



Est. 1873

REPORT TO MAYOR AND COUNCIL

PRESENTED: MARCH 6, 2017 - REGULAR AFTERNOON MEETING
FROM: ENGINEERING DIVISION
SUBJECT: CONTROL OF NUISANCE ANIMALS – POLICY UPDATE

REPORT: 17-22
FILE: 0340-20-ENG11

RECOMMENDATION:

That Council adopt Control of Nuisance Animals Policy No. 05-205, with amendments as presented in Attachment A to this report.

EXECUTIVE SUMMARY:

At its Regular Evening Meeting on February 20, 2017, Council passed the following resolution: *“That the delegations regarding beaver control in the Township be referred to staff for a report on updating the Control of Nuisance Animals Policy No. 05-205.”*

Management of beavers and their dams falls under the jurisdiction of the provincial government and is regulated pursuant to applicable legislation. While the regulations generally prohibit disturbance or destruction of beaver dams, they do provide municipalities with the ability to control beaver activity, including removal of dams, and trapping where activity is deemed to pose a risk to municipal drainage systems, other infrastructure, property or the environment.

The Policy (Attachment A), adopted by Council in 1998, in part, states that: *“When no other effective means of preventing or controlling the potential damage due to activities of these [nuisance] animals is available, they may be removed by trapping.”* This is in compliance with provincial regulations and recognizes that municipal infrastructure, including roads and drainage systems, as well as private property may be affected by animal activities, resulting in potential public safety concerns and environment damage with significant cost and liability implications.

In 2012, Council directed staff to work with the Association for the Protection of Fur Bearing Animals (APFA) to explore alternative approaches to traditional beaver management practices. Since 2012, staff has implemented adaptive measures in collaboration with APFA at a number of locations considered to be suitable, including Horn Pitt (2013); Bedford Landing (2014); and Kelly Lake (2015). Guidelines (Attachment B) have also been developed to work in conjunction with the Policy, as an organic document that can be revised to reflect most up-to-date technology and best management practices without the need to amend the Policy.

Notwithstanding, amendments are being proposed, as directed by Council, to reflect current practice, refer to the guidelines, and clarify that trapping is only used as a last resort after all other efforts have been exhausted, and in compliance with applicable provincial regulations, requirements and standards.

PURPOSE:

This report is in response to Council's resolution of February 20, 2017, referring delegations to staff and requesting a report regarding potential updates to Policy No. 05-205.

BACKGROUND/HISTORY:

At its Regular Evening meeting on February 20, 2017, Council received delegations regarding the Township's Control of Nuisance Animals Policy, specifically relating to management of beaver activity. Subsequently, at that meeting, Council referred the delegations to staff and directed staff to bring forward a report with potential updates to Township's current policies.

Management of beavers and their dams falls under the jurisdiction of the provincial government and regulated pursuant to applicable legislation, including the Wildlife Act and the Water Sustainability Act. While the regulations generally prohibit disturbance or destruction of beaver dams, they do provide municipalities with the ability to control beaver activity, including removal of dams, where the beaver activity is deemed to pose a risk to municipal drainage systems, public assets, other infrastructure, property or the environment.

With the Township's significant land area and rural setting, it is necessary to manage beaver activity, which has the potential to conflict with human activity including farming and agricultural operations, to ensure public safety and protect infrastructure and private property.

In 2012, Council directed staff to work with the Association for the Protection of Fur Bearing Animals (APFA) on a pilot basis to assess the viability and effectiveness of alternative approaches to traditional beaver management techniques. The pilot projects involved the following:

- assessing and mapping project areas, to determine level of activity;
- developing and implementing adaptive strategies;
- collaborating with and obtaining approvals from senior levels of government, where necessary; and
- monitoring and reporting.

Since 2012, the following locations have been subject of adaptive measures in collaboration with APFA:

- Horn Pitt, in the Brookwood-Fernridge area in 2013;
- Bedford Landing Passive Park Site in Fort Langley in 2014; and
- Kelly Lake in the salmon River Uplands area in 2015.

Township's Control of Nuisance Animals Policy No. 05-205 (previous 05-745) has been in effect since 1998. The Policy recognizes that municipal infrastructure, including roads and drainage systems, as well as private property may be subject to flooding by beaver activities, resulting in potential damage to property, public safety and the environment due to erosion, with significant cost and liability implications.

DISCUSSION/ANALYSIS:

Policy No. 05-205 (Attachment A), which should be reviewed in conjunction with associated guidelines (Attachment B) set out the framework for managing beaver activity, and are based on a progressive regime that begins with hand removal of dams created by beavers without any trapping or use of machinery. The guidelines are updated from time to time, as new methods or technologies for managing beaver activity become available; and can be refined based on best management experiences without the need for an amendment to the Policy document, which, as a more high level document, provides for a more regulatory framework, rather than being prescriptive.

Measures typically include the following:

- a) wrapping of trees, to prevent removal of trees that are used by beavers for construction of dams;
- b) hand removal of dams without the use of any machinery or equipment; and
- c) installation of pond levelers, intended to control and monitor water levels and provide for an adequate but undetectable discharge of water from ponds.

Currently, there are over a dozen active beaver management sites throughout the Township, where staff is managing beaver activities, including tree wrapping, and pond levelers and ongoing monitoring.

Where management efforts, as described above, are unable to keep up with beaver activity, trapping may be deemed necessary, as a last resort. In such cases, the Township retains the services of qualified, trained, professional contractors who are required to obtain the necessary licenses and permits, following all applicable provincial and federal regulations, as well as industry standards and best management practices. Licensed contractors are subject to provincial regulations related to trapping, including the types of traps that may be used, regular inspections and reporting, as well as rigorous education requirements.

Fact sheets (Attachment C) have been developed over the years to provide the public and land owners with information regarding beaver management and the governing regulations.

Accordingly, the Policy provides for removal or trapping of animals, pursuant to applicable federal and provincial legislation and regulations, but only as a last resort; when no other means of preventing or controlling damage by animals have been proven effective and all other efforts and measures proven ineffective.

Respectfully submitted,

Ramin Seifi
GENERAL MANAGER
for
ENGINEERING AND COMMUNITY DEVELOPMENT DIVISIONS

ATTACHMENT A	Policy No. 05-205, with proposed amendments highlighted
ATTACHMENT B	Beaver and Beaver Dam Management Guidelines
ATTACHMENT C	Beaver and Beaver Dam Management Fact Sheet



COUNCIL POLICY

Subject: Control of Nuisance Animals

Policy No:	05-205
Previous Policy No:	05-745
Approved by Council:	1998-09-21
Revised by Council:	2016-05-30

1. Purpose

- 1.1. To provide direction for Township staff in resolving drainage problems resulting from activities of animals such as beavers and muskrats.

2. Background

- 2.1. Flooding of municipal and private property and damage to culverts, roads and dykes has resulted from activities of animals such as beavers and muskrats.
- 2.2. It is important to manage the activities of animals to protect municipal infrastructure and public safety.
- 2.3. Managing the activities of wildlife must reflect a balanced approach to protecting infrastructure, public safety and the environment

3. Related Policy

- 3.1. 05-002 Private Property - Entering and Working On

4. Policy

- 4.1. Township property, including roads and gravel pits, and private property has been subject to flooding by activities of beavers. Culverts and water courses of various sizes have been obstructed by these animals resulting in potential liability from flooding, and road damage from overtopping and erosion. Significant costs are incurred in clearing these obstructions.
- 4.2. Dykes are subject to damage from burrowing by animals such as muskrats and beavers. Burrowing can result in weakening of the dykes, and can provide a passage for flood waters that could eventually compromise the structural integrity of the dyke and flood public and private land and improvements.
- 4.3. Management of beavers shall be performed in accordance with applicable regulations, including Township of Langley's Beaver and Beaver Management guidelines, as amended from time to time, to reflect best management practices, industry standards and latest technology.

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- 4.4. Management of beavers shall consist of a series of progressive, coordinated and non-invasive steps, including the following:
 - i. monitoring
 - ii. Tree wrapping
 - iii. Installing point levelers
 - iv. Hand removal of dams
 - v. removal of debris and blockages
 - vi. Other non-invasive approaches, as possible.
- 4.5. When no other effective means of preventing or controlling the potential damage, and risk to public safety, due to the activities of these animals is available they may be removed by trapping.
- 4.6. A trapper, duly licensed under the provisions of Provincial and/or Federal legislation, must be contracted to remove the nuisance animals.

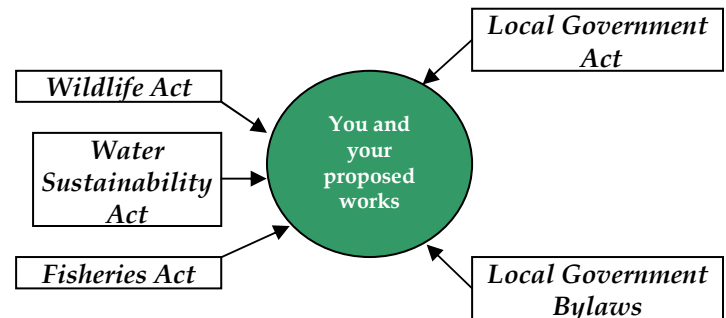


BEAVER AND BEAVER DAM MANAGEMENT

Legal Requirements

Acts and regulations exist at both the provincial and federal levels to protect fish and wildlife species and their habitats; as well as, protecting water quality and quantity. Local governments may also have local bylaws that deal with works in and around water.

Under the BC *Wildlife Act* it is an offence to “disturb, molest, or destroy” a beaver den, house, or dam unless you are a trapper as licensed under the *Act*. Alteration or removal of a dam is permitted under the BC *Wildlife Act* “to provide irrigation or drainage under lawful authority for the protection of property” and under the BC *Water Sustainability Act* “for drainage purposes with specific restrictions”. To remove a beaver dam, located in a watercourse, one must have the permission of the landowner and notify the BC Ministry of Forests Lands and Natural Resource Operations (FLNRO) prior to the commencement of works.



The federal *Fisheries Act* regulates fish and fish habitat in Canada. Section 35 of the *Act* prohibits “Serious Harm to Fish” (or fish habitat) unless authorized by Fisheries and Oceans Canada (DFO). For works that may result in Serious Harm to Fish, DFO must be contacted or notified prior to the commencement of works.

Township of Langley’s Approach

According to Township of Langley (Township) policies #05-002 *Private Property – Entering and Working on* and #05-205 *Drainage - Control of Nuisance Animals* (both revised by Council in 2016) the Township will typically only undertake works on Township property* unless under specific circumstances (i.e. risk to public safety).

**Township property= simple parcels of land and/or improvements as well as roads, right-of-ways, or works owned or operated by the Township including those held in trust by the Township.*

When a problem beaver dam is identified on Township property, staff only considers complete removal of the dam or other structures if it is deemed an emergency, and after all other management tools and options have been reviewed. To remove a beaver dam in a watercourse, the Township follows the BC [“Best Management Practices for Instream Works”](#) protocols. This involves the Township working with a Qualified Environmental Professional (QEP) to assess the proposed works. In some cases, the QEP will also monitor the works and submit notifications and reports to FLNRO (and DFO if applicable).

In the event that removal of a beaver(s) is deemed necessary (i.e. immediate threat to public safety), beaver trapping is undertaken by a licensed trapper. All trapping is conducted in accordance with local, provincial, and federal regulations. However, in all instances the Township tries to work with area landowners and residents to accept a certain level of flooding caused by beavers; therefore, reducing the need to conduct dam removals, habitat alterations, and trapping.

Note: All beaver management issues / works on **private land** are the responsibility of the property owner.

BEAVER MANAGEMENT ON PRIVATE LANDS

For beaver management issues on **private lands**, the landowner (owner) is responsible for all management activities and applicable regulatory agency contacts. To remove a beaver structure located within a watercourse the BC Ministry of Forests Lands and Natural Resource Operations (FLNRO) may require contact prior to works in order to notify and/or obtain approvals for said works. Should the project result in "Serious Harm to Fish" (or fish habitat) Fisheries and Oceans Canada (DFO) may also require contact. In the event that beaver *trapping* works are necessary, the owner may be required to hire a fully licensed professional trapper (trapper).

Beaver Dam, Den, or House Management Procedures:

- Removal or alteration via **powered machinery** must be conducted under FLNRO (and potentially DFO) notifications. Typically, notifications must be submitted to the agencies at least 45 days prior to works.
- For removal or alteration via **hand-tools** or **non-mechanized** methods - a registered trapper may have a standing agreement for selective hand removal of beaver dams and related debris under their Trapping License. If there is such an agreement, the trapper may be able to conduct these works without prior notification or approval from FLNRO. *Alternatively*, the owner may use this method of dam removal if the owner notifies the appropriate regulatory agencies prior to works.

Some alternative Beaver Management Methods:

1. Installing fences and/or barriers around culverts, drains, structures, and trees to keep beavers away.
2. Wrapping heavy gauge wire mesh around trees to prevent beavers from "working" on them.
3. Using low-voltage electric fencing to isolate areas or stands of vegetation from the beavers.
4. Installing a beaver pond leveler or other device in the dam in order to maintain desired water levels upstream and downstream of the dam; *must be done under FLNRO (and possibly DFO) notifications and/or approvals*.

Contacts:

Front Counter BC (BC Permitting and Licensing – for FLNRO contact) / Ph: 604.586.4400 or 1-877-855-3222 /
E-Mail: FrontCounterBC@gov.bc.ca / website: <http://www.frontcounterbc.gov.bc.ca/>
More information – <http://www.env.gov.bc.ca/wld/instreamworks/beaverdamremoval.htm>

Fisheries and Oceans Canada (British Columbia Regional Office)/ Ph. 1-866-845-6776
200 - 401 Burrard Street, Vancouver, British Columbia V6C 3S4 / Email: ReferralsPacific@dfo-mpo.gc.ca
More information - <http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>

Langley Environmental Partners Society (LEPS) – assistance with alternative beaver management methods
Unit 201 - 22071 48th Avenue, Langley, BC
Ph. 604.532.3511 - Website: <http://www.leps.bc.ca/>

Professional Trappers: look up 'wildlife trappers' or 'BC Trapping Association' in the yellow pages or search on-line for additional companies/services.

***Disclaimer:** It is the responsibility of the landowner to determine if any applicable environmental notifications are required, submitting said notifications (if applicable), and for the scheduling of works and all of the associated costs involved with the beaver management issues. The owner is also responsible to ensure that the chosen trapper (if applicable) has current, up-to-date, professional certification and government licensing any withstanding agreements. The Township encourages the use of alternative beaver management methods wherever feasible; however, it neither promotes nor discourages the use of beaver trapping, beaver dam removal, or beaver habitat alteration as a control/management method.*

FACT SHEET

BEAVER & BEAVER DAM MANAGEMENT



Definition: Actions taken to control beaver populations and their effects on local watercourses.

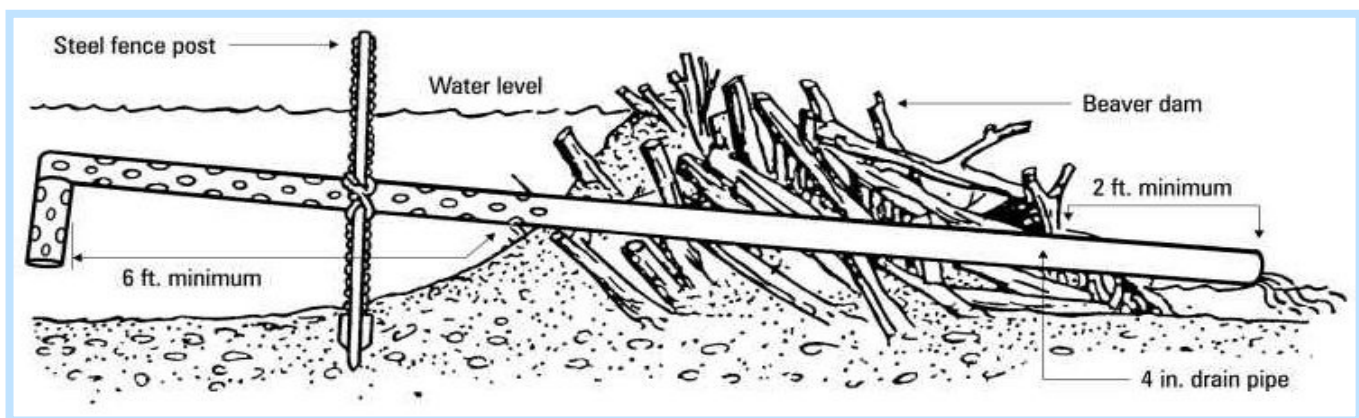
Why Is Beaver Control Needed?

As we know, beavers build dams to create habitat for themselves. In doing so, they can create chaos for others. In urban environments, beaver activity can cause flooding, damage to infrastructure (e.g., culverts and roads), loss of trees, and other hazards to private and public property. The management of beavers, their dens and dams is therefore a necessary part of operations activities. However, it is important to note that beavers, through the construction of dams and the ponds that form behind them, create some excellent summer and winter habitat for fish and other wildlife.



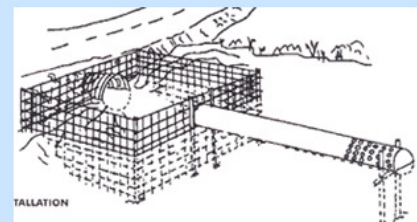
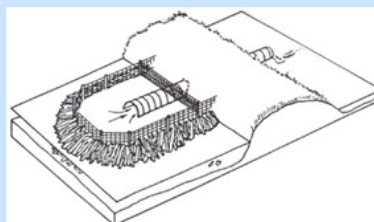
Tips for Beaver Management

Improper removal of a beaver dam can have negative impacts to fish/wildlife, fish/wildlife habitat, channel stability, and downstream users and landowners. When possible, one must consider options other than complete removal of a dam. For example, partial removal of the dam may provide adequate drainage conveyance. Alternatively, various products are available to help beavers and people to coexist (e.g. installation of a pond leveler).



www.flemingoutdoors.com

Other Types of Beaver Control Devices





FACT SHEET

BEAVER & BEAVER DAM MANAGEMENT



Beaver Dam Removal

If dam removal is necessary, it is important to ensure that accumulated sediment upstream of the dam is not released in a concentrated pulse and that flow velocities will not erode the banks of downstream reaches. The following are best management practices for dam removal:

- Remove the dam **SLOWLY**. By notching the dam, lower the water levels in steps allowing water levels to equalize before notching again to a lower level. This will minimize the chance of releasing a sudden flush of sediment downstream.
- Remove all dam materials from the site so other beavers do not re-use the material, and to ensure that the material does not end up in the watercourse where it could impede flow and cause flooding.
- Install sediment control structures downstream of the dam to contain sediment stored behind the dam.
- It may be important to install some type of beaver exclusion methods or consider having a licensed trapper physically remove the beaver(s) before undertaking dam removal activities, as the beaver(s) will try to re-build the dam and any removed or disturbed structures within their territory.



You can find further information on best management practices for beaver and beaver dam removal in the BC Ministry of Environment's *Standards and Best Practices for Instream Works*, available online at:

<http://www.env.gov.bc.ca/wld/instreamworks/index.htm>