



# Risk Management Considerations for Beaver Dams and Lodges

**B**eavers are ingenious engineers. They are the only creatures besides humans to have such a changing effect on ecosystems. Their dams create new wetlands, reduce erosion and help to regulate flow rates in rivers and streams. Despite their good intentions, beavers can be a menace to public works crews and city planners. Girdled, cut or damaged trees may topple over, fall on to utility lines or hang dangerously over public pathways and roadways. Beavers also plug storm drain outlets, as well as damage flood control and drainage systems creating serious hazards.

## Risk Management Considerations

The best way to prevent risks caused by beavers is to eliminate their food source. They cannot survive without a close, viable supply of their preferred trees and vegetation.

### Prevention Methods

Attempt these prevention methods in the spring or summer to give beavers enough time to get the hint and build another dam elsewhere.

### Choose Plants Carefully

Beavers prefer birch, hickory, alder, willow and maple trees. If any desirable species are located near a waterway populated with beavers, consider removing them or transplanting them

more than 50 meters away from the shore or culvert. When landscaping or re-naturalizing, plant less favourable species such as evergreens, elderberry, ninebark, white oak and elm.

### Install Fencing Around Trees

Beavers are not good climbers. Install meter high galvanized wire fencing around the base of trees to discourage beavers from cutting them down. Loosen the wire every year to keep the trees healthy.

### Apply Repellants

Offend the beavers' sense of smell and taste. Paint trees with a sand and paint mixture or spray with commercial deer or rodent repellent. Rain will wash the repellent away, so reapply frequently.

### Install Culvert Protectors

Also known as a beaver baffle or beaver deceiver, these fences block off space at the end of a culvert thus preventing a dam from being built. Its purpose is to maintain the natural flow of water and prevent flooding. Culvert protectors should be in the shape of a trapezoid, made from wire and secured to the bottom of the waterway to prevent beavers from tunnelling underneath.

## Reduce Risk Exposure

If a beaver dam has the potential to cause trouble, consider these more aggressive techniques:

### Install a Dam Pipe

Dam pipes are constructed by inserting a PVC pipe through the dam. To be successful, a beaver dam pipe must eliminate the sound and feel of water. This is achieved by protecting the intake end of the pipe with a cylindrical fence enclosure. The beaver is unable to hear or feel the flow of water into the pipe and cannot reach it to block it. In some cases the beavers will become frustrated with their malfunctioning dam and look for another home.

### Relocation

Relocating beavers is typically regulated by provincial wildlife conservation laws. Check with your local authority before attempting this method. Relocation often causes the animal pain and suffering. In some cases it is more humane to exterminate.

Note: A dam is populated with a colony consisting of 3-9 beavers. Live-trapping this many beavers may be challenging. Once caught, beavers will need to be moved at least one kilometer away. They will make a concerted attempt to return to their dam.

### Dam Destruction

The beavers' home must be completely destroyed. Beavers are incredibly industrious and will set to rebuild their habitat as soon as possible. Only repetitive and severe destruction may result in discouraging beavers from rebuilding.

## Lethal Trapping

Trapping must be executed by a licensed trapper. This method should only be used in extreme cases after all other deterrents have been exhausted. Dam destruction should be undertaken in conjunction with trapping as the dam will be welcoming to other colonies, resulting in more lethal trapping.

### Additional Steps

Educate residents living near waterways and culverts about how to prevent damage caused by beavers.

Have a reporting procedure in place that encourages citizens to notify the municipality of any beaver related activity present on public or private property. This allows for the assessment of damage as well as determining an ecologically sound and controlled way to solve the problem.