

Successful Control of Eurasian Watermilfoil at Blackhawk Lake, WI



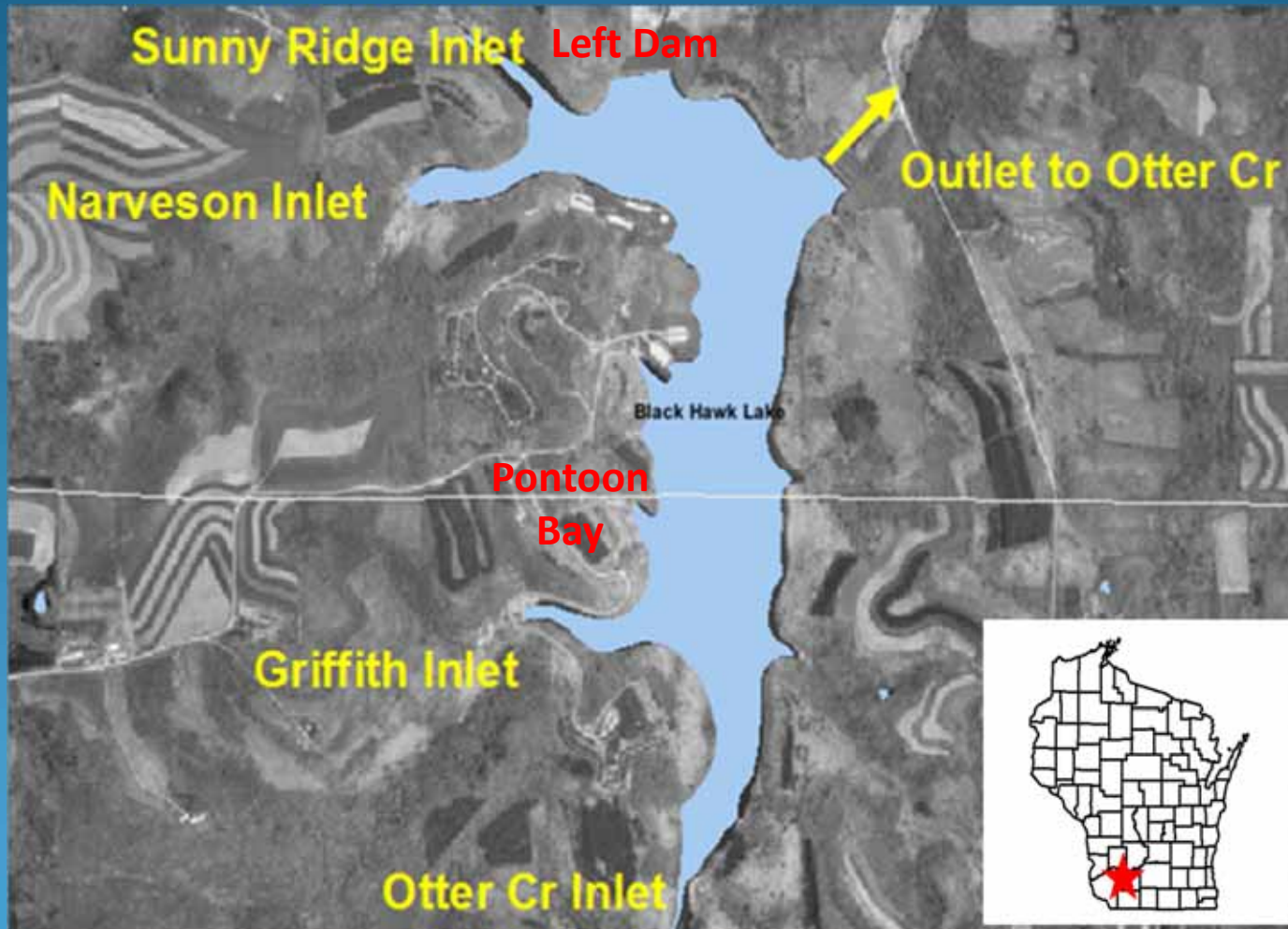
Laura Sefton, UW-Platteville
Donna Sefton, WI DNR

Blackhawk Lake

- Constructed 1971
- 220 acres
- Publicly owned shoreline
- 600 acre recreation area
- Campgrounds, beach
boat landing, concession
- High quality



Blackhawk Lake Inlets and Outlets



**Blackhawk Lake
Iowa County
6/16, 6/17, & 6/22/2006**

Species Richness

- X Not Sampled
- 0
- 1-2
- 3-4
- 5-8



0.2 0 0.2 0.4 Miles



Blackhawk L,
Pioneer EWM
Colonies, 2006

Locations of Pioneer EWM Colonies 2006

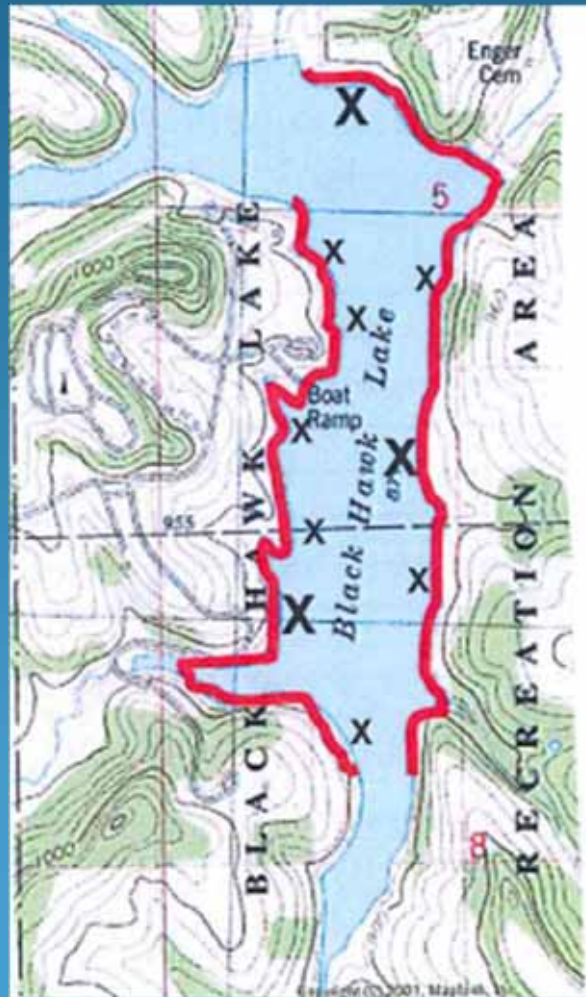


2006 Treatment and Distribution

- WI DNR AIS Early Detection/Rapid Response grant to develop and implement APM Plan
- 2 colonies near left dam were uprooted or root-crowned and collected
- Uprooting was difficult because interspersed with other plants
- Later summer: scattered colonies in many areas

2007 Distribution and Treatment

- Larger colonies
- New colonies along east and west shorelines
- Manual removal and 2,4-D used



Treatment



Post-treatment

2007 EWM Blackhawk Lake



2008 Distribution

- Heavy spring rains caused flooding
- Turbid water – ave spring Secchi 5'
- No EWM found
- Decreased plant diversity
(mostly coontail & sago pondweed)

2009 Distribution and Treatment

- Spring Secchi 21'
- Surveys found EWM near original locations
- Hand pulled
- Difficult where interspersed with other plants.



2009 Manual Removal



2010 Distribution and Treatment

- Spring Secchi 20'
- EWM abundant on sand ridge near left dam
 - 2,4-D used
- Colonies in pontoon mooring bay interspersed with other plants
 - Not treated



June, 2010



2010 Sand Ridge 2,4-D Treatment



EWM treatment 2010	Application rate lbs/acre 2,4-D		
	6/14/2010	6/16/2010	Total
Treatment area			
Between green & yellow lines (2.25 acres)	55	0	55
Between yellow & red lines (1.25 acres)	55	120	175
Within red line (1.25 acres)	55	140	195
Within blue line (0.25 acre)	55	88	144

2011 Distribution and Treatment

- Spring Secchi 24'
- One small colony located in the southern bay removed by rake



2012 Distribution

- Early spring, followed by a cool period and a hot, dry summer
 - Poor water clarity (7').
 - Lake turnover 2x June
 - Senescing plants
 - Nutrients promoted algae blooms
- No EWM found



Blackhawk Lake EWM Control Summary

- Key to control: monitoring and rapid response
- Manual harvest: best during clear water phase and distinct colonies
- Granular 2,4-D effective and practical
- Competition from curly-leaf pondweed and native plants in spring hinders EWM
- Weather that affects water clarity influences EWM distribution and abundance

Blackhawk Lake EWM Control Recommendations

- Monitor for EWM and respond rapidly
- Budget funds annually for monitoring, chemicals, and manual control
- Apply for a Clean Boats Clean Waters grant for watercraft inspections and EWM education
- Partner with Highland School District and public
 - Workshops, projects, volunteer monitors
- Information kiosk at boat landing
- Develop a “Friends” group for support or assistance