



Flowering Rush

Nicole Kimmel
Aquatic Invasive Species Specialist

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The background image shows a natural wetland environment. In the foreground, there is a dense patch of flowering rush, characterized by its long, thin, green leaves and small, white, star-shaped flowers. The water is calm, reflecting the surrounding vegetation. In the background, a line of trees with autumn foliage in shades of yellow, orange, and green stands against a clear blue sky. The overall scene is a mix of green and brown tones, suggesting a late summer or early autumn setting.

Outline

1. Flowering Rush Identification
2. Why Flowering Rush Is a Problem
3. Response Efforts
4. Questions

Flowering Rush

Identification

Flowering Rush (*Butomus umbellatus*)



- Aquatic perennial plant
- Linear, sword-like leaves
- Showy umbel of pink flowers



Flowering Rush (*Butomus umbellatus*)



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Flowering Rush (*Butomus umbellatus*)



Flowering Rush

Origin, Uses, and Problems

Origins



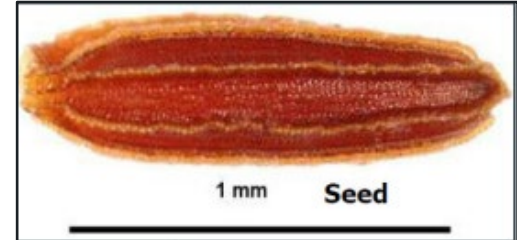
How was it introduced?

Common plant for water gardens

Commonly obtained through horticulture trade



Vigorous Aquatic Perennial



Rhizome fragments



- Large carbohydrate reserves
- Buoyancy
- Preformed roots



Growth Depth

- Max depth reported is 4.5 meters
- Grows in submerged or emergent forms



Displaces Beneficial Plants



Grows Early in Spring - April



Disturbances encourages growth



Potential Problems

- Decrease abundance and diversity of plants and animals naturally found in area
- Decrease open fish spawning habitat
- Promote deposition of sediment
- Slow or stop water movement
- Limit water access and use
- Promote habitat of intermediate host of swimmer's itch parasite (e.g. great pond snail *Lymnaea stagnalis* L.)

Flowering Rush

Response Efforts in Alberta

Clipping Flower Heads



Photos courtesy of Red Deer County



Alberta

Cutting By Hand



Digging By Hand



Steaming



Photos courtesy of Red Deer County



Mechanical Dredging



Photos courtesy of Rocky View County

Alberta

Mechanical Weed Harvester



Diver Assisted Suction Harvesting



Herbicides Applied in/near Water



Flowering Rush

Lake Isle Efforts

First Look at Flowering rush at Lake Isle

August 8, 2012



Full scale of Flowering rush at Lake Isle

August 22, 2014



Shoreline Survey of Flowering rush at Lake Isle

June 26, 2015



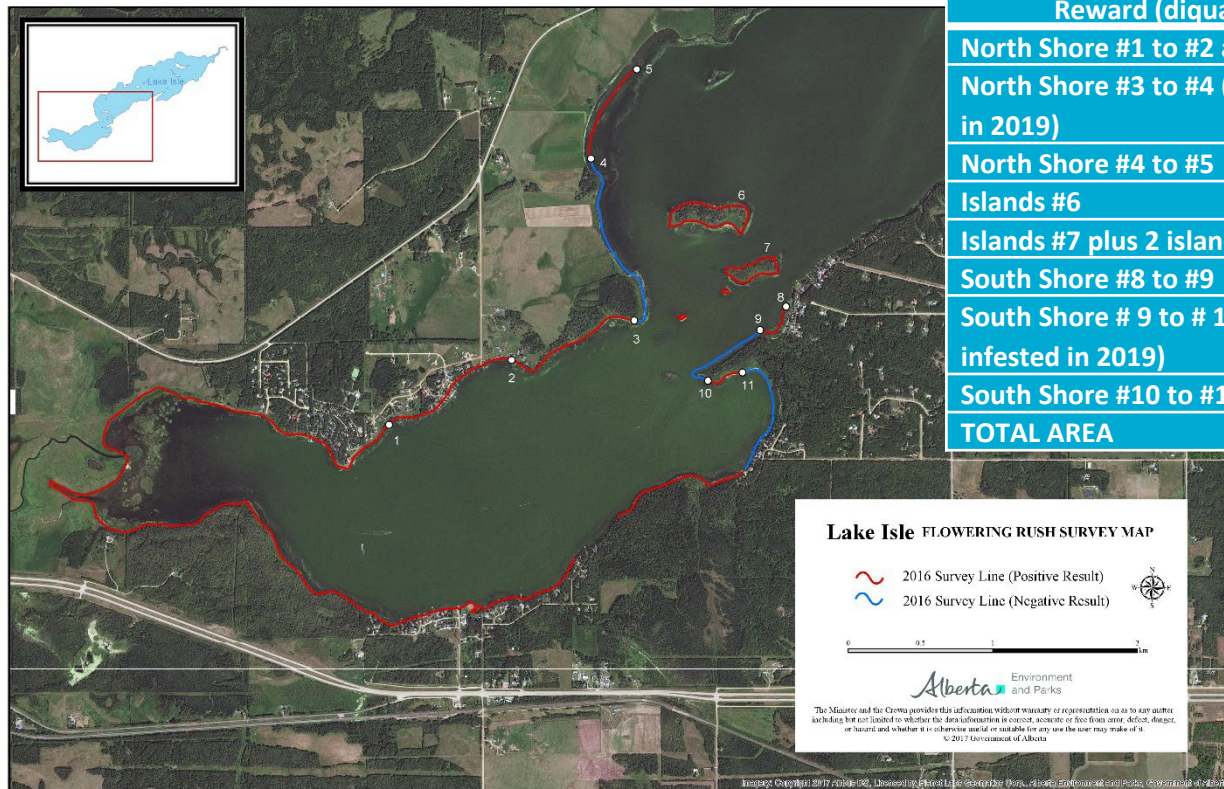
U of C graduate study to explore control methods



2016

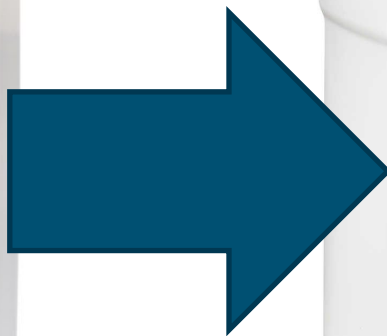
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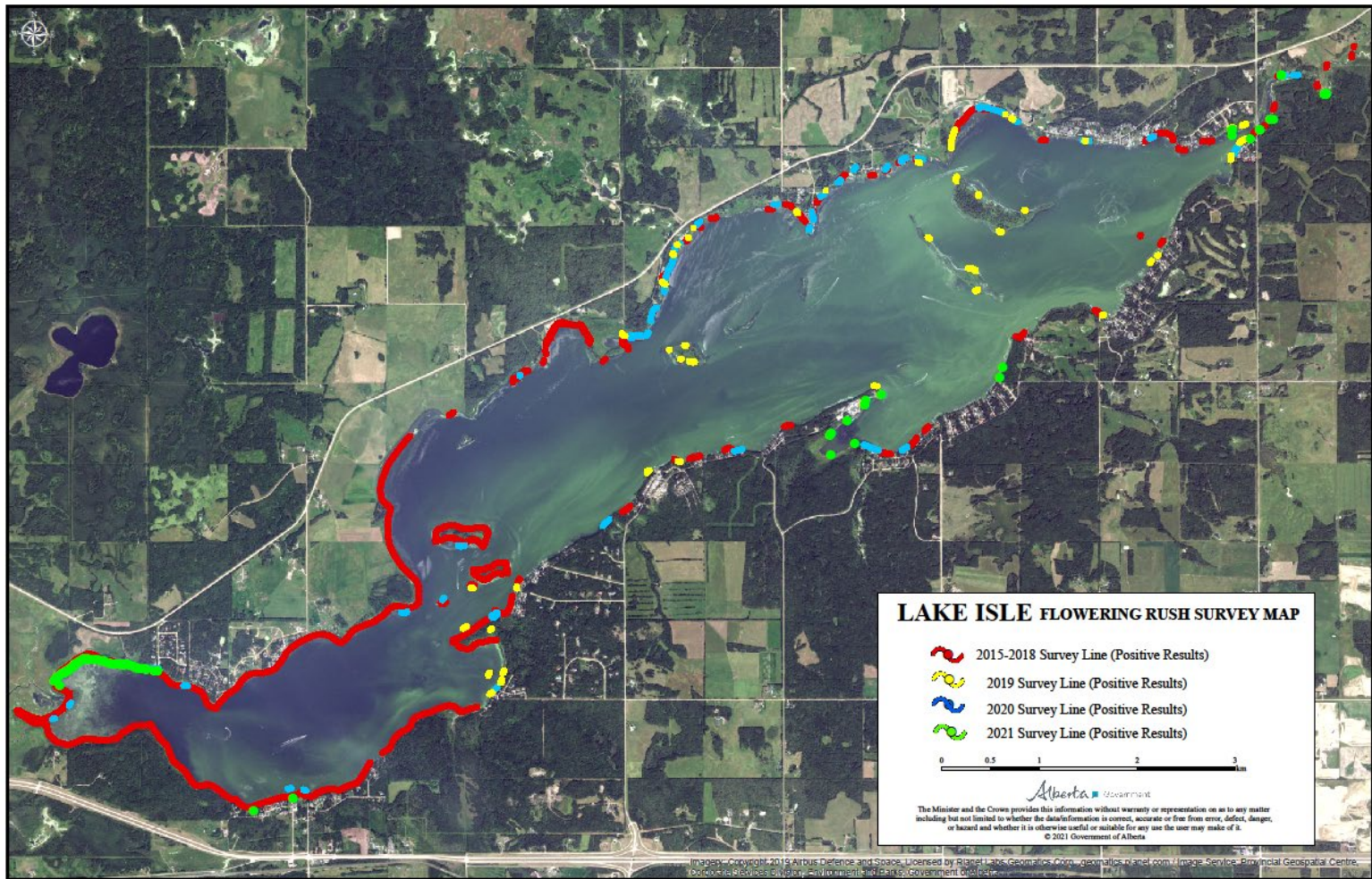
2018 Herbicide Application - **CANCELLED**



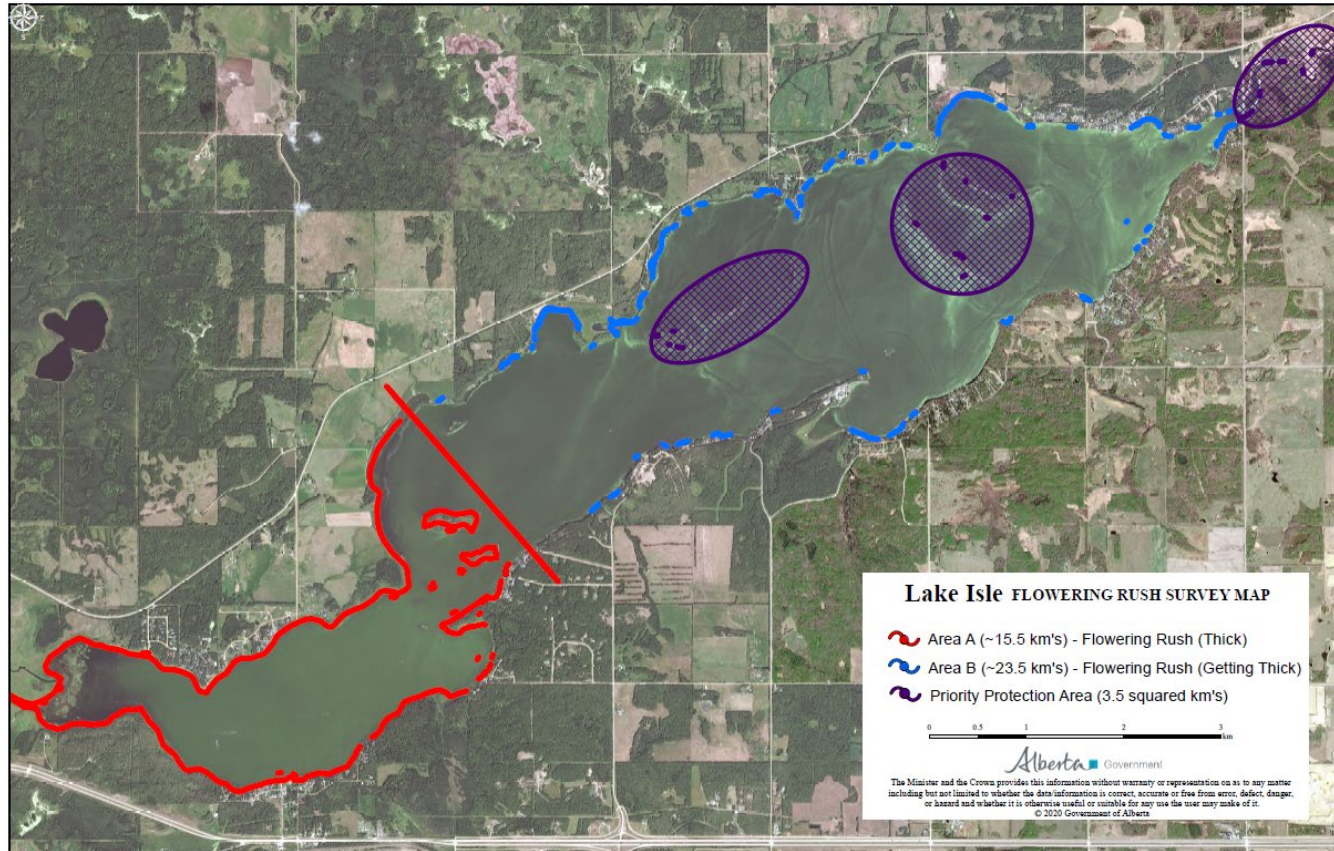
Reward (diquat) Application Area	Distance
North Shore #1 to #2 and continued on to #3	2 km
North Shore #3 to #4 (anticipated to be infested in 2019)	1.33 km
North Shore #4 to #5	0.705 km
Islands #6	1.4 km
Islands #7 plus 2 islands to the south	1.2 km
South Shore #8 to #9	0.31 km
South Shore # 9 to # 10 (anticipated to be infested in 2019)	0.7 km
South Shore #10 to #11	0.265 km
TOTAL AREA	7.91 km

New Herbicide Registration March 2021

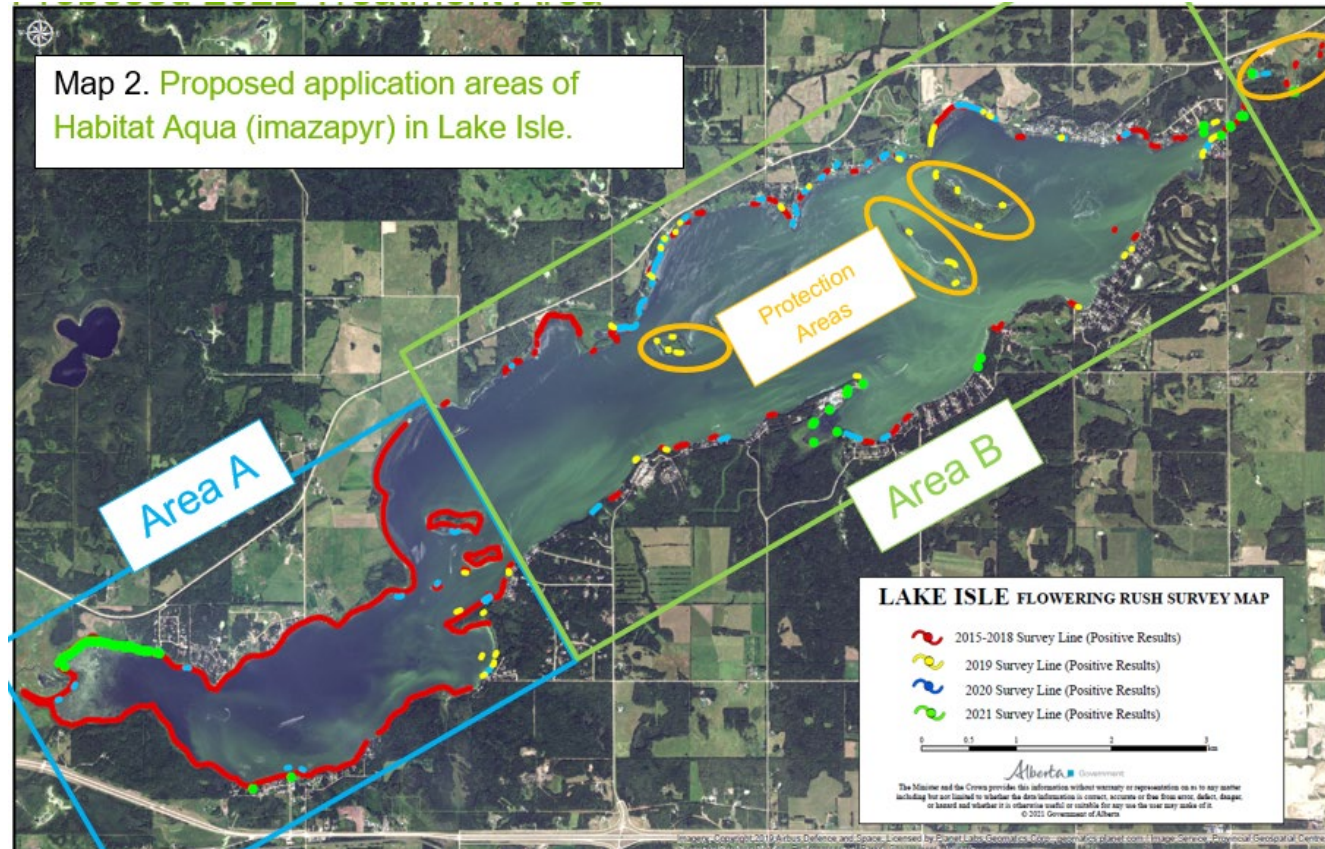




2021 Herbicide Application



2022 Herbicide Application



Lake Isle Herbicide: 5 Year Project



Engaged Residents, Keeps Me Fighting



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Thank you! Questions?

Nicole Kimmel

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Nicole.Kimmel@gov.ab.ca

(780) 427-7791

