### Protecting Your Shorelines with Landscaping and Buffers

# Considerations in Shoreline Management



1. Riparian Landscaping (Buffers)

2. Maintenance Practices & Stewardship of Lakeshore Property

3. Resources for Information & Plant Materials



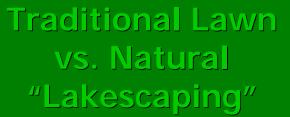
## Landscaping on Shorelines



Need to rethink what we consider a beautiful shoreline

Shift away from manicured lawn to natural landscapes

Photo: MN DNR, 1999 Landscaping for Wildlife and Water Quality.





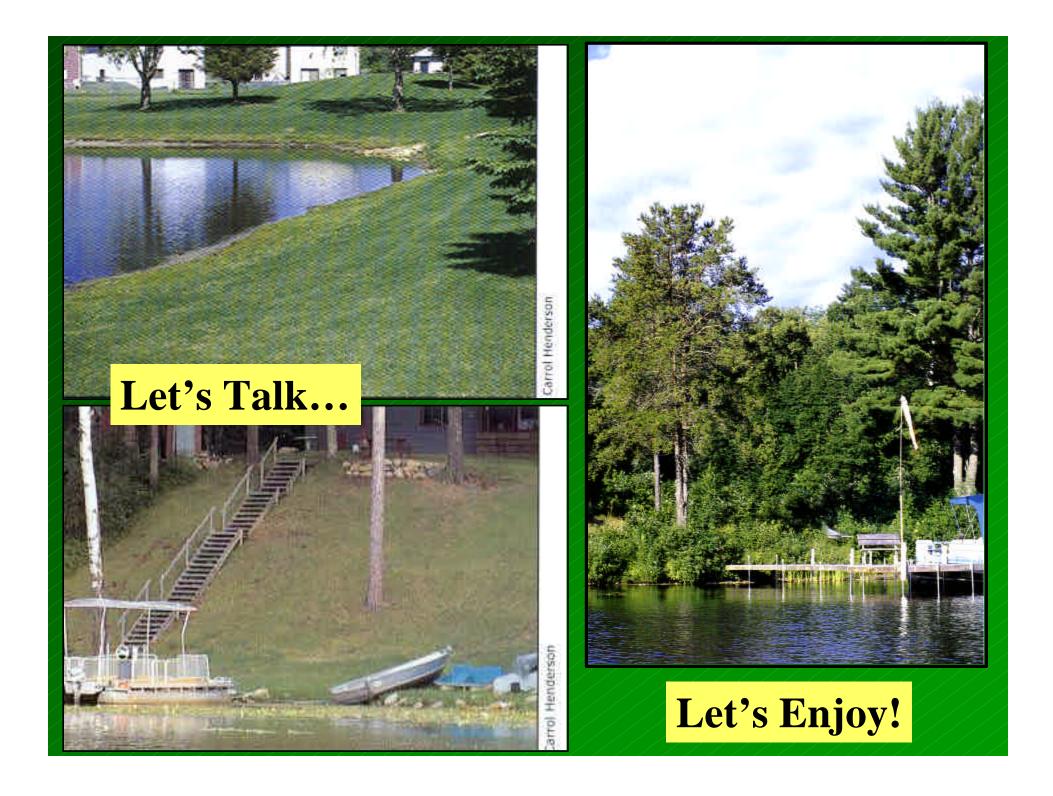


### Disadvantages of Traditional Lawn

Increased runoff/pollutant load
Prone to erosion
High maintenance (labor, resources)
May require chemical additions
Loss of wildlife habitat/corridors
Loss of species diversity
Lack of interesting landscape

Advantages of Landscaping with Native Riparian Vegetation

- Pollutant reduction
- Bank stabilization
- Low maintenance once established
- Provides wildlife habitat/corridors
- Increased diversity of landscape
- Provides privacy
- Nuisance waterfowl deterrent



# Lakescaping Ideas

Creative

 Target wildlife habitat (plants that attract certain species)

 Select rare/interesting species (example: Wild rice)

 Look at natural areas in your region to get ideas of what a "natural" lakeshore looks like

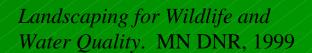


# Succession to a "Lakescape"

Landscaping for Wildlife and Water Quality. MN DNR, 1999



### The "Nature" of a Lakescape



### Riparian Buffers Can Deter Nuisance Waterfowl

 Maintaining a buffer of vegetation (Dense shrubs, or vegetation
 3 (ft. high) can deter Canada geese from frequenting your property

 Turf grass right up to lakeshore is ideal habitat for Canada geese. Food source with close proximity to water and clear yiew of predators.

Landscaping for Wildlife and Water Quality. MN DNR, 1999

### Other Waterfowl Deterrents



Photo: Cygnet Enterprises West

- Herding dogs
   Remote control cars/boats
- Laser beams
- Chasing or hazing
- Egg addling
- Pyrotechnics
- "Gator Guard"
- Chemical (ReJex-iT)

### Beware PURPLE LOOSESTRIFE! (Lythrum salicaria)



 Highly invasive exotic perennial

- Outcompetes native vegetation
- Forms monocultures
- Little wildlife value
- One plant can produce
   2 million seeds annually
- Can be present in "wildflower" mixes



Photo: USDA PLANTS Database

### • Reed Canary Grass (Phalaris arundinacea

# Crown vetch (Coronilla varia)



Photo: USDA PLANTS Database



 White and Yellow Sweetclover

(Melilotus alba and M. officinalis)

Photo: USDA PLANTS Database



Photo: USDA PLANTS Database

 Russian Olive (Eleagnus angustifolia)

### Common Buckthorn (Rhamnus cathartica)



European Backthorn, *Bhammey cuthorning* Jauves and nature berries

Photo: K.E. Bolin and NPS Plant Conservation Alliance



 Tartarian Honeysuckle (Lonicera tatarica)

Photo: Kenneth J. Sytsma & Wisconsin State Herbarium

### How do I get started?

### <u>Research your area</u>

- View natural areas in your region
- Talk to DNR, Conservation District personnel
- Consult publications
- <u>Sketch your plans</u>
- <u>Approach as other landscaping</u> with planting

zones and vegetation mapped

 Order plants in advance
 (Nurseries may require Advance notice for large projects)
 Educate neighbors



### Increasing Acceptance of Natural Landscaping

 Let others know what you're doing is intentional

 Signs are available explaining natural landscaping

 Increases in wildlife sightings on your lakeshore property

### Maintenance/Stewardship Practices

<u>Fertilizer Use</u>

 Low or no phosphoruscontaining fertilizers
 Soil tested to determine fertilizer

needs (County Extension Offices)

• <u>Mowing</u>

- Mulch grass clipping

Maintain grass height > 3 inches

• <u>Leaf Litter</u>

- Do not rake leaves into the water

- Do not burn leaves near water

### Maintenance/Stewardship Practices (cont.)

- <u>Ashes</u> (Do not allow ashes from barbeques, firepits, etc. to enter water...source of nutrients.
- <u>Car washing</u> (Wash cars on permeable surfaces to allow for infiltration into soil.)
   <u>Pet waste</u> (Properly dispose in garbage receptacles, flushing, pet waste composter) Wastes contribute nutrients and bacteria.
- <u>Snag management</u> (Retain downed limbs, branches, debris in shoreline area for aquatic habitat).

### Resources for Native Landscaping

 Publications Web Sites Native Plant Nurseries Conservation personnel (DNR, conservation districts) Nature groups/ organizations



MN DNR, 1999 Landscaping for Wildlife and Water Quality

#### Publications:

1) Landscaping for Wildlife and Water Quality. Minnesota Department of Natural Resources. 1999. Available from the Minnesota Bookstore. Phone: 800-657-3757. Excellent information including before/after landscaping photos and sketches; plant species listings and habitat requirements

2) **Through the Looking Glass-A Field Guide to Aquatic Plants**. Wisconsin Lakes Partnership. 1997. Available through the Wisconsin Extension for \$20 + shipping. Phone: 715-346-2116. One of the user-friendliest taxonomic books available. Provides drawings, habitat requirements, wildlife value for aquatic plants.

3) **The Water's Edge-Helping fish and wildlife on your waterfront property**. Wisconsin Department of Natural Resources. 2000. General overview of benefits of maintaining a shoreline buffer on your property.

4) Michigan Native Plant Producers Association, 2002 Source Guide, Michigan Genotype Seeds & Plants. Contains a list of members with addresses and phone numbers, as well as a listing of plant materials available.

5) **Restore Your Shore**. Minnesota Department of Natural Resources. Available from the Minnesota Bookstore. Phone: 800-657-3757. Interactive CD Rom which contains step-by-step how to of restoring native lakeshore vegetation, worksheets, example projects and an index of over 400 plant species.

#### Web Sites:

#### 1) http://www.macd.org/native plants/npproducts.html

Michigan Conservation Districts. Contact names and numbers for Michigan Conservation Districts with services and products they provide.

#### 2) http://www.agnr.umd.edu/MCE/Publications/Publications.cfm?ID=13

University of Maryland, Department of Agriculture and Natural Resources. *Riparian Forest Buffer Design, Establishment and Maintenance*. How-to guide for streambank restoration including planting zones, suggestions for plant species and maintenance.

#### 3) http://www.epa.gov/glnpo/greenacres/toolkit/chap4.html

U.S. Environmental Protection Agency. *Natural Landscaping for Public Officials*. Provides how-to information for various habitats including site-preparation, plant selection and maintenance.

#### 4) http://www.npwrc.usgs.gov/resource/othrdata/plntguid/plntguid.htm

U.S. Department of Agriculture. *Midwestern Wetland Flora Field Office Guide to Plant Species.* Provides photos, distribution and detailed species information for midwestern wetland plant species.

#### 5) http://www.gvsu.edu/wri/isc/bear/ripguide/lawncare.htm

Annis Water Resources Institute. Grand Valley State University.

#### Web Sites cont.

#### 6) http://plants.usda.gov/

U.S. Department of Agriculture. PLANTS database. Allows a search for plant species by common or scientific name. Provides photos, distribution, plant tolerances, and species characteristics.

#### 7) http://www.dnr.state.mn.us/fwt/back\_issues/1996/Lakescap.pdf

Minnesota Department of Natural Resources. Brief page on benefits of native landscaping.

#### 8) http://www.crjc.org/riparianbuffers.htm

Connecticut River Joint Commission. Guidance and general information on stream and riverbank plantings and maintenance.

#### 9) http://www.seagrant.umn.edu/exotics/purple.html

Minnesota Sea Grant. Detailed information on purple loosestrife including history, identification, and control measures.

#### 10) http://www.lakegeorgeassociation.org/

Lake George Association, New York. Example of a large-scale lake association and projects and activities implemented.

#### 11) http://lakewhatcom.wsu.edu/gardenkit/Lakescaping/RiparianPlanting.htm

Washington State University. Example of a Washington State model, but is an excellent listing of the necessary process of lakescaping. Some adaptations are possible if you work with a knowledgeable Michigan landscape expert.

#### Web Sites cont.

#### 12) http://www.shorelandmanagement.org/quick/w.html

Minnesota Shoreland Management. Contains an extensive library of on-line publications and links pertaining to owners of shoreline properties. A great resource.

#### 13) http://www.for-wild.org/index.htm

Wild Ones Natural Landscapers, Ltd. This is a non-profit organization with a mission to educate and share information with members and community at the "plant-roots" level and to promote biodiversity and environmentally sound practices. Local and regional chapters exist in the Midwest.

#### 14) http://www.chesapeakebay.net/pubs/subcommittee/nsc/forest/handbook.htm

Chesapeake Bay Riparian Handbook. A Guide for Establishing and Maintaining Riparian Forest Buffers. A 481 page downloadable document extensively detailing all aspects of riparian buffers.

#### 15) http://www.treelink.org/woodnotes/vol1/no1/rrres.htm

Riparian Restoration Roundtable. An extensive listing of links citing techniques and examples of riparian restoration projects.

#### **Native Plant Nurseries:**

1) See list of Michigan Native Plant Producers Association (publications) available as a handout (http://www.for-wild.org/michigan/MNPPA.pdf)

2) Prairie Nursery. Westfield, WI. Phone: 800-476-9453. www.prairienursery.com.

3) J&J Transplant Aquatic Nursery. Wild Rose, WI. Phone: 800-622-5055. www.tranzplant.com.

 Kester's Wild Game Food Nurseries, Inc. Omro, WI. Phone: 800-558-6727. www.kestersnursery.com

5) **Spence Restoration Nursery.** Muncie, IN. Phone: 765-286-7154. www.spencenursery.com.

6) Heartland Restoration Services, Inc. Fort Wayne, IN. Phone: 219-489-8511. hlandrest@aol.com.