SHORELAND AREA FACT SHEET

The most effective method to positively influence lake water quality is to naturally treat water flowing into a lake. As shoreland area owners, there are different options to provide treatment of the water entering a lake. This fact sheet outlines a number of alternatives to maintain and potentially improve lake water quality. A landowner must check to see if projects require local, state, or federal permits.

One method of treating water entering a lake is to buffer the runoff water from the lawn. A buffer area in and adjacent to the water can be planted into native vegetation, providing a filter for water running off the land and adding natural habitat in the water. The vegetation can be attractive plants, landscaped to provide the protection. Swimming and boat areas can be included in the plans. Benton County recently installed shoreland buffer/restoration plantings at both St Regis and Rose Anna Beach County parks on Little Rock Lake. Please feel free to visit the parks to view these projects. Note that these areas were planted in 2007 and will change substantially over time (See park locations and restoration plans on the County web site).

The following websites provide buffer and other information on shoreland-related subjects:

http://www.dnr.state.mn.us/ (main DNR website for the pages listed below)

/waters/watermgmt_section/shoreland/Yourlake15.pdf
("Your Lake" - general information)

/lakescaping/index.html
Shoreland management, including shoreland restoration, native plant buffer zones, plant selection, etc.

/shorelandmgmt/apg/index.html
Guide to aquatic plants.

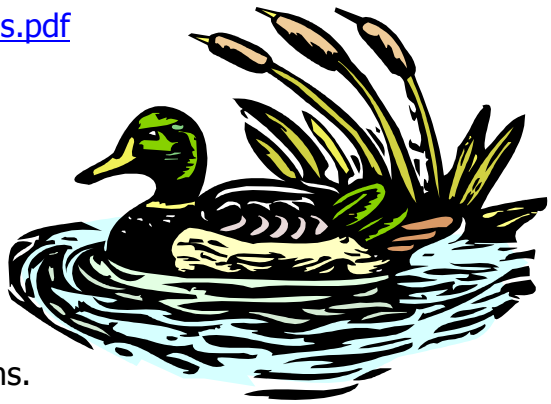
/shorelandmgmt/guide/index.html
Shoreland management guide

/restoreyourshore/index.html
CD ROM disk available from the Minnesota Bookstore to restore shoreland.
Minnesota's Bookstore - tel. (651) 297-3000 Twin Cities metro or nationwide toll free (800) 657-3757 TTY: (651) 282-5077

/assistance/backyard/shorelandmgmt/shallowlakes.pdf
Shallow Lakes informational sheet.

/shorelandmgmt/ecosystems/index.html
Lakeshore ecosystems.

/gardens/nativeplants/meadow.html
Wet meadow creation.



Another website for general information:

http://www.extension.umn.edu/ruralliving/
Includes shoreland management recommendations.
Includes rain garden information.
"Your Septic System" information.
Erosion management.
Surface and ground water information.

Rain gardens are another option which treat water before entering the surface water. It is a visibly attractive garden of a periodically-wet plant area. The majority of water seeps into the ground instead of a direct runoff to the surface water.

http://files.dnr.state.mn.us/waters/watermgmt_section/shoreland/raingardenmanual.pdf
"How-To" manual for rain gardens.

A properly operating septic system is essential to treat waste water flowing into the ground water and eventually into the lake. Pumping the septic tank and maintaining the system extends the investment and life of the septic system and helps protect water quality.

http://septic.umn.edu/homeowner/index.html
Septic system maintenance guide.

Minimize fertilizer use in shoreland areas. **STATE LAW NOW REQUIRES** that phosphorus-free fertilizer be used in shoreland areas. Phosphorus is one of the leading causes of algal blooms. Phosphorus is the middle number identifying fertilizer content.

Examples

ACCEPTABLE-(NO Phosphorus in mixture):			**NOT ACCEPTABLE**-(Phosphorus in mixture):		
N **P** K	N **P** K	N **P** K	N **P** K	N **P** K	N **P** K
10-**0**-10,	17-**0**-17,	33-**0**-0	10-**17**-17,	10-**20**-20,	17-**17**-17

****FACT TO REMEMBER**** –Delivered to water, ONE POUND of phosphorus can produce up to 500 POUNDS of vegetation and algae.

Further reading and information:
http://www.shorelandmanagement.org/depth/citizen.pdf
http://www.shorelandmanagement.org/depth/bmp.pdf

IDEAS FOR SHORELAND PROTECTION

1. Plan and install a shoreland buffer strip with your neighbor(s) to make it more effective and reduce your lawn mowing areas at the same time.
2. Add a rain garden to your property to handle storm runoff.
3. Consider creating an annual lake association contest of Shoreland Restoration/Environmental Improvement with different categories (most protection, most aesthetic/attractive, most creative, most native oriented, etc.) for restoration, rain gardens, or other water quality improvements. Get donations from water-oriented or floral businesses for prizes.
4. Work with your lake association to have a voluntary program of checking potential septic system problems with dye.
5. Contact your local Soil and Water Conservation District for more information and assistance on water quality and erosion/sediment issues.