



# Milfoil Team Introduction 2022

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# Team Basics

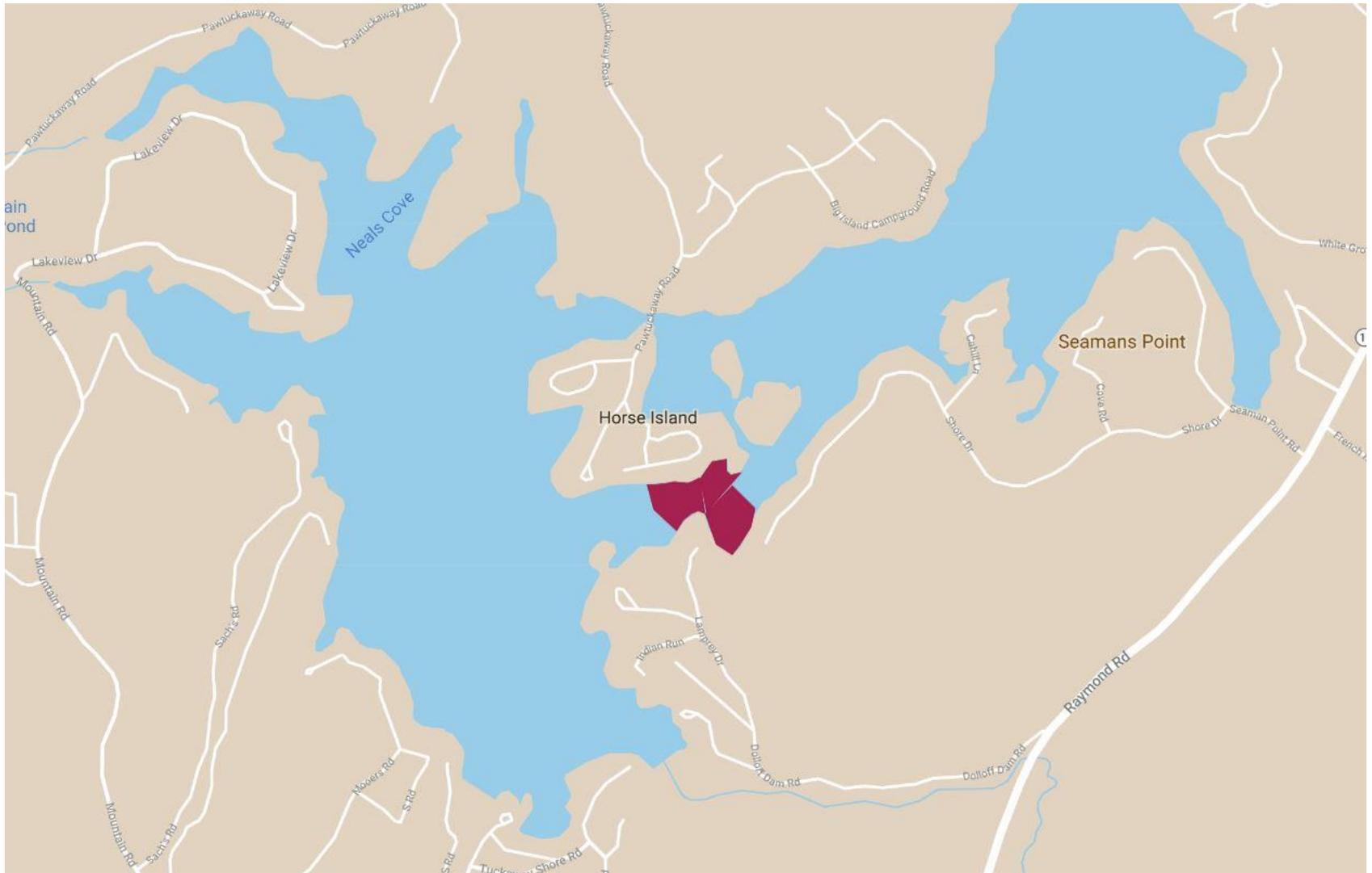
- Formed in 2015 when variable milfoil first discovered
- Consists of Support Kayakers, Divers, and Weed Control Divers
- Goals
  - Investigating reports of suspicious underwater growths in new areas
  - Locating and removing underwater invasives from known areas
    - Variable Milfoil
    - Chinese Mystery Snails
- Depend on Weed Watchers and Lake Users to report new areas of infestation and suspicious vegetation

# Why is Milfoil Bad?

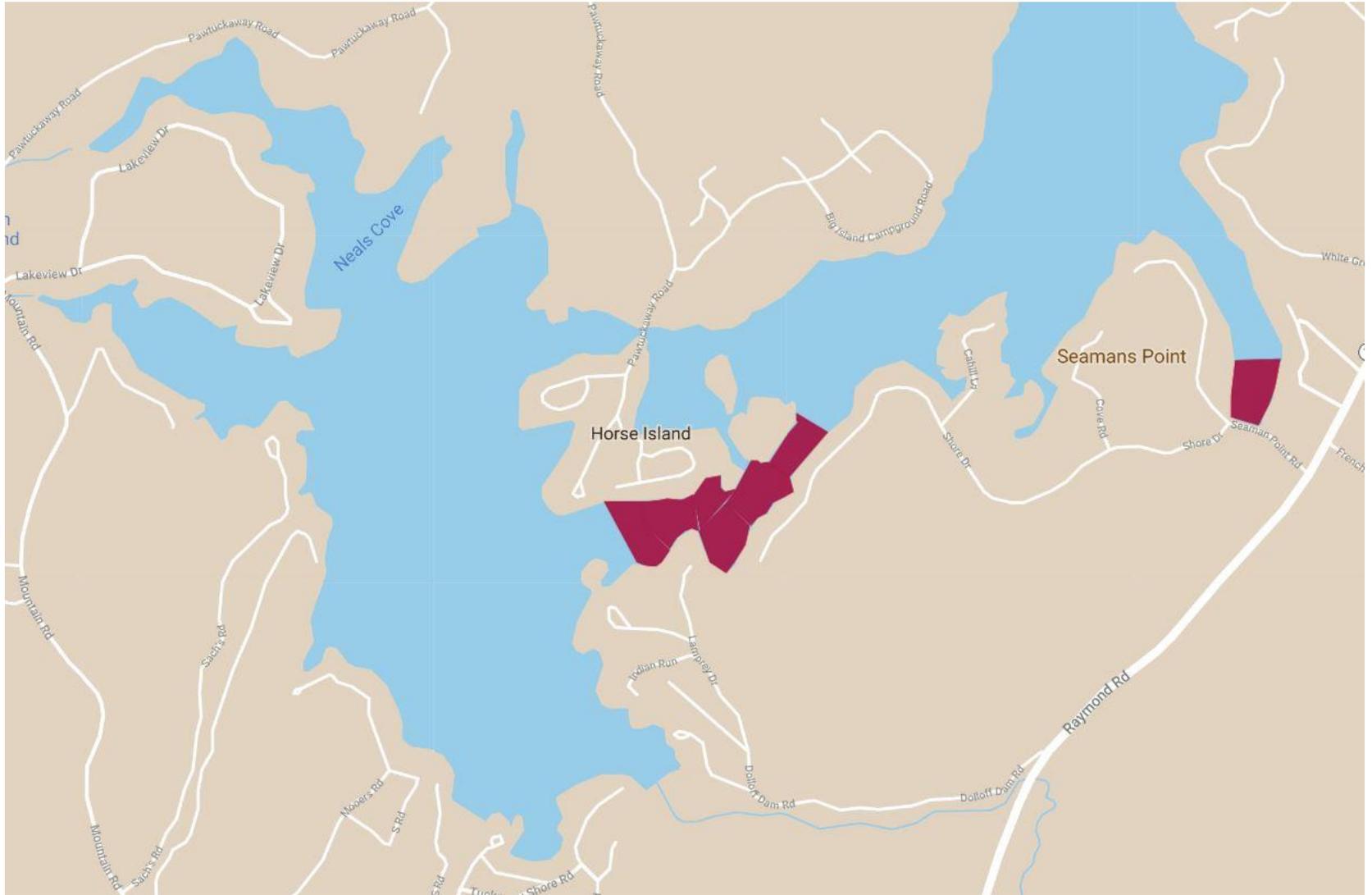


# Variable Leaf Milfoil

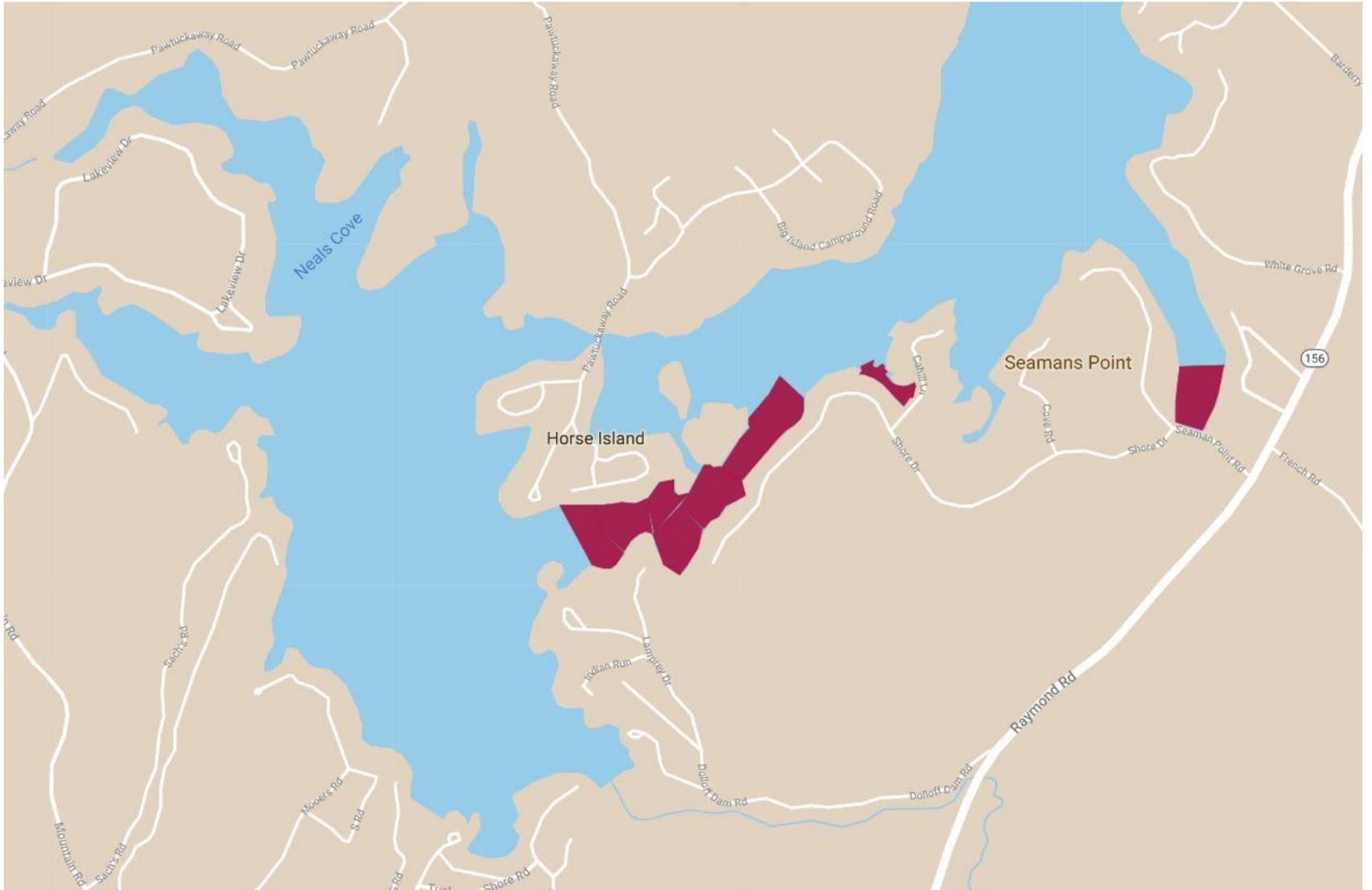




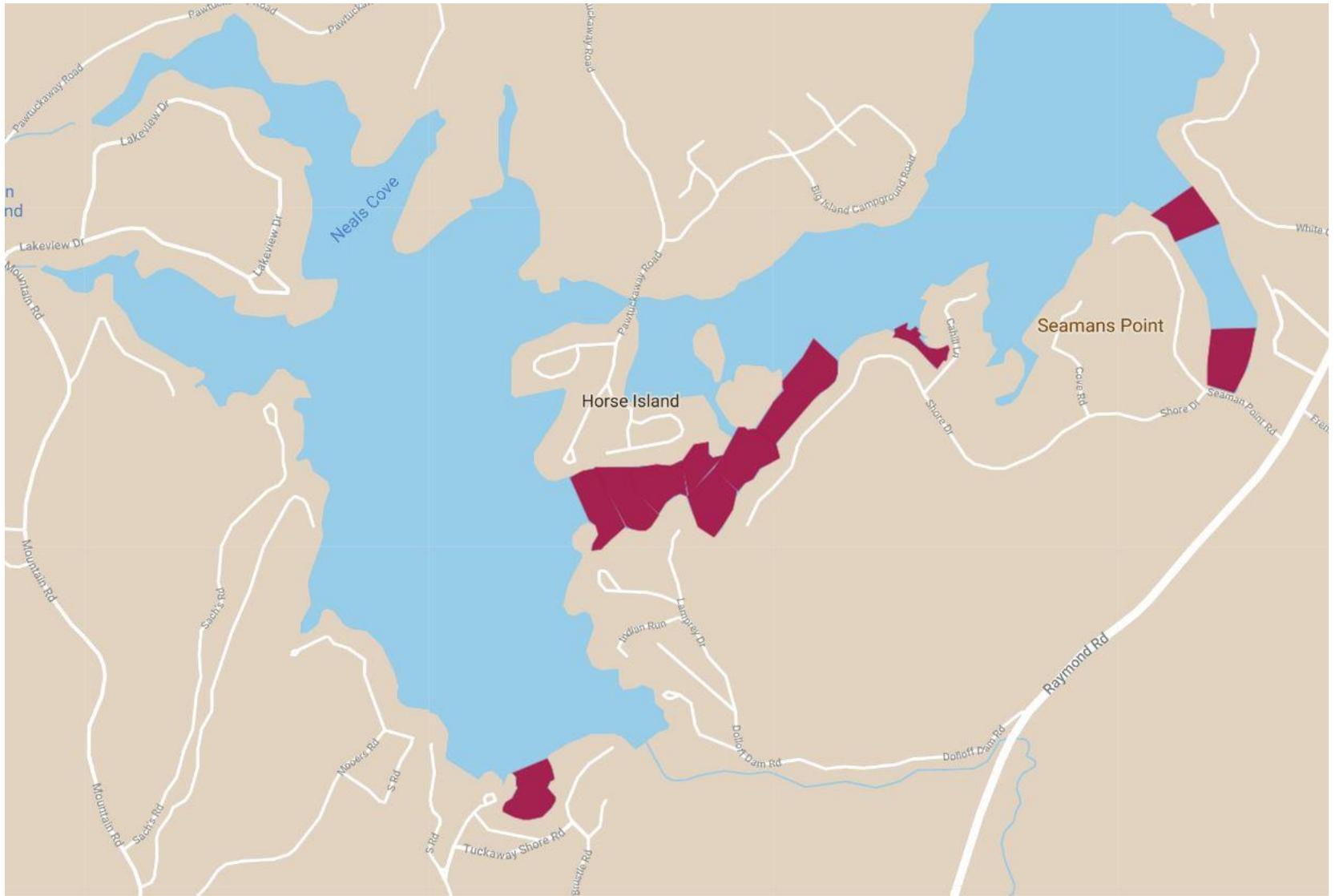
Milfoil 2017



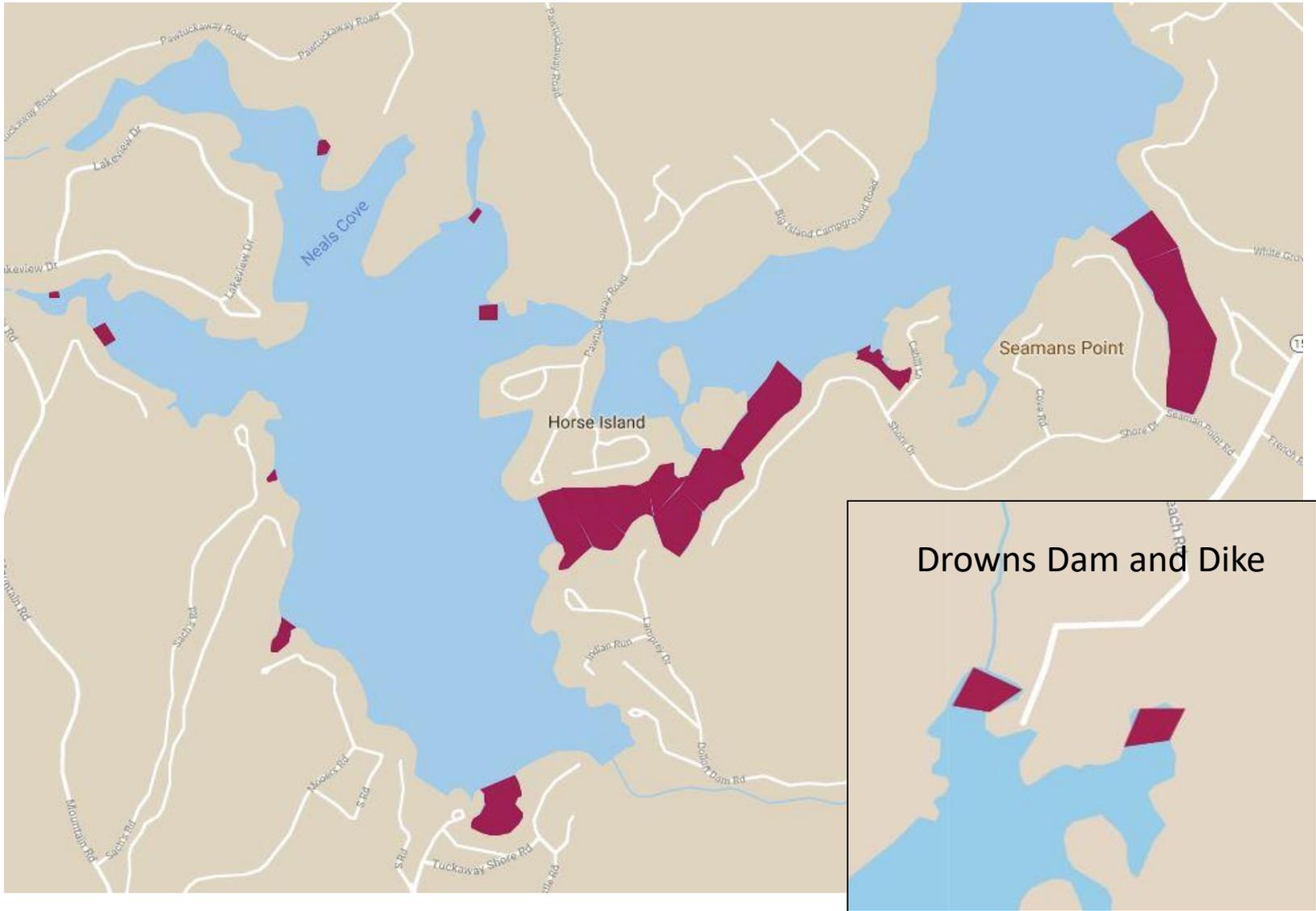
Milfoil 2018



Milfoil 2019



Milfoil 2020



Milfoil 2021

# Milfoil Amounts by Year

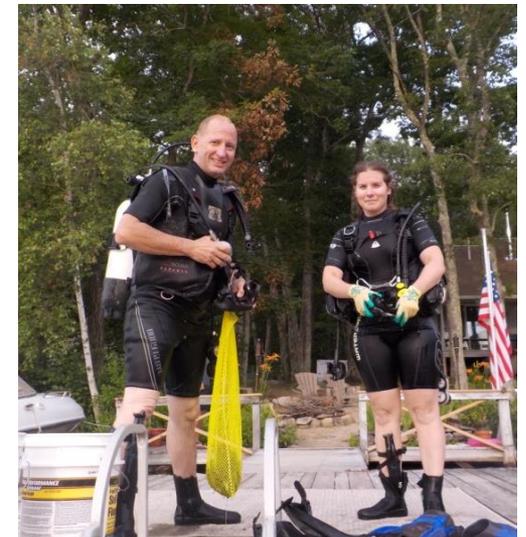
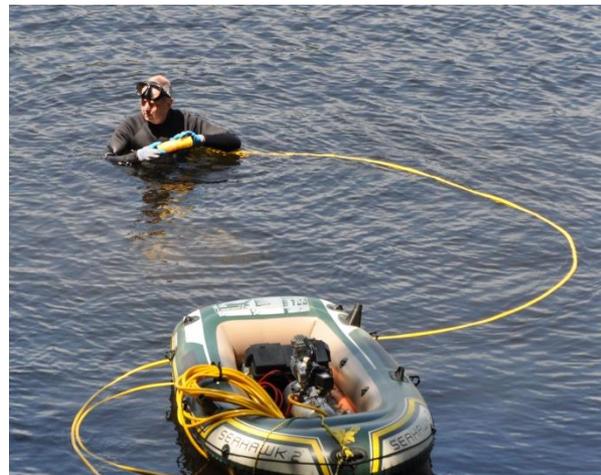
- 2015            35 gallons
- 2016            25 gallons
- 2017            15 gallons
- 2018            11 gallons
- 2019            132 gallons
- 2020            74 gallons
- 2021            318 gallons
  - State Park Camp Store 65 gallons (1.5 acres)= 43.3 gal/ac
  - Gove's Cove 121 gallons (13 acres)= 9.3 gal/ac
  - South Channel 102 gallons (28 acres)= 3.6 gal/ac

# Gove's Cove, Dike End



# Milfoil Team

- All volunteers
- Need to provide personal gear
- 2 Surface Supplied Air (aka Hookah) rigs, up to 4 divers
- 6 search divers
- 6 certified Weed Control Divers (WCD)
- 18 support kayakers
- 954 volunteer hours in 2021
- 58 separate dives
- Divers currently search over 60 acres for milfoil several times per season



# Milfoil Team



# Scuba Diver

## Requirements and Responsibilities

- Open water dive certification
  - PADI, NAUI, etc
- Provide own equipment
  - Tank fills, insurance, collection bags paid by PLIA
- Responsibilities
  - Participate in team milfoil searches/removals

# SSA Diver

## Requirements and Responsibilities

- Must have snorkeling or diving experience
- Complete SSA Training
- Provide own basic equipment
  - Mask, fins, weights, wet suit
- Responsibilities
  - Participate in team milfoil searches
  - Coordinate diving with Team Leader

# Weed Control Diver Requirements and Responsibilities

- Open water dive certification
- Weed Control Diver certification
- Provide own equipment
- Responsibilities
  - Participate in team milfoil searches before doing any removals
  - Dive and remove only with kayak support and prior notification
  - Provide data to team leader for NHDES reports

# Support Kayaker Requirements and Responsibilities

- Comfortable in operating kayak near divers and boaters
- Capable in handling kayak under a variety of weather conditions
- Responsibilities
  - Keep divers safe by managing boat traffic
  - Provide logistical support
    - Provide and retrieve markers
    - Guide search divers
    - Empty milfoil collection bags

# Operations

- Dives conducted every Sunday
- Weekday dives scheduled when sufficient people available
- One support kayaker for every diver
- Dive duration 1 - 2 hours
- Milfoil plants marked with floats
  - Try to remove plants as soon as marked and mapped

# Milfoil Markers

- Orange Floats mark known milfoil locations
- Green Floats used during search operations
- Purple markers used by Weed Watchers



# Search Procedure

- Search Areas divided into several acre sections
- Generally one area searched per dive session
- Searches done by parallel passes across search area



# Search Procedure

- One kayaker per diver
- Kayaker equipment
  - Safety Vests
  - Safety Whistles
  - Diver Flags
  - Extra Markers
  - Garbage bags and nets for removal operations

# Search Metrics

- Searching is labor intensive
  - 1 acre per diver per hour
  - 10:1 ratio of searching to removal
  - Estimated coverage 50-75%
- Biggest team need is more divers for searching

# Additional Current and Potential Search Aids

- Aerial Drone
  - Very useful in detecting large milfoil plants just after ice out when lake level is low
- Sonar
  - Used to sweep large areas to find potential additional areas of infestation
- Underwater Drone
  - Evaluating potential for future use
- Underwater Lights
  - Will be evaluating this summer

# Additional Information

- Contact Neil Santos
  - [neilsantos@comcast.net](mailto:neilsantos@comcast.net)
  - Cell 603 548-1701
- Milfoil Team Procedure Manual
  - Posted on the PLIA website
    - <https://pawtuckawaylake.com/programs/milfoil-management/>