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.
Traditional Lawn vs. Natural “Lakescaping”

Landscaping for Wildlife and Water Quality. MN DNR, 1999
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

*Landscaping for Wildlife and Water Quality. MN DNR, 1999*
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
Let’s Talk…

Let’s Enjoy!
Creative Lakescaping Ideas

• 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

Landscaping for Wildlife and Water Quality. MN DNR, 1999
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 view of predators.

Landscaping for Wildlife and Water Quality. MN DNR, 1999
Other Waterfowl Deterrents

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

Photo: Cygnet Enterprises West
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
Other Exotics/Invasives to Avoid

- Reed Canary Grass (Phalaris arundinacea)

Photo: USDA PLANTS Database
Other Exotics/Invasives to Avoid

- Crown vetch (*Coronilla varia*)

*Photo: USDA PLANTS Database*
Other Exotics/Invasives to Avoid

• White and Yellow Sweetclover

(Melilotus alba and M. officinalis)

Photo: USDA PLANTS Database
Other Exotics/Invasives to Avoid

- Russian Olive (Eleagnus angustifolia)

Photo: USDA PLANTS Database
Other Exotics/Invasives to Avoid

• Common Buckthorn (Rhamnus cathartica)

Photo: K.E. Bolin and NPS Plant Conservation Alliance
Other Exotics/Invasives to Avoid

- **Tartarian Honeysuckle**
  
  (Lonicera tatarica)

Photo: Kenneth J. Sytsma & Wisconsin State Herbarium
How do I get started?

- **Research your area**
  - View natural areas in your region
  - Talk to DNR, Conservation District personnel
  - Consult publications
- **Sketch your plans**
- **Approach as other landscaping** 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

• **Fertilizer Use**
  - Low or no phosphorus-containing fertilizers
  - Soil tested to determine fertilizer needs (County Extension Offices)

• **Mowing**
  - Mulch grass clipping
  - Maintain grass height > 3 inches

• **Leaf Litter**
  - Do not rake leaves into the water
  - Do not burn leaves near water
• **Ashes** (Do not allow ashes from barbeques, firepits, etc. to enter water...source of nutrients.

• **Car washing** (Wash cars on permeable surfaces to allow for infiltration into soil.)

• **Pet waste** (Properly dispose in garbage receptacles, flushing, pet waste composter) Wastes contribute nutrients and bacteria.

• **Snag management** (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.


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/nativeplants/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.


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/](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](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](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](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/](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](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

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.fore-wild.org/michigan/MNPPA.pdf](http://www.fore-wild.org/michigan/MNPPA.pdf))


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


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