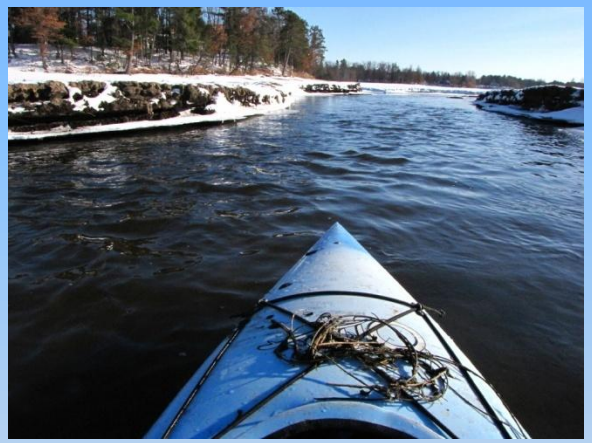
2008-09 EWM Management on McDill Pond, Stevens Point, WI



Paul Skawinski – Portage Co. AIS Coordinator

Scott Provost, DNR Water Resources Specialist

Krista and Greg Olson, McDill Lake P&R District

Background

261 acres

Max depth 15ft
(excluding dredged area).

Impoundment of the Plover River in Stevens Point, WI.

SP

Background

Historical management of aquatic plants:

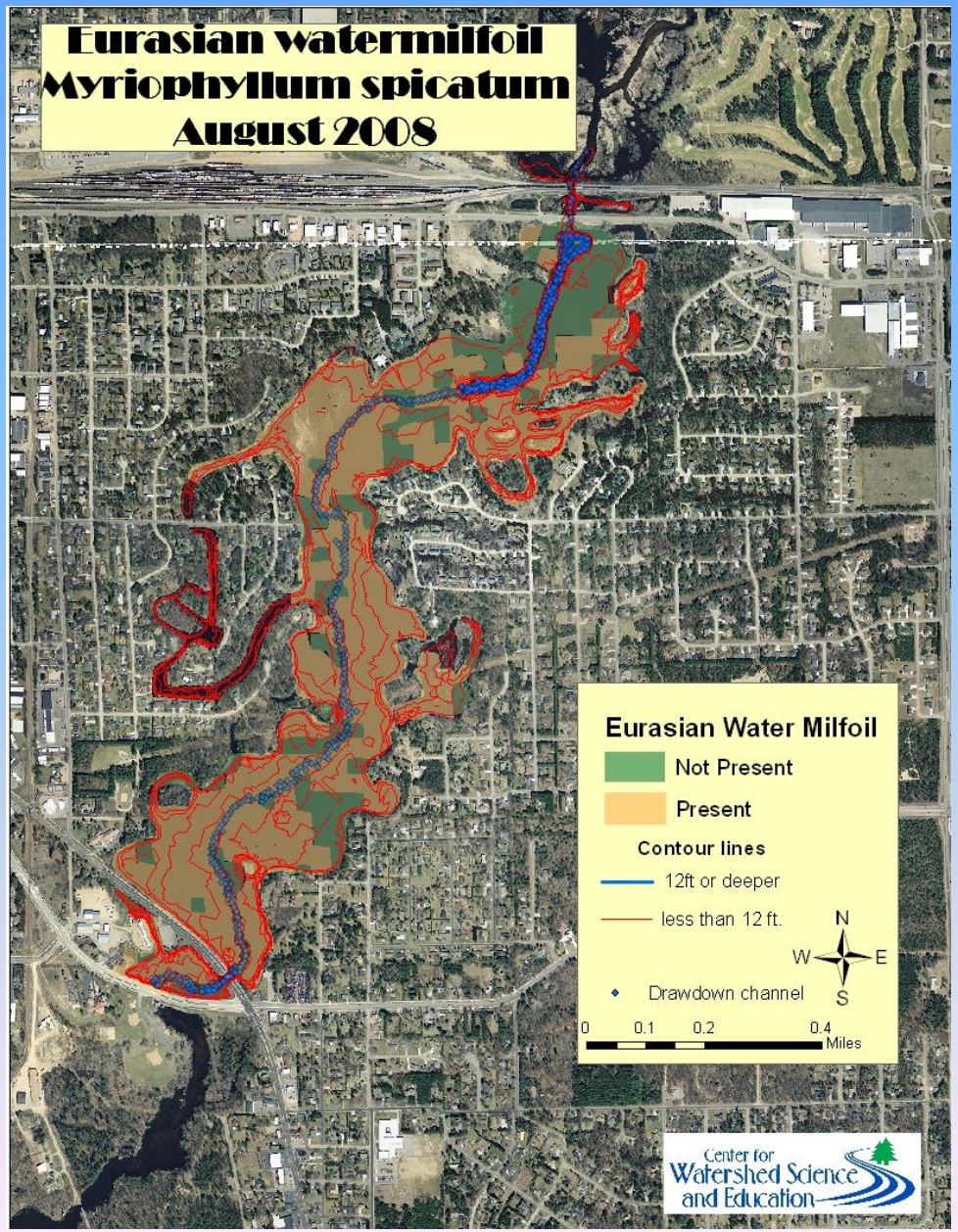
1950s – Harvesting
1960s – Dredging, burned plants, herbicides
1970s – Herbicides
1980s – Harvesting
1990s – Harvesting
2000s – Harvesting, "Targeted harvesting"

Background

55% of lake with EWM during 2008 plant survey. (70% with visuals).

APM plan created in 2008.

Step 1:
winter drawdown.



Background

Winter Drawdown

Goal: To lower the water level, exposing large areas of Eurasian watermilfoil to dessication and freezing, leading to a dramatic reduction in EWM and a shift to native submergent and emergent species.

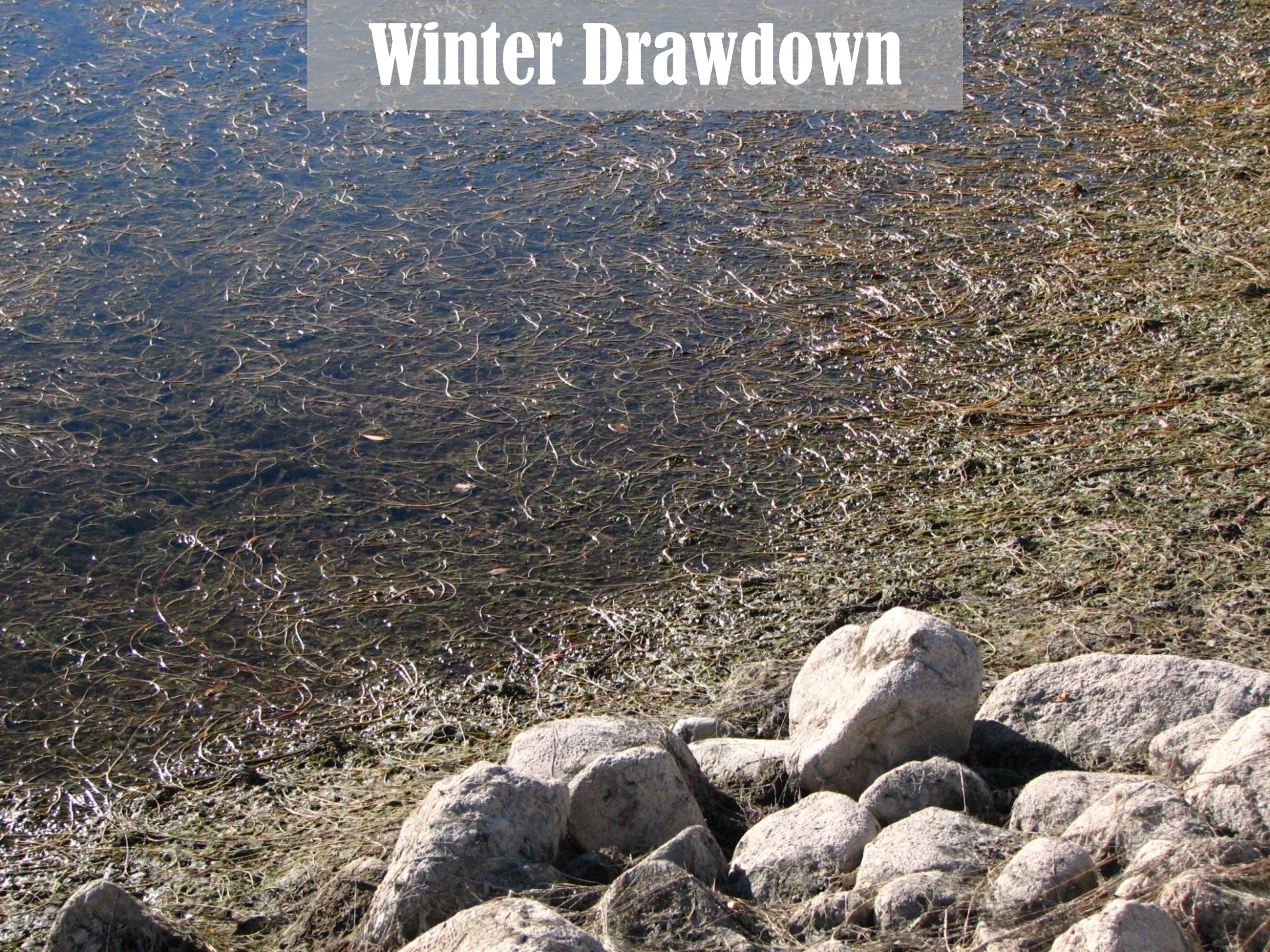
Twelve-foot drawdown started. Partial drawdown impossible.

October 11, 2008

Drawdown begins. 6” per day, 24 days.

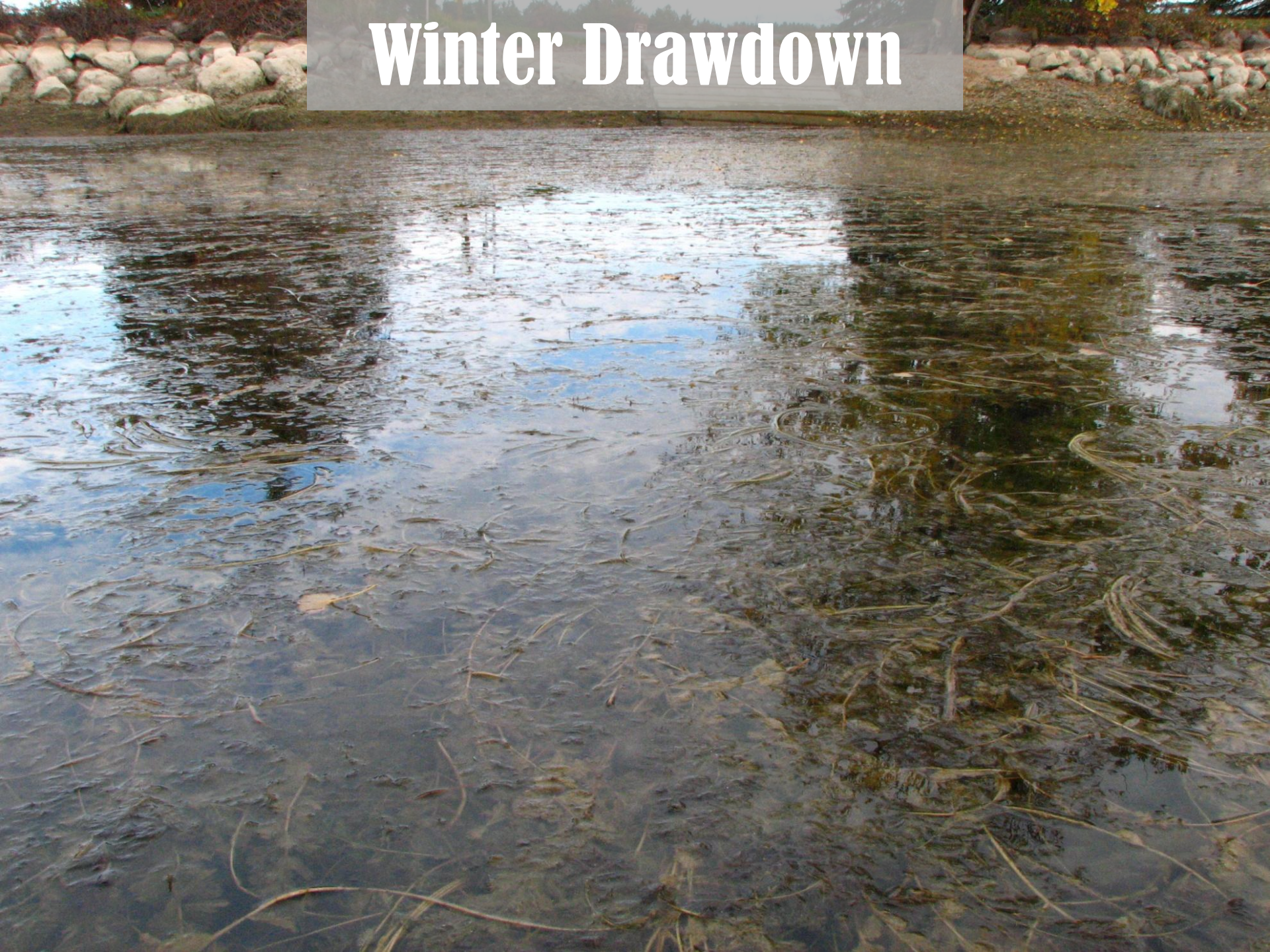
Refill started May 1, 2009. 178 Days

Winter Drawdown

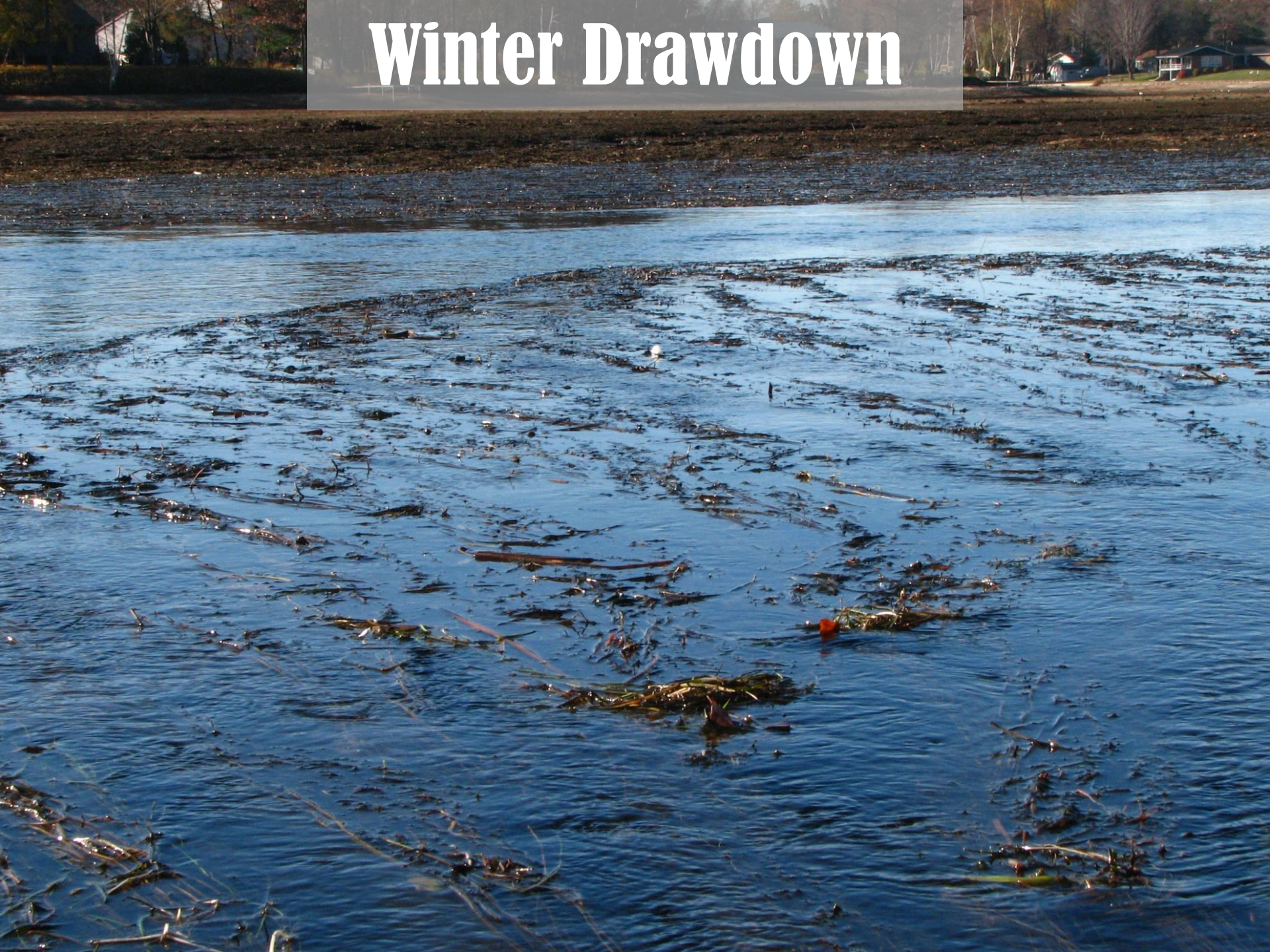


Winter Drawdown

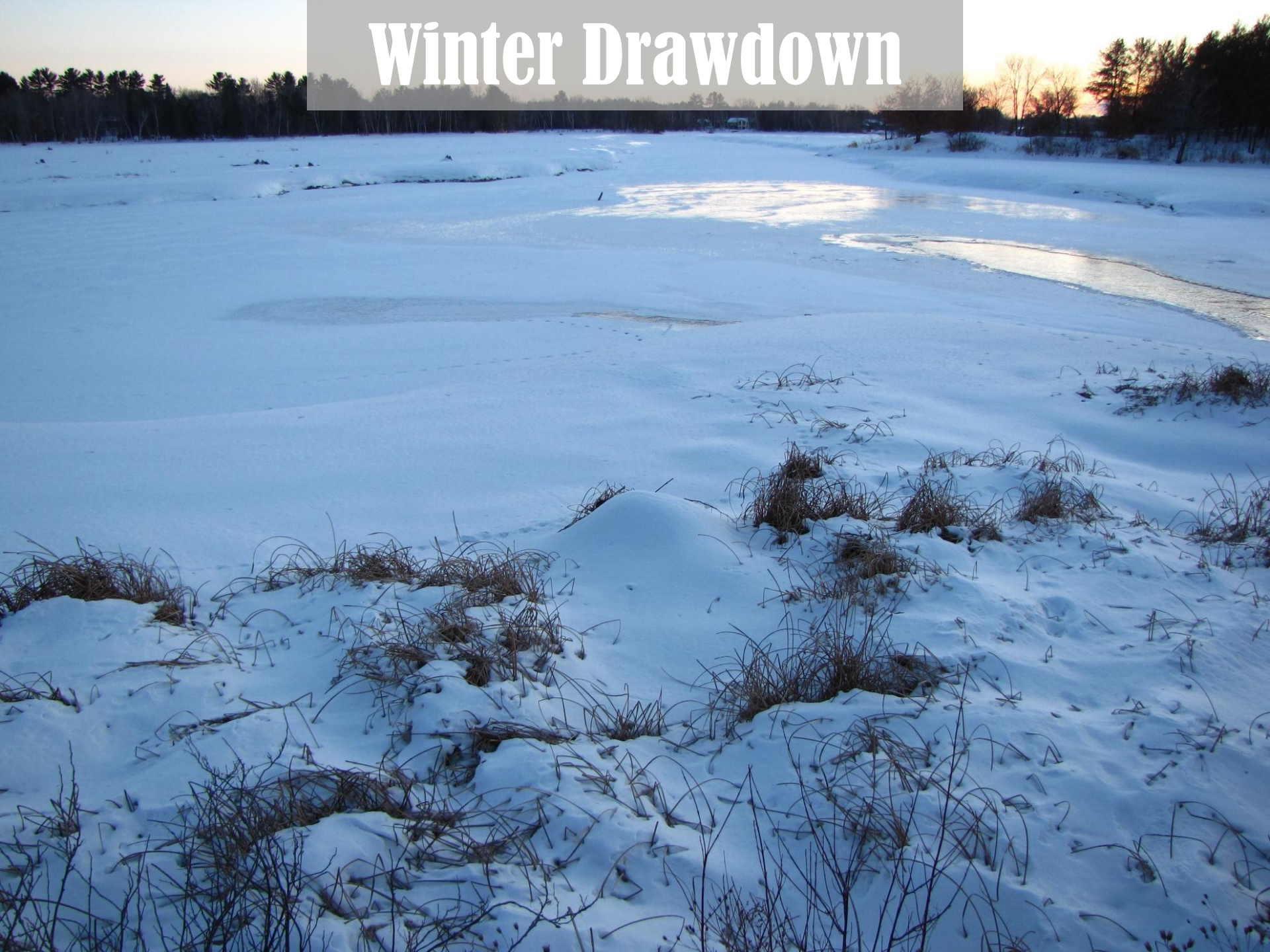
Winter Drawdown



Winter Drawdown



Winter Drawdown



Winter Drawdown

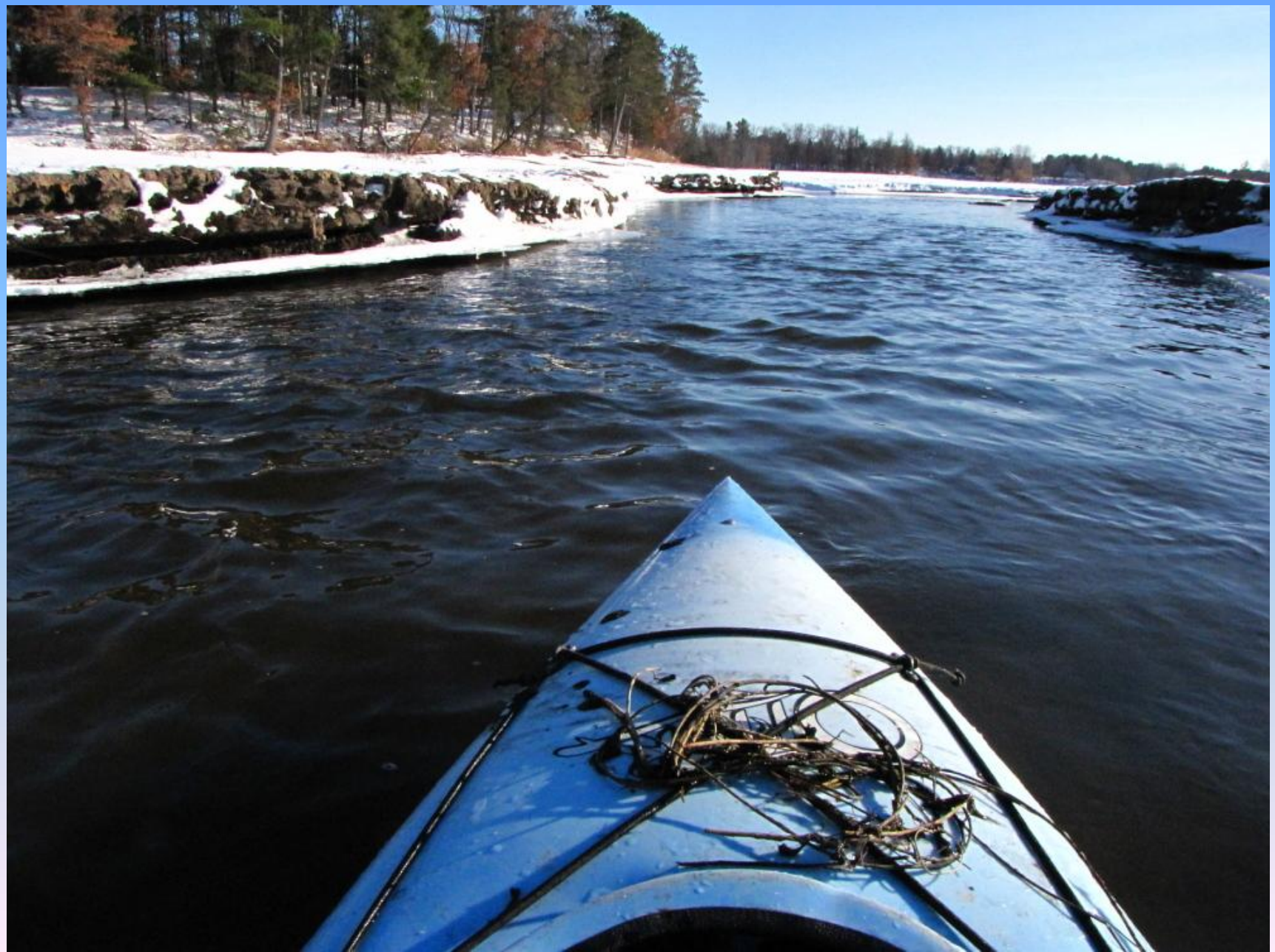
EWM Survey Jan. 29, 2009

Channel open, surveyed by kayak with GPS unit.

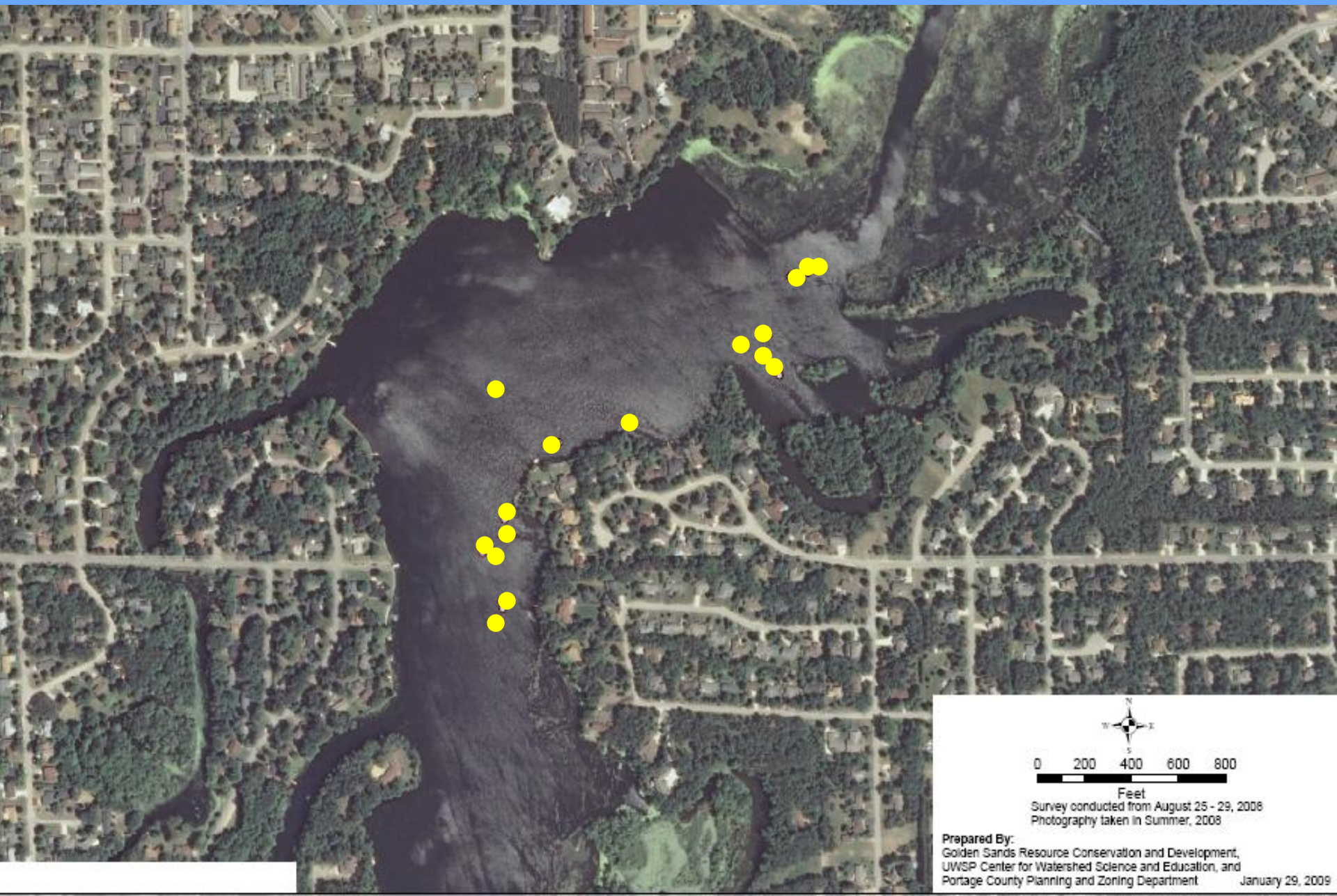
Spotty EWM found.
Often hard to identify.

PS

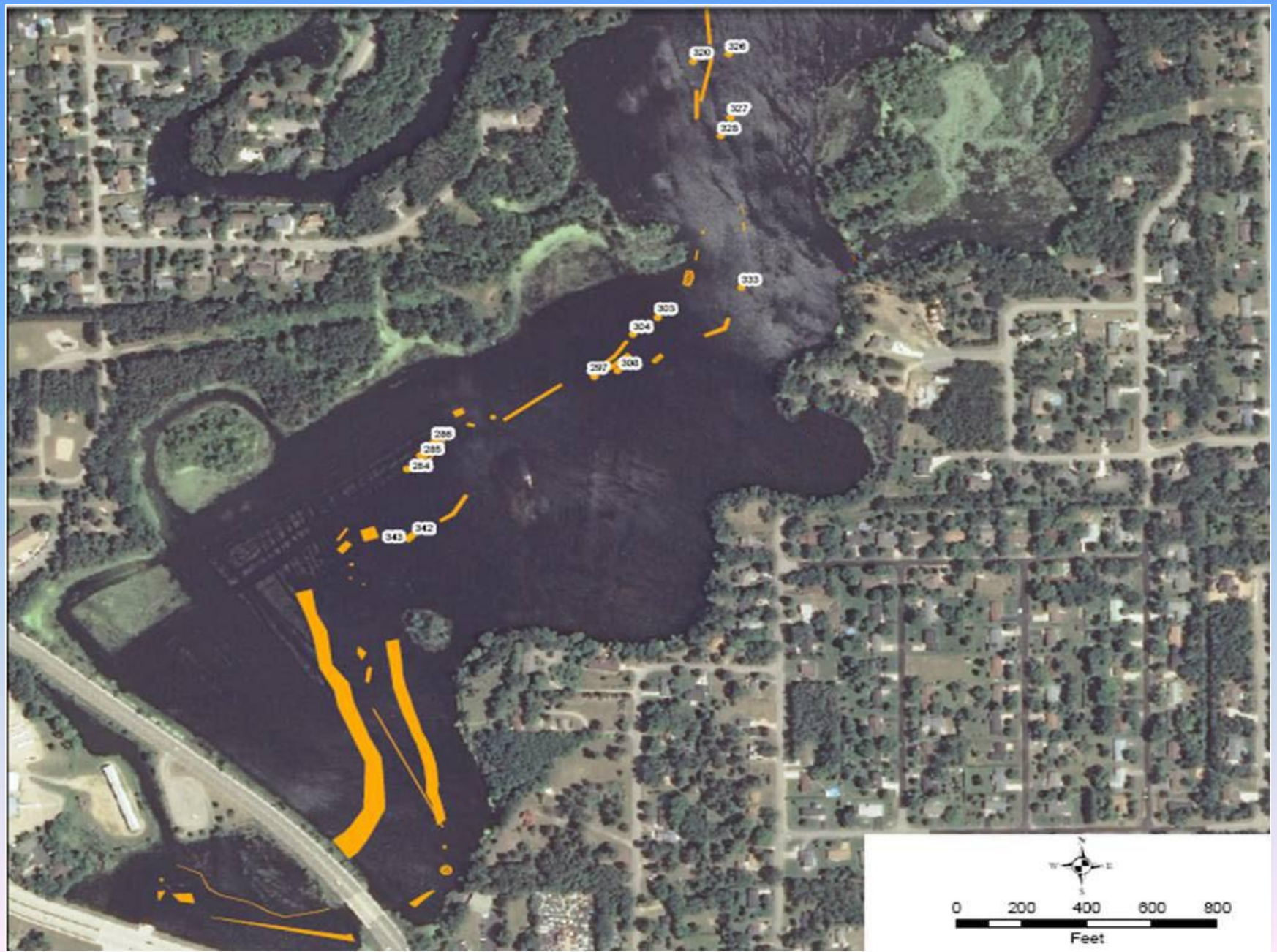
EWM Survey Jan. 29, 2009



EWM Survey Jan. 29, 2009 NORTH



EWM Survey Jan. 29, 2009 SOUTH



Winter EWM Hand-pulling #1

Winter EWM Hand-pulling #1

Winter EWM Hand-pulling #1

What did we learn?

- ✓Rake upstream of the stems to get roots.
- ✓Buckets run risk of falling over. How to fix this problem?
- ✓Should someone be downstream to catch fragments? Minnow seine?
- ✓Ice fishing sleds worked well for transport of EWM.
- ✓Sleds collected about as much garbage as EWM.

What did we learn?

- ✓Use cotton-lined, elbow-length dishwashing gloves at a minimum. Shoulder-length, insulated gloves are better.
- ✓Some *Elodea* and coontail present. Need for very basic aquatic plant ID training.

Winter EWM Hand-pulling #2

Winter EWM Hand-pulling #2

Problem #1: Buckets risk being pushed over by current.

Solution: Hang buckets on steel fence post.

Winter EWM Hand-pulling #2

Problem #2: Fragments may get carried away.

Solution: Set up minnow seine downstream?


As April rolls around…


As April rolls around…

Shoreline Violations

KO

Explore other means to educate landowners

Door-to-door visits

Heffron Street Landing Improvement

The Dessication Complication

PS

The Dessication Complication


Bird’s eye view
April 30, 2009

2009 Aquatic Plant Survey

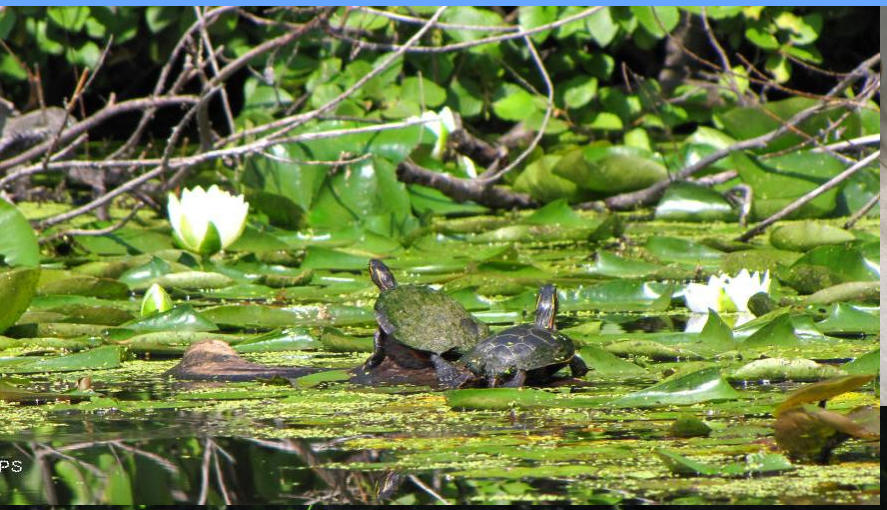
Paul Skawinski, Scott Provost, and
Sara Schmidt - DNR

No EWM found during survey

- Pre FQI = 28.0; Post FQI = 36.7
- Pre n = 26; Post n = 39
- EWM in September

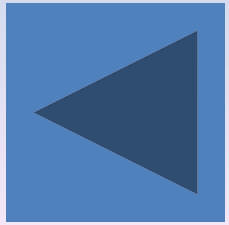
SP

Sensitive Area Restoration

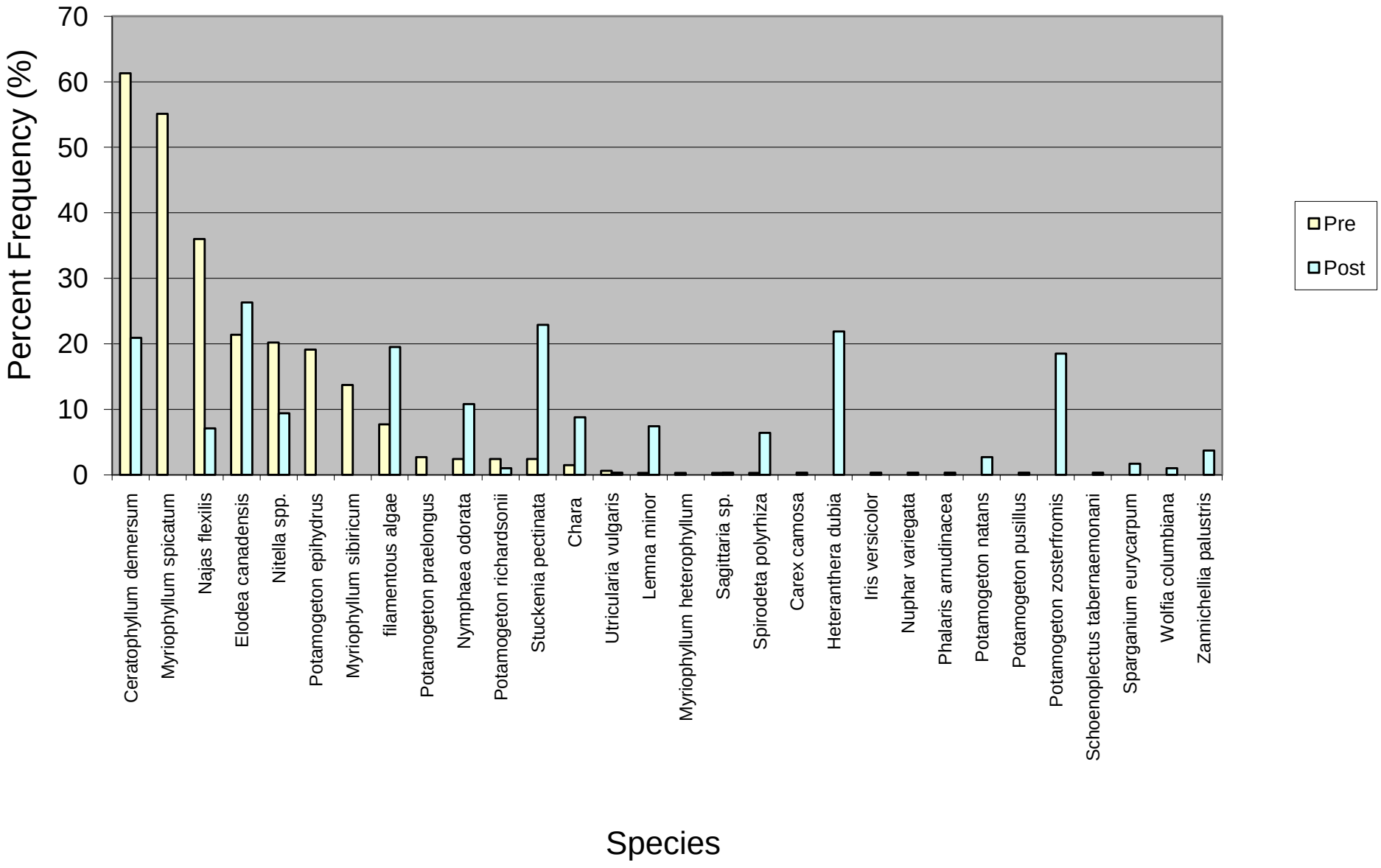


14 New Plant spp. in 2009

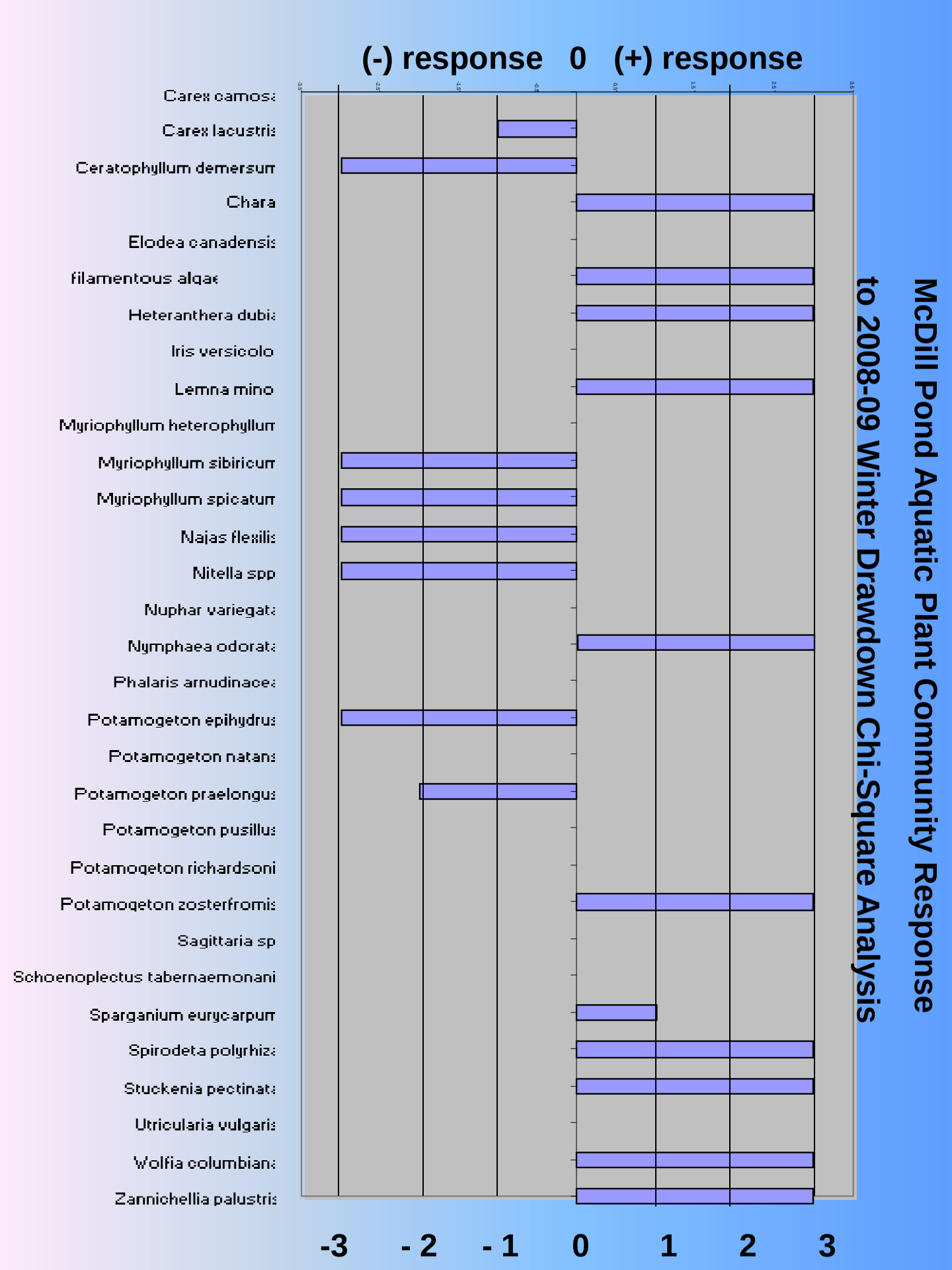
- *Callitriche palustris* – Common water starwort
- *Elodea nuttallii* – Slender waterweed
- *Eleocharis acicularis* – Needle spikerush
- *Heteranthera dubia* – Water stargrass
- *Lemna trisulca* – Forked duckweed
- *Potamogeton amplifolius* – Large-leaf pondweed
- *Potamogeton friesii* – Fries' pondweed
- *Potamogeton pusillus* – Small pondweed
- *Potamogeton zosteriformis* – Flat-stem pondweed
- *Schoenoplectus subterminalis* – Water bulrush
- *Utricularia geminiscapa* – Twin-stemmed bladderwort
- *Utricularia gibba* – Creeping bladderwort
- *Wolffia columbiana* – Common watermeal
- *Zannichellia palustris* – Horned pondweed



Pre and Post Drawdown Aquatic Plant Frequency, McDill Pond

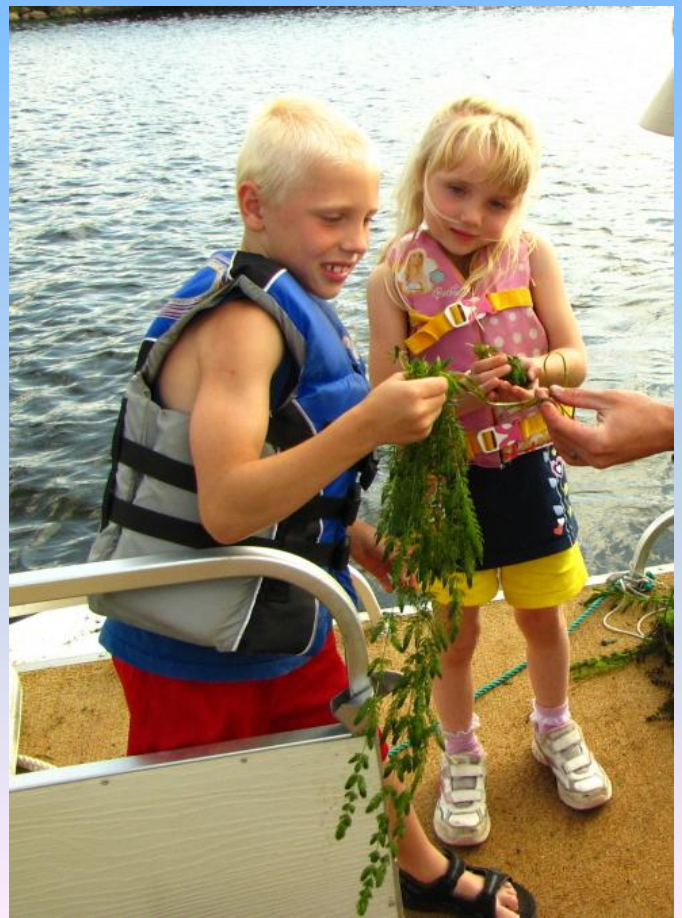


McDill Pond Aquatic Plant Community Response to 2008-09 Winter Drawdown Chi-Square Analysis



AIS Monitoring

Two training sessions: train residents on AIS identification and look-alike native plant species from McDill



PS

AIS Monitoring

Teaching elementary school students about aquatic invasives at Jordan Park

KO

2008

2009

Changing Homeowner Attitudes

Late Summer Hand-pulling

- August – EWM found in west channel, and across the lake from the channel outlet.

- Kayaks, paddleboat
- Snorkelers/divers
- Realized there was too much EWM. Hand-pulling focused on area of high FQI in side channels.
- Herbicide was used in larger areas with low FQI.

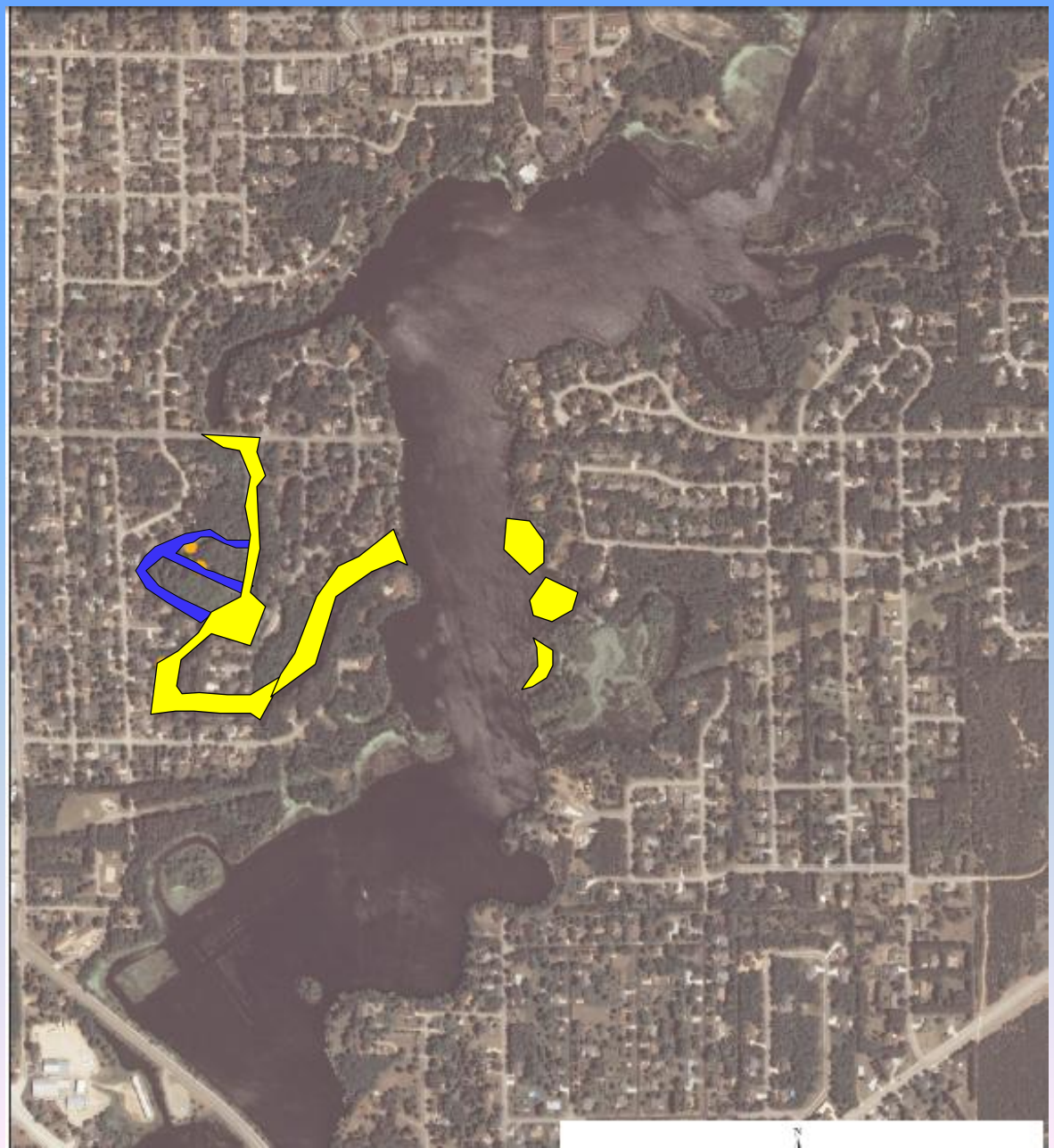
PS

Herbicide Application Aug. ‘09

Liquid 2,4-D in channel.

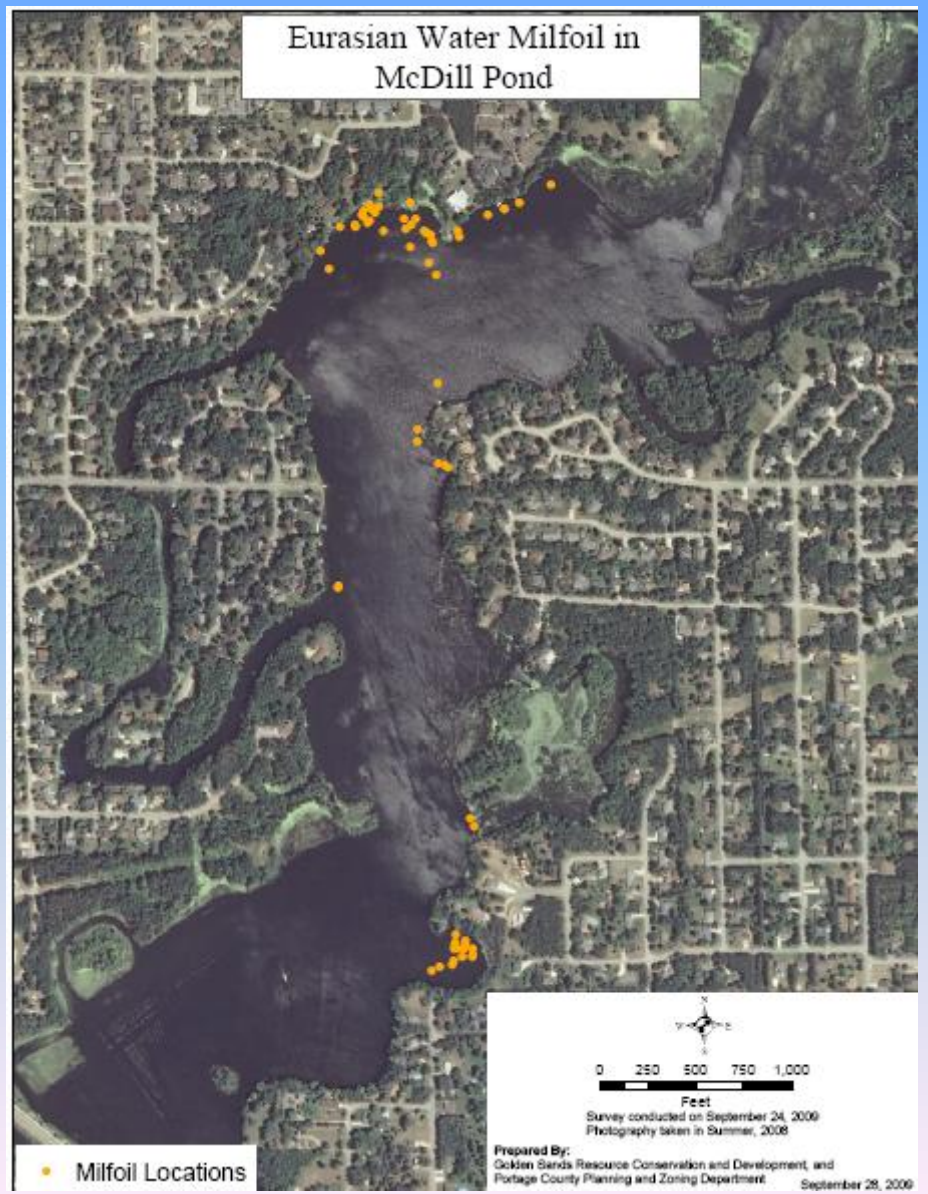
Granular 2,4-D in main body.

Blue area (high FQI) was not chemically treated. Hand-pulled to preserve area of high FQI.



September 24th Mapping

- Some additional EWM found.



Unaffected Areas from the Drawdown Harbored EWM

Plans for 2010

- Spring herbicide treatment (small-scale)
- Another AIS monitoring training for residents
- Continue monitoring and mapping for new EWM
- PI aquatic plant survey in 2010 and beyond to evaluate long-term effects

Thanks to the Olson Family!