

A LANDOWNER'S GUIDE TO AMERICAN BULLFROG MANAGEMENT IN THE FRASER VALLEY

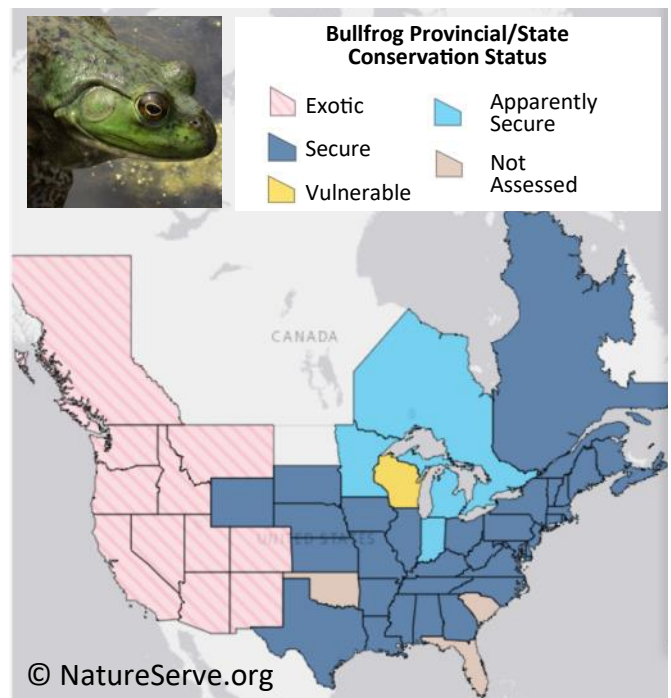
Introduction

The American Bullfrog (*Lithobates catesbeianus*) is native to Eastern Canada and the Central and Eastern United States. It was brought to the west coast in the 1940s and has become well established throughout the South Coast of BC. These frogs are an invasive species, meaning they spread rapidly and cause significant ecological harm outside their native range.

Bullfrogs are known for their massive size and even bigger appetite, eating anything that fits in their mouths.

In the Fraser Valley, native frogs like the Northern Pacific Treefrog can be sensitive to big, invasive predators. Species at risk like the Northern Red-legged Frog and endangered Oregon Spotted Frog face serious population declines in the presence of Bullfrogs.

Today, Bullfrogs continue to spread across BC and damage ecosystems due in part to humans moving frogs and tadpoles to new lakes and ponds.



Before you Begin



1. Identify: Confirm this is a Bullfrog.
2. Plan & Implement: Select your best management options.
3. Protect: Create and maintain habitat for native species.

Large-scale Bullfrog eradication requires a huge investment of resources and is not always successful. Small-scale control projects to help lessen the impacts on native species can be successful with persistence, and should be part of a larger habitat enhancement plan.

Step 1: Identify

It is critical that you correctly identify amphibians and their eggs prior to engaging in control methods. Harming protected, native wildlife is punishable by law under the BC Wildlife Act.

Native or Invasive?

In the Fraser Valley there are only four native frog species and one native toad species. Use the identification guides for amphibians and their egg masses found here:

<https://fraservalleyconservancy.ca/stewardship/>

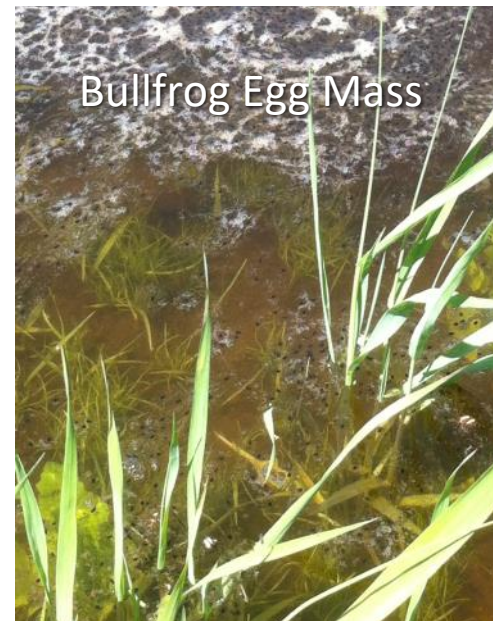
3 Important Reminders

1. Bullfrog does not simply mean *big frog*. Some native species, like Western Toad, can appear quite large. That does NOT make them a Bullfrog!
2. There are two non-native frogs in the Fraser Valley: Bullfrog and Green Frog. Green Frogs are not considered harmful to native populations and do not require control programs.
3. Invasive frogs breed in summer; native frogs breed in spring.

Bullfrog ID Tips

- Smooth back with no ridges of skin. Green Frog has ridges down its back. Western Toad is bumpy and warty.
- Ear drums as big as or larger than their eyes. Also true for Green Frog.
- Call sounds like a deep “ba-rumm, ba-rumm” in summer.

Note: Tadpoles and juvenile frogs are difficult to tell apart, and are therefore not recommended for control.



Step 2: Plan & Implement

Managing an invasive species takes time and persistence. The easiest life stage to control is the egg mass. Follow these steps to reduce Bullfrog numbers and assist native species' recovery.

Seek the Source

Did you know Bullfrogs can move a kilometer over land in wet conditions, and if ponds and watercourses are available along the way, they can travel more than five kilometers to find a new home? If there are populations of Bullfrogs around your property it is highly unlikely you will be able to stop coming to your pond.

Set Goals

The health and safety of native creatures is your primary goal.

Bullfrog control is your way of helping our natural ecosystems to persist in the face of an invasive predator. While eradication is unlikely, you can help native species populations by reducing overall Bullfrog numbers: control egg masses, control adults, or both.

Control Egg Masses

Bullfrogs breed late May – early August. Do NOT remove egg masses in the spring!

Monitor the wetland every 2-3 days to spot when the eggs appear. Using a fine net or bilge pump, remove as much of the egg masses as possible and place them on the shore to dry out.

In warm weather eggs can develop into tadpoles in less than 5 days.

One missed egg mass means 20,000 more Bullfrogs in your pond!

Control Adults

Do not attempt lethal capture methods unless you are certain of the frog identification.

Adult Bullfrogs can be effectively captured during the breeding season when they are calling at the surface of the water. On a warm summer night listen for Bullfrog calls to help you cue into their location. Using a bright flashlight, shine the beam on the surface of the water, to find the reflective eye-shine of the frog. Keeping the beam steady on the eyes of the frog will stun it; slowly approach it and attempt capture by hand or net.

Euthanize Bullfrogs humanely in two steps: 1) Place Bullfrog(s) in bucket containing 1% Benzocaine (Orajel) or clove oil solution. 2) After 15 minutes minimum, 2 hours maximum, transfer the Bullfrog to a freezer for at least 12 hours before disposing in compost or waste.

Step 3: Protect the Habitat

Bullfrog control is just one piece of the puzzle. Creating and enhancing healthy habitats for native species is the best way to help our natural ecosystems flourish in challenging times.

Manage Water Levels

Bullfrog tadpoles require deep, permanent water year-round as their tadpoles do not change into frogs in the first year. If possible, consider allowing the water level in your pond to drop in late summer, after native species metamorphosed.

Go with the Flow

Where is water collecting on your property? Where do you see native species congregating? Plan to enhance pre-existing features before creating something new.

Prioritize Native Vegetation

Planting with native species encourages healthy insect populations and enhances ecosystem function. Removing invasive plants like Yellow Flag Iris helps native plant species establish and thrive.

Add Complexity

Leave large pieces of wood in the water and allow for a variety of plants, rocks, and features to exist. The more diversity your property contains, the better chance native creatures have of surviving.

Create Connections

Many native amphibians, like Western Toads, require wetlands connected to forests to complete their life cycles. It is critical that there are corridors of healthy habitat available to our native species. Consider how your property is connected to other nearby natural spaces and how you can work within your community to improve habitat for future generations.

