

From Pipe Dreams to Healthy Streams

A Vision for the Still Creek Watershed



The Integrated Stormwater Management Plan for the Still Creek Watershed—Draft

Draft - May 2005



EXECUTIVE SUMMARY

Still Creek Watershed

Few Burnaby or Vancouver residents have heard of Still Creek and its tributaries – including Beecher, Guichon, Chub, and Crabapple Creeks. Hidden behind industrial buildings in the low-lying Central Valley south of the Lougheed Highway, Still Creek is fed by rainwater falling on communities of Renfrew, Willingdon Heights, Brentwood, Parkcrest, Cascade, Douglas, Garden Village, and south-western Metrotown.

Those who know of Still Creek are perhaps familiar with the creek bank overflowing problems in some areas during large rainstorm events and its water quality problems as it flows into Burnaby Lake. The following Plan envisions the Still Creek watershed in the future – and sees Still Creek and its tributaries as major park, greenspace, and environmental assets to the growing communities of west Burnaby and East Vancouver.

The theme of Still Creek and its tributaries as greenways running from Vancouver to Burnaby Lake is not new. In the early 20th century, Still Creek was a vibrant destination for local residents – picnicking and fishing along the banks, and swimming in the slow-moving water. In his 1929 plan for Vancouver, Harland Bartholomew envisioned the Creek as part of his “Parks and Pleasure Drive” system connecting Vancouver and Burnaby.

Over the years however, the creek system has changed, as development has grown up throughout the watershed and specifically along the creek banks. Different sections of Still Creek and its

tributaries have been piped, channelized, and relocated to accommodate drainage flows from the changed landscapes. Where the creeks have been left open, lands have been developed up to the creek edge in many places creating potential flood risks and reducing environmental values.

Land development has created large paved surfaces and piped drainage flows to the creeks, thus reducing the ability of the watershed to naturally filter the drainage flows before they enter the watercourses. Creek water quality has also declined with sediments and pollutants entering the creeks, and then into Burnaby Lake.

Despite these changes, the watershed is still home to some small populations of native species, including great blue heron feeding along the watercourse corridors, red-tailed hawks hunting along meadow areas, and cut-throat trout darting for insects in Still, Beecher, Crabapple, and lower Guichon Creeks.

In recent years, many groups have worked to address flooding, recreational and environmental problems within the Still Creek watershed, including park acquisition, trail creation, floodplain mapping, water quality monitoring, fisheries improvements, and streamside vegetation planting. The following plan brings these efforts together, looking forward to 2055 and envisaging how the future community growth can harness positive change within the watershed, providing a renewed vision for the Still Creek corridor, its tributaries, and its watershed.

Still Creek Integrated Watershed Management Plan

The Still Creek Integrated Stormwater Management Plan (ISMP) integrates drainage planning with community growth planning, flood management, environmental initiatives, and recreation strategies.

The plan acknowledges that the health of Still Creek and its tributaries is directly affected by land use activities within the watershed – that is all lands that drain to the Creeks. Sections 1, 2, and 3 provide background to the watershed and how the health of the system has evolved over time. Key issues of the plan are outlined – rainwater management, the environment, and recreation.

The plan was developed by an interagency team, including a core team from the City of Vancouver, City of Burnaby, and Greater Vancouver

Regional District. Other key players included British Columbia Institute of Technology (BCIT), streamkeepers, the Department of Fisheries and Oceans (DFO), and local residents and landowners who shared their ideas in working sessions and open houses.

Plan Vision

Section 4 outlines a future vision for the watershed (see Figure 2-1), under the key themes of rainwater management, the environment, and recreation.

The plan's vision is *“to protect or enhance the aquatic and terrestrial ecosystems and the human populations they support in an integrated manner that accommodates growth and development.”*

Section 4 then outlines the eight main goals of the plan:

Rainwater Management Goals

- 1) Reduce flood impacts on people property and the stream channel and strive to restore a more natural flow regime
- 2) Reduce stream erosion and downstream sedimentation to levels approaching a more natural system

Environmental Goals

- 3) Protect and enhance streamside and aquatic habitats
- 4) Protect and enhance urban forest and terrestrial habitats
- 5) Protect and improve water quality
- 6) Maintain and augment native species biodiversity.

Recreation Goals

- 7) Connect people with the watershed and its streams
- 8) Provide stream related education

Plan Strategies

Sections 5, 6, and 7 outline strategies for achieving each goal. The goals cover a wide range of scales, including:

- Site-specific measures (eg. absorbent soils, infiltration facilities, viewpoints),
- operational works (e.g. infrastructure maintenance),
- system-wide initiatives and plans (e.g. local area plans around the creek, an integrated multi-modal trail network, and coordinated habitat improvements).

Integrated and coordinated strategies are critical. This is most clearly apparent in the Still Creek corridor itself, where many of the key floodplain issues occur. Figures 8-2 and 8-3 presents a more detailed vision of the corridor – illustrating concepts such as the environmental flood channel zone that protects and improves stream health, while restricting development in flood prone areas to reduce flood risk and property damage.

Plan Implementation

Section 8 outlines key steps to implement the plan, including plan adoption, partnership building, project development, and plan monitoring. The Plan also ranks costs of the initiatives, and identifies potential project coordinators. Key steps for implementing the plan are outlined in Figure 9-1.

Plan implementation will require time, resources, and significant coordination between local governments, senior agencies, landowners, tenants, and other

stakeholders. The watershed and creeks have experienced considerable pressure over the past century, and remedying previous harms will take time. The plan outlines short, medium, and long-term strategies for achieving the plan vision.

The good news is that in the course of developing the plan, several projects have already been initiated both within and outside the watershed that move the vision forward. These projects include the following:

Significant recreational and educational projects:

- The Central Valley Greenway routing has been finalized, and full route construction will be complete by 2007. When complete, cyclists, roller-bladers, and pedestrians will have a direct, largely road-separated path from Vancouver, through Burnaby and the Still Creek Corridor to New Westminster.
- Pedestrian side-trails and viewpoints also being developed and used, including trails east and west of Willingdon Ave, viewpoints to Still Creek, and the trail system along Beecher Creek.
- The Central Valley Greenway and side-trails will include interpretation telling the story of Still Creek Watershed.
- The BCIT Fish and Wildlife Program are committed to continued work on monitoring, enhancements, and education within the watershed.

Significant habitat improvement projects are underway, including:

- transformation of industrial lands near Chub Creek into 8 acres of park (Jim Lorimer Park), conservation lands, biofiltration ponds and trails.
- Still Creek habitat enhancement north of Grandview Highway
- Crabapple Creek habitat improvements, with partial funding already in place for tributary and mainstem improvements, and funding being sought for a viewpoint node on the Central Valley Greenway.
- A portion of the Still Creek mainstem is being daylighted in Vancouver through the land redevelopment process.
 - Ongoing invasive species management, stream clean-up, and educational work by streamkeepers groups.

Daylighting

Uncovering a previously piped section of a waterway – returning it to a more natural state.

New stormwater management measures are being implemented in both Burnaby and Vancouver, including

- Innovative on-site stormwater management measures (e.g. the biofiltration ponds and trails in Bridge Business Park and Brentwood town centre).
- Multi-use green roofs over both parking lots and buildings (e.g. the new Electronic Arts expansion near Guichon Creek, which will be a LEED-registered green building).
- Research into the stormwater and energy benefits of green roofs at the award-winning BCIT Green Roof Research Facility.
- Alternative road designs in Vancouver (Crown Street and Country Lanes) and Burnaby (UniverCity).

These projects are helping to propel the vision of the Still Creek ISMP forward. The journey to the vision is ambitious, but the rewards of healthy streams within a vibrant watershed is a worthwhile destination.

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