



Rapid Response Management: Eurasian Watermilfoil in Staring Lake

UMISC – October 18, 2016

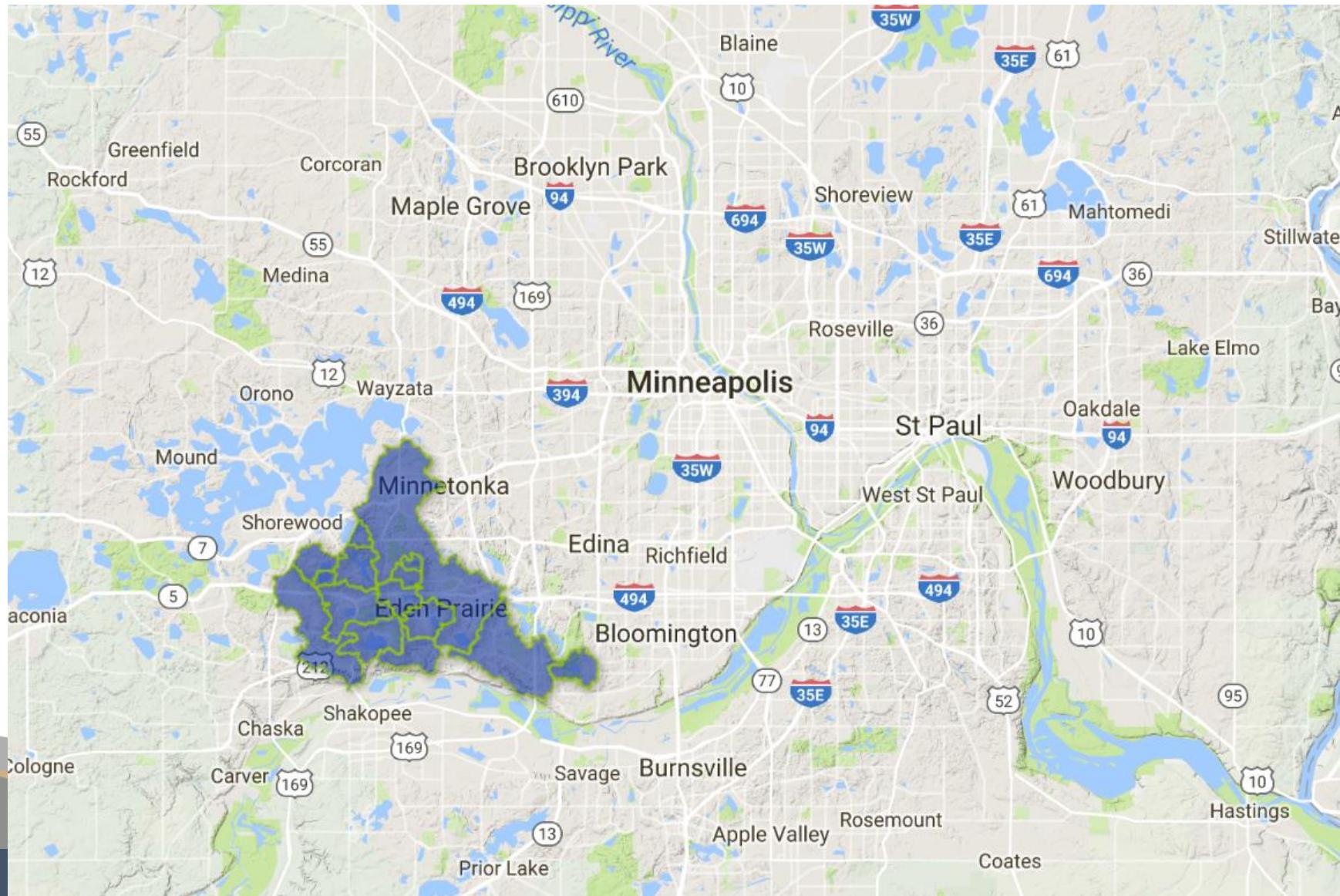
Joshua Maxwell (RPBCWD) and James Johnson Freshwater Scientific Services LLC

OUTLINE

- Background
- Rapid Response Goal
- Treatment/Monitoring Details
- 2015/2016 Results
- Next Steps
- Questions



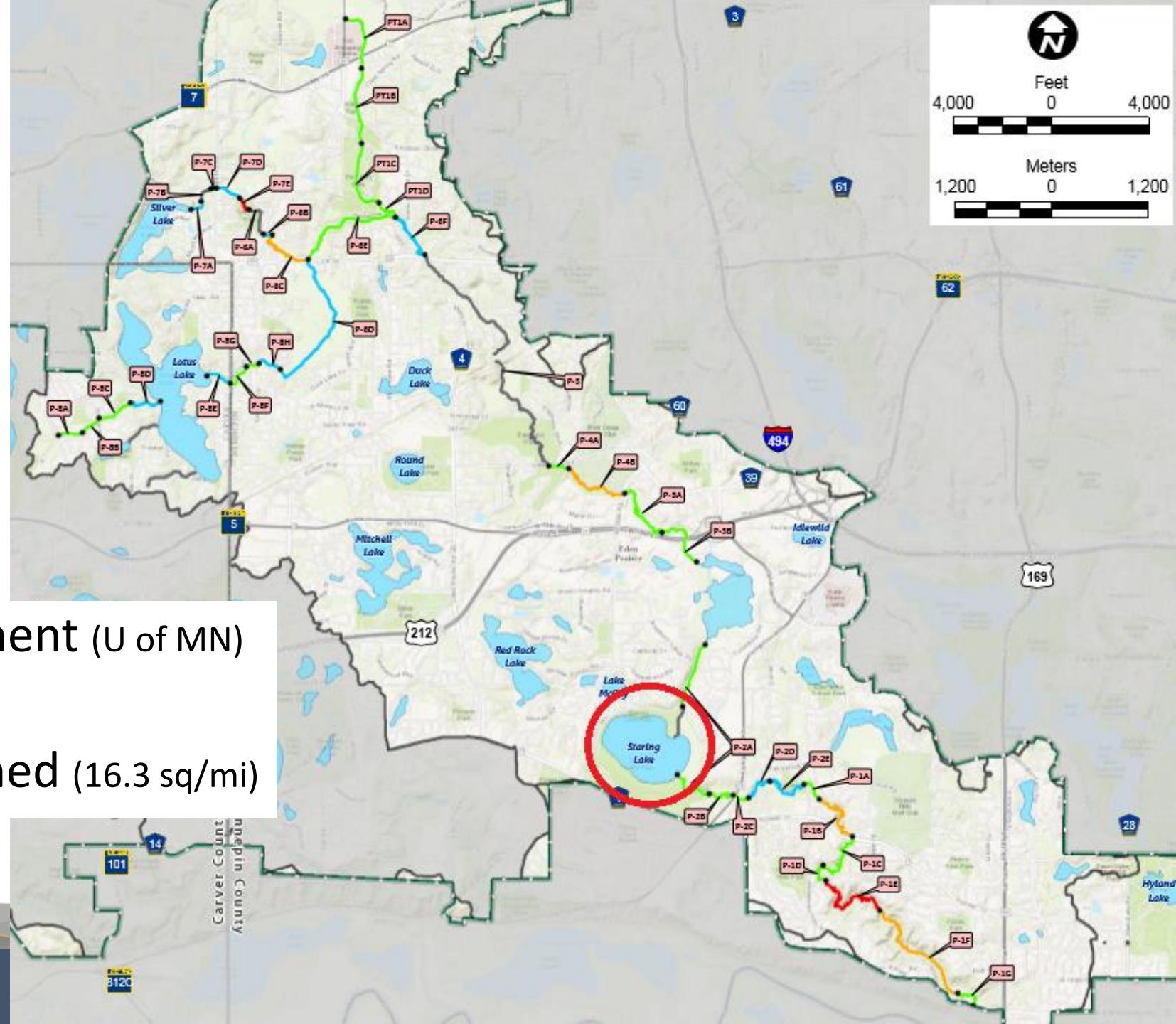
RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT



RILEY
PURGATORY
BLUFF CREEK
WATERSHED DISTRICT

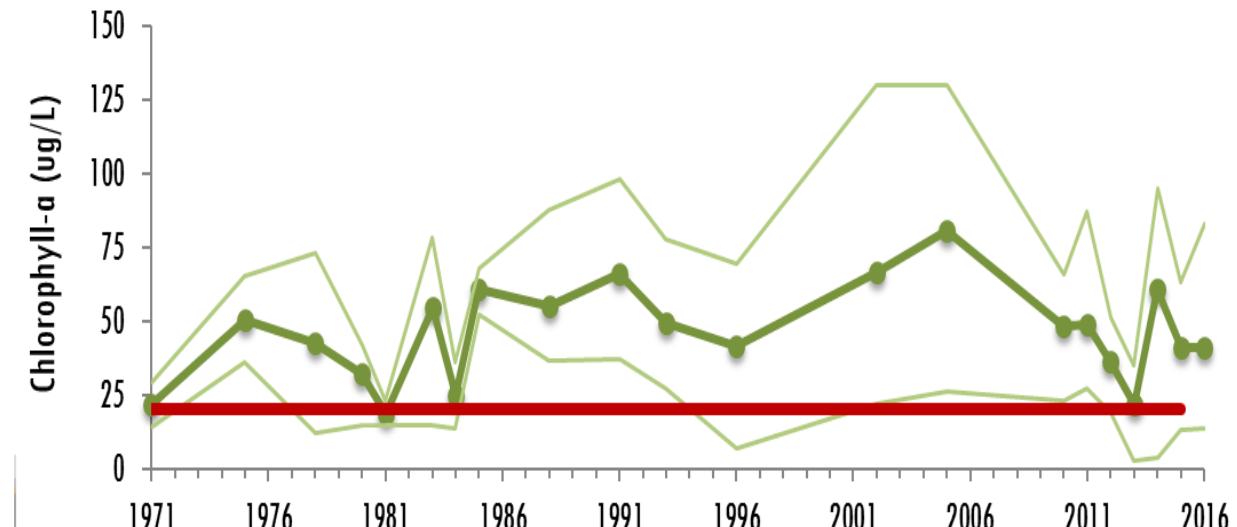
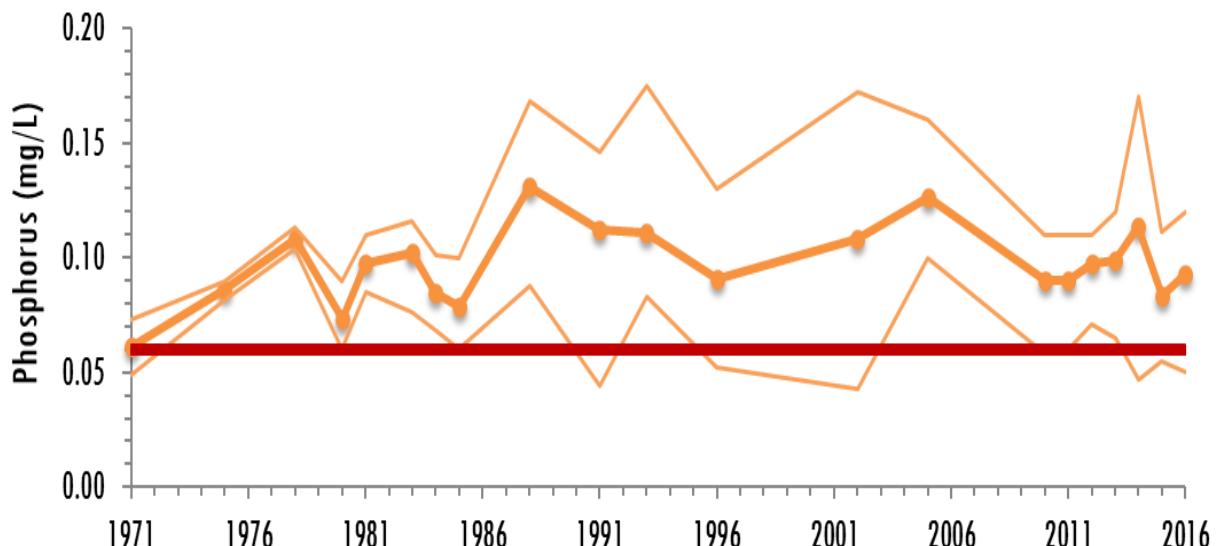
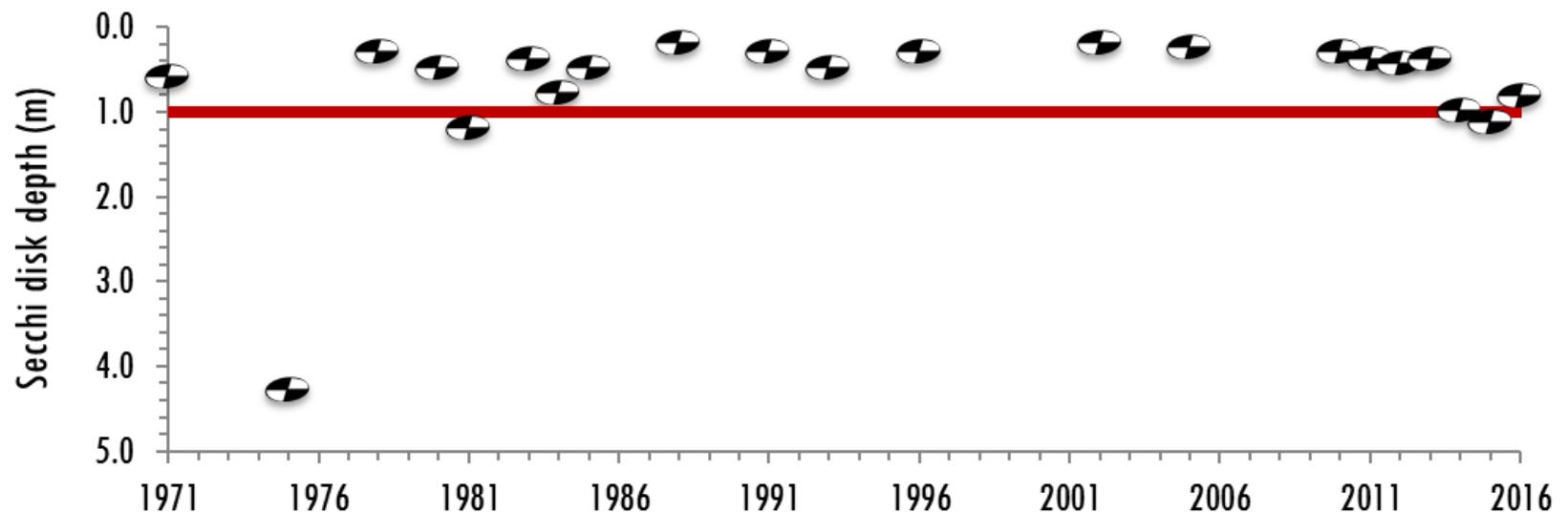
STARING LAKE

- 155 Acres, 16ft depth
- Staring Lake Park
- Located in Eden Prairie
- Common Carp Management (U of MN)
- Purgatory Creek Watershed (16.3 sq/mi)



STARING LAKE

- Water Quality



PLANT COMMUNITY

- Slight increases in frequency and new species
- 14 different species, very low frequency of occurrence
- Curly-leaf pondweed, yellow water lily, elodea, sago pondweed
- Growth restricted to depths shallower than 2m
- Plant biomass very low

EURASIAN WATERMILFOIL (*Myriophyllum spicatum*)

- Eurasian Watermilfoil discovered during the fall of 2015 on Staring
- Forms dense mats which interfere with recreation
- Outcompetes native vegetation
- Reproduce by fragmentation and runners

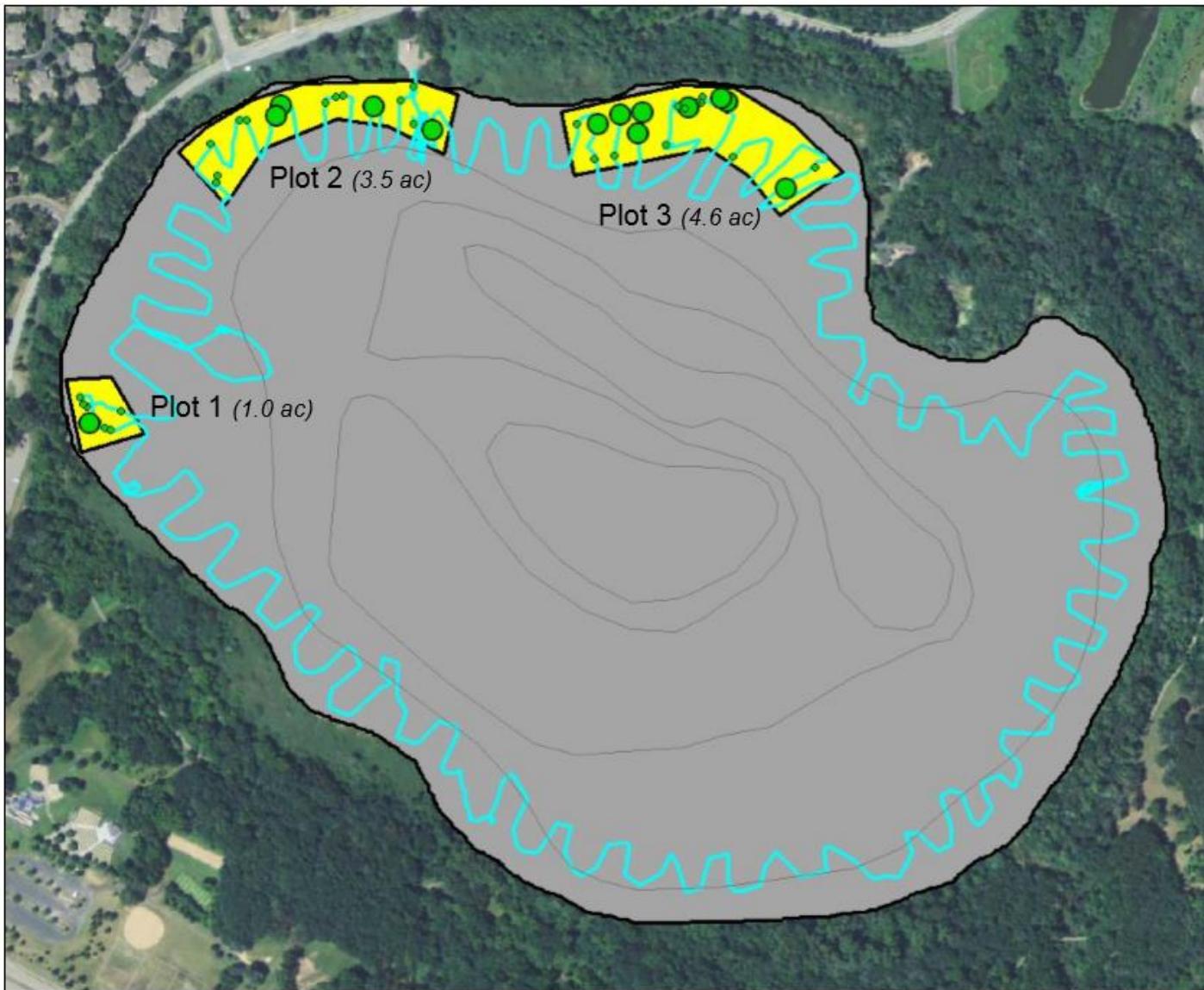


2015 RAPID RESPONSE PLAN

- Infestation was recent
- Rapid response plan developed to eradicate
 - Physical removal
 - Herbicide



STARING LAKE 2015



Surveyed: Sep 29, 2015
Surveyor: JA Johnson
Affiliation: Freshwater Scientific Services
Methods: Visual, Rake, Sonar



Map produced for the
Riley Purgatory Bluff Creek Watershed District
by:

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HERBICIDE TREATMENT

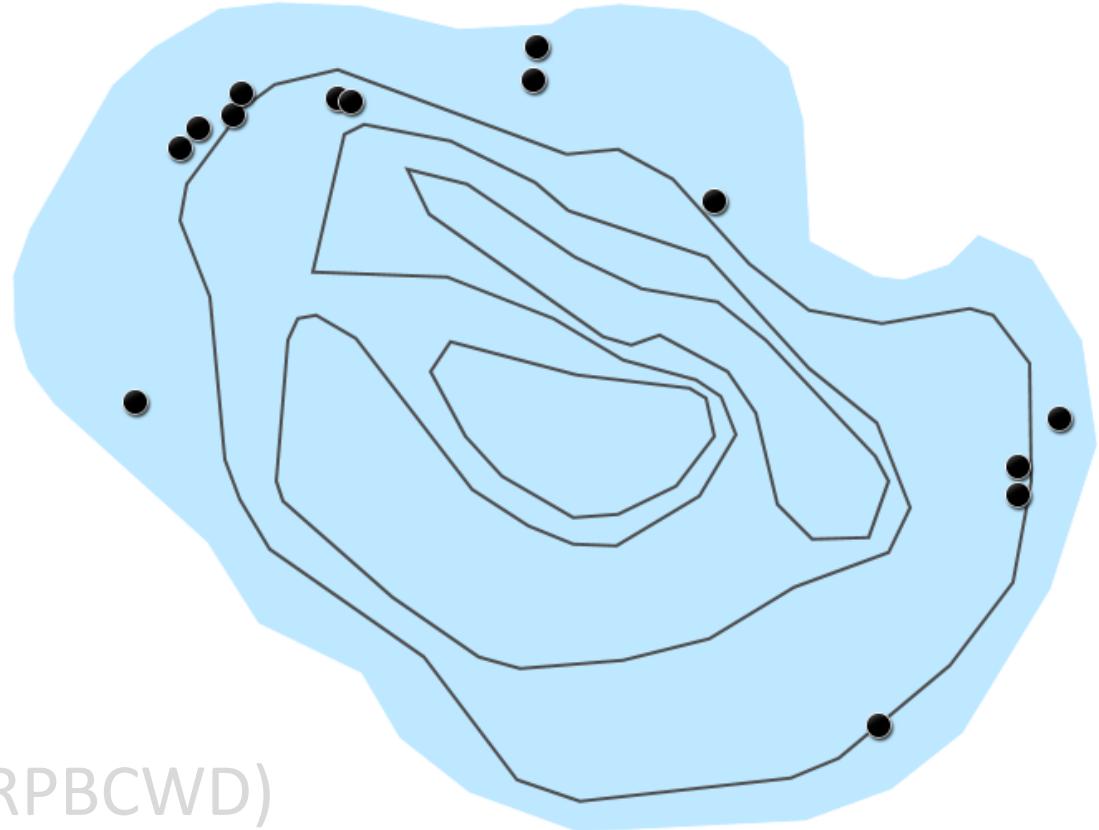
- Granular 3,5,6-trichloro-2-pyridinyloxyacetic acid (Renovate OTF)
- Maximum rate of 67.5 pounds per acre foot
- 3 treatment areas totaling 9.1 acres
- Targeting deep plants and fragments
- Slower release, longer contact time, highly effective, stays put

2016 RESULTS



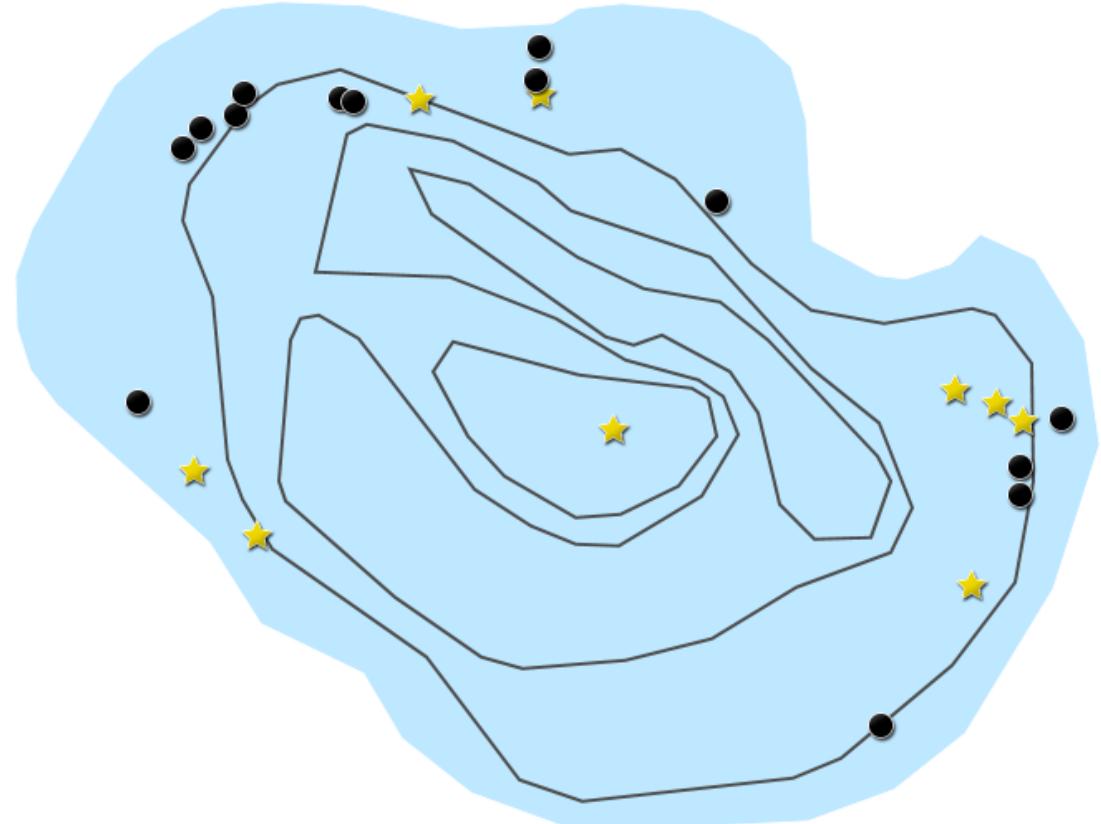
2016 RESULTS

- Scan 1 (James Johnson)
- Scan 2/handpulling
- Granular Triclopyr
- Scan 3 (James Johnson) and Scan 4 (RPBCWD)



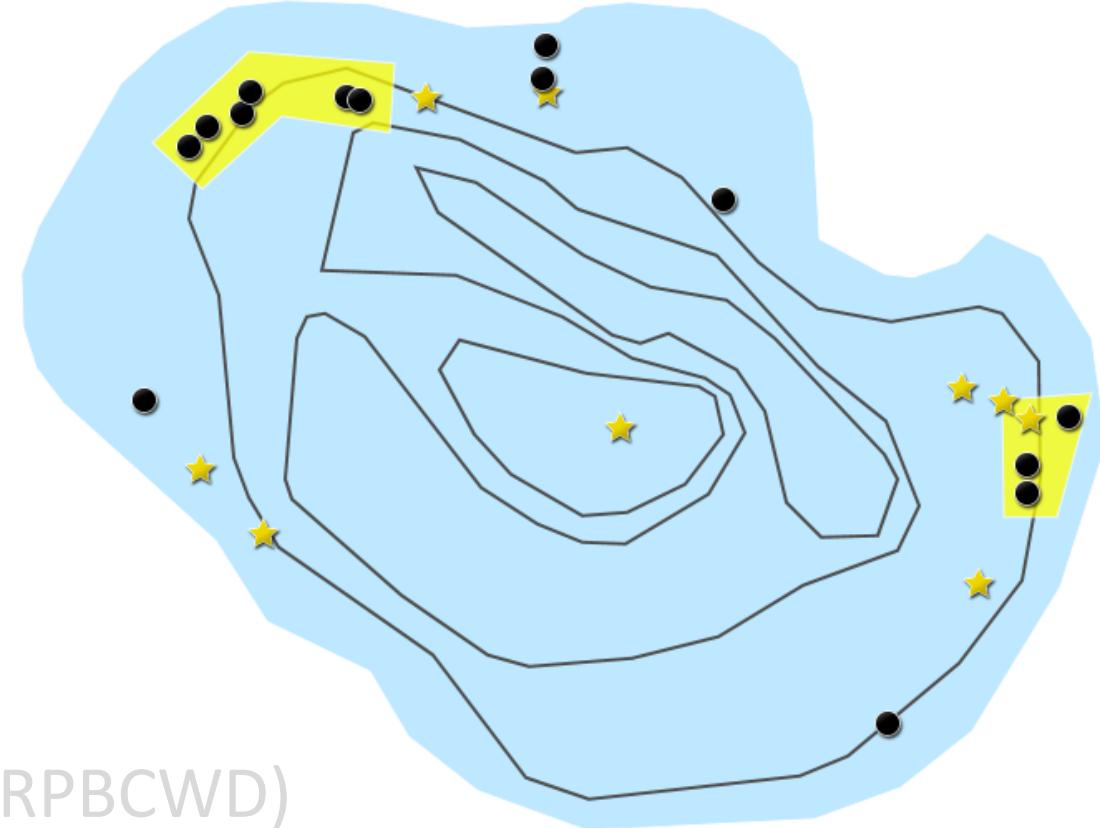
2016 TREATMENT

- Scan 1 (James Johnson)
- Scan 2/handpulling (RPBCWD)



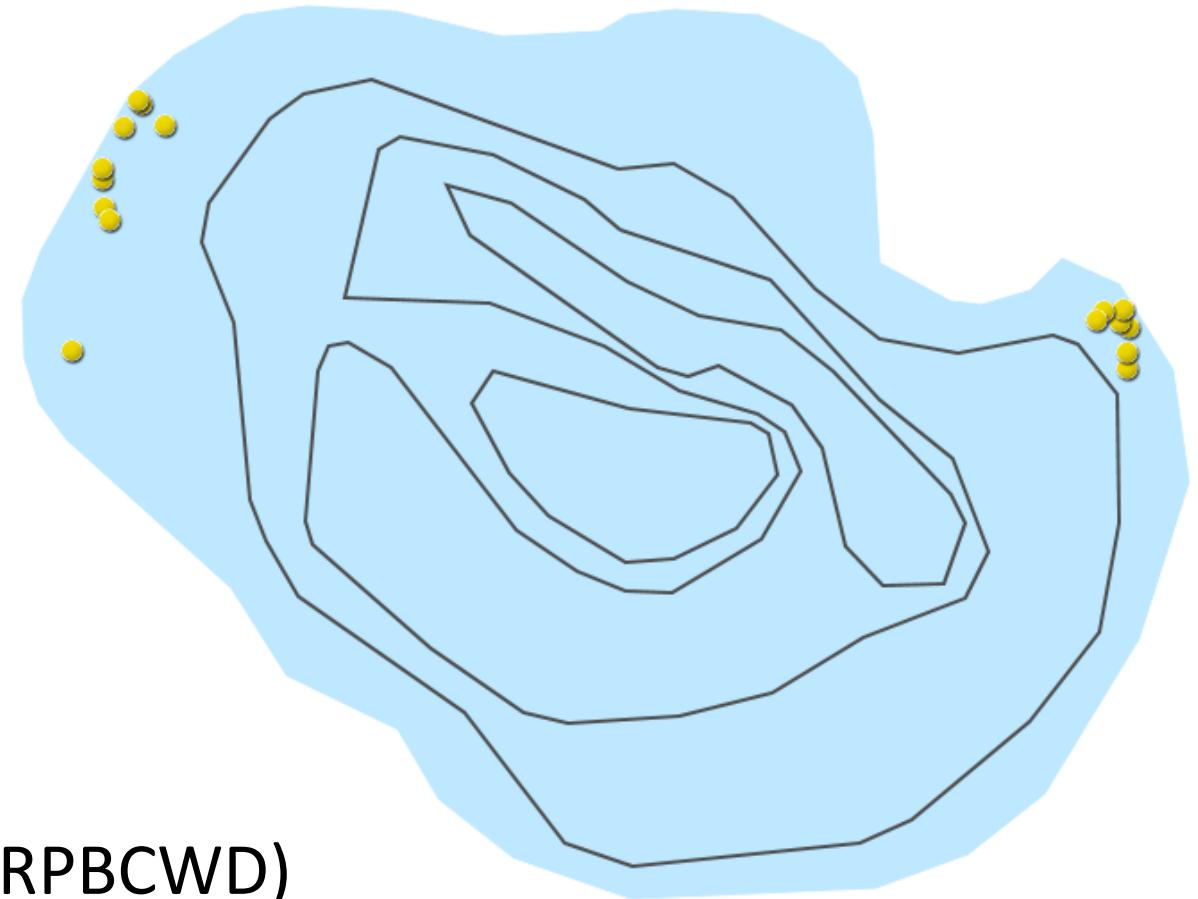
2016 TREATMENT

- Scan 1
- Scan 2/handpulling
- Granular Triclopyr (6.5 acres)
- Scan 3 (James Johnson) and Scan 4 (RPBCWD)



2016 TREATMENT

- Scan 1
- Scan 2/handpulling
- Granular Triclopyr
- Scan 3 (James Johnson) and Scan 4 (RPBCWD)

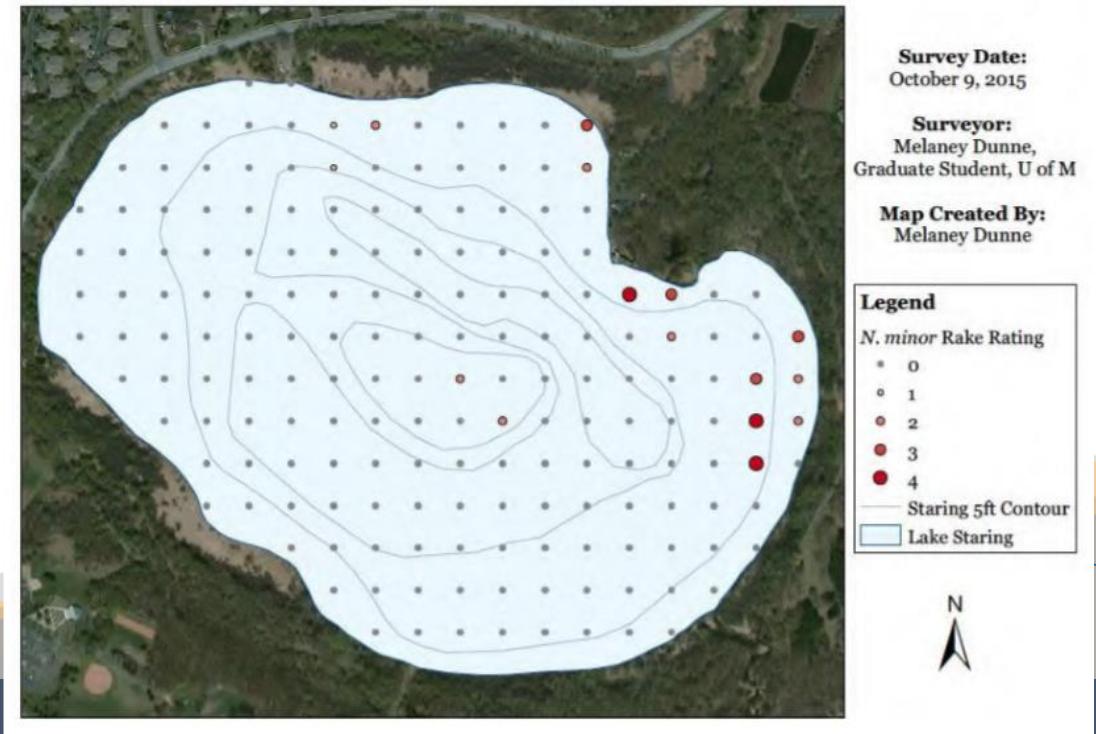


FUTURE WORK

- Continual monitoring with herbicide/handpulling if needed
- Curly-leaf Pondweed treatment in spring of 2017
- Brittle Naiad



Lake Staring Brittle Naiad (*Najas minor*) Distribution



QUESTIONS?

