

Finding the Shared Vision:

Working with Landowners
to Achieve their Perfect
Shoreline

Topics

- **Why Shoreline Restoration is Important**
 - What is your motivation?
 - What do you want your shoreline to look like?
- **Designing a Native Planting**
- **Native WI Vegetation**
- **Shoreline Restoration Projects**
 - Photos of various projects
- **Tricks of the Trade**

Wisconsin Lakes & Rivers are Becoming Increasingly Urbanized



~Loss of critical habitat

~Increased erosion of shoreline and unvegetated slopes

~More contaminants carried to lake by runoff

**What do landowners want to see?
This.....**



.....Or this?



How about this?



Or at least this?



A photograph of a house with a porch and a large garden of tall grasses and flowers in the foreground. The house is white with a dark roof and a porch. The garden is filled with tall, green grasses and some yellow flowers. The sky is blue with some clouds.

Designing a Native Planting

Know a Little about Your Palette



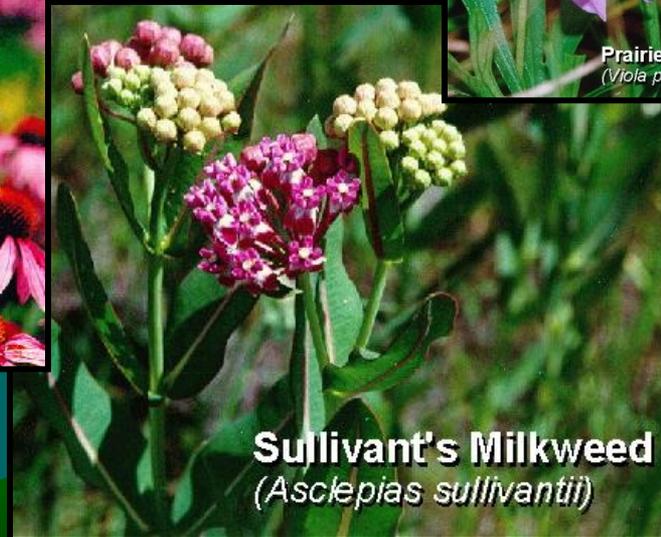
New England Aster
(*Aster novae-angliae*)



Purple Coneflower
(*Echinacea purpurea*)



Prairie Violet
(*Viola pedata*)



Sullivant's Milkweed
(*Asclepias sullivantii*)



Where to Start

- **Determine the size of the area available**
 - *Critical to picking plant species*
 - *Native plant heights above 3' need lots of space*
 - *The larger the planting, the increased maintenance required*
- **Determine the soil moisture of the area**
 - *Dry prairie*
 - *Mesic prairie*
 - *Wet edge*
 - *Wetland*
- **Determine the shade characteristics of the area**
 - *Full sun*
 - *Part sun (Minimum 4 hours)*
 - *Shade*

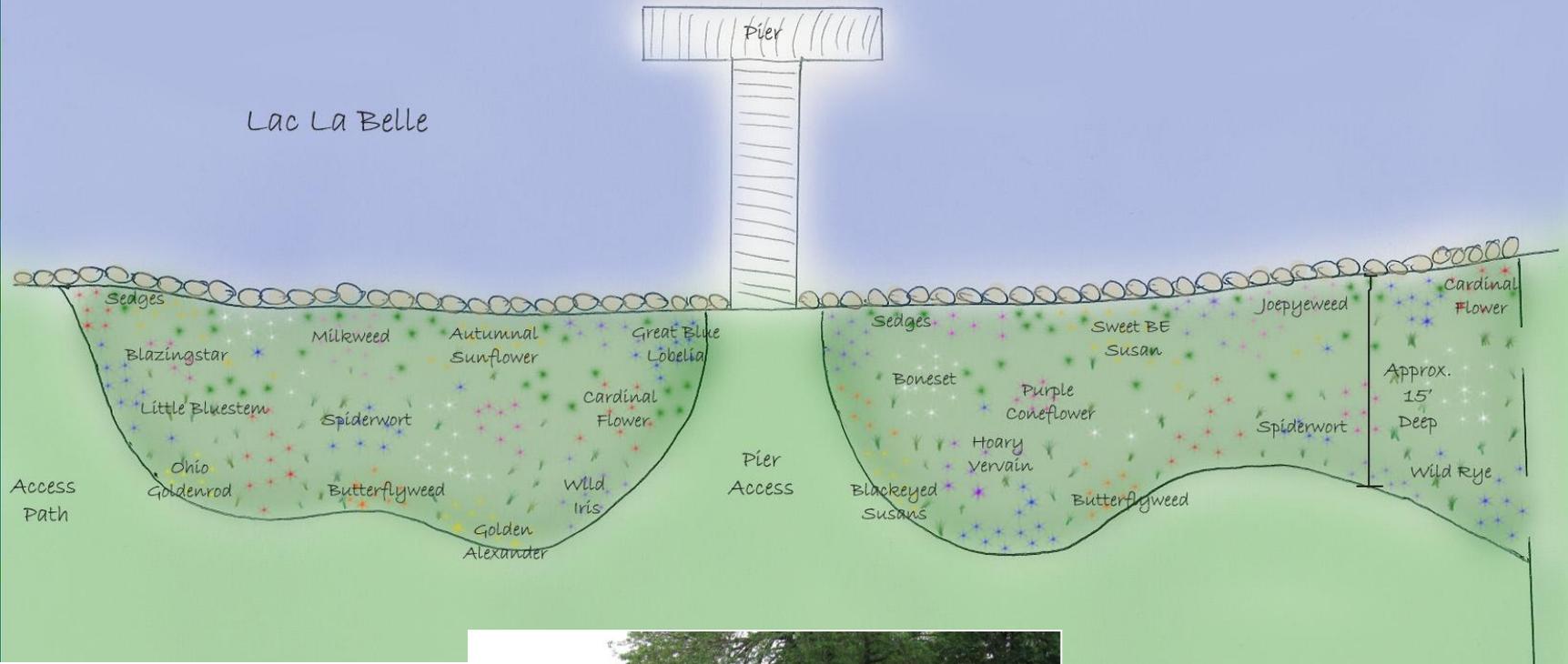
Know the Area

- **Determine what colors or species you want the most**
 - *Create a list of favorites*
 - *Go over list and denote flowering times*
 - *Add species that flower in other times (i.e.-asters in late fall)*
- **Remember costs other than plants**
 - *Herbicide*
 - *Mulch*
 - *Hoses*
 - *Labor*

LacLaBelle Project



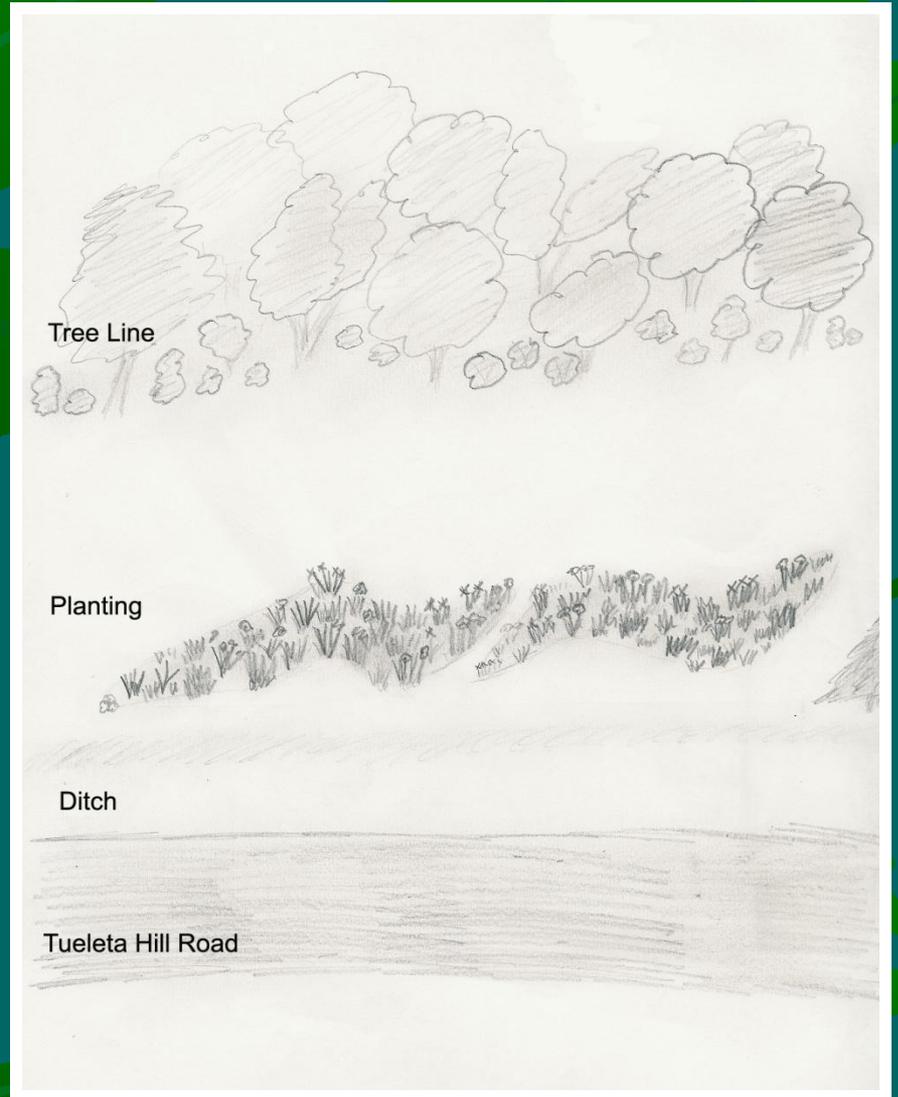
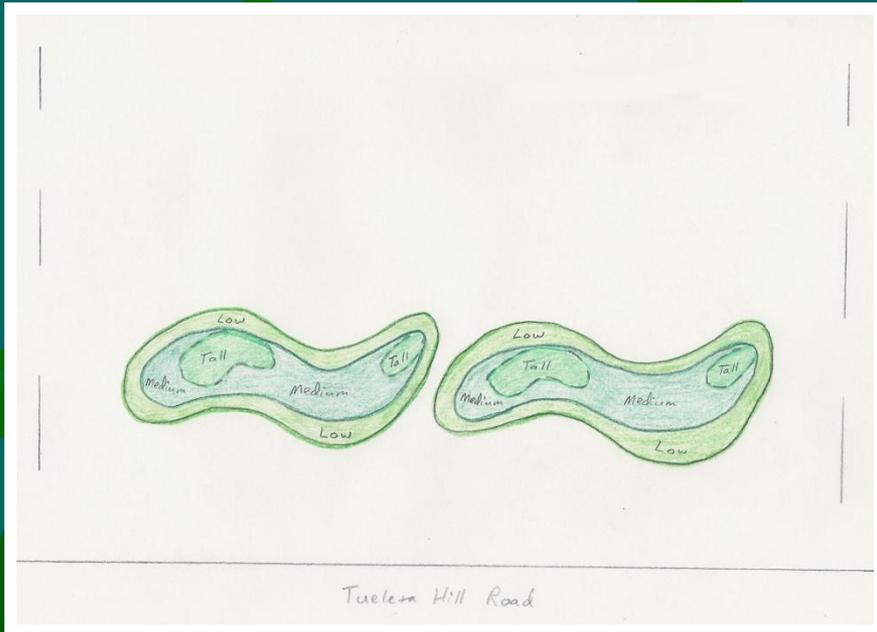
LacLaBelle Project



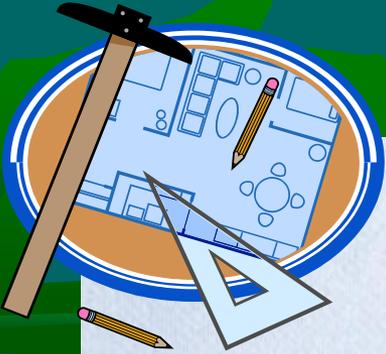
Tips for Any Native Planting

- Use borders and paths to define the planting area
- Develop a focal point
- Plant two to four species in broad sweeping masses or drifts that repeat throughout the planting area
- Use a mixture of bold and fine textures
- For larger plantings - Post signs to tell passers-by that your project is indeed planned
- For shorelines – avoid planting wet grasses if you're doing the maintenance (use sedges)

Basic Planting Sketches



Designed for Garden Appearance



The Ever Changing Evans Prairie



Evans Prairie



2005 Planting

2007 Planting

2006 Planting



The planting in early May



The planting in early June

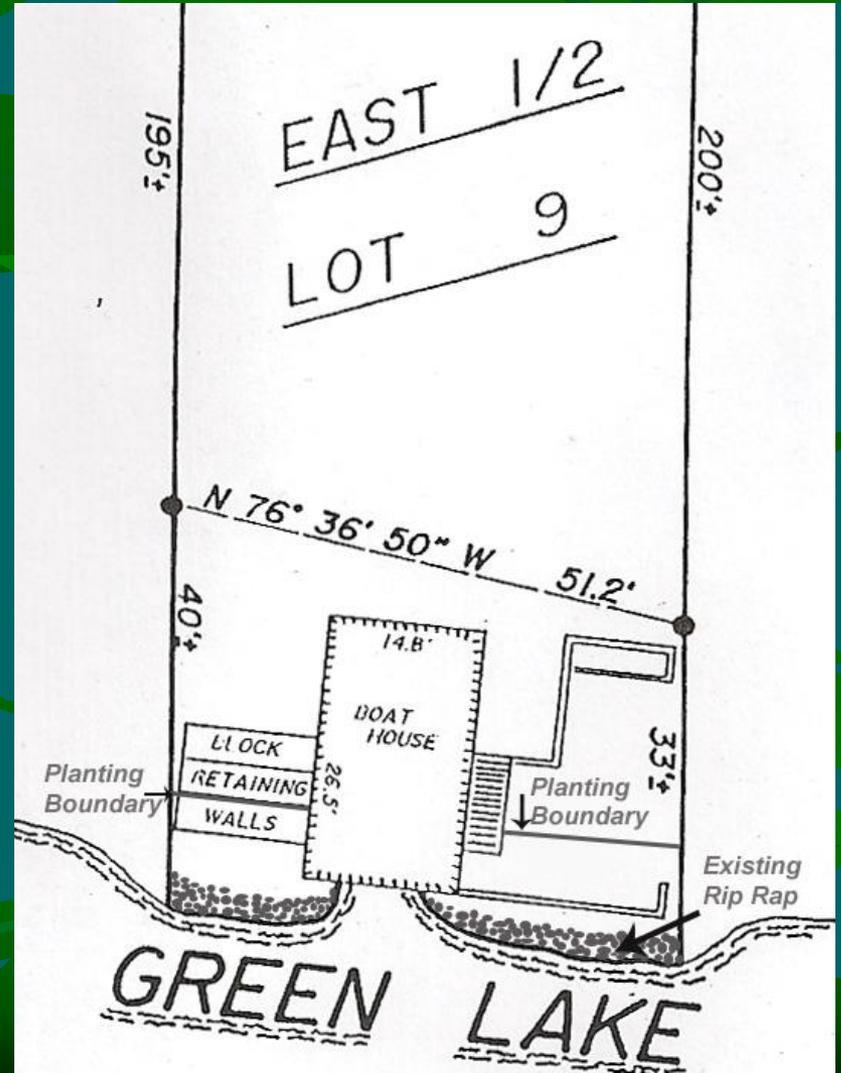
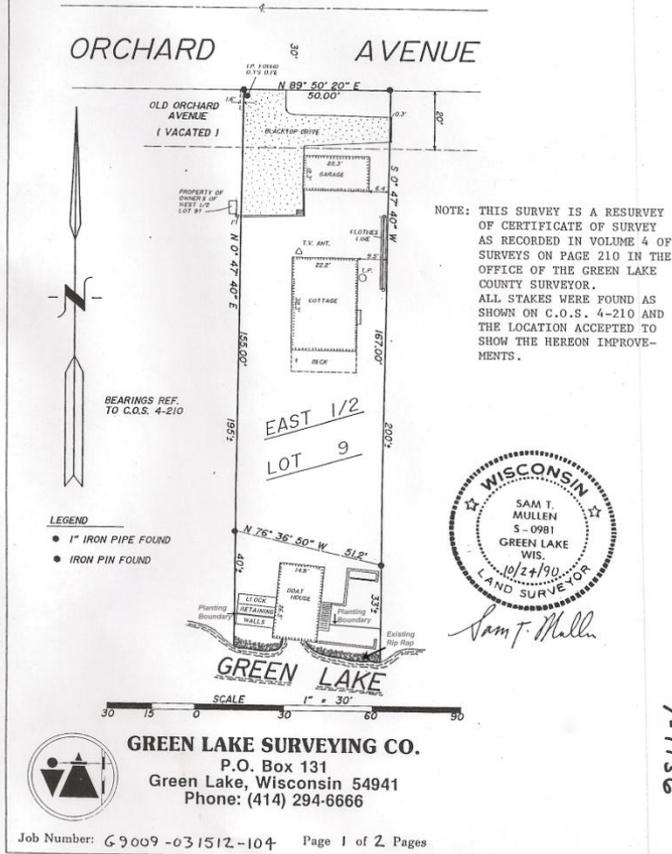


The planting in August

Tips for the Consumer

- **Have a some idea of what you want**
 - *Photos of similar projects*
 - *Have a list of plants you like or don't like*
- **Be upfront about a timeline if you have one**
- **Ask what warranties, if any, the landscaper offers**
- **Be upfront about abilities to care for the project**
- **Remember costs other than plants**
 - *Herbicide, Mulch, Hoses, Labor*
- **Get more than 1 estimate**
- **Ask the landscaper if they've done a natural shoreline before**
 - *Beware of 'start ups' or the 'I know a guy'*

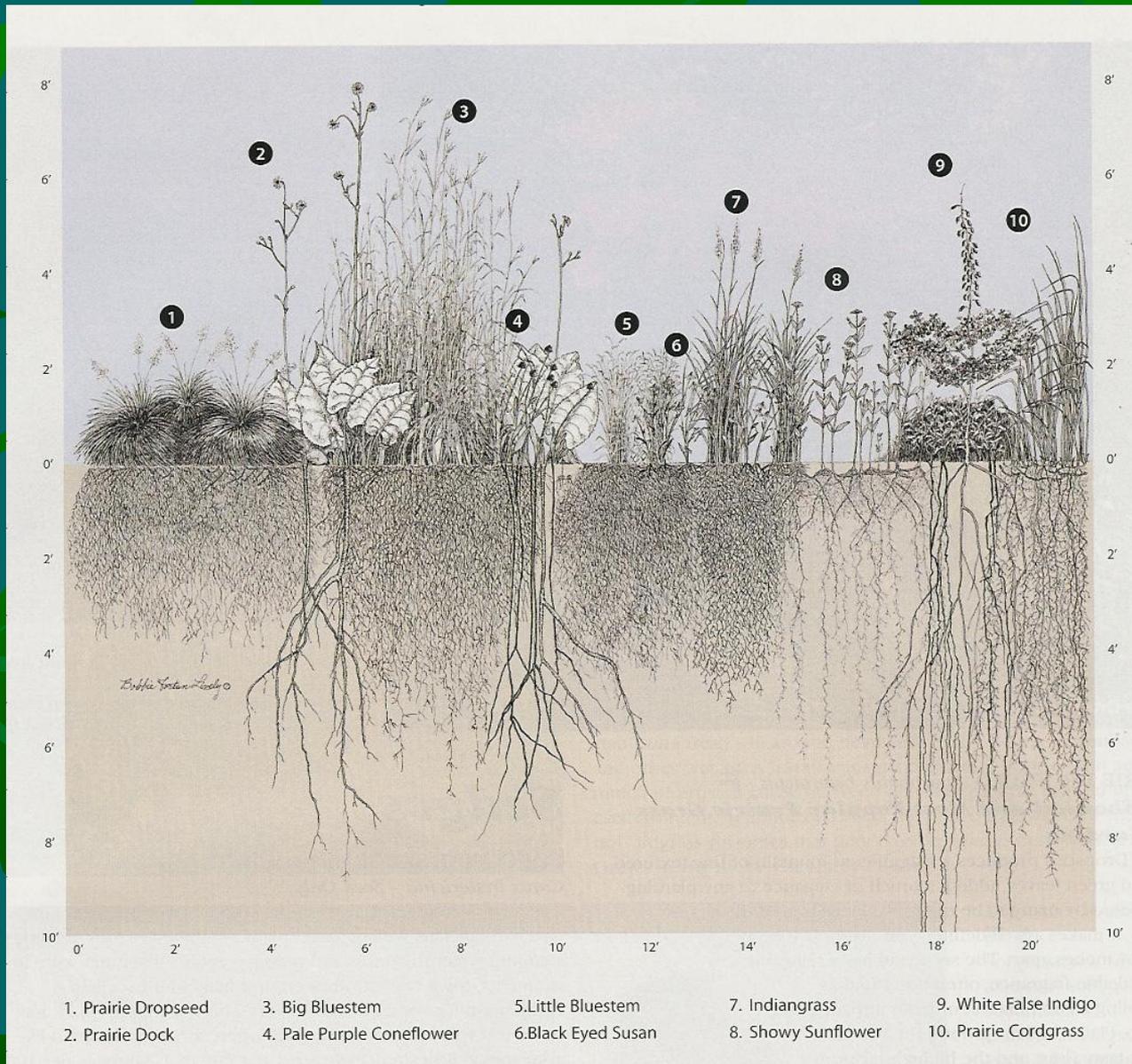
Great Place to Start



Native WI Vegetation



Rooting Depths of Native Plants



Native vs. Cultivars

- Native species are adapted to local site conditions
- Native species provide needed habitat = food
- Cultivars and non-natives creates possible exotic invasives problem
- Annuals and biennials don't hold up



Jacob Cline Monarda

Bergamot

Beebalm

Monarda



Natives vs. Exotics

- Purple loosestrife, glossy buckthorn, Japanese honeysuckle, crown vetch, etc.
- Landowners = maintaining a native planting means keeping out exotics.





Purple loosestrife



Crown vetch

Dominant Planting Types

- **Upland prairie** ~ often very 'flowery'
- **Woodland/semi-shade** ~ most common
- **Wetland/wet meadow** ~ wide variety
- **Emergent** ~ Growing in popularity
- *Remember – Just because the planting is near the water does not mean wetland/wet meadow species should be used!!!

Wetland Species

(Or at least moist footed)



Red Milkweed





Joe Pye Weed





New England Aster



Wild Iris



Tussock sedge
Carex stricta



Avoid planting wet grasses if you're doing the maintenance (use sedges)

Upland Prairie Plants





Purple Coneflower





Spiderwort

White Spiderwort

June Grass



© K. R. Robertson
Illinois Natural History Survey

Stiff Goldenrod



Little Bluestem



© J. B. Taft
Illinois Natural History Survey

Cinnamon Fern

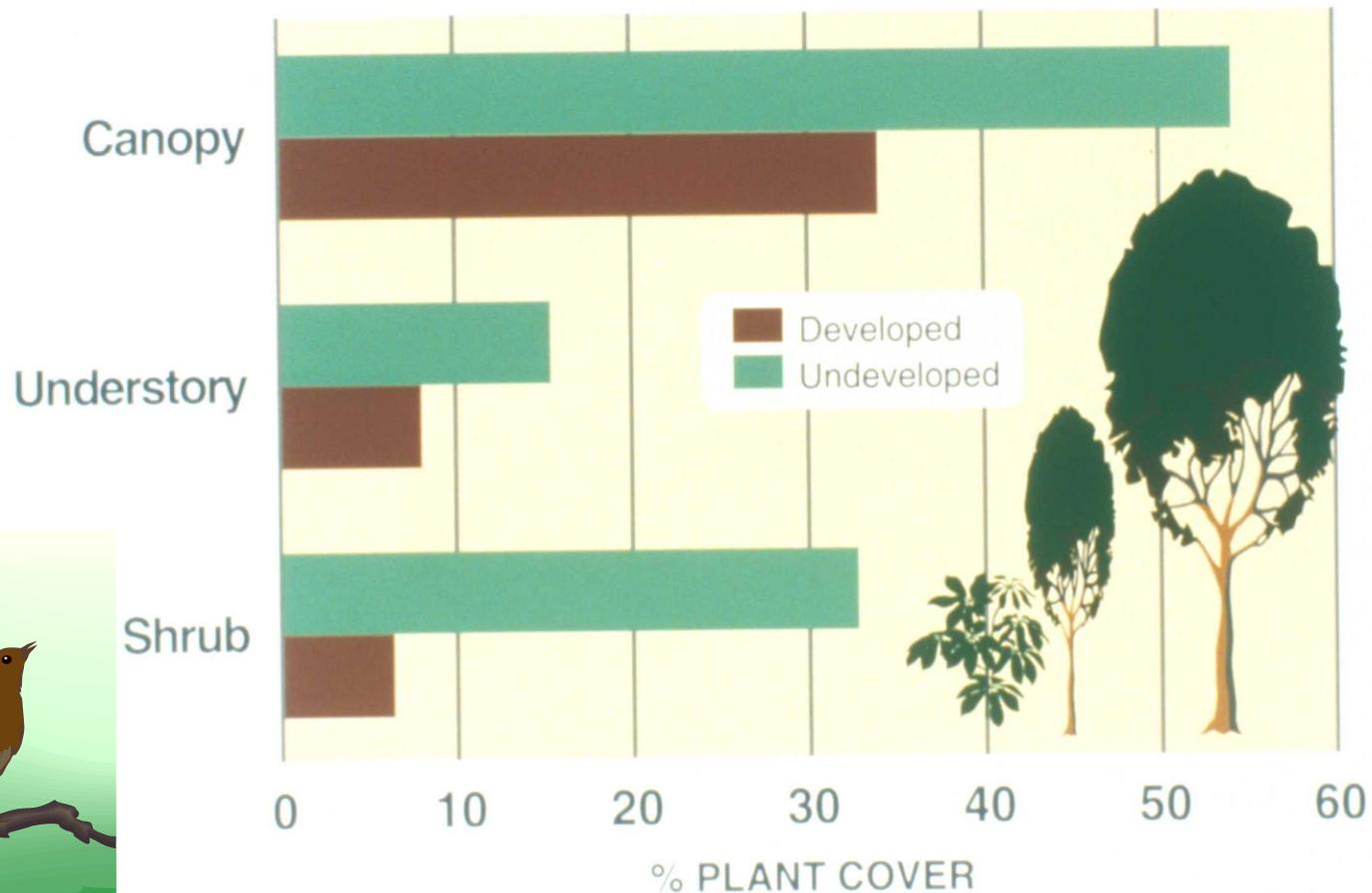


Native WI Shrubs



Loss of Native Vegetation

What has Happened to Shoreland Plants?



Elderberry





Winterberry Holly



Mapleleaf Viburnum





Red osier Dogwood

Red-osier Dogwood



The image shows a field of purple iris flowers in the foreground, with a body of water and a distant shoreline in the background. The text "Shoreline Restoration" is overlaid in a blue, cursive font.

Shoreline Restoration

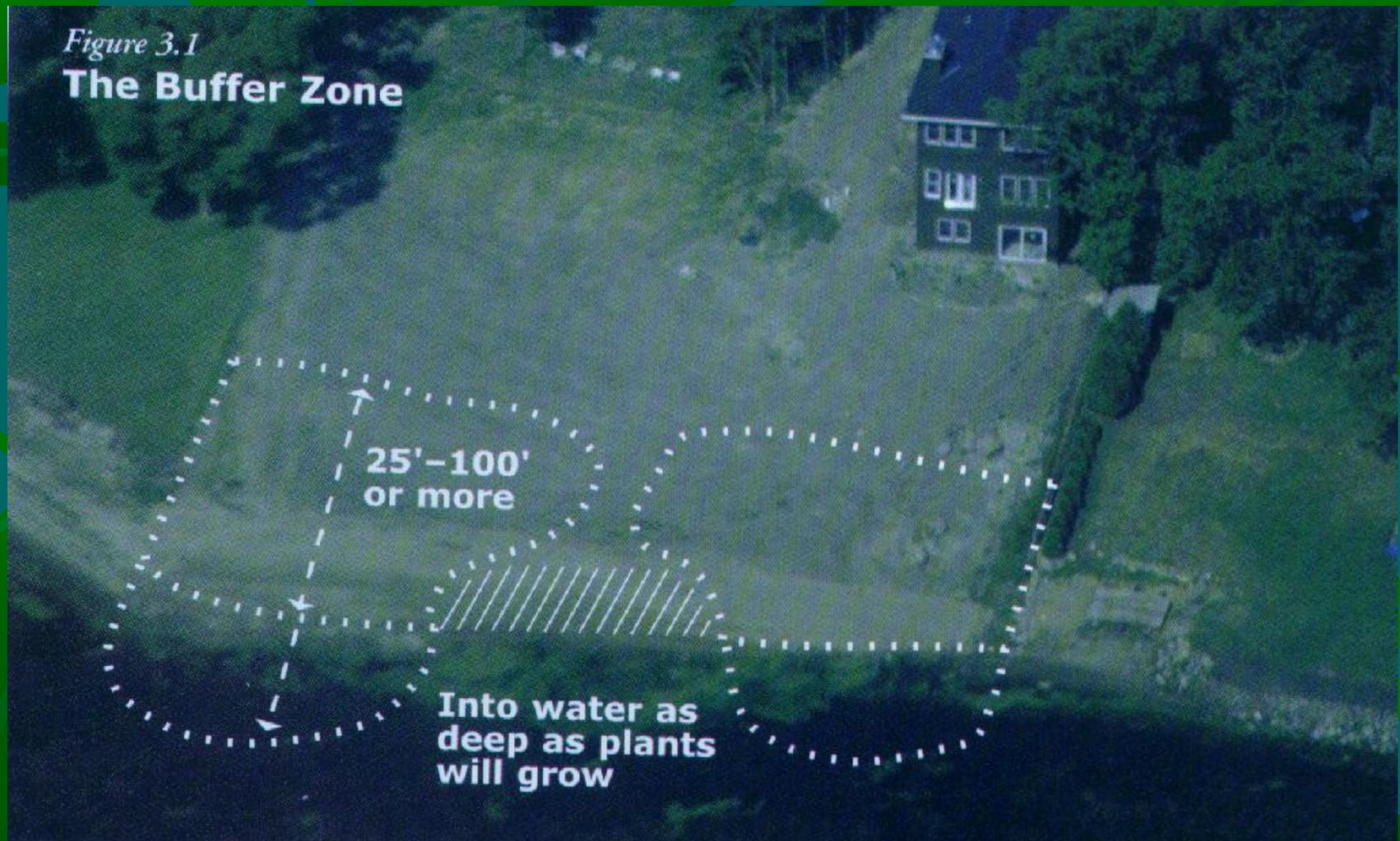
What do you want your buffer to do?

- Reduce pollutants entering lakes and rivers
- Provided much needed habitat for wildlife
- Provide screening from the lake
- Provide erosion control for sensitive shoreline areas

Possible Planting Areas

Figure 3.1

The Buffer Zone



What is an effective buffer?

- **Dense vegetation**
- Vegetation that consists of **multiple species**
(Diversity helps meet various habitat needs)
- Vegetation consisting of **multiple canopies**



Restoration Strategies

- **Protection**

- **Natural Recovery**

- **Accelerated Recovery**



Protection

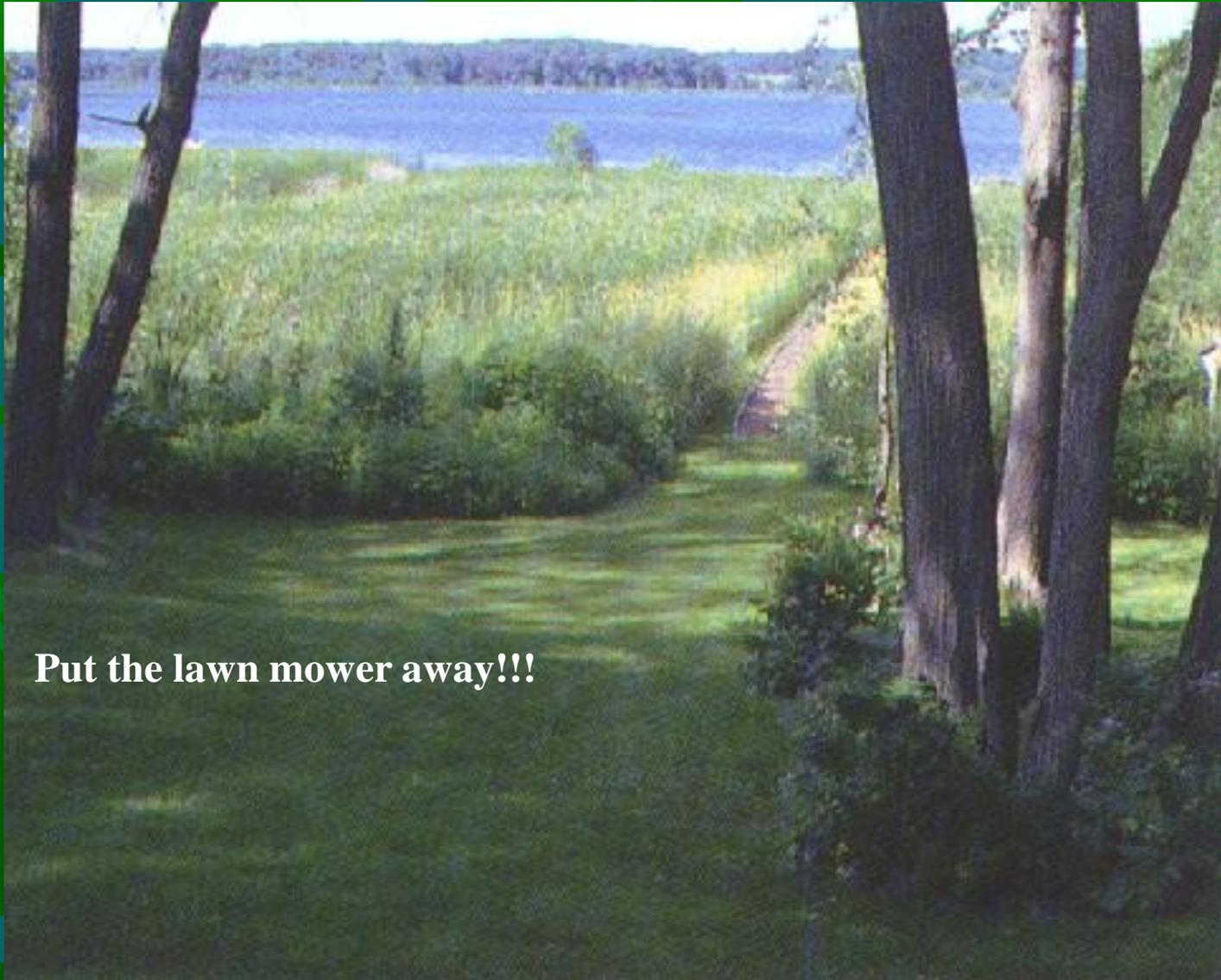


Utilize the site while keeping the integrity of the landscape.

Utilize Site Characteristics



Natural Recovery



Put the lawn mower away!!!

Accelerated Recovery

~ Roll up those sleeves! ~



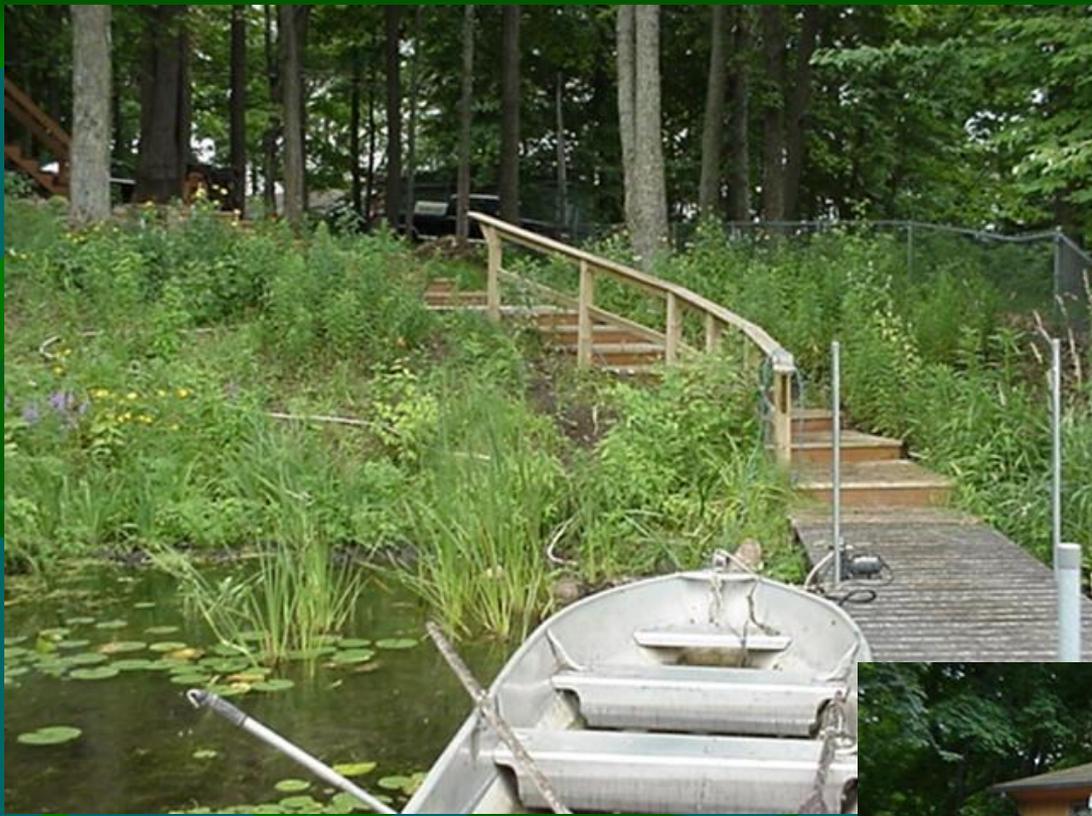
- *Introduction of 'missing' species
- *Many levels of accelerated recovery
 - Based on cost \$\$\$
- *Dependant upon landowner interests
 - Landowner may prefer a garden appearance
 - Landowner may want minimal up keep

Semi Shade Site

Balsam Lake, WI



One year later...



Green Lake RSVP Planting



Late July 2000



Illinois Ave. Site – 1 year later



Green Lake Annual Tour 2007



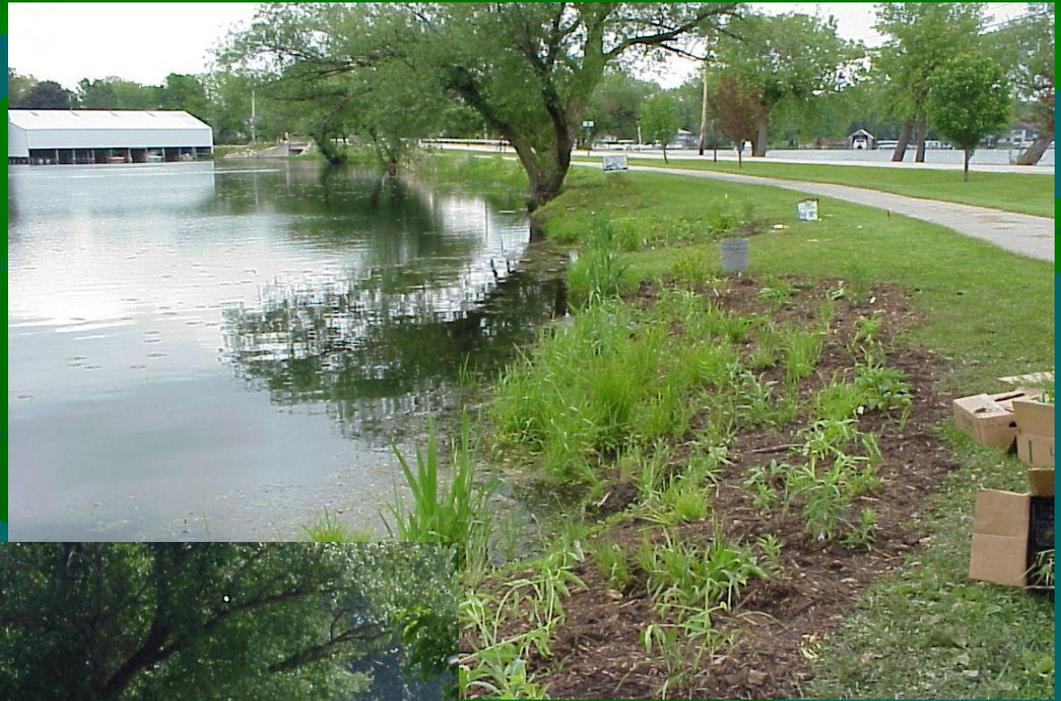
City of Green Lake - Hattie Sherwood Park



Lots of Plants



Planted by Local School Children



2 Years after Planting



Late September



North Shore of Lake Winnebago



13 Months Later





Green Lake – Steep Prairie

Lake Ripley – Association Property



Lake Ripley



Lake Comus Shoreline – Feb. 2002



Lake Comus Shoreline – Late May 2002



Lake Comus Shoreline – August 2003



Project During Dormant Season



Lake Ripley – Private Site



- Site Conditions
 - Slumping bank
 - Slight ice heave
 - Fluctuating water level

Lake Ripley Site 1 Month After



Vegetation in October – 4 ½ Months



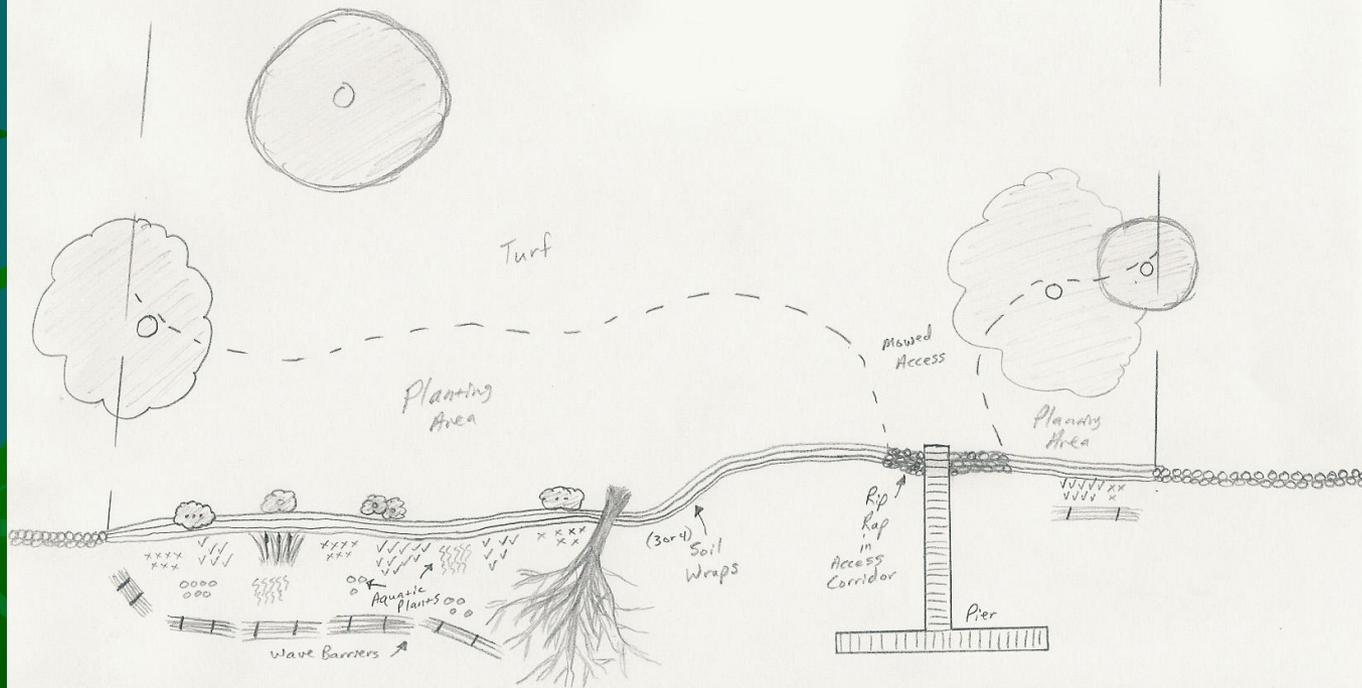
Pickeralweed – To 1' Water
Depth

Eroded Shoreline



Baker Project Sketch

1" = 13.5'



- Soil wraps to fight shoreline erosion
- Tree fall to limit ice push

Tree Falls Protect Shoreline Areas





**All Bare Soil Covered by
Netting**

After Installation



Aquatic Restoration





Pickerel weed

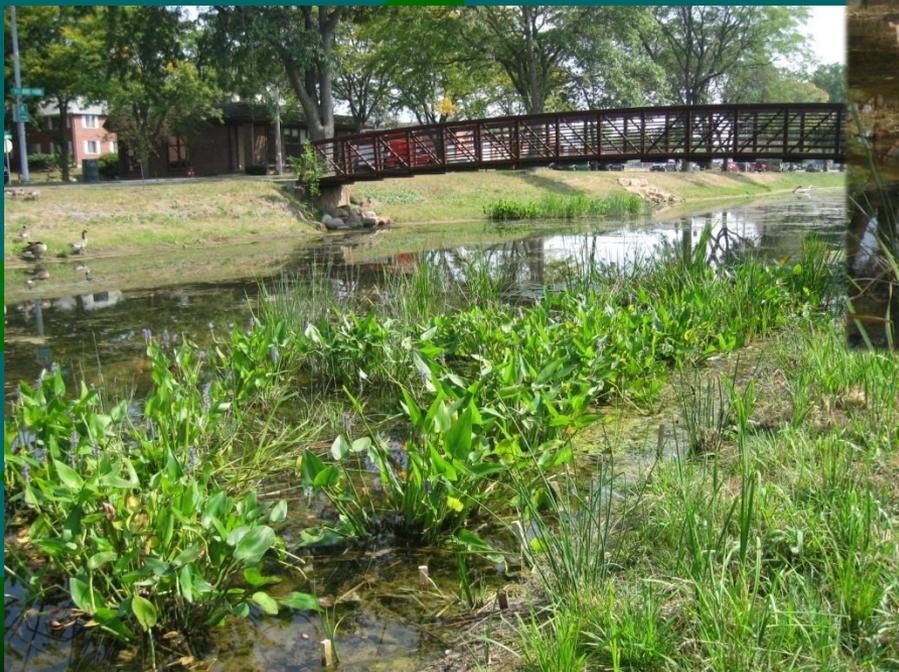
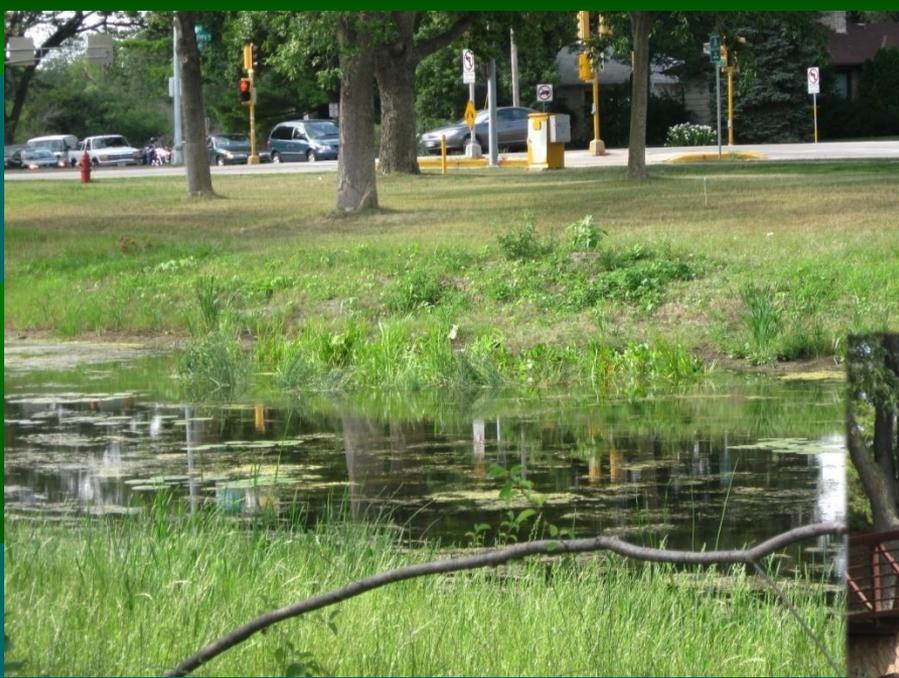
Pontedaria cordata

Aquatic Restoration



Wingra Creek, Madison

Restoration of Littoral Shelves



Wingra Creek, Madison

Tricks of the Trade



Turf Removal Suggestions

- **Leave dead turf**; it helps control erosion on slopes and keeps moisture in the soil
- **Round-up works well**; leave enough time after application to reapply if necessary
- **Utilize a small trench or mound extra mulch** around the planting; edging will not allow run off into the buffer
- **Tilling is not as successful** as round-up or plastic

Planting Methods

- Drills, bulb planters, spades, rods
- Plugs vs. potted plants
- Limited fertilizer use (no phosphorus)
- Watering is critical

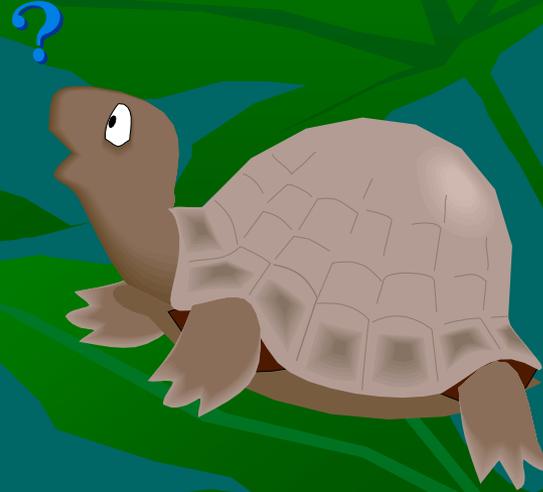
Maintenance of Buffers

- Lots of water 1st year
- No fertilizing necessary
 - Unless a need is shown by soil test
- Removal of exotics
- Leave dead vegetation in fall - habitat



That's It!

Questions?



Lisa J. Reas, LJ Reas Environmental Consulting Corp.

Phone: (920) 294-3116

E-mail: ljreas@charter.net

Website: www.ljreas.com