify fish presence and potential barriers to fish migration; guide management decisions and priorities for habitat restoration and enhancement;
- identify areas with channel instability or water quality problems that may require more detailed studies; identify point and non-point sources of pollution;
- provide a spatially accurate framework and baseline data for future monitoring activities by senior agencies and NGOs (Streamkeepers and Wetlandkeepers).

Status of the initiative

This initiative is on-going with projects underway in various communities, some of which are described in this inventory. The SHIM project will likely continue based on assistance from various partners.

Information sources

Descriptions of 30 community projects area available at www.shim.bc.ca/what.html

Porter, Glen L. 2002. *Planning Sustainable Communities. A compilation of community mapping case studies from the Lower Mainland of British Columbia prepared for the Planning Sustainable*

Communities Workshop. Sponsored by The Township of Langley and the Community Mapping Network (a partnership of community and government conservation agencies in British Columbia). Prepared by GL Porter Consulting. 81 pp

Project partners

The project was initiated prior to GBEI but includes GBEI partners on its steering committee.

Funding sources

Funding sources and in-kind contributions derive from HRDC, DFO, USHP, and other GBEI partners. For their work on the SHIM manual, the Regional Districts received funding through Fisheries and Oceans Canada and also from many other sources including the Real Estate Foundation of BC, Fisheries Renewal, the Urban Salmon Habitat Program, the Georgia Basin Ecosystem Initiative, the Habitat Conservation Trust Fund, the George Metcalf Foundation and directly from local governments. CWS has also provided funding in the past (through workshops, 'Planning Sustainable Communities'). Note: a CMN sponsor is Integrated Mapping Technologies Inc.

9.3 WALP - Best Management Practices - Land Development

Program scope and objectives

Habitat Protection staff in WALP have developed the "best management practices" to provide local government, developers and consultants with information to identify special habitats and avoiding impacts on them.

The report, *Best Management Practices- Land Development* (March 2001) outlines environmental objectives, BMPs and requirements for land developments in the Vancouver Island region.

The document has been developed by the Vancouver Island Region of the former Ministry of Environment, Lands and Parks to assist municipalities, regional districts, Islands Trust and Ministry of Transportation and Highways (MOTH) planning, development and approval staff in the environmental review of land development and land management proposals (e.g., subdivisions, re-zonings, development permits and operational work).

The primary objective of the BMP guide is to provide a consistent proactive environmental management and protection response to authorities responsible for regulating and conducting land development activities. Although the primary audience will be local and regional district planning and development staff, the document also covers issues relevant to other local government staff such as parks and public works personnel.

Throughout the document, the Ministry's authors have set out environmental objectives and provided recommendations for the BMPs in order to effectively protect environmental values. The ministry's requirements are stated where the proposed land development activity is regulated under ministry legislation.

Land development regulating authorities are strongly encouraged to incorporate the recommendations into their decision-making process. Municipalities, regional districts and the Islands Trust are encouraged to utilize the tools available within the *Local Government Act* in order to maximize protection of environmentally sensitive areas, including the review and revision of

official community plans, bylaws, development permit areas, density bonus and density transfer options.

The ministry has initiated the first of several monitoring reports to assess the effectiveness of environmental protection measures being applied to land developments regulated by other agencies.

Information sources

WALP planning and assessment program staff are available to provide assistance, as resources permit.

BMP- Land Development, WALP, Vancouver Island Region, Environmental Objectives, BMPs and Requirements for Land Developments (March 2001):

http://wlapwww.gov.bc.ca/vir/pa/bmp_dev1.htm

9.4 MSRM - Terms of Reference for vegetation and wildlife bio-inventory assessment

Program scope and objectives

Former MELP has recommended a bio-inventory assessment of a site when there is insufficient information available on an area or habitat to prescribe appropriate recommendations for the mitigative protection of wildlife habitat or compensation for permanent habitat loss associated with or adjacent to a proposed development.

It is suggested that bio-inventories follow the standard inventory methodology prepared by the Resource Inventory Committee and outline: vegetation communities, adjacent land uses, wildlife habitat values, wildlife species presence, potential habitat enhancement opportunities, with summary tables, photo-documentation and study area map sheets indicating inventory data.

Information sources

Information is available through [MSRM](#) at

http://srmwww.gov.bc.ca/sry/csd/downloads/forms/environmentalmonitoring_assessments/wildlifevegbio-invdec97.pdf

9.5 WALP – Fish Protection Act, Streamside Protection Regulations

Program scope and objectives

The Streamside Protection Regulation (SPR) was brought into force on January 19, 2001. The purpose of the regulation is to protect "streamside protection and enhancement areas" from residential, commercial and industrial development so that the areas can provide natural features, functions and conditions that support fish life processes. Proactive protection is key (planning based legislation). Other legislation such as the federal *Fisheries Act* is reactive (it comes into effect when damage has already occurred).

Program activity areas and program priorities

Although WALP is the lead agency with respect to the BC *Fish Protection Act*, S.BC 1997, c. 21, it is local governments who are responsible for the implementation of streamside protection areas,

either through the regulation or through an alternative that meets or beats it. Local governments within the regional districts described in the following have five years (i.e., until 2006) to ensure they are meeting the spirit of streamside protection through the implementation of bylaws, regulations, permits or development processes, or an alternative that meets or beats it:

The definition of "local government" in section 1 (1) of the Fish Protection Act, is brought into force by the SPR for the following areas of British Columbia:

(a) the following regional districts and all municipalities within them: Greater Vancouver, Sunshine Coast, Capital, Comox-Strathcona, Cowichan Valley, Nanaimo, Fraser Valley, Central Okanagan, North Okanagan, Okanagan-Similkameen, Columbia-Shuswap, Thompson-Nicola Powell River, Squamish-Lillooet;

(b) the trust area under the Islands Trust Act.

Local government can implement the process for streamside protection immediately, if they desire. WALP staff will meet to discuss options for upgrading local bylaws to reflect new SPR measures when requested.

5.1.1.1 Existing intergovernmental cooperation agreements

The development of intergovernmental agreements (i.e., MOUs) between local governments, WALP and DFO is an important component of the SPR. Existing intergovernmental agreements with WALP regional staff will be honoured (including MOUs with the Regional District of Comox-Strathcona, Regional District of Nanaimo, City of Nanaimo).

5.1.1.2 Expectation regarding the new streamside protection measures

WALP, Vancouver Island Region staff strongly recommend the following guidelines be considered for development proposals adjacent streamside protection areas where the following situations apply:

- Within those local government jurisdictions that have adopted streamside protection measures that were less than those recommended in by MELP in previous referrals.
- Within a local government jurisdiction that has not referenced the streamside area protection recommendations in any of its regulations, bylaws or development processes.

WALP regional office staff will use the new streamside area protection measures as recommended in the SPR, with respect to streamside area protection in the future.

9.6 BC Government – BC Hydro

9.6.1 Program name: Water Use Planning

Program scope and objectives

BC Government developed water use planning (WUP) as a means to balance increasing and competing demands on provincial water resources. WUPs relate to projects with the potential to divert significant amounts of water from provincial waterways. Although they are required of all facilities subject to the provincial Water Act, the first phase of the program focuses on BC Hydro facilities.

An individual WUP is developed for each facility through a consultative planning process that considers environmental, economic and social values. Interim orders can be agreed upon to provide immediate benefits to the three value areas before the WUP is completed.

Program activity areas and program priorities

Over the next three years BC Hydro is developing WUPs for all of its hydroelectric facilities.

Status of the initiative

There are currently 12 WUPs in progress.

Information sources

See BC Hydro website: <http://www.bchydro.com/wup/>

WUP progress: <http://www.bchydro.com/wup/progress.html>

See general MSRM website: <http://srmwww.gov.bc.ca/wat/wup/wup.html>

PDF Guidelines for WUPs: http://srmwww.gov.bc.ca/wat/wup/wup_pdf/wuppdf.html

9.7 BC Wetlands Joint Venture Secretariat

Canadian Wildlife Service, Ducks Unlimited Canada (DUC), the British Columbia Ministry of Environment, Lands and Parks, and The Nature Trust of British Columbia have created a new office to further wetland conservation in British Columbia (BC) called the *BC Wetlands Joint Venture Secretariat*.

The Secretariat has been established to coordinate, facilitate, and market wetland conservation in British Columbia. A key aspect of the Secretariat's role is to coordinate activities and act as liaison within existing partnership programs, including BC's involvement in the [Pacific Coast Joint Venture](#), the [Intermountain Wetland Conservation Program](#), and the BC portions of the Boreal Forest Initiative, the Prairie Habitat Joint Venture, the Arctic Goose Joint Venture, and the Sea Duck Joint Venture.

Details on each of the sub-initiatives in which CWS is involved can be found at: http://www.pyr.ec.gc.ca/wildlife/initiatives/initiatives_eindex.htm

9.8 Ministry of Forests

9.8.1 Program name: Forest Investment Account

Program scope and objectives

The province is addressing problems at Forest Renewal BC by replacing the corporation with a new forest-sector investment model led by government and delivered by industry.

Program activity areas and program priorities

Program priorities are to ensure funding is managed and focused on the government's key forestry commitments, investment dollars will be directed to activities on: public land, enhanced forestry, watershed restoration and resource inventories, and marketing and research that supports sustainable forest management and increased allowable annual cuts.

Status of the initiative

BC Ministry of Forests has been working with FRBC to wind down its operations for March 31, 2002, and to transfer existing commitments to the Forest Investment Account. Details of the account will be released in late fall 2002. All commitments that had been entered into at the time the review was begun are to be honoured in the current fiscal year.

Information sources

Oct 24, 2001. Investment Account Will Strengthen Forest Stewardship. *Headline News*. On line at: <http://www.bcliberals.com/news/newsarchive2001/news10240101.shtml>

Funding sources

Funding from the Forest Investment Account will be available for land-based activities, marketing, and value-added growth, as well as research to promote forest stewardship, as part of the New Era commitment.

9.9 MSRM Commitment to create a *Living Rivers Act*

MSRM suggests it is “following through on the *New Era* document commitment to develop a Living Rivers Act, in conjunction with Water, Land and Air Protection. The Act would seek to “protect and improve British Columbia's river systems with scientifically based standards for watershed management, enhancement to fish habitat and a ten-year program to repair past damage.”

It is suggested that the BC Heritage Rivers Board, which promotes local stewardship efforts, will report to MSRM in this regard.

Source: 2001 Legislative Session: 2nd Session, 37th Parliament, HANSARD. Official Report of Debates of the Legislative Assembly, Tuesday, August 14, 2001, Morning Sitting Volume 2, Number 16: Estimates of MSRM. On line:

http://www.bc-land-assets.com/whats_new/other/hagen_estimates.htm

9.10 Fisheries Renewal BC

Salmonid Renewal Program the Planning and Partnership Program and Original Renewal Ideas.

The Salmonid Renewal Program provided funding to partner groups which in turn funded local groups in conservation, restoration and enhancement activities on public, private and First Nations lands. FsRBC has now been eliminated and two new Provincial funding programs will be taking over: Pacific Salmon Endowment Fund: (\$20 million has been allotted from the federal government) and the Pacific Salmon Treaty (\$140 million is being provided to Pacific coast regions over 4 years for restoration and enhancement work).

Key information sites include: <http://www.fishrenewal.gov.bc.ca/programs.htm> and <http://www.fishrenewal.gov.bc.ca/fsrbcp/programs/salpinfo.htm>

9.11 Forest Renewal BC

Watershed Restoration Program, Planning Unit Tables, research and inventory programs.

Forest Renewal BC (FRBC) has been limited by the new government. Through the Watershed Restoration Program, FRBC provided funding to forest licensees, government agencies, First Nations, and community groups for restoration activities in priority watersheds on public land. The goal of the program was to restore the productive capacity of forest, fisheries and aquatic resources that have been adversely affected by past forest harvesting.

Activities funded ranged from hill slope stabilization and road restoration to riparian revegetation and fish habitat improvement.

Key information sites include: http://www.fishrenewal.gov.bc.ca/otherprograms/frbc_wrp.htm and <http://www.forestrenewal.bc.ca/>.

9.12 British Columbia Conservation Data Centre

The British Columbia Conservation Data Centre (CDC) systematically collects and disseminates information on the rare and endangered plants, animals and plant communities of British Columbia. The CDD is a program within the Ministry of Water, Land and Air Protection, Lands and Parks which compiles information in standardized methodologies.

One initiative underway is the compilation of information on the status of provincially rare plants, plant communities, and animals (www.elp.gov.bc.ca/wld/).

Key information sites include: <http://srmwww.gov.bc.ca/cdc/tracking.htm> and <http://www.elp.gov.bc.ca/rib/wis/cdc/index.htm>

9.13 Province of BC - Biodiversity Publications Catalogue

Program scope and objectives

In 1992, the provincial government initiated a co-operative biodiversity research program with funding from various sources (the Corporate Resource Inventory Initiative; the Ministry of Environment, Lands and Parks {Wildlife and Habitat Protection Branches}; the Ministry of Forests (Research Branch); the Ministry of Small Business, Tourism and Culture (Royal BC Museum); and the Forest Resource Development Agreement (FRDA II)).

In 1995, the Ministry of Forests Research Branch and the Ministry of Environment, Lands and Parks developed a biodiversity research and extension strategy with the assistance of the provincial research community. This strategy was presented to Forest Renewal BC, which provided funding for the program beginning in 1995. The goal of the extension component of this program was to extend information to scientists, resource managers, and the public through biodiversity publications.

The publications are now on the web: The site is made up of information contained in the Biodiversity Publications Catalogue 2001, third edition which covers articles produced since 1997. These publications are intended to:

- increase awareness and understanding of biodiversity,
- promote the concepts and importance of conserving biodiversity, and
- communicate provincial government initiatives related to biodiversity.

The catalogue can be accessed through : <http://www.for.gov.bc.ca/hfd/pubs/docs/mr/mr086.htm>

Program activity areas and program priorities

Titles included in the site have been produced by the partners and have been drawn from a variety of sources. MoF adds new sources to the electronic version as they are produced.

Status of the initiative

According to an email response with Evelyn Hamilton of MoF, “there is no ongoing funding to keep the catalogue current. Nothing is in place to fund other, non-Ministry publications, as far as I know.”

Information sources

Website: <http://www.for.gov.bc.ca/hfd/pubs/biodiv/>

The Biodiversity Publications Catalogue is available as a downloadable Acrobat PDF file from: <http://www.for.gov.bc.ca/hfd/pubs/Mr.htm>

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Project partners

The catalogue was developed by the partners in the Biodiversity Research Publications Extension Committee: MELP, MoF, and the Royal BC Museum (RBCM) in response to the demand for a complete, annotated listing of available biodiversity-related publications.

Funding sources

Funding for this project was provided by Forest Renewal BC.

9.14 Wetlandkeepers Outreach – GBEI

The Wetlandkeepers Manual has proven to be very popular such that a Wetlandkeepers network is developing in the province. In addition, the Wetlandkeepers manual now forms the basis for a course at Langara College. This project provides funding to deploy Wetlandkeepers into the community including supporting a series of community advisors and establishing a formal network. Some target audiences for the deployment are municipal governments, naturalist and wildlife clubs, and streamkeepers groups. A measure of this initiative is: Community members are actively engaged in efforts related to the conservation and protection of habitat. This initiative forms part of the Protection habitat and species action plan component in the GBEI (source: http://www.pyr.ec.gc.ca/gbeims/public/search_e.asp).

9.15 Digitizing Fraser Valley Farm Field Boundaries and Land Use Survey - GBEI

This project led by Agriculture and Agri-Food Canada and is developing a GIS inventory of Fraser Valley farm fields and crops as part of an Integrated Pest Management program. The digitizing of field boundaries is now substantially complete. Detailed summer and winter land use information is being collected in agricultural areas of Delta, Richmond, Cloverdale, Western Langley and Eastern Chilliwack. There has been heightened interest in the landuse database and results can be used to support regional land use planning and environmental studies.

Two Regional Districts involved are the Greater Vancouver Regional District and the Fraser Valley Regional District. Project partners include: Environment Canada Pacific and Yukon Region, and Agriculture and Agri-Food Canada. This initiative is now completed (source: http://www.pyr.ec.gc.ca/gbeims/public/search_e.asp).

9.16 Identification of Priority Landbird Species in the Georgia basin

This on-going initiative targets regional and local planning. The project is a multi-year survey that will highlight habitat characteristics associated with riparian (in and around streams and other bodies of water) landbird species in the Georgia Basin.

Riparian vegetation is critical habitat for a high number of priority landbirds. The number of riparian bird species appears to be dependent on the size and diversity of the habitat, and the degree of human disturbance in the surrounding area. It has also been found that songbirds vary their habitat use between the breeding and migration season.

The results of this study will be integrated in the SHIM project and will be used in efforts focused on working with local governments. While the SHIM does include information about riparian habitat as it relates to fisheries values, it does not adequately reflect the riparian habitat requirements of other wildlife (such as birds).

Landbirds were monitored during fall migration along the riparian habitat at Iona Island. Migration monitoring counts many species of landbirds with high conservation concern that are not adequately covered by other bird surveys. Results will be incorporated into the SHIM project to address habitat requirements for landbirds and other riparian wildlife species.

Project partners include: Ministry of Environment, Lands and Parks Environment Canada, Pacific and Yukon Region and Canadian Wildlife Service (source: http://www.pyr.ec.gc.ca/gbeims/public/search_e.asp).

9.17 Columbia Basin Trust

The Columbia Basin Trust (the Trust) is a regional corporation created in 1995 to work with residents of the Columbia Basin to promote social, economic and environmental well-being in the region most affected by the Columbia River Treaty. The Trust is a result of the efforts of Basin residents who came together in the 1990's to press the Province of BC for recognition of and mitigation for the negative impacts on the region.

The Trust manages funds for the preservation, protection and enhancement of the environment, for the social well being of the residents, and for the economic development in the region.

The mission of the Columbia Basin Trust is to support efforts by the people of the Basin to create a legacy of social, economic and environmental well being and to achieve greater self-sufficiency for present and future generations.

Two documents establish the foundations of the Trust: the Columbia Basin Trust Act (the Act) and a financing agreement (the Binding Agreement) between the Columbia Basin Trust and the Province of British Columbia. Both came into effect in July 1995. Together, the Act and the Binding Agreement describe the Columbia Basin Trust's mandate:

- To manage the Trust's assets, including money allocated by the Province for power projects and other investments, for the ongoing economic, environmental and social benefit of the region, with out relieving governments of their obligations.
 - To include the people of the Basin in planning for the managing of these assets.
 - To work with other to coordinate activities related to the corporate purpose of the Trust.
- To achieve its mandate the Trust is committed to working with the public and other agencies and organizations in the Basin to carry out two core functions:
- to invest the capital and manage the assets of the Trust and
 - to spend the income earned from the Trust's investments to deliver benefits to the region.

One organization helping to fund activities in the region is the Columbia Kootenay Fisheries Renewal Partnership (described in this inventory).

Funding through CBT's *Community Initiatives* envelope funds activities which communities deem important and support that might otherwise not have been undertaken. Local governments have the opportunity to refine program delivery processes to ensure community participation in project selection and accountability, monitoring and evaluation. The local governments develop their own processes for public involvement in recommending and selecting projects for funding.

There are three main funding envelopes in the Delivery of Benefits Program: Community Initiatives, Sector Initiatives and Basin Initiatives.

Within each envelope, there are specific programs to address different needs in the Basin. The Trust works with many organizations which have the experience and skills to help deliver some of the programs that have been established. Interested applicants are often referred to a "delivery partner" to apply to some programs.

An example of a project funded by CBT under the "environmental sector initiative" is the **Radium-Stoddart Bighorn Working Group - Bighorn in Our Backyard**. This is a long-term project monitoring occurrence and behavioral data on the Radium-Stoddart Rocky Mountain bighorn Sheep herd in its current and former winter range. Data will assist in community planning and in the development of ecosystem restoration initiatives in this winter range. Funding was for approximately \$9,400.

10 . Resource Guides for Regional and Local Governments

The following are some resource guidebooks for regional and local governments interested in conservation planning and decision-making.

10.1 Biodiversity Guidebook

Available on line: <http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/biodiv/biotoc.htm>

10.2 Watershed Stewardship: A Guide for Agriculture

Watershed Stewardship: A Guide for Agriculture is designed for all agricultural producers - from ranchers to greenhouse growers to hobby farmers. The stewardship principles seek to enable farmers to improve their operations and enhance the quality of their local environment at the same time. Others interested in relationships between agriculture and water quality, water quantity, and healthy fish and wildlife habitats, will also find the guide useful.

The guide aims to:

- Discuss stewardship and explain its role in protecting the aquatic resources of BC
- Outline fish and wildlife habitat requirements.
- Show how agriculture and the environment can both benefit from good stewardship.
- Provide examples of stewardship practices which can be incorporated into agricultural operations.
- Profile success stories where good stewardship has benefited producers, as well as fish and wildlife in BC
- Summarize the agency approvals to be obtained before working in or near a stream

Located on the Stewardship Centre website:

http://www.stewardshipcentre.bc.ca/sc_bc/stew_series/bc_stewseries.asp#contact.

10.3 Stewardship Bylaws: Guide for Local Government

This is a practical guide for the design of enforceable local government bylaws with a stewardship component. These bylaws will be one tool along with planning, public awareness, voluntary actions and public and private investment, that will implement a stewardship ethic in British Columbia. The guide provides a simple, administratively efficient direction for small parcels of land, while allowing more innovative, customized approaches for major developments or special sites.

Within the *Municipal Act* there are both broad tools (e.g. official community plans) and specific tools (e.g. tree bylaws) that could be used to address local environmental issues. In most cases, implementing stewardship at the local government level will involve stewardship clauses in several revised or new bylaws. The guide provides a framework and foundation for developing an appropriate set of bylaws for the community that integrate with provincial and federal level regulations. The guide also recognizes an opportunity for all local governments to play a part in environmental stewardship, through their traditional role in managing land development.

The book highlights that although local governments do not manage fish and wildlife, the design of local government bylaws can have an impact on land use development practices and their effect on riparian vegetation, watercourses, wetlands and other environmentally sensitive areas.

Source: http://www.stewardshipcentre.bc.ca/sc_bc/stew_series/bc_stewseries.asp#bylaws

10.4 Stewardship Options for Private Land Owners in British Columbia

Stewardship Options for Private Land Owners in British Columbia was written for all private landowners in British Columbia who voluntarily want to protect and maintain wildlife habitat on their property.

Part 1 of the guide discusses: “Researching, Retaining and Restoring Natural Features and Habitats on your Land”. This section covers practical tips ranging from how to encourage native plants in the garden to the role of controlled fires in grasslands. Part 2 discusses “Reserving Natural Values on your Land: Legal options for Landowners”. This part addresses the legal options available for long term protection of land from management agreements to conservation covenants.

Located on the Stewardship Centre website:

http://www.stewardshipcentre.bc.ca/sc_bc/stew_series/bc_stewseries.asp#contact

10.5 Stream Stewardship: A Guide for Planners and Developers

Stream Stewardship: A Guide for Planners and Developers is designed for use by local governments, planners, developers, consultants, and anyone interested in the relationship of urban development to the fisheries resource. The document introduces concepts which accommodate urban development and conserve the fish resource, for current needs, and those of future generations.

Located on the Stewardship Centre website:

http://www.stewardshipcentre.bc.ca/sc_bc/stew_series/bc_stewseries.asp#contact

10.6 The Landowner Contact Guide

Private land stewardship is about the voluntary conservation of natural resources, and wildlife and fish habitat by landowners and concerned citizens. This guide targets individuals and community groups interested in promoting stewardship with private landowners. The guide describes an approach designed to provide landowners with information about ecological values and stewardship practices.

Located on the Stewardship Centre website:

http://www.stewardshipcentre.bc.ca/sc_bc/stew_series/bc_stewseries.asp#contact

10.7 Community Greenways: Communities to Country, and People to Nature

Community Greenways: Linking Communities to Country, and People to Nature provides tools that help community leaders to understand the principles of the natural systems that support life.

Source: <http://www.stewardshipcentre.bc.ca>

10.8 A Guide to Bill 26 - New Tools for Environmental Stewardship in the Municipal Act

This paper provides a description of the amendments made in 1997 to the *Local Government Act* which enable local governments to protect, restore and enhance the natural environment, its ecosystems and biological diversity. A summary of the combined amended environmental powers is also provided.

The amendments discussed in this paper were introduced in [Bill 26 Local Government Statutes Amendment Act, 1997](#), and came into effect on October 20, 1997.

Source: <http://www.marh.gov.bc.ca/GROWTH/PUBLICATIONS/index.htm>

10.9 Engaging Local Governments in the Georgia Basin

This document is the proceedings from a one-day workshop on environmental issues held in Nanaimo BC on June 18, 1999. The proceedings contain a summary of work group sessions related to four themes:

- environmental indicators and benchmarks,
- wildlife habitat conservation,
- non-point source water contamination and
- stormwater management and planning.

The workshop was sponsored by Environment Canada, DFO, MELP and Ministry of Municipal Affairs.

The document is available on line on the MCAWS website:

http://www.marh.gov.bc.ca/GROWTH/PUBLICATIONS/proce_jun18.pdf