

CITY OF BURNABY

D

ENVIRONMENT COMMITTEE

HIS WORSHIP, THE MAYOR
AND COUNCILLORS

RE: STRATEGIC OVERVIEW OF FISHERIES RESOURCES IN BURNABY

RECOMMENDATIONS:

1. **THAT** Council receive the *attached* report on the *Strategic Overview of Fisheries Resources in Burnaby*.
2. **THAT** Council approve the work program as outlined in Section 5 in this report for further integrating fisheries resources management into land use and stormwater management and planning.

REPORT

The Environment Committee, at its Open meeting held on 2003 May 06, received and adopted the *attached* report summarizing the document entitled "*Strategic Overview of Fisheries Resources in Burnaby*".

The document noted that fisheries values are still constrained in Burnaby streams by major factors such as fish barriers, streamside vegetation, instream habitat, and stormwater flows and quality. In describing each limiting factor, the document also outlined potential mitigation measures for addressing these factors.

:COPY - CITY MANAGER
- DIRECTOR PLANNING & BUILDING
- DIRECTOR ENGINEERING
- DIRECTOR PARKS, RECREATION & CULTURAL SERVICES

The Committee advised that the recommendations identified within the *Strategic Overview* can be undertaken by numerous groups and individuals including agencies, developers, stewardship groups, landowners and the City. Within the City, recommendations can be folded into stormwater management planning (e.g., Integrated Stormwater Management Plans, infrastructure works, and servicing requirements) and land use planning and management initiatives (e.g., local area plans, park plans, transportation plans, individual site works, land management, and stewardship initiatives). The Committee noted that implementing the habitat improvements may be as part of existing and planned development works, or may include more proactive initiatives by the City and partners. The Committee concluded by advising that improvements will be assessed with respect to other priority programmes and financing and budgetary considerations.

Respectfully submitted,

Councillor D. Johnston
Chair

Councillor P. Calendino
Vice Chair

Councillor C. Redman
Member

TO: CHAIR AND MEMBERS
ENVIRONMENT COMMITTEE

2003 May 01

FROM: DIRECTOR PLANNING AND BUILDING
DIRECTOR ENGINEERING

OUR FILE: 11.210

SUBJECT: STRATEGIC OVERVIEW OF FISHERIES RESOURCES IN BURNABY

PURPOSE: To provide information on the *Strategic Overview of Fisheries Resources in Burnaby* and outline a work plan for further integrating fisheries resources management into land use and stormwater management and planning.

RECOMMENDATIONS:

1. **THAT** Council receive the attached report on the *Strategic Overview of Fisheries Resources in Burnaby*.
2. **THAT** Council approve the work program as outlined in Section 5 in this report for further integrating fisheries resources management into land use and stormwater management and planning.

REPORT

1.0 BACKGROUND

Environmental protection is a long-term priority of the City of Burnaby, and is a key component of the City's vision as outlined in its *Official Community Plan* (City of Burnaby 1998). Over the past 30 years, the City has initiated numerous strategies to address and reduce impacts of urbanization on watercourses and fish habitat. These strategies include the Open Watercourse Policy, projects with stewardship groups, the Watercourse Bylaw, Watercourse Classification Mapping, Integrated Stormwater Management Plans, promotion of best management practices, and the Environmental Review Committee.

In managing and guiding growth and development, the City has always sought to meet legislative requirements as set out in the federal Fisheries Act, and provincial Fish Protection Act and Water Act. These Acts promote a "no net loss" or "net gain" approach to fish habitat. Achieving this goal in a growing urban area with many competing land interests can be challenging.

In addition, effective planning for fisheries is often constrained by lack of comprehensive information. Without an understanding of the overall nature of fisheries resources for a creek, planning for an individual site works is difficult. For example, a development project

may lead to an impact on fish habitat, and require remediation and compensation works. Knowledge of the stream system, including existing constraints to fish, is critical for selecting the most cost-effective and useful remediation plan.

In 2000, the City adopted the Regional Liquid Waste Management Plan prepared by the GVRD. As part of the commitments under the Plan, local governments will undertake stormwater management planning work for better management of stormwater as a resource and of the environmental resources. In the past few years, the City has initiated stormwater planning projects in several watersheds in the City and found that having a comprehensive inventory and data on fisheries resources is essential to the stormwater planning work.

In order to support the City's sustainable development goal and to fulfill its commitment under the Liquid Waste Management Plan, staff have developed a work program to compile data and inventory for existing City streams and to identify possible enhancement opportunities. The findings of this work are being presented in a four-volume document called the *Strategic Overview of Fisheries Resources in Burnaby*.

The following report provides an overview of the document, presents *Volume 1*, and details a broad work plan for implementing findings.

2.0 Purpose of *The Strategic Overview of Fisheries Resources*

The purpose of the *Strategic Overview of Fisheries Resources in Burnaby* is to provide an overview assessment of Burnaby fish resources. The document is designed to inform stormwater management (e.g., Integrated Stormwater Management Plans, infrastructure works, and servicing requirements) and land use planning and management initiatives (e.g., local area plans, park plans, transportation plans, individual site works, land management, and stewardship initiatives). The document should improve understanding of fisheries resources, help evaluate the fisheries implications of land use planning and servicing alternatives, help identify priority areas of fisheries concern, and assist in the selection of cost-effective habitat enhancement opportunities.

Specific goals of the *Strategic Overview* are to:

1. Collate and refine existing watercourse and storm drain mapping to document watershed drainage area, stream characteristics, fish-bearing status, and assessment of stream flow permanence.
2. Evaluate existing and potential fisheries resources for streams within the City of Burnaby.

3. Identify key limiting factors to fisheries resources, and
4. Identify priority actions for improving and protecting fish habitat.

3.0 **Contents of *The Strategic Overview of Fisheries Resources***

The report is structured as four volumes. Volume 1 is included with the Committee Agenda and provides introductory and background information for the watercourse appraisals found in the other volumes.

Volumes 2 - 4 provide fisheries appraisals of individual watercourses within the City, summarizing fisheries values for each watercourse, describing past enhancement works, outlining limiting factors to future fish habitat, and suggesting priority fisheries enhancements. The appraisals are currently being compiled and linked to City mapping software. They will be released after full technical review, through the Environment Committee and Council within the next year. The appraisals are grouped under three volumes: Burrard Inlet Watercourses (Volume 2), South Slope Watercourses (Volume 3), and Central Valley (Brunette) Watercourses (Volume 4).

The *Strategic Overview of Fisheries Resources in Burnaby* compliments and builds on existing watercourse mapping initiatives, such as the watercourse classification and BCIT mapping. The document is being prepared by City staff, with individual stream appraisals prepared by consulting fisheries biologists in close consultation with stream stewards. Staff from federal and provincial fisheries agencies, and a representative of stewardship groups have provided technical review of Volume 1 of the report. Funding for consultants was provided by the provincial Urban Salmon Habitat Program.

4.0 **Key Findings of Volume 1**

Volume 1 reviews the impacts of urbanization on Burnaby's fish habitat, outlining fish species historically and currently found in Burnaby streams. The Volume also summarizes federal, provincial, and City regulations and requirements related to fish and watercourses.

Over the past century, salmon populations within Burnaby have sharply declined as the City has grown and urbanized. This trend is consistent throughout urbanizing parts of the Lower Mainland. By the 1970s, although over 60 open watercourses remained in the City, there were no salmon runs in Burnaby's major creeks, such as Byrne, Brunette, Stoney, and Eagle Creek.

The past two decades have seen a remarkable turnaround. Thanks to the hard work of streamkeepers, landowners, academic institutions, and government, populations of resident trout have re-established in Burnaby streams, and small numbers of migratory salmon and trout have also begun to return.

Fisheries values are still constrained in Burnaby streams, and the report outlines the major limiting factors – fish barriers, streamside vegetation, instream habitat, and stormwater flows and quality. In describing each limiting factor, the report also outlines potential mitigation measures for addressing these factors. The report includes numerous examples and photographs from Burnaby streams.

5.0 Work Plan for Further Integrating Fisheries Resources into Land Use and Stormwater Planning

The *Strategic Overview of Fisheries Resources* highlights areas of concern and possible improvements for fisheries resources in Burnaby. The following work plan outlines methods for integrating these findings into planning and management initiatives.

Step 1: Distribute Volumes 1 - 4 of the *Strategic Overview of Fisheries Resources*.

The information contained in the *Strategic Overview of Fisheries Resources* will be of interest to agencies and individuals working in and around streams or dealing with stormwater management. These groups include streamkeepers, agency staff, City staff, landowners, residents and developers.

Broad distribution is important. The ability to easily update the document is also important – as regulations evolve and works around watercourses change (e.g., new crossings, enhancement works, etc). Therefore, the key proposed method for report distribution is electronically through the City website. Volume 1 will also be available in a hard-copy format.

Volume 1 can be linked to the Environmental Planning homepage, as a PDF document. The Volume is designed to be readable in both colour and black and white. The Environmental Planning homepage can include a table of contents of the document with PDF linkages, so that a reader can jump directly to a particular section (e.g., “Fish Habitat in Southwest BC”, or “Fish Species in Burnaby” or “Streamside Vegetation”).

Individual appraisals in Volumes 2 - 4 can be disseminated through the City website and webmapper. Interactive maps will allow users to click on a stream and find out about documented fish presence, fish barriers, past enhancement projects, and potential future works.

Step 2: Implement habitat improvements.

Recommendations identified within the *Strategic Overview* can be undertaken by numerous groups and individuals including agencies, developers, stewardship groups, landowners and the City. Within the City, recommendations can be folded into stormwater management planning (e.g., Integrated Stormwater Management Plans, infrastructure works, and servicing requirements) and land use planning and management initiatives (e.g., local area plans, park plans, transportation plans, individual site works, land management, and stewardship initiatives). Implementing the habitat improvements may be as part of existing and planned development works, or may include more proactive initiatives by the City and partners. Improvements will be assessed with respect to other priority programmes and financing and budgetary considerations.

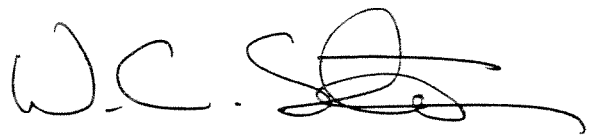
6.0 Conclusions

The ongoing growth and development of the City presents both challenges and opportunities to fish and aquatic life. Redevelopment provides opportunities to fix some of the limiting factors to fish (e.g., remove fish barriers, remediate contaminated sites, provide more on-site stormwater detention facilities). Urban intensification, however, also presents challenges (e.g., more impervious surfaces, more watercourse crossings).

The report provides a work plan for further integrating fisheries resources into land use and stormwater management and planning. The report presents the *Strategic Overview of Fisheries Resources* as an ongoing resource to City staff, agencies, stewardship groups, and other interested parties. The *Strategic Overview of Fisheries Resources* should guide decision-making on how to best protect and enhance fish resources, while the urban environment continues to grow and evolve.



J.S. Belhouse, Director
PLANNING AND BUILDING



W.C. Sinclair, Director
ENGINEERING

RW/jc

cc: City Manager
Director Parks, Recreation and Cultural Services

