



City of Port Moody

Report/Recommendation to Council

Date: October 23, 2019
Submitted by: Environment and Parks Department
Subject: Beaver Management Plan

Purpose

To submit the draft Beaver Management Plan (the Plan) to Council for consideration of endorsement.

Recommended Resolution(s)

THAT the Beaver Management Plan be endorsed as outlined in the report dated October 23, 2019 from the Environment and Parks Department regarding Beaver Management Plan;

AND THAT staff be directed to proceed with finalizing and implementing the Beaver Management Plan and to include an annual budget of approximately \$45,000 in the 2020-2024 budget process.

Background

At the Regular Council meetings held on January 23 and March 13, 2018 Council passed a series of motions regarding the development of a Beaver Management Plan (**Attachment 1**). The scope of work for the Plan is intended to promote beaver coexistence, engage local community stakeholders, outline best management practices, and address regulatory compliance and risks and liabilities associated with flooding, property damage, ecological impacts, and human health and safety. The Plan follows the following general outline as approved by Council on March 13, 2018:

1. Background and purpose of the Plan;
2. The ecology of Port Moody;
3. Beaver ecology:
 - a. Habitat;
 - b. Diet; and
 - c. Life History;
4. Influence of beaver dams on local ecology;
5. Urban beavers – risks and educational opportunities;
6. Opportunities for coexistence; and
7. Recommended beaver management techniques.

In August 2018, staff engaged wildlife and communication consultants to develop the Plan. Key community stakeholders and regulatory agencies were engaged throughout the process between November 2018 and June 2019.

Discussion

To develop the Plan, stakeholders were invited to a series of facilitated workshops to gather input on the planned scope of work and objectives; decision-making framework and criteria; and detailed content of the Plan. A summary of the workshop series is shown in Table 1.

Table 1: Stakeholder Workshops

Workshop	Date	Summary
1	November 29, 2018	Staff presented the Council-directed scope of work for the Plan and the group discussed potential inputs.
2	February 28, 2019	Staff received feedback on the draft decision-making framework.
3	June 11, 2019	The group reviewed and discussed the draft plan.

The outcome of this process is a finalized draft Plan, which is included as **Attachment 2**.

The Plan summarizes the current information about beavers and provides the best available science and current best practices to understand the implications of coexisting with beaver populations around the City. The Plan balances the needs of beavers, fish, and other wildlife with the need to protect public safety, integrity of infrastructure, private and City lands including public easements, and statutory rights-of-ways.

The Plan encourages coexistence with beavers through techniques that are designed to mitigate the impacts of beaver activity, thus allowing a beaver colony to remain in place, and avoiding the need for lethal trapping or relocation to the fullest extent possible. To facilitate this, the Plan provides a Decision-Making Framework and a Diagnostic Key to help guide the City in making informed decisions in relation to the coexistence with and management of beavers. The diagnostic key is a stepwise approach to beaver coexistence that ensures appropriate decision-making to address the need for resource allocation (e.g. conducting assessments, vegetation planting, tree wrapping, installing of materials, and/or removing of materials), enhancement potential, ecological effects, risks of effects, and regulatory compliance.

As identified in the Plan, beaver restoration efforts across North America are promising; however, not all areas are appropriate or suitable to support beaver colonies. In highly urbanized areas, coexistence with beavers can be challenging due to hydrologic and spatial constraints. In addition, limited research exists for beaver coexistence and salmon passage in urban watersheds. The Plan includes a Decision-Making Framework and a Diagnostic Key that are designed to address the unique coexistence challenges and opportunities within an urban context. Table 2 identifies key challenges and successes specific to beaver coexistence in Port Moody that have been identified through the Plan process.

Table 2: Key Challenges and Successes in Port Moody

Challenges
Provincial guidelines and the regional approach for beaver management is trapping and relocation.
There are very few beaver Qualified Environmental Professionals (QEP) in the region.
Current building and drainage requirements do not take beaver dams and adaptation into consideration.
There are formal and long-established fish hatchery volunteer organizations in the community, but there are no comparable formalized volunteer organizations for beaver advocacy (although individual volunteers are active in the community).
Balancing requirements of beavers and fish is challenging.
The City does not have regulatory authority for fish passage (i.e. DFO is the regulatory authority).
There are concerns about the impacts of beavers on riparian habitat and fish.
The municipality has an obligation to maintain public safety and integrity of infrastructure.
Successes
Stakeholders agree that beaver co-existence is possible, but challenging.
Significant stakeholder engagement, including incorporation of feedback into the Plan.
Draft Beaver Management Plan is complete.
Draft Beaver Management Plan will be amongst the first of its kind in the region.
Completion of the Plan builds upon Port Moody's ongoing history of managing for multiple species.
Education and outreach opportunities for nature interpretation about beaver coexistence.
Utilization of the Decision Making Framework was successful in addressing beaver activity adjacent to the Port Moody Fire Hall No. 1

Other Option(s)

THAT the draft Beaver Management Plan be received for information.

Financial Implications

Should Council approve the Beaver Management Plan as proposed, additional annual budget will be required to implement the Plan and allow for increased maintenance and monitoring in areas managed for beaver coexistence. Table 3 outlines the budget, which is generally based on recent experience with the management of the beaver family in Suter Brook Creek and Pigeon Creek.

Table 3: Proposed Beaver Management Plan Implementation Budget

Category	Estimated Annual Budget Required
Drainage system technical studies and risk assessments	\$10,000
Tree monitoring, wrapping, and removals	\$23,000
Installation maintenance, and monitoring of instream mitigation measures	\$5,500
Specialized infrastructure maintenance (ex. additional oil/grit separator cleaning, addition of exclusion grates, etc.)	\$4,000
Environmental monitoring	\$2,500
Total	\$45,000

It should be noted that these costs are estimated based on experience in Suter Brook Creek and Pigeon Creek. As staff implement the Beaver Management Plan, a better understanding of the actual costs will be developed and may require further budget requests or revisions through future annual budget processes.

If the Beaver Management Plan is endorsed by Council, staff will update the 2020-2024 Financial Plan to reflect the increased operating cost.

Communications and Civic Engagement Initiatives

If the Beaver Management Plan is endorsed by Council, staff will update the website and continue to consider education and outreach opportunities throughout the implementation of the Plan.

Council Strategic Plan Objectives

Acknowledging the close relationship between urban and natural environments unique to Port Moody and adopting a proactive approach to beaver management fulfills the City of Port Moody's Environmental Leadership strategic priority and meets objectives of maintaining and enhancing Port Moody's natural and built assets while reducing the impact on our planet, and expanding and enhancing policies to guide environmental goals and sustainability programs.

Attachment(s)

1. Previous Council Direction Regarding Beaver Management Plan.
2. Draft Beaver Management Plan.

Report Author

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General Manager of Environment and Parks

Report Approval Details

Document Title:	Beaver Management Plan.docx
Attachments:	- Attachment 1 – Previous Council Direction Regarding Beaver Management Plan.docx - Attachment 2 - Beaver Management Plan.pdf
Final Approval Date:	Nov 5, 2019

This report and all of its attachments were approved and signed as outlined below:

Stephen Judd
Acting General Manager of Engineering and Operations

Rosemary Lodge
Manager of Communications and Engagement

Paul Rockwood
General Manager of Finance and Technology

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