BEAVER COEXISTENCE TOOLS

Beavers are an integral part of the landscape and provide numerous watershed benefits such as: enhanced groundwater storage, reduction of stream velocity and temperature, sediment capture, and habitat creation to name a few. Along with the benefits they provide, beavers are also known for the challenges they can pose, such as flooding and tree felling. This fact sheet is intended to provide a broad summary of solutions that can help mitigate these issues and foster an environment of human-wildlife coexistence.

BARRIERS

Culvert Protector

(beaver deceiver, exclusion fencing)

- · Prevent plugged culverts that can cause flooding of roads and other areas
- · Installed on the upstream side of the culvert.
- · Shape of the exclosure limits the feeling of water movement and there is less desire to plug the culvert.
- · Limits the access to the culvert opening and the fencing cannot be plugged easily.

Tree Wrapping

(tree wiring, exclusion fencing)

- · Prevent tree cutting or felling
- · Wire around the base of the tree prevents the beaver from accessing the tree to cut it.



REGULATE WATER LEVELS

Pond Leveller (beaver baffler)

- · Allows the user to set the pond water level to a height that is tolerable and/or minimizes flooding of areas of concern.
- · Moving the intake of the leveller pipe upstream and under water relocates the sound of running water, the trigger that alerts beaver to plug the leak. Silent leaks are not detected or repaired; beaver only react to the noisy ones. Designs can vary greatly.





HABITAT MANAGEMENT

Beaver Dam Analogue (beaver mimicry, dam mimicry, surrogate dam, artificial dam)

- Encourage beaver to reestablish in areas where they have been extirpated or away from areas of human conflict.
- The man-made dam structure constricts water flow, encourages vegetation regrowth, and provides a positive signal to encourage beaver to build there.



MORE TOOLS

HABITAT MANAGEMENT

Diversionary Feeding

(supplementary feeding)

- Prevent damage to prized trees, sustain beaver population
- Providing a food supply and building materials for the beaver encourages them to make use of the selected material instead of cutting down other trees.

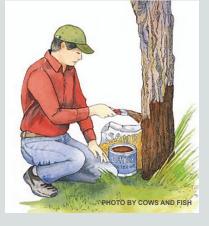
DETERRENTS

 Include: noise deterrents (e.g. propane canon), dogs, flashing lights; but these are not very successful.

REPELLENTS

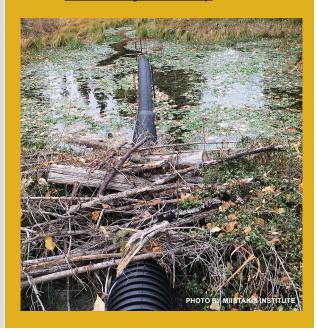
Natural or Chemical Repellents

- Includes: predator urine, cayenne pepper, hot sauce, other animal hair, chemical compounds, and latex paint with sand.
- Discourages beavers from an area or from chewing on specific trees. Use of repellents requires regular reapplication. Chemical repellents can be dangerous to use close to water.



OTHER INFORMATION

- The approaches mentioned in this fact sheet are solutions to some challenges that may arise from coexistence with beavers. Every site is unique and every tool has varying effectiveness. The information in this fact sheet is merely a summary intended to introduce the tools available for coexistence and mitigation of negative impacts of beavers. This fact sheet does not discuss tool limitations, liability, or regulatory permitting for the use of these tools. If you are considering using these tools you must first consult an expert and seek permit approval from Alberta Environment and Parks.
- · Many of the tools are cost effective
- For additional Resources please go to our <u>'Putting Beaver to Work' website</u>. There you will find:
 - Details on the components that make up the 'Putting Beavers to Work for Watershed Resiliency and Restoration' collaborative project
 - Informational videos
 - "Beaver Restoration across Boundaries" report
 - "Caring for the Green Zone: Beaver Our Watershed Partner," which provides more details on coexistence tools, information on beaver ecology, natural history, and the role beavers play in our watershed. Information for this fact sheet is based on this resource.
 - Fitch, L. 2016. <u>Caring for the Green Zone:</u>
 <u>Beaver Our Watershed Partner. Lethbridge.</u>
 <u>Alberta: Cows and Fish Alberta Riparian</u>
 Habitat Management Society.









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