

***Protecting Your Shorelines
with Landscaping
and Buffers***



Considerations in Shoreline Management



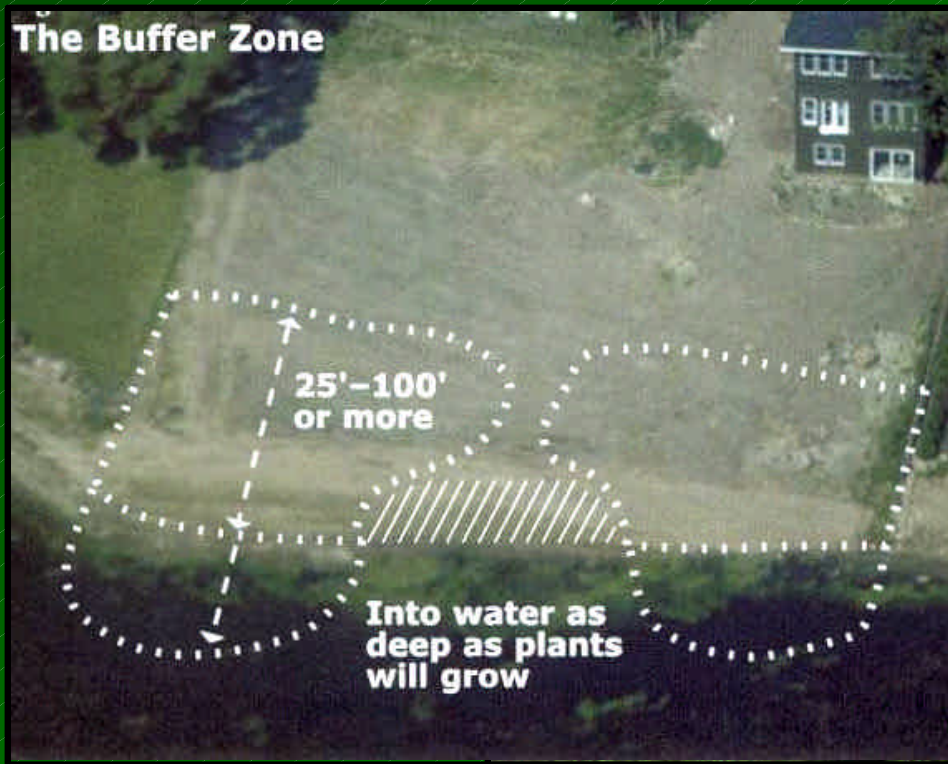
**1. *Riparian Landscaping
(Buffers)***

**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*

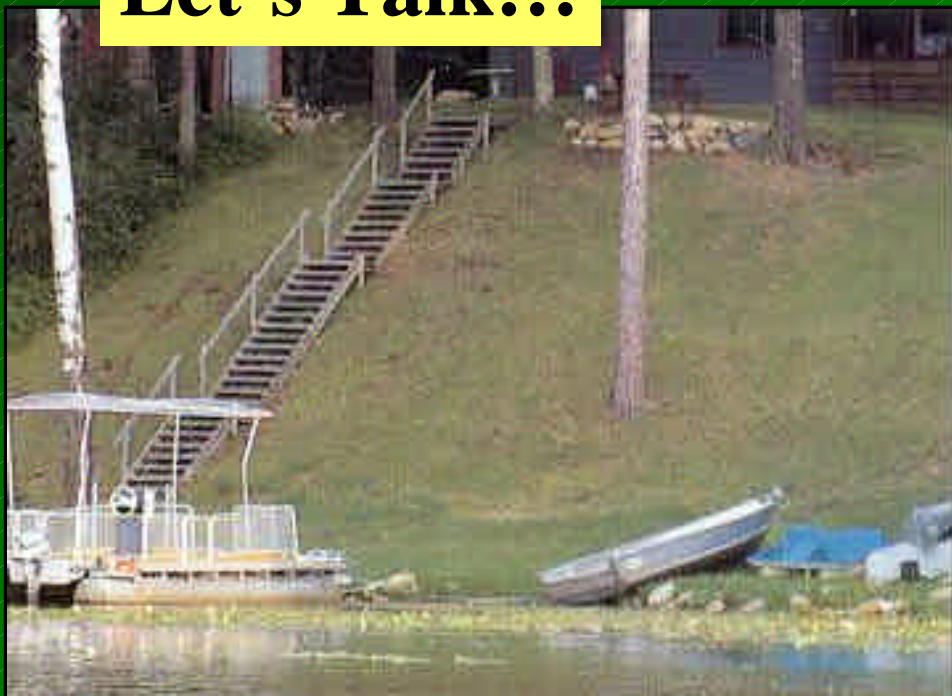
Advantages of Landscaping with Native Riparian Vegetation

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



Carrol Henderson

Let's Talk...



Carrol Henderson



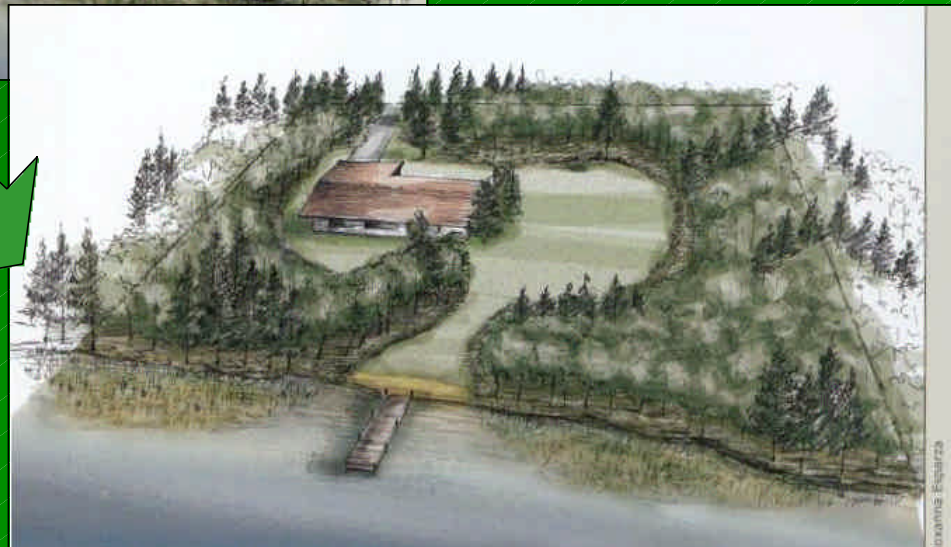
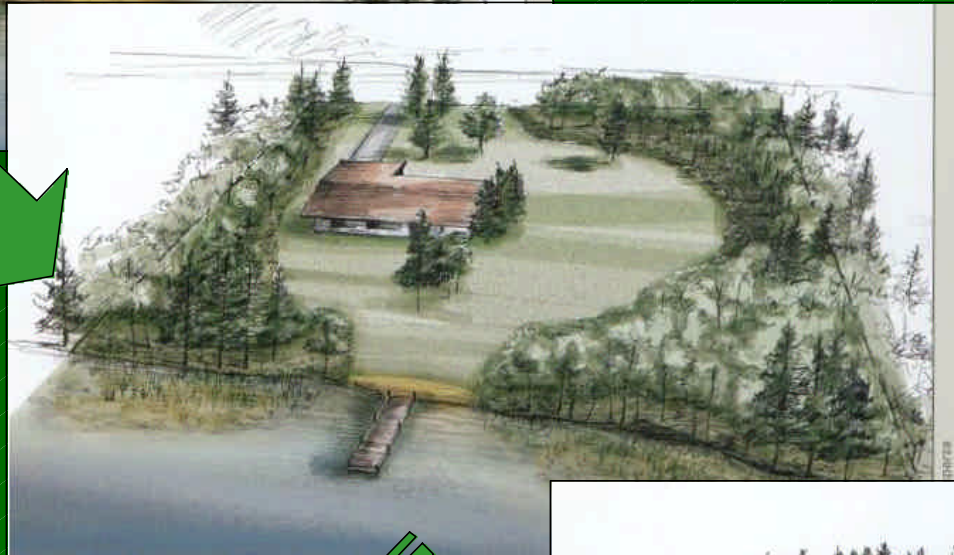
Let's Enjoy!

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*

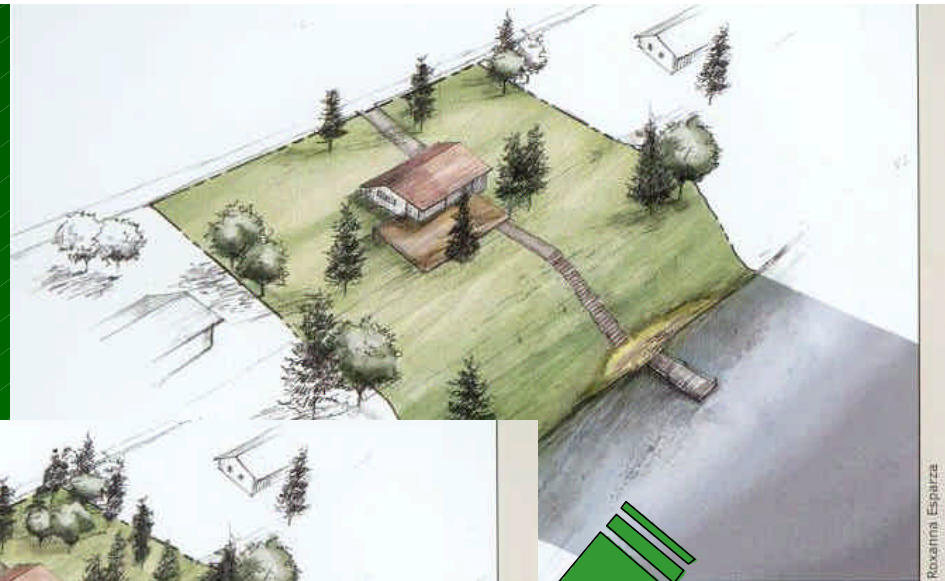


Succession to a "Lakescape"



*Landscaping for Wildlife and
Water Quality. MN DNR, 1999*

The "Nature" of a Lakescape



Roxanna Esparza



Roxanna Esparza



Roxanna Esparza

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



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*

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

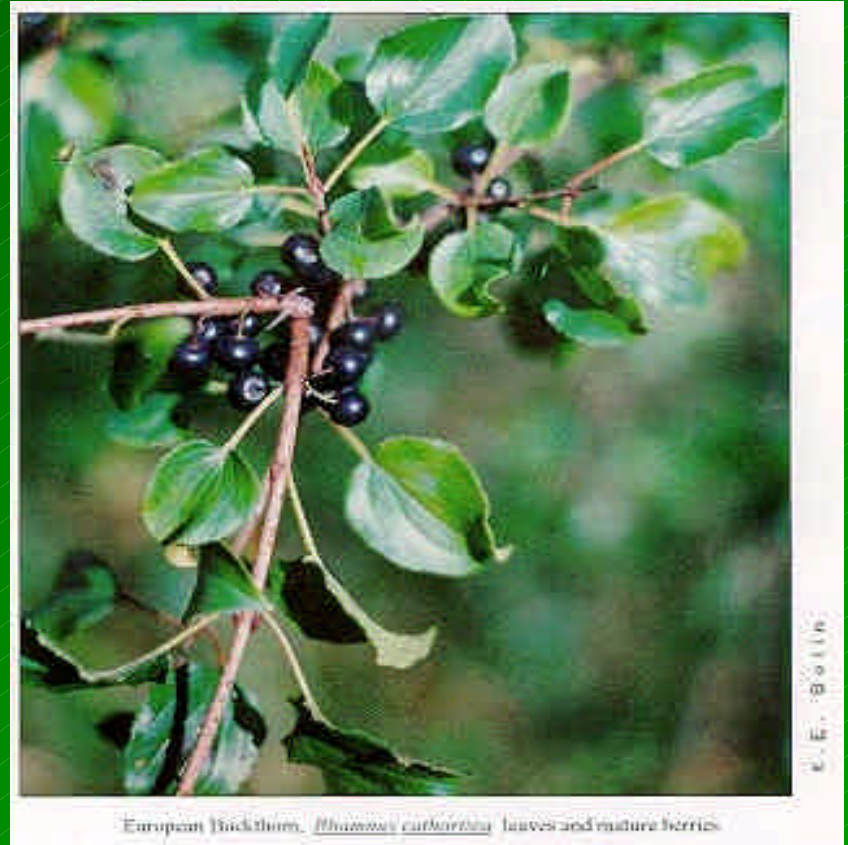


- *Russian Olive*
(*Eleagnus angustifolia*)

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

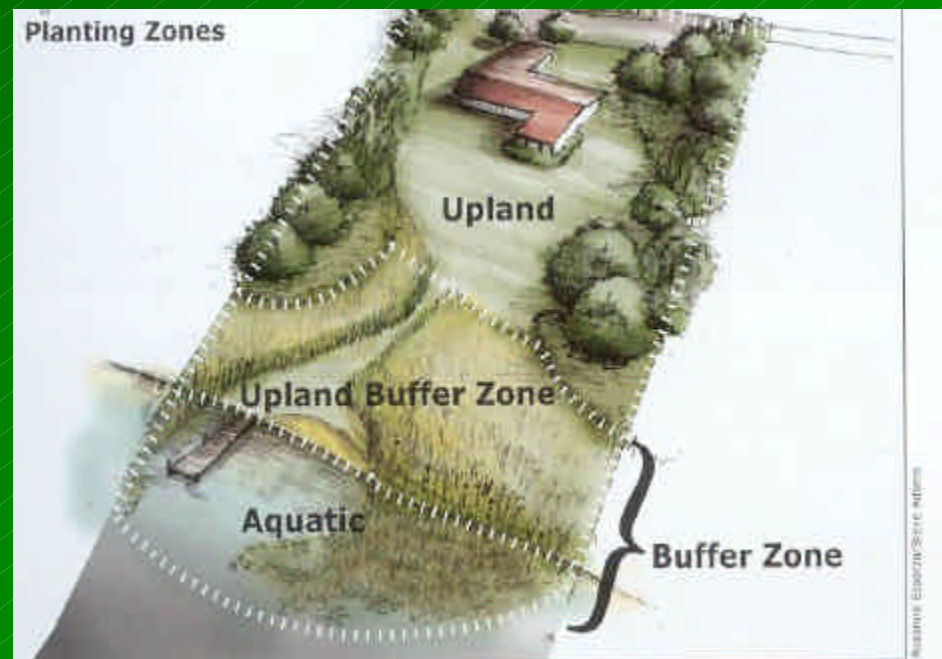
- *Do not rake leaves into the water*
- *Do not burn leaves near water*

Maintenance/Stewardship Practices (cont.)

- **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
- 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.
- 4) **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.