

Our Great Lakes



Wisconsin Waters

- Surface Water: 6.4 Million Acres
- Shoreline:
 - Lake Michigan
 - 407 Miles
- Inland Lakes: 14,000



FATHER HENNEPIN'S MAP OF THE UPPER PART OF THE GREAT LAKES





Great Lakes Restoration Initiative

- President Obama in 2010 Budget provided \$475 Million for an interagency Great Lakes Restoration Initiative to improve the water quality and ecosystems for the Great Lakes





Great Lakes Restoration Initiative Phragmites Shoreline Control Project

Year 1: 3300 Acres Sprayed



Wisconsin Department of Natural Resources
Bureau of Endangered Resources





Project Overview

- Lake Michigan Shores
- NE Wisconsin
- 6 Counties
- Public and private

<u>Control Areas</u>	<u>Acres</u>	<u>Miles</u>	<u>Phrag</u>	<u>Lyme</u>
Green Bay West Shores	3315	55	Y	N
Door	240	50	Y	Y
Manitowoc and Sheboygan	45	13	Y	Y
Project Total	3600	118		

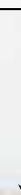




Management Challenge

- Lake Michigan water levels
- Phragmites has filled the niche
 - knows no boundaries
- Riparian area
 - Public trust
 - Access issues when dry

Lake Michigan



Phragmites australis Green Bay shoreline, Dec. 2001 ©Gary Fewless

OHW

Riparian Area



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... "when I was a kid" ...



Sensiba - 1975



Wisconsin Department of Natural Resources





Today



Kate Houston



Kate Houston



Kate Houston



Wisconsin Department of Natural Resources

Great Lakes Restoration Initiative





Project Plan

- COA's
 - (Conservation Opportunity Areas)
- Permission Sign-up
 - ~1500
- Mapping / Monitoring
- Implementation
 - 3 Yrs
- Follow up





Wisconsin Wildlife Action Plan



- which native wildlife species are most at risk,
- what habitats they are associated with,
- where they occur across the state, and
- priority conservation actions to help "*get them off and keep them off*" any Endangered or Threatened species lists in the future.



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Species of Greatest Conservation Need

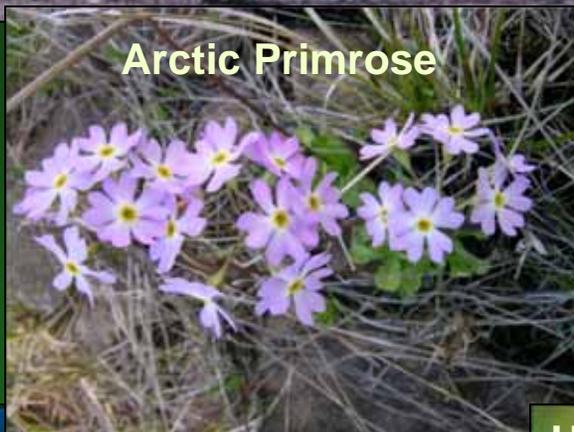


Caspian Tern, with young
courtesy Tom Erdman

Caspian Tern



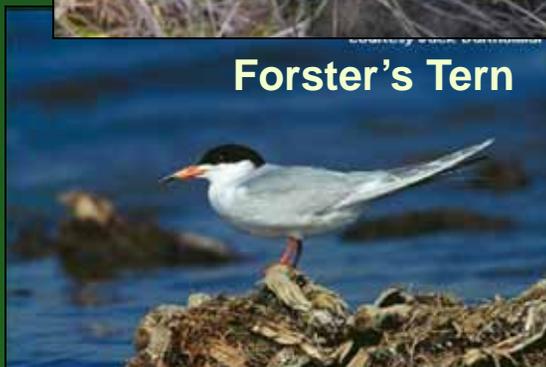
Dwarf Lake Iris



Arctic Primrose



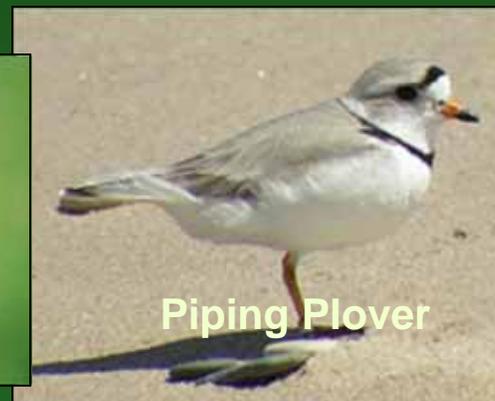
Ohio Goldenrod



Forster's Tern



Hines Emerald



Piping Plover



Strategy

Partnership!

- Invested stakeholders
- Multi-Agency
- Tax Payers
 - Approx 1530

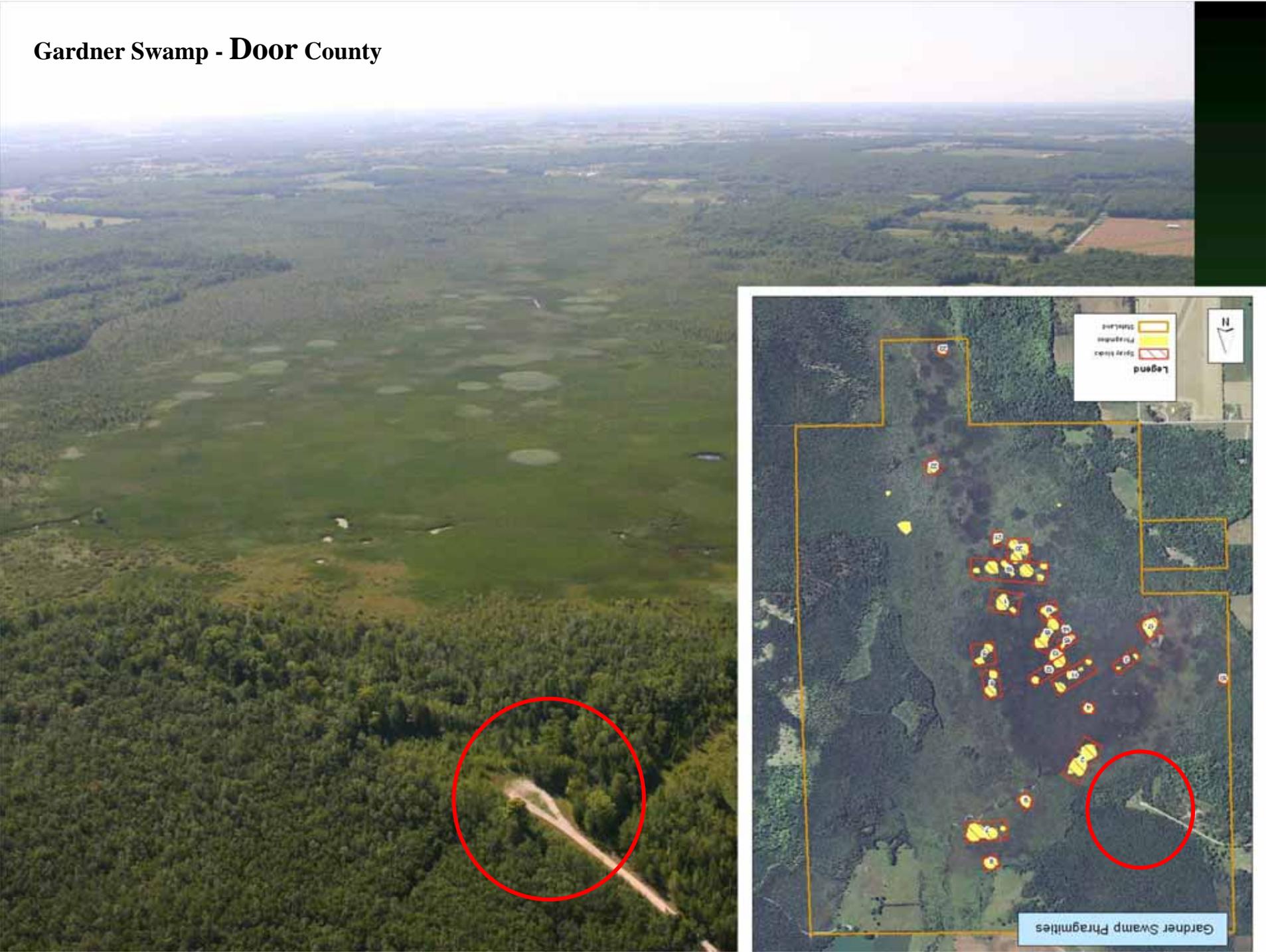




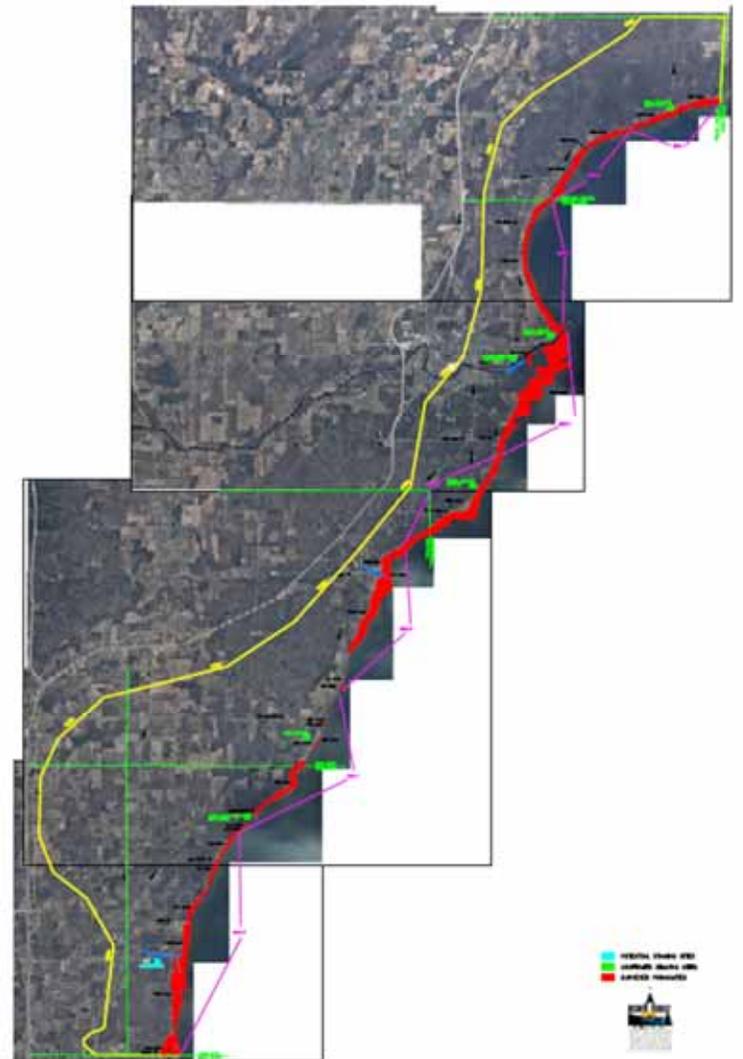
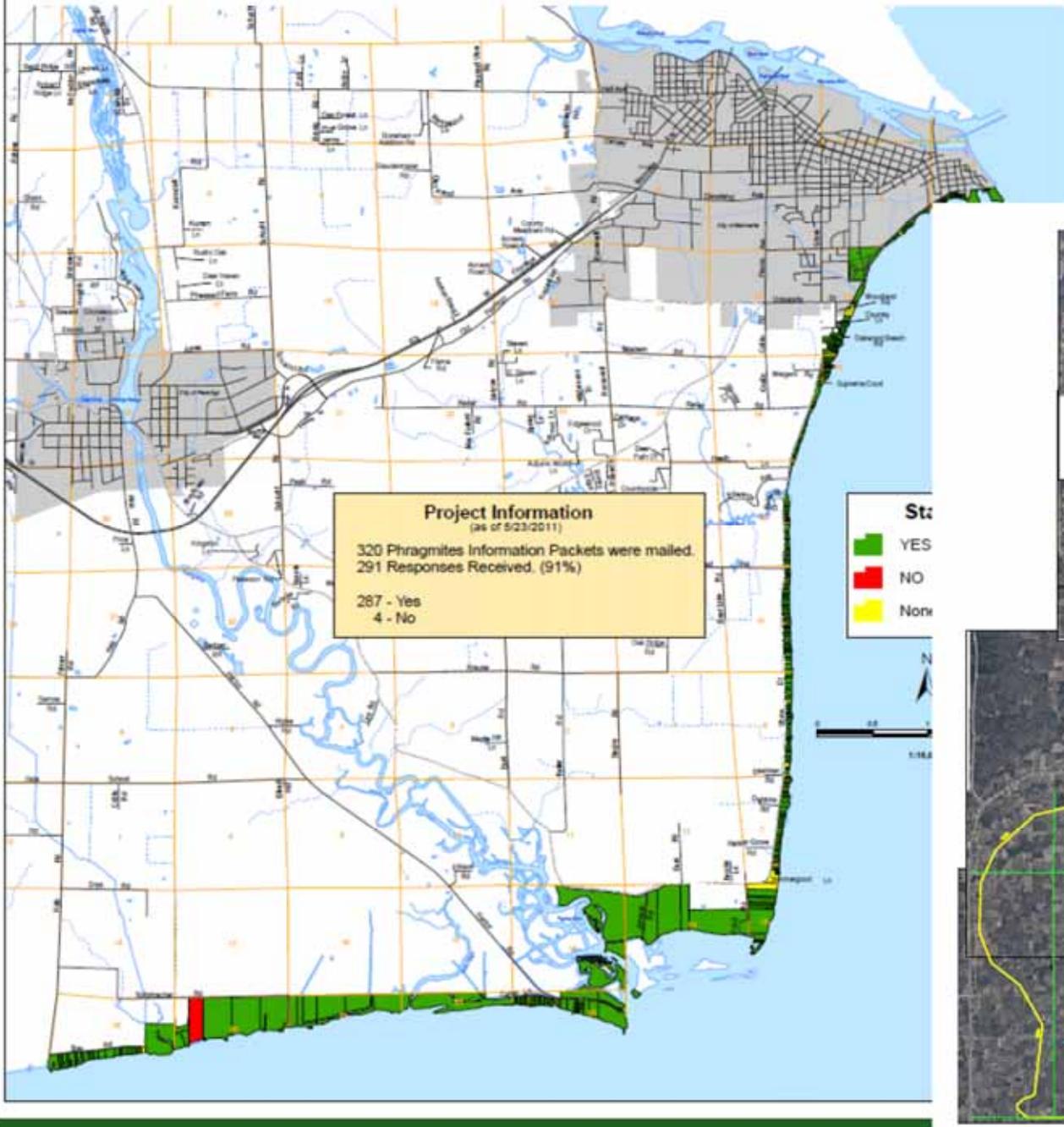
Mapping Techniques



Gardner Swamp - Door County



WDNR Phragmites Control Project Participation





Air vs. Ground



Dense

Vs.

Sparse



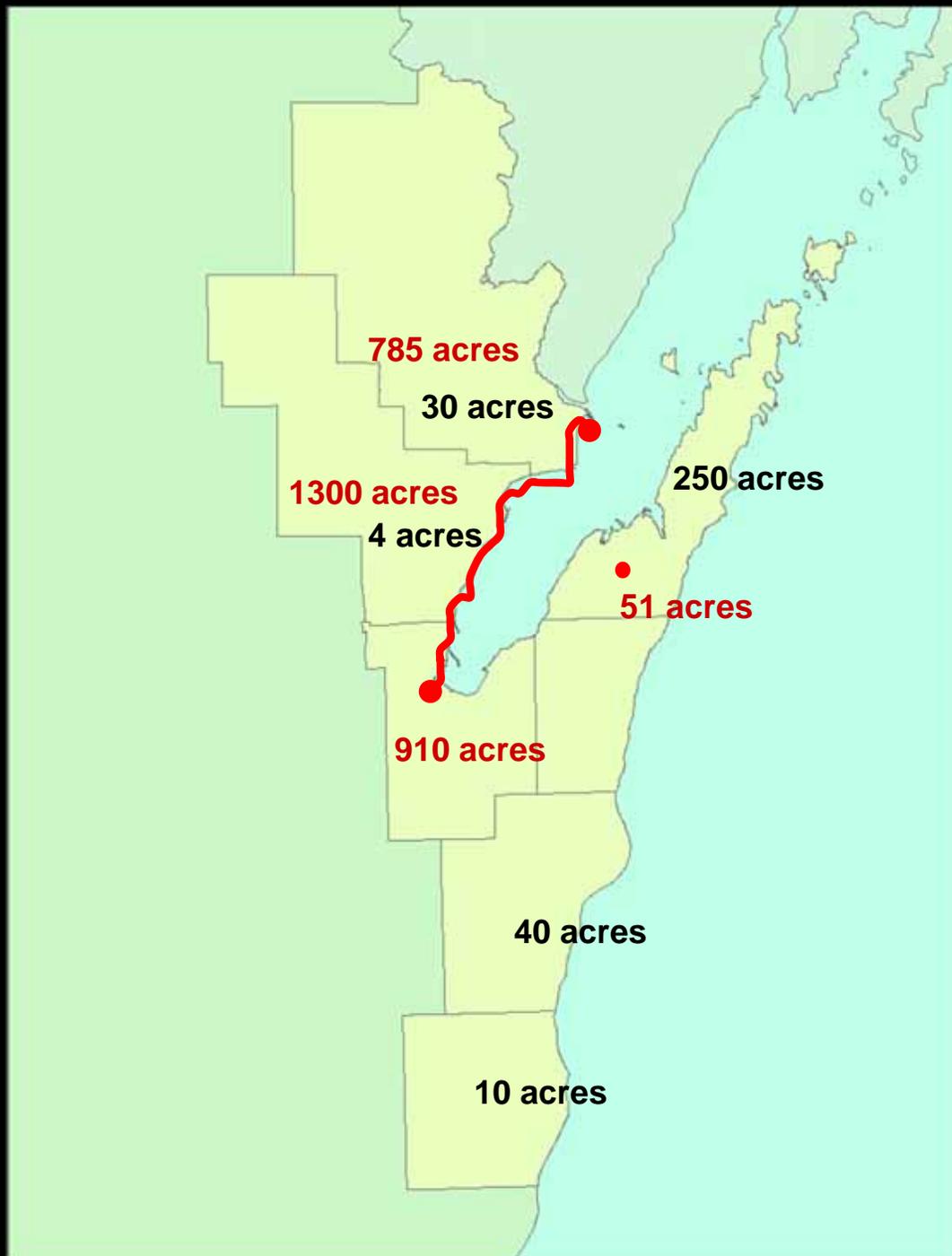
Phragmites



Spray Results

- Year 1 -
A lot of Dead stuff!

3300 acres





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Year 1: 3300 Acres





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Aerial Spraying





Ground





Costs

Performance - Based Pay

Air

- \$66.88/Ac
- With Herb.

Skyline Helicopters

Ground

- \$160-180 (CK)
- \$190 - 470 (M & B)

Clean Kill Pest Control Michler & Brown

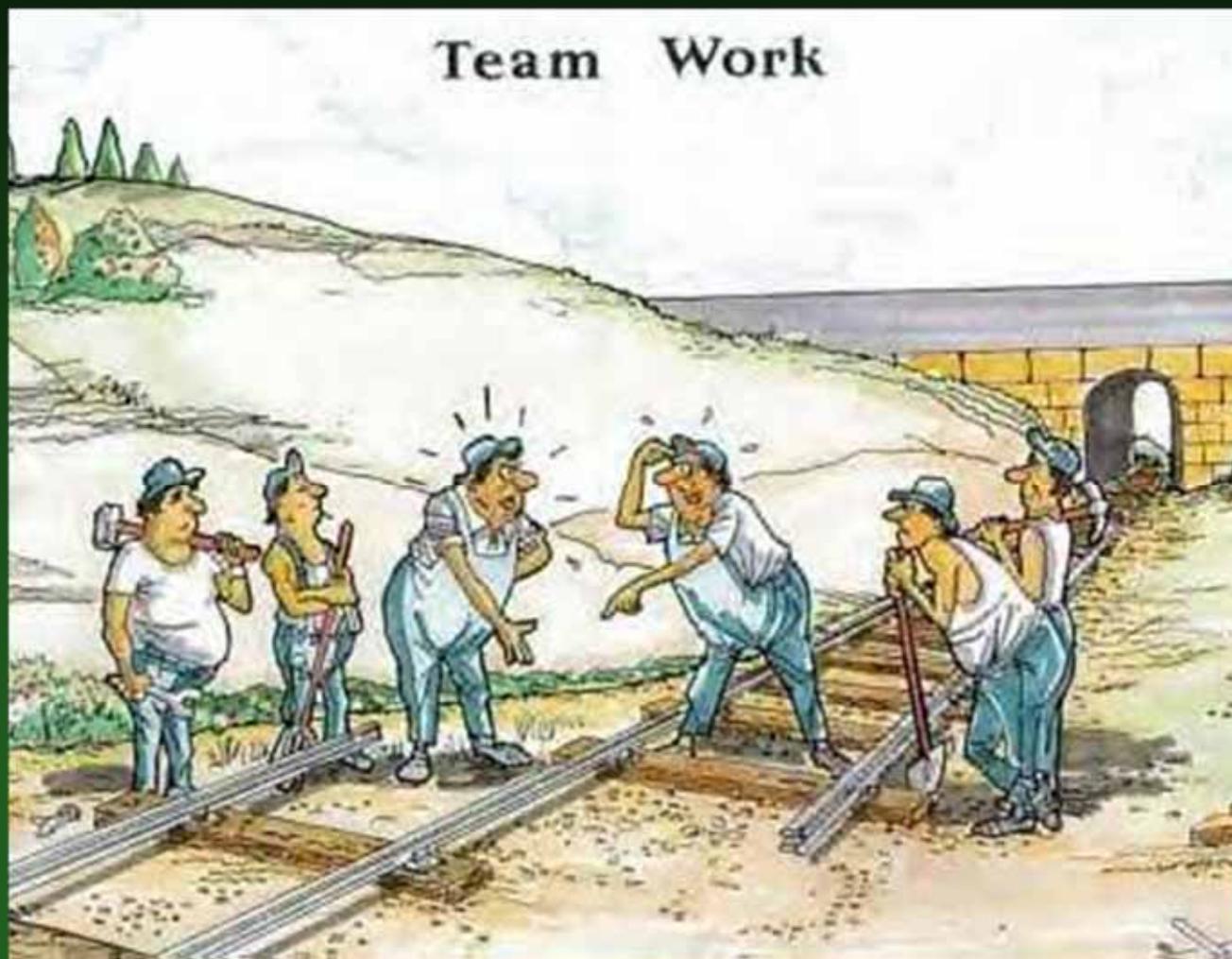


Next Steps

- Follow-up
- Some areas missed in 2011 will get initial treatment in 2012
- Ideally, all acres will receive 1 year of follow-up
 - *most will receive 2 years*



Lessons Learned





Lessons Learned cont...

- Time!
 - Rules & Regs
 - Project Plans
 - QAPP
 - EA
 - Timeline of Control





Take Home Messages

- Partners
- Volunteers
- Public Outreach & Education
- Private land connections
 - critical to long term sustainability
- \$\$\$



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When I was young, I observed that nine out of every ten things I did were failures, so I did ten times the work.

~ George Bernard Shaw



EPA GLRI Phragmites Control Project for Herbicide application involving private landowners is the largest in Wisconsin... so far!



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Would we do it again?





Acknowledgments

- Mark Martin, WDNR (Retired)
- Joe Henry, WDNR
- John Huff, WDNR
- Donalea Dinsmore, WDNR
- Konrad Plachetta, WDNR

Project Partners

- Marinette Co
- Oconto County Land Conservation
- Brown Co
- Door Co Soil & Water
- Door County Land Trust
- DCIST
- The Ridges Sanctuary
- TNC
- Woodland Dunes Nature Center
- Point Beach State Park
- Kohler-Andrae State Park
- The Kohler Foundation

- Green Bay Duck Hunters Asso.
- Ducks Unlimited
- Wisconsin Waterfowl Asso.
- Wisconsin Lakes Association
- Wisconsin Wetlands Asso
- UWGB
- Gary Fewless
- Brock Woods, WDNR
- Rick Schulte, CPS
- Skyline Helicopters
- Clean Kill Invasives
- Michler & Brown Restoration
- Oconto County Sportsman Club
- Murder Inc.
- 1500+ Landowners
- ..and so many more....



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Questions & Contact Info



Wisconsin Department of Natural Resources

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