Flathead Lake Flowering Rush Controls
Columbia River Basin Aquatic Invasive Species Team Meeting
Missoula, Montana, June 5, 2024

- Brief History
- Planning Process
- Driving Issues
- Objectives
- Treatment Priorities
- Treatment Summary
- Next Steps
- Challenges

Flathead Lake Flowering Rush Controls 2004-2024

- Developed data base of over several years
- Mapped over 300 individual infestation points and “characterized” large patch invasions
- 65 miles of shoreline on the south half of Flathead Lake and lower Flathead River above Selis, Ksanka, Qlipse Dam
- Interdisciplinary Planning Team (IDT)

  Tribal Natural Resource Department (Fisheries, Wildlife, Shoreline Protection, Pesticide Office, Water Quality, Wetlands, Cultural Preservation, Lands, Tribal entities (Kwa Taq Nuk, Polson Bay Marina, Blue Bay, Tribal leased lakeshore lots)

Interdisciplinary Planning, Plan Development, public input, and NEPA Compliance Process

- Public Meetings
- Direct contact with stakeholders: private, Tribal, State, and Federal
- Flathead Lake Flowering Rush Control Plan, EA and FONSI approved in 2021
- 2024 successfully implemented treatments on 80 sites treating approximately 25 acres

Driving Issues: What are accumulative impacts of flowering rush if invasion not addressed?

- Expansion of closed water vegetated habitats
- Impacts to Bull Trout & West Slope Cutthroat Trout
- How does flowering rush facilitate invasive fish
- How will expanding flowering rush and northern pike impact Columbia River salmon & bull trout, and other values
- Changes in macroinvertebrate populations, increased algae growth, impacts to native plants, and degraded water quality
- Irrigation water delivery and agricultural impacts
- Property values, loss of recreation, others?

Objectives & Rationale

Reduce top growth to create open water habitat, that will:

- Reduce habitat favorable to invasive fish reducing competition with native fish
- Restore boating and swimming usage of infested areas
- Protect property values

Reduce rhizome mass that will:

- Reduce propagule pressure around the lake and downstream

Reduce small spot infestations beneath boat lifts, behind breakwaters, and along shorelines to slow expanding and connecting over the decades

Develop and maintain a data base of infestations, affected landowners, and treatment results

Form a Flathead Lake Flowering Rush Controls Program that will:

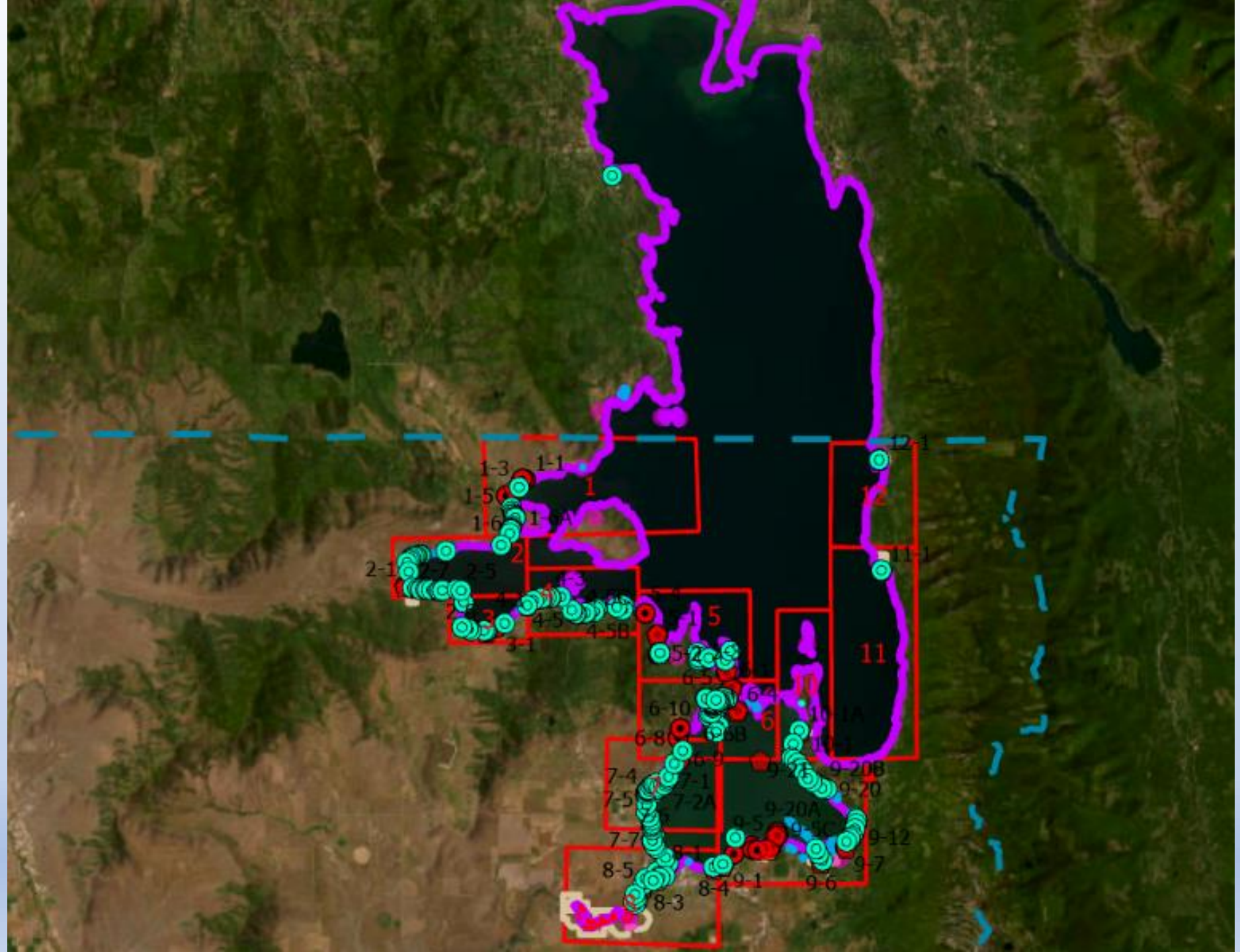
- Create a sustaining WMA, secure funding, and educate landowners. Engage landowners, State and federal agencies in the management of flowering rush at the invasion head in north end of Flathead Lake and Upper Flathead River.

Treatment Priorities Identified by IDT

1. Lower Flathead River above the SKQ Dam to lessen propagules entering the irrigation system through the Pablo Pumping Plant and flushing over the dam
2. High boat traffic and recreation areas to reduce spread by boats and lessen impacts to recreation
3. Leading edge of large infestations and spot infestations that are likely to grow together into larger patches
4. Large patches in East, Elmo, and Dayton Bays

Treatments 2024

- Approximately 80 individual sites were treated between 4/17 & And 4/24
- Size ranged from a few square feet to several acres
- Applications of 3 qt/ac imazapyr and surfactant applied by combination of truck & hose, air boat and ATV with back packs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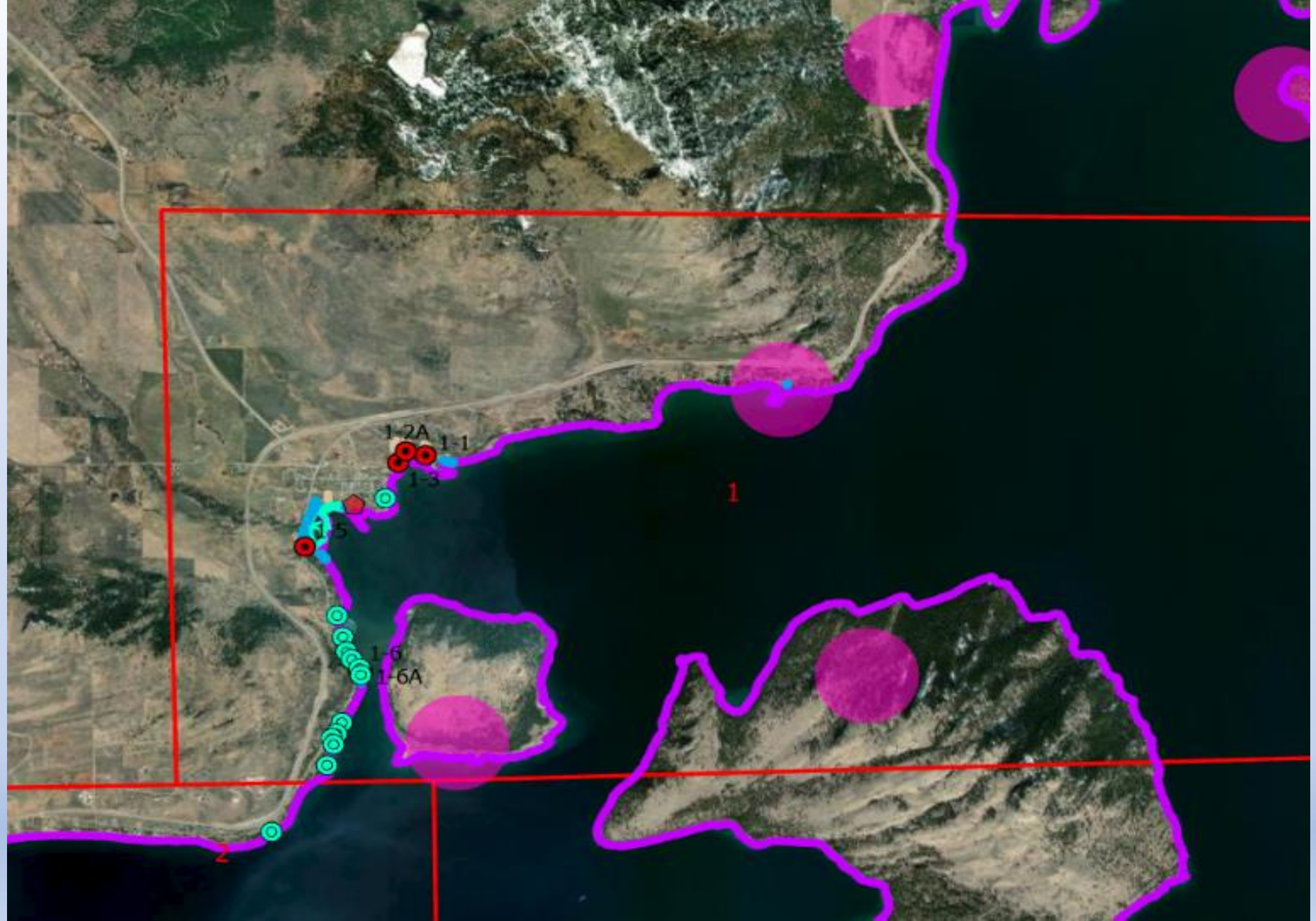
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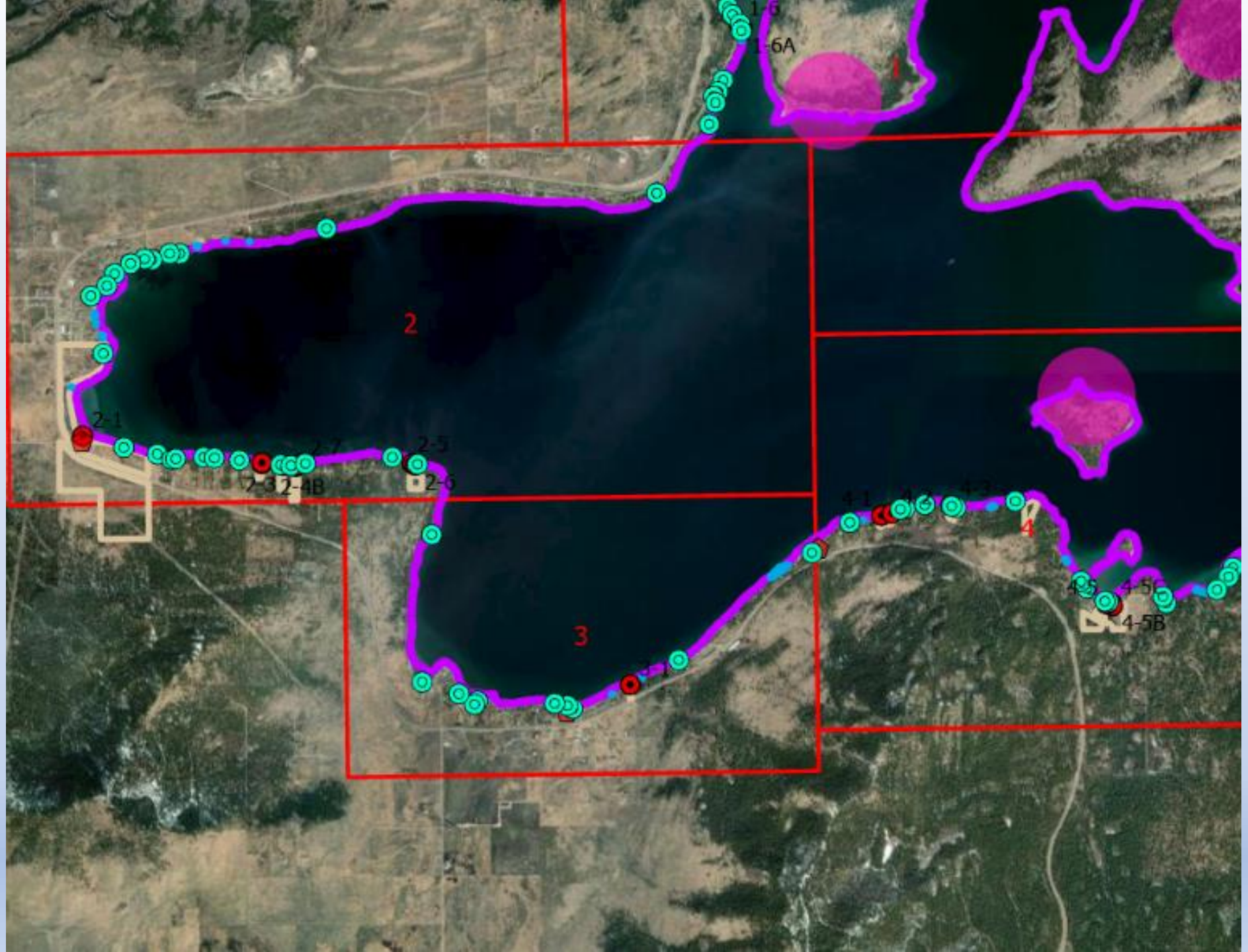
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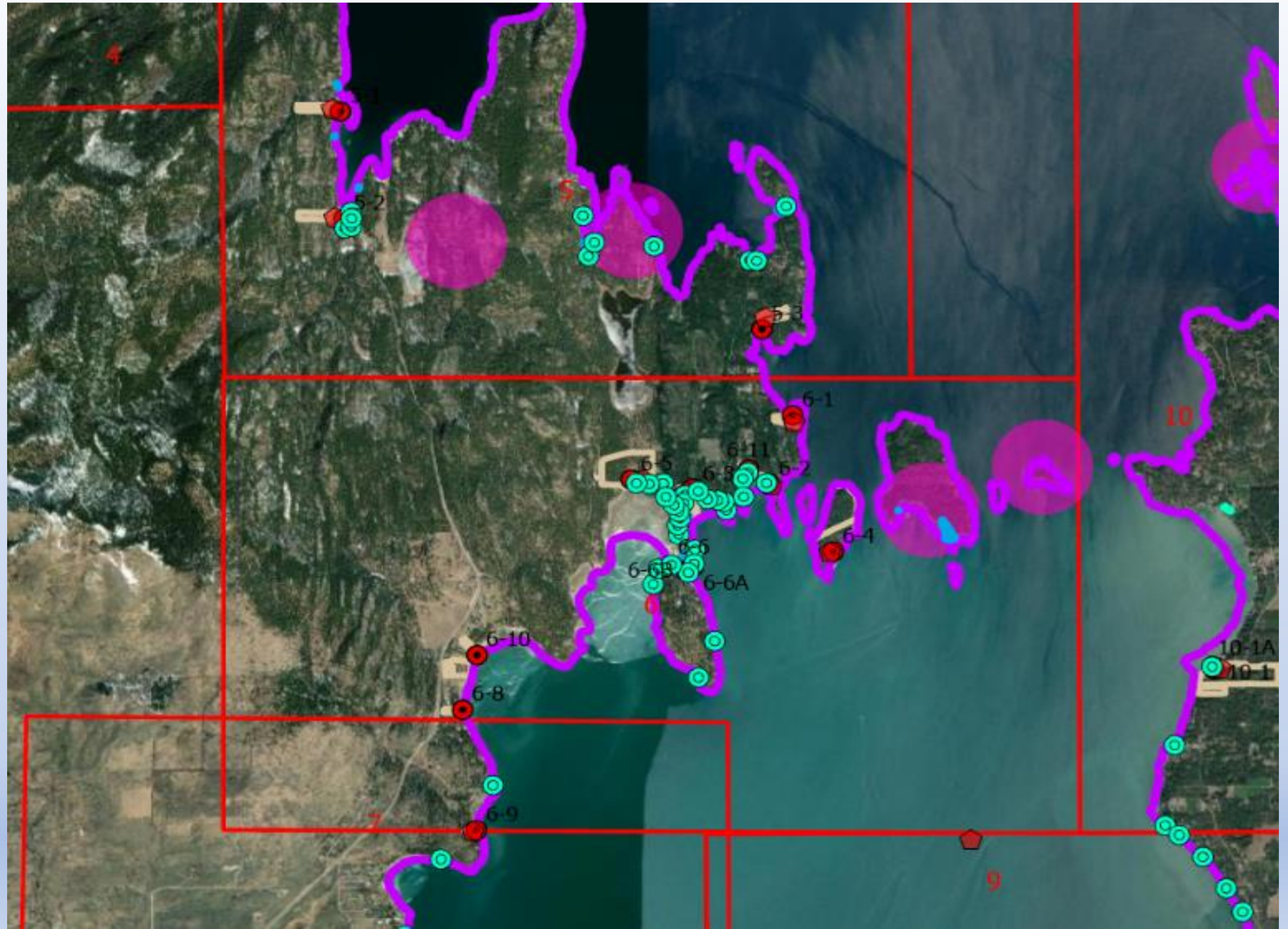
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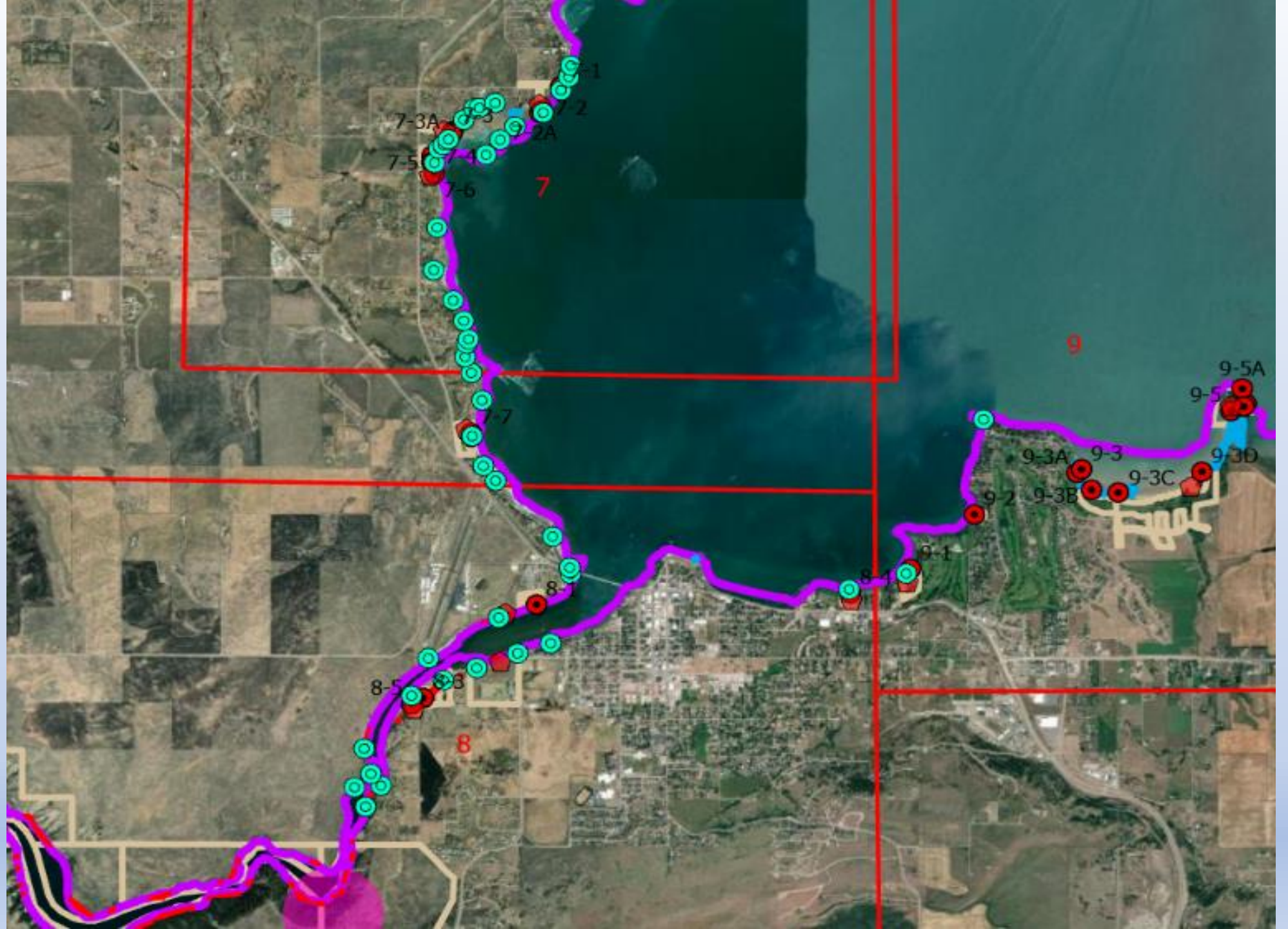
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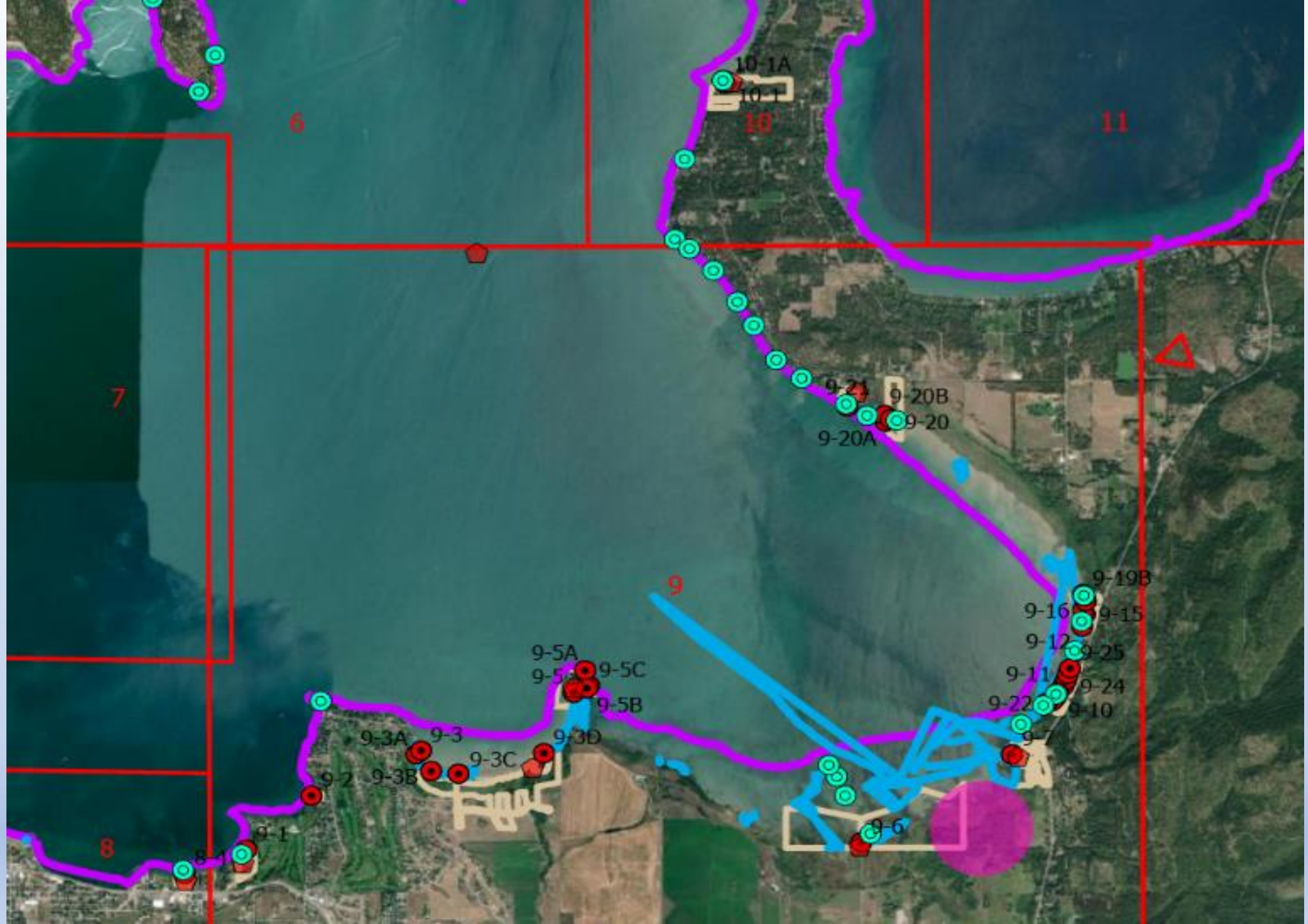
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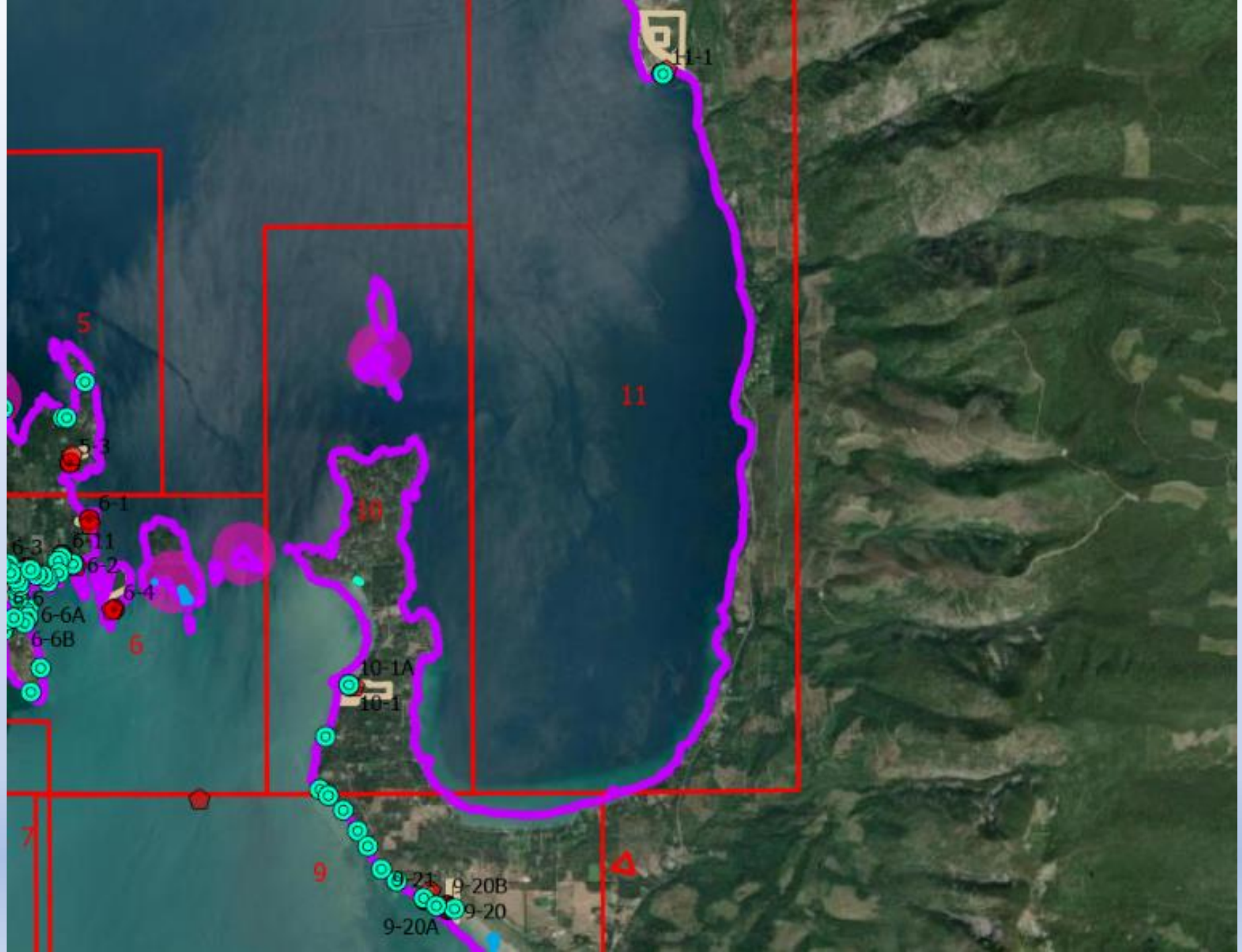
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Next Steps

Evaluate 2024 treatments and update inventory

Prepare for 2025

Contact landowners via

- US Mail
- public notice & meetings
- StoryMap: **https://arcg.is/1Tzyzb**
- **SKC Extension Website: https://extension.skc.edu/**
- email listserve: floweringrushinflatheadlake@gmail.com
- Facebook
- Develop funding package

Partners and Funders

Confederated Salish and Kootenai Tribes

CSKT Tribal Council, Natural Resource, Cultural Preservation, Shoreline Protection

State of Montana

- MT DNRC AIS grant program
- MT Dept of Agriculture Noxious Weed Trust Fund

US Army Corps of Engineers-Pacific Marine Fisheries

USDA-National Institute of Food and Agriculture

University of Montana

Montana State University

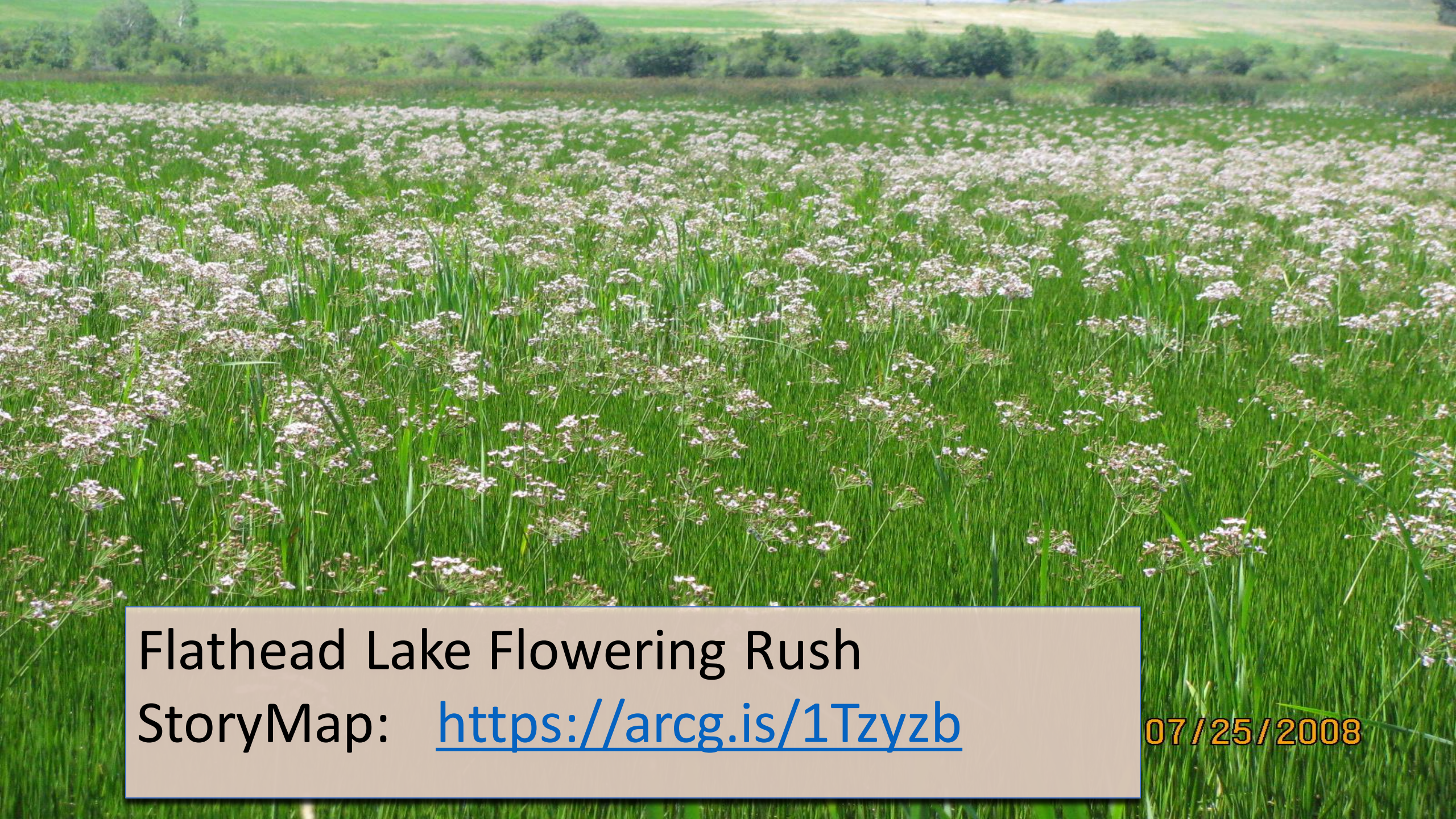
- Pacific Northwest Economic Region
- Columbia Basin Aquatic Invasive Species Team

New Partner: US Fish and Wildlife Foundation

- **CSKT America the Beautiful Grant: $160,000 over four years for flowering rush controls coordination and implementation**

Challenges

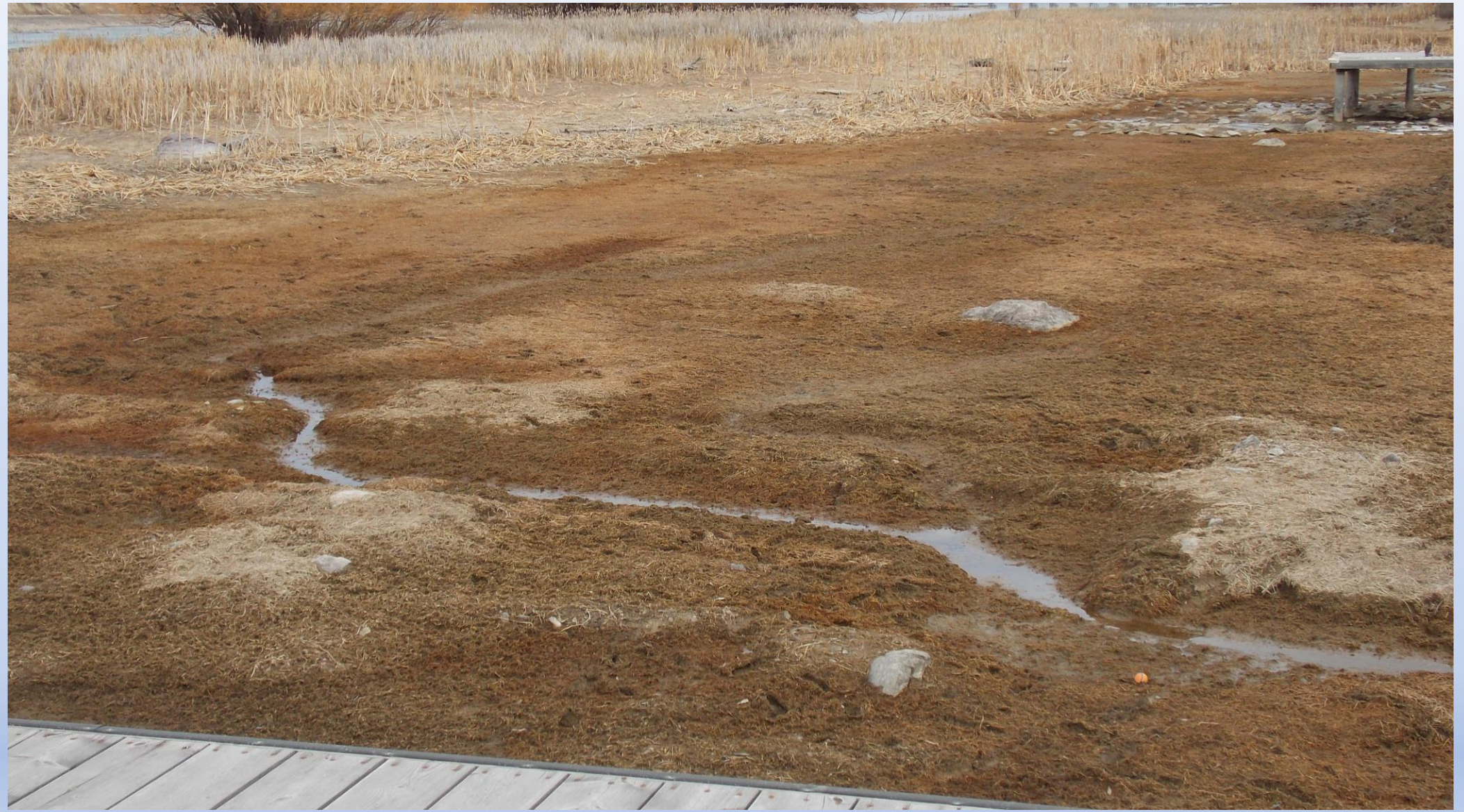
- Planning, logistics, and permitting of approximately 300 individual sites on southern portion of Flathead Lake alone. Implementation of control in north Flathead Lake and upper Flathead River
- Large patches not addressed in current project
- Deeper lake infestation
- Lower Flathead and Clark Fork Rivers infestations form at the low water line
- Funding for ongoing and expanded planning and implementation
- Engaging a diverse, largely absentee, and elderly individual landowners



Flathead Lake Flowering Rush

StoryMap: https://arcg.is/1Tzyzb

Dock and Marina Treatments




Flathead River Above Paradise MT
Shallow Riverine Flowering Rush

Exposed flowering rush on Lower Flathead River: Perma Bridge

Thank you

Hu Sukilkukni

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