

Aleesha Switzer, RPBio
Fraser Valley Conservancy
Conservation Connections,
2019

Bullfrog Management

- Bullfrogs were brought to the West Coast from eastern North America to farm frog legs in the 1930s and 1940s
- Frogs were released, escaped, and transferred to backyard ponds

GIANT FROG IN DITCH AFTER DAY IN LIMELIGHT

Gundy the Frog has gone back to his ditch.

Wednesday, Bill Neave, 683 Yale road west, was working in his hayfield when he saw a huge bull-frog staring him straight in the eye. So with the help of his two daughters — Wendy and Janet — Bill forced the monster into a shopping bag.

"I've seen a lot of frogs in my life—I've seen them at London, England, Seattle and Stanley Park—but none compare with Gundy," said Bill.

Gundy is one and a half pounds in weight and 17½ inches in size, according to Bill who had the honor of finding out his vital statistics.

The Neaves put Gundy in a huge jar, kept him there until they brought him over for The Progress to see, then let him return to his ditch.

Chilliwack Progress, July 1955







Ryder Lake, Chilliwack

- Large Western Toad population
- “Toad Tunnel”
- RAAU, PSRE, TAGR, AMMA, AMGR, PLVE
- Lakes, ponds, forests, fields



Google Earth

© 2018 Google

Image © 2019 CNES / Airbus

Image © 2019 Maxar Technologies

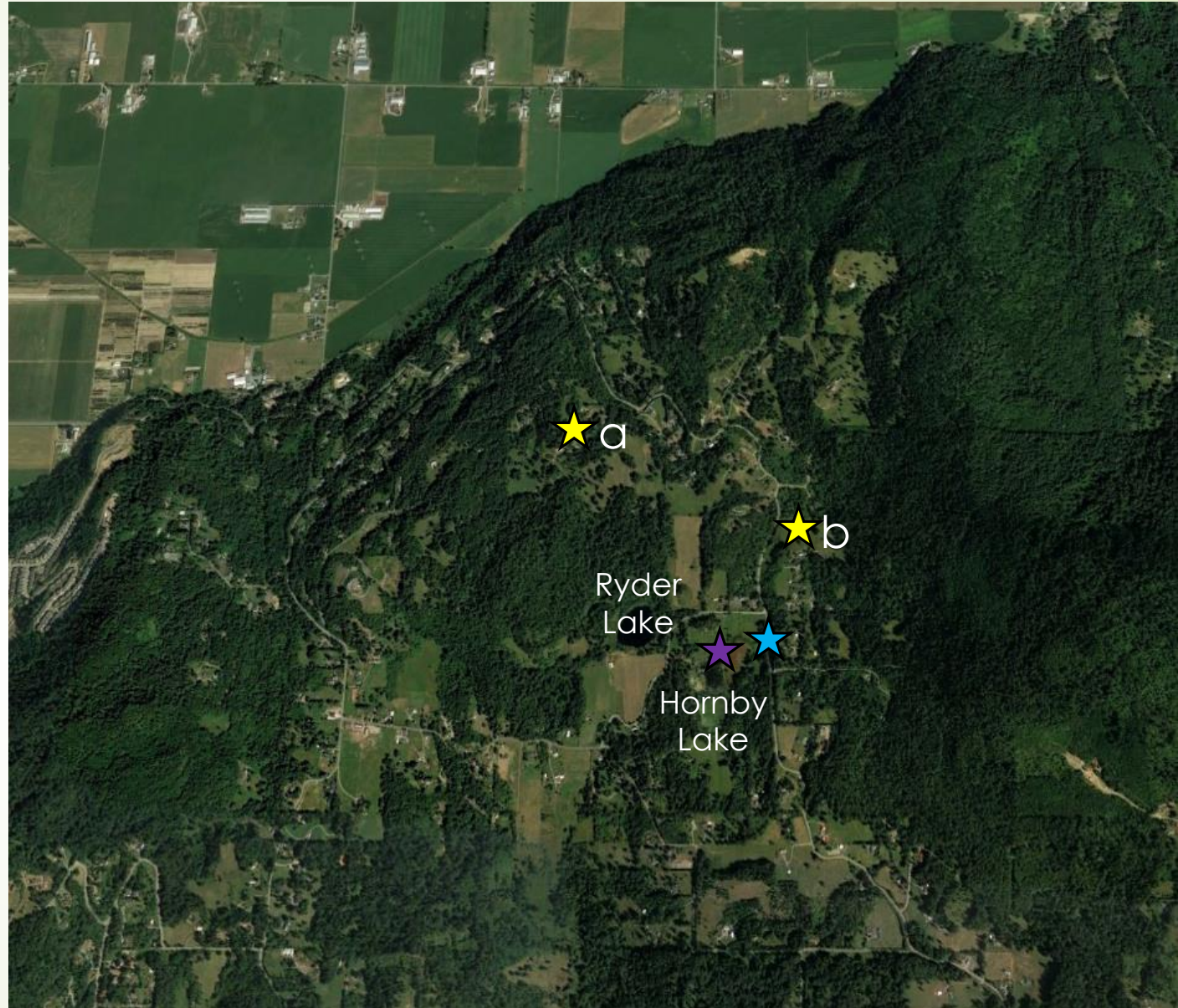
Bullfrog History

2017: Adult male x 1 (possibly 2) ★ confirmed present in Hornby Lake

2018: Three young adult LICA ★ detected during road surveys

2019: Call surveys and investigations confirmed:

- All life stages present in Hornby Lake
- Adults (breeding) and juveniles in Ryder Lake
- Adults calling at two more sites (a & b) ★



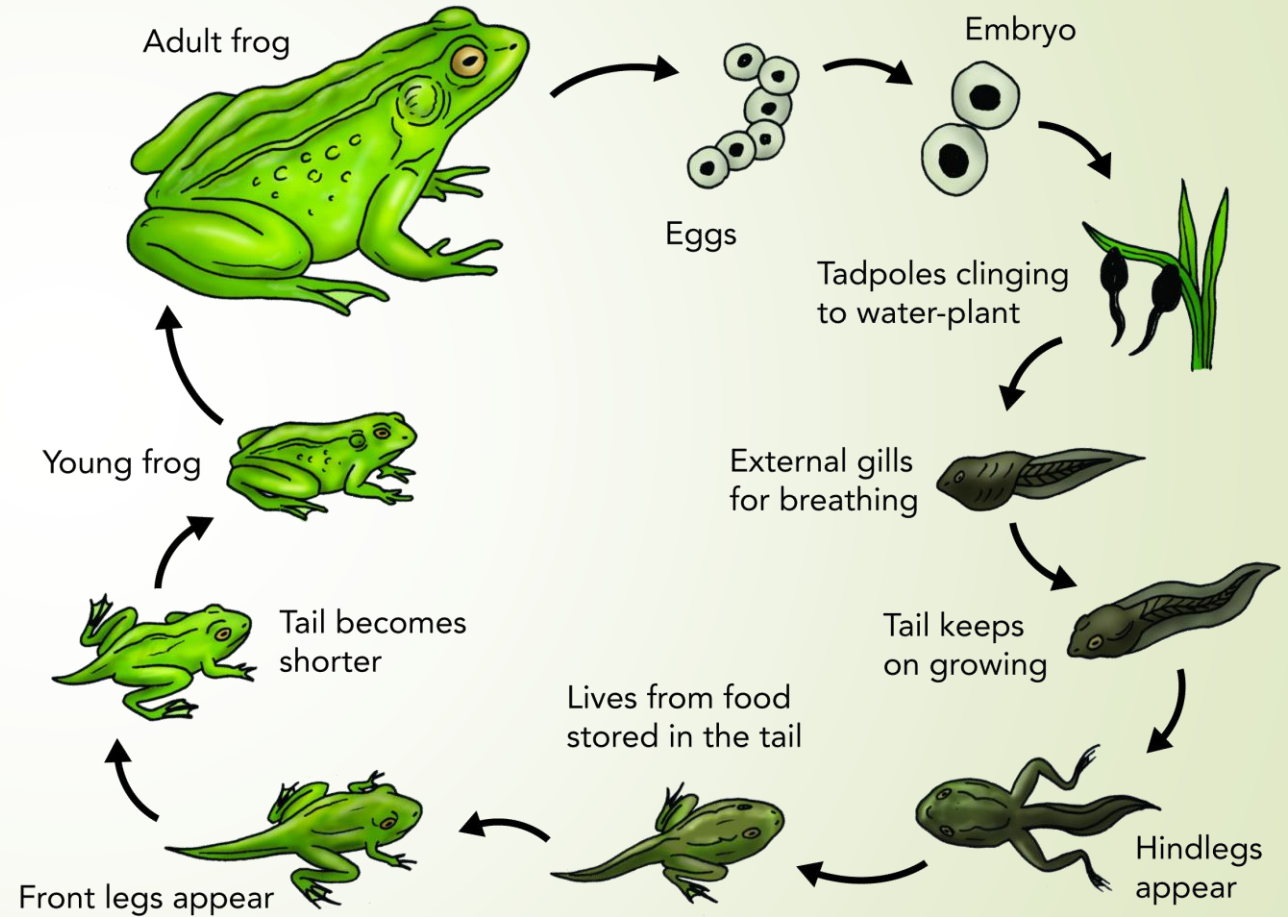


What are our options?

- 1) Eradication
- 2) Management
 - Control
 - Mitigation

Eradication

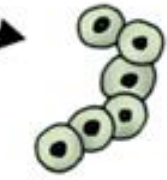
- ✓ New infestation
- ✓ Far from/not connected to source population
- ✓ Long-term commitment



Year 1



Adult frog



Eggs



Embryo



Tadpoles clinging to water-plant

External gills for breathing



Tail keeps on growing



Young frog



Front legs appear



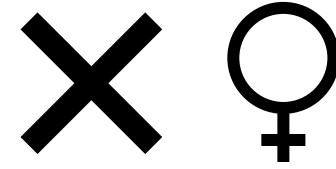
Lives from food stored in the tail



Hindlegs appear

Year 2

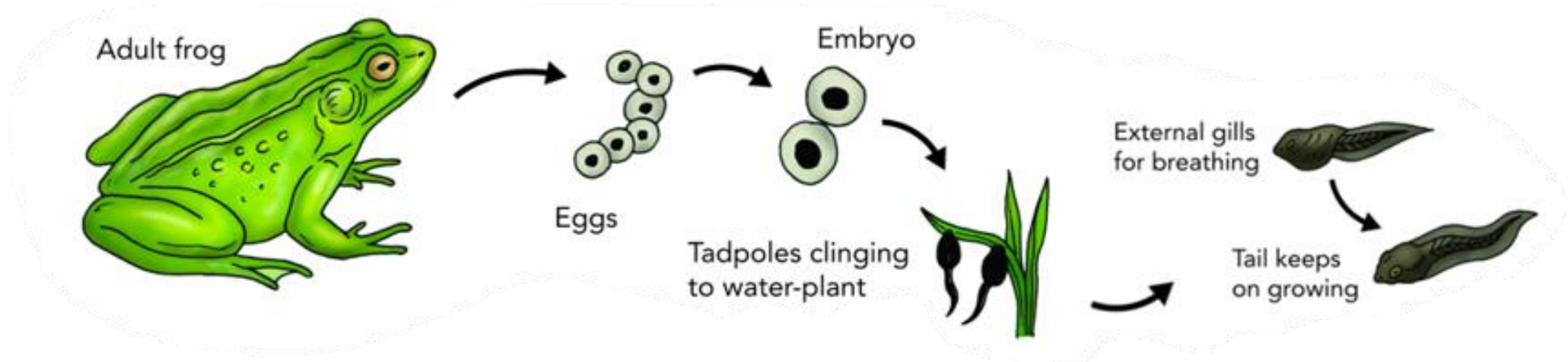
Year 3



Year 4



Year 4



LONG-TERM COMMITMENT



Eradication – Ryder Lake

- Potential introduction, unlikely migration
- Land owner support?
- Dozens of private ponds
- Long-term funding?
- Rarely feasible, but this may work



Management - Control

- Typically target adult Bullfrogs
- Cost versus benefit
- Unintended effects
- Not recommended



Management - Mitigation

Most suitable option across Metro
Vancouver / Fraser Valley (currently)

How do we help native species and
species at risk without removing Bullfrogs?

Ecosystem Resilience





Resilience and Adaptation

- Western Toads and Northern Red-legged Frogs documented co-habituating with Bullfrogs
- How? Density and diversity of native vegetation
- Native invertebrates (e.g. Giant Waterbug) predate on Bullfrog tadpoles

Healthy ecosystems are better able to tolerate
Bullfrog impacts



- Ryder Lake has too much to lose
- We need to build resiliency back into the South Coast
- Bullfrogs are not the primary problem: they are an indicator of how sensitive our last remaining bastions of suitable habitat truly are