



Bowker Creek Urban Watershed Renewal Initiative 2006 Annual Report



Goals

The BCI is based on the four goals from the watershed plan:

Goal 1: Individuals, community and special interest groups, institutions, governments and businesses take responsibility for actions that affect the watershed.

Goal 2: Manage flows effectively.

Goal 3: Improve and expand public areas, natural areas, and biodiversity in the watershed.

Goal 4: Achieve and maintain acceptable water quality in the watershed

Activities

In 2006, the BCI focused on the Master Drainage Plan (MDP), outreach activities, greenways, and restoration and monitoring projects.



The restoration demonstration site (completed in 2005) at St. Patrick's elementary school fared well in 2006, even with unusual flooding events. PHOTO CREDIT: Tanis Douglas

Background

The Bowker Creek Urban Watershed Renewal Initiative (BCI) is a broad coalition of community, government, businesses and institutions working together to protect and enhance the ecological, social and economic health of the Bowker Creek watershed. The BCI was established in March 2004 following the completion and adoption of the Bowker Creek Watershed Management Plan (BCWMP) by the District of Saanich, City of Victoria, District of Oak Bay, the Capital Regional District (CRD) and community groups.

The BCI is led by a consensus-based steering committee which is chaired by the CRD. The committee's role is to implement actions to achieve the goals of the BCWMP. Three subcommittees: Outreach, Master Drainage Plan and Greenways, focus

on the key issues of the BCI. A part-time coordinator at the CRD initiates and manages projects, seeks funding and organizes the BCI. This position is funded by the partner municipalities of Saanich (59%), Victoria (23%) and Oak Bay (18%). This is the third annual report since the establishment of the BCI and provides an overview of progress meeting the objectives of the BCWMP.

Activities

In 2006, the BCI focused on the Master Drainage Plan (MDP), outreach activities, greenways, and restoration and monitoring projects.

Master Drainage Plan

The Master Drainage Plan (MDP) is the first phase of an Integrated Stormwater Management Plan that will be completed by 2008. The MDP was



initiated in 2006 following extensive fundraising, planning and data collection. It will be complete in spring 2007 and will investigate flooding, erosion and environmental stormwater problems and identify solutions, along with their costs and benefits. The technical information provided by the MDP will eventually be incorporated into a comprehensive Integrated Stormwater Management Plan (ISMP), which will also take into account ecological, social and economic information. The solutions identified in the ISMP will support many of the goals identified in the BCWMP.

In 2005, \$66,500 was raised or contributed by the BCI partners for the MDP data collection and technical study, in addition to substantial staff and volunteer time contributed. In 2006, a further \$70,000 was awarded from the Federation of Canadian Municipalities to allow the study to proceed.

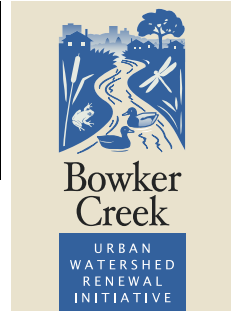
Outreach Activities

Outreach is a critical part of the Bowker Creek Initiative, as public awareness is needed to foster long term citizen stewardship in the watershed. In 2006, various outreach activities were undertaken, including:

- The interactive Bowker Creek Watershed model was created by Oak Bay High School students with the support of the Stream Team. The model was used at six outreach events, and was also displayed in the foyer of the City of Victoria municipal hall. This model was well received and has proven to be an exceptionally effective educational tool.
- The 9th Annual Bowker Creek Clean Up and Rubber Duck Race was hosted by The Oak Bay High School Visions Environmental Club, with participation from The Friends of Bowker Creek Society, the Stream Team Society and CRD Environmental Services. There were approximately 100 participants and spectators. Garbage was removed from the creek, and \$480 was raised and donated to the Friends of Bowker Creek Society.
- Channel marker signs were produced to mark the open sections of the creek and to raise awareness of the BCI.
- A bioengineering course was an important outreach tool, and included 28 municipal staff members from Victoria and Oak Bay.
- A Bowker Creek listserv was created and had 53 subscribers that received information about upcoming volunteer opportunities and other Bowker Creek news.
- Information about Bowker Creek and the Initiative was presented to community and school groups and at conferences. This included:
 - University of Victoria (UVic) Restoration of Natural Systems and Environmental Studies Classes, and UVic Sustainability Project's EarthFest
 - Water in the City Conference and Stewardship Fair
 - Bowker Creek Brush Up
 - BC Rivers Day
 - Quadra Cedar Hill and Camosun Community Association Picnics.



The Master Drainage Plan, started in 2006, will identify solutions to watershed flooding problems. PHOTO CREDIT: Peter Fell



Greenways

The Bowker Creek Watershed Management Plan includes an objective to create a multi-use greenway corridor from the headwaters (University of Victoria) to the ocean, in accordance with a regional greenway system. A greenway that follows Bowker Creek could provide riparian and aquatic habitat as well as providing an alternative transportation route that links parks, neighbourhoods, commercial centres, and public facilities such as recreation centres and schools. In 2006, the BCI Greenways Subcommittee developed recommendations for potential greenways routes and possible land acquisition requirements, in preparation for municipal greenways planning processes. This information will directly support the upcoming planning process for Phase 2 of the Saanich Centennial Trails Project. BCI input will help ensure that any future greenways will complement the goals of the BCI.

Restoration and Monitoring

Water quality monitoring continued throughout 2006, through both sediment sampling and scheduled water sampling. This sampling confirms that Bowker Creek has the poor water quality typical of urban creeks, and provides a baseline against which improvement can be measured. Flows were also monitored in preparation for the Master Drainage Plan, and unusual flooding events provided good data. An assessment of channel and streambank habitat conditions was done for the open sections of the creek, to provide information for the Master Drainage Plan. Monitoring and weeding were done at the restoration demonstration site at St. Patrick's elementary school. This site is performing as expected and has successfully withstood large flooding events. In Oak Bay, a bioengineering course was developed and participants used the technique to stabilize the creek bank adjacent to the allotment gardens on Monteith Street. Although unusual flooding damaged these efforts, the project provided useful information for future bank stabilization work. Lastly, plans were made to develop a concept for stormwater management (improved infiltration) along Trent Street, as part of a sewer pump project planned by the Capital Regional District.

Funding Source	Funding (\$)	Item
Watershed Plan Coordinator		
District of Saanich	\$30,993	BCI Coordinator
City of Victoria	12,082	BCI Coordinator
District of Oak Bay	9,455	BCI Coordinator
Project Funding		
Environment Canada	15,000	Master Drainage Plan
Capital Regional District	23,062	Proper Functioning Condition Assessment and Master Drainage Plan
Friends of Bowker Creek Society (Evergreen Unilever Fund)	1,500	Bioengineering workshop and bank stabilization
District of Oak Bay	1,000	Bioengineering workshop and bank stabilization
Federation of Canadian Municipalities	70,000	Master Drainage Plan
Oak Bay High Visions Environmental Club	1,000	Watershed Model (Stream Team Society)
TOTAL 2006	\$164,092	

* Figures in this table do not include the value of municipal staff and volunteer time.



The Bowker watershed model is a very successful and popular outreach tool.
PHOTO CREDIT: Angus Stewart

2006 Funding

In 2006, funding was provided for the BCI through various sources. The municipalities of Saanich, Victoria and Oak Bay provided funding for the BCI Coordinator. Many other external funding agencies have shown their support for the initiative by providing funding for projects within the watershed.

What's Next?

In 2007, the BCI will continue to implement activities designed to achieve the goals of the BCWMP. These activities include:

Integrated Stormwater Management Plan

A terms of reference for the Integrated Stormwater Management Plan (Phase 2) will be developed by February of 2007. Funding will be solicited to complete the plan, which if successful will be initiated before the end of the year. This plan will integrate information from the MDP (Phase 1), and will provide detailed recommendations and priorities that will provide direction in meeting the Initiative's goals with respect to: managing flows; improving public areas, natural areas and biodiversity; and achieving acceptable water quality.

Outreach Activities

Outreach activities will continue to raise awareness by sharing information about Bowker Creek with the community. The BCI will continue to support the Oak Bay High School Visions Environmental Club's 10th annual Rubber Duck Race and Clean Up, and will plan a second Bowker-focused event. The coordinator and volunteers will continue public presentations and will bring the BCI display and

watershed model to various community events. The revitalized Outreach Subcommittee will work more closely with schools and universities to support teachers in raising awareness of the watershed and to gather information and carry out projects on Bowker Creek. New outreach activities — such as a watershed pledge or a video project to collect elders' memories of the Creek — will increase the profile of the Initiative in the community.

Restoration and Monitoring

Restoration plans and priorities will be developed as part of the ISMP and implemented as possible. Monitoring and maintenance of the channel at St. Patrick's Elementary School will continue. The bioengineering done at the creek bank at the allotment gardens in Oak Bay will be repaired, and other potential improvements to that channel section may be made. Other continuing activities include water quality and flow monitoring and analysis.

Watershed Planning and Greenways

In 2007, the BCI will continue to participate in other aspects of planning in the watershed, such as providing comments on proposed developments in the watershed, and providing the BCI greenways input to the member municipalities.

Summary

During 2006, significant progress was made towards achieving the BCI's goals and in the implementation of the BCWMP. The final necessary funding was obtained for the Master Drainage Plan, and this important planning work was initiated. The BCI had a presence at various community events, and the watershed model was very well received.

The BCI worked to develop input to municipalities' greenways planning, in accordance with the goals of the BCWMP. The BCI also continued to work with agencies and groups to restore sections of Bowker Creek, raise awareness within the watershed and collaborate on watershed stewardship activities. These activities and projects are working towards decreasing stormwater and contaminant inputs entering the creek, protecting and enhancing habitat quality, achieving ecologically suitable land uses and advocating environmental protection for the watershed. Partnering with municipal, community and business partners, and planning for land use within the watershed is essential to this process and a key action for the BCI ■



Bioengineering was done to stabilize the creek bank in Oak Bay, though an unusual flood that occurred soon after meant that the work needed to be redone. PHOTO CREDIT: Matthew Wheeler