

WDNR Project to Eliminate Pioneer Non-Native *Phragmites*

Strategy, Process, Lessons

Brock Woods & Jason Granberg

UWEX/WDNR

WDNR

608-266-2554

608-267-9868

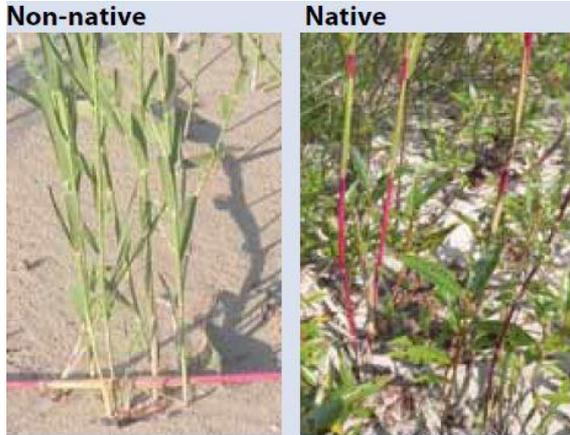
Phragmites History (*Phragmites australis*, *subsp. australis*)

- ❑ Native statewide
- ❑ Non-native appears: 1980(?)
- ❑ Great Lakes shores & mine site
- ❑ Established in east
- ❑ Now spreading, inland & away from early infestations



Native and Non-Native Phragmites

□ Stem color



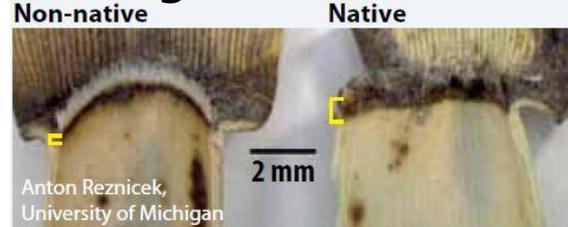
□ Stem Texture

- Native: Smooth & Shiny
- N-N: Dull & Ridged

□ Stem fungus

- Native: circle dots
- N-N: No circle dots

□ Ligules



□ Glumes



□ Seed head



□ Leaf color



□ Other features

- In winter "Naked is Native" and leaf sheaths absent or pull away easily
- N-N: Leaf sheaths retained and hard to pull off.

Why is N-N Phragmites a Problem?

- ❑ Tall, dense stands:
- ❑ Decrease native plant biodiversity and wetland habitat, particularly for migrating waterfowl
- ❑ Reduce beach and shoreline use, viewsheds and values
- ❑ Alter the structure and function of marsh systems by changing species composition, nutrient cycles and hydrological regimes.



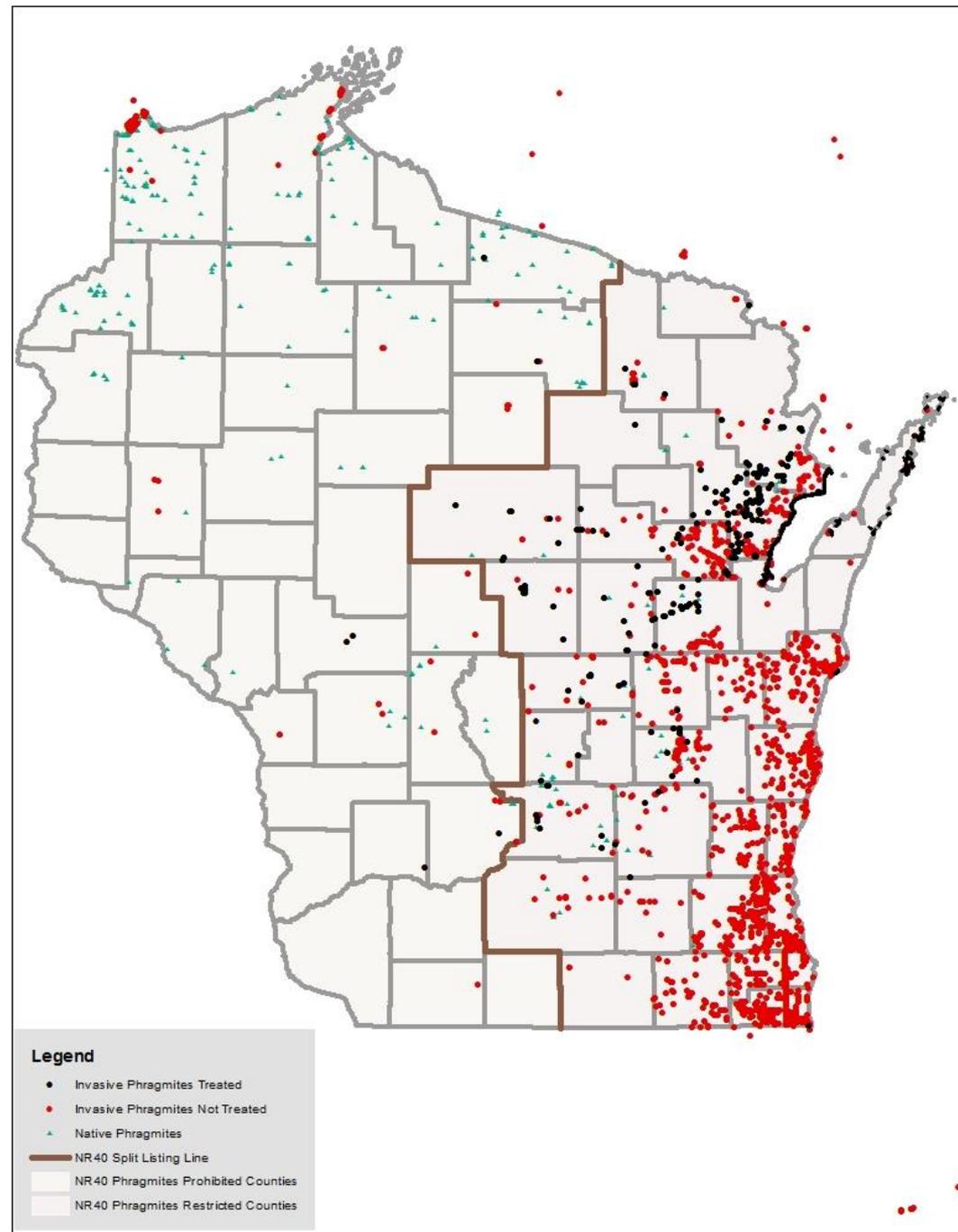
How does Phragmites Disperse?

- ❑ Natural dispersal by birds, wind, and flowing water for rhizomes and seed
- ❑ Rhizomes in contaminated fill
- ❑ Vehicles and mowing along roadways (seed)
- ❑ Other pursuits plantings, WWTFs...



Known Phragmites Sites

- Map
 - Red: Non-native
 - Black: Treated N-N
 - Green: Native
- NR 40 revision
 - *Phragmites* split listing (brown line) between restricted in east versus prohibited in west



Lake Michigan Control Efforts

- 2011-2012: \$805K GLRI grant to WDNR (4,841 acres of NN *Phragmites*)
- 2013-2014: \$400K GLRI grant for follow-up treatments, plus 700 additional acres
- DU grant (\$)
- OWLT grant (\$573K-mult sp.~\$143K)
- \$1,778,000 spent just on Great Lake wetlands - with good results, but continuing work and money will be required!

Species-specific, Statewide NN Phragmites Containment Strategy

- ❑ Stop *Phragmites*' advance: eliminate as many pioneer populations as possible in Lake Michigan/Superior basin counties (GLRI grant)
- ❑ Clean out lightly infested areas: find and eliminate all the few western/southern populations of *Phragmites* (Early Detection/Rapid Response AIS grants)
- ❑ Control/eliminate Jackson Co. 1980 mine site (AIS Control Grant?)
- ❑ Reduce *Phragmites* in Eastern counties (DNR & partners: e.g. OWLT grant, SEWISC efforts, etc.)
- ❑ Prevent further human spread & monitor & act quickly to curb natural spread

GLRI Project Process

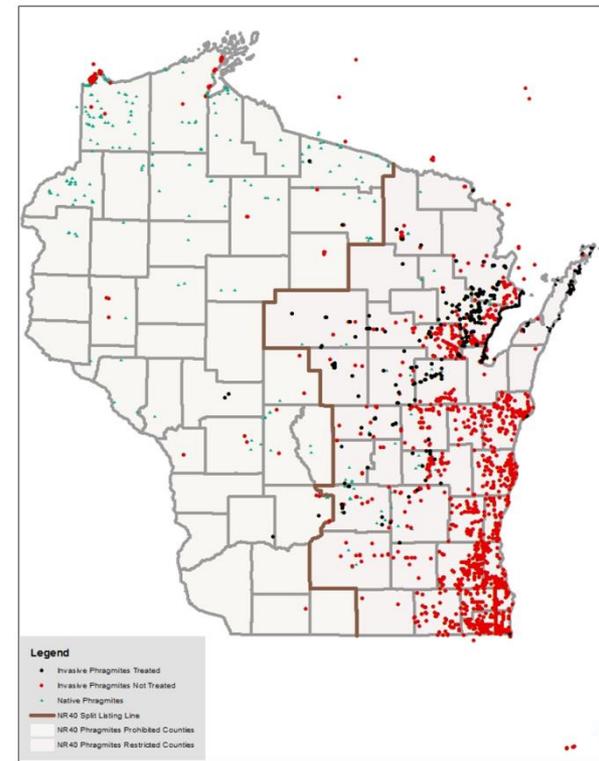
- Data acquisition-DB mining, contacts
- Site confirmation & areas, project scope
- Landowner contacts-ROWs & beyond
- Permits-NR 107, WDOT, RR, NHI
- Contractor selection & oversight
- Daily data requirements & proj.refinement
- Adding new sites?, including Lk. Superior
- Re-treating sites-effective & efficient?
- Prep for the future-education, training

Project Management Lessons

- ❑ Assemble permits & notices:
 - DoT, Railroads, NR107, NHI, newspaper notices: Take longer than you think.
- ❑ Contacting landowners & sending letters:
 - Ask for contact phone number for spraying date. Have contractor call them before treatment.
 - Include map of area to be sprayed with property lines.
 - Send educational materials, ask landowners to spread the word to neighbors
- ❑ Dynamic spreadsheets & automated GIS tools for tracking progress: Easy updates for all parties.
- ❑ Frequent communication between WDNR & Contractor:
 - Provide them copies of all maps, lists, & forms
 - Have daily progress reports: What they treated and changes to list.

On-going state strategy

- Split-listing non-native Phragmites
- Reporting sites-YOU can help
- County & local contacts-You can help
- WDOT role-YOU can help
- Education-YOU can help
- Taking action-YOU can help
- Valuing what we have-WE all must help!



Summary

Eliminate pioneer sites:



...and to maintain healthy wetlands and shorelines



...to prevent spreading:



Everyone must do their part to keep this scourge from spreading!

Our Thanks to...

- ❑ Bob Wakeman, without whom our GLRI grant would never have been written
- ❑ USFWS for buying our landscape control idea
- ❑ Hundreds of private landowners throughout Wisconsin, who have become interested, and have allowed herbicide work to proceed on their land
- ❑ Stacy S. & Jason G., project LTEs, for all their work and innovative ideas