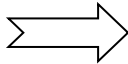

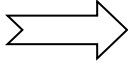
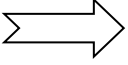
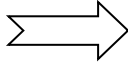
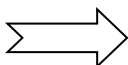

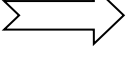
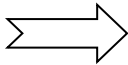
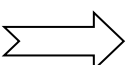
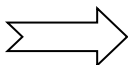
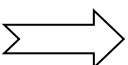
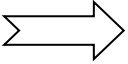


Deer Lake Challenge Property Owner: _____ width _____ ft Date: _____

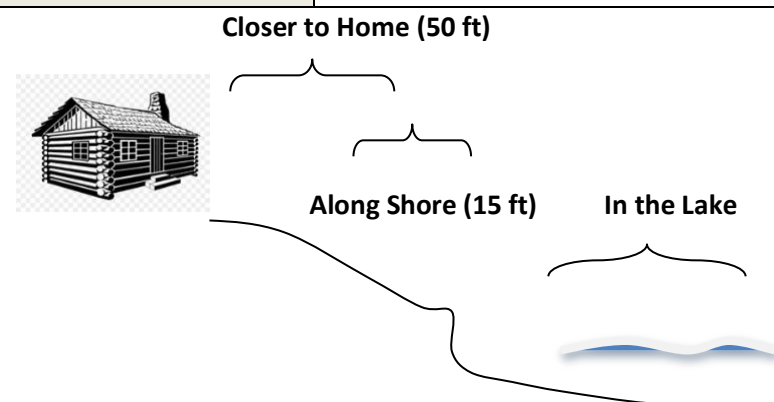
Step One: Take a closer look at your site...

Step Two: Take the Lake Challenge!

In the Lake From the water's edge lakeward	If you circle items in these two columns, consider a Challenge			In the Lake Challenge Menu	Lake and Human Benefits	Relative Cost	Time-Effort	I'll take this Challenge	I Took this Challenge
What is the width of the recreation area where aquatic plants have been removed?	About 30 feet	More than 40 feet		Go Fish! Where aquatic plants were removed, allow them to grow back or replant them. Replanting requires a MN DNR no-fee permit.	Fish, frogs, and other wildlife use plants for nesting, cover and food. Aquatic plants protect your shore from erosion. Native aquatic plants can minimize invasive plants.	0-\$\$	None to Moderate		
Are there downed trees ("fish sticks") in the water?		No fish sticks		Fish Sticks: Let fallen trees and branches remain along the shore and in the water.	Provide fish, turtles, water birds and mammals use downed trees for habitat, food and cover.	0	None		
How many accessories (docks+boats+other) are in the water?	4	More than 4		Ships Ahoy! Store on land those water accessories you don't use.	Increase fish habitat (otherwise limited by water structures).	0	None		
Along the Shoreline Water's edge to 15 ft landward of OHW	If you circle items in these two columns, consider a Challenge			Along the Shoreline Challenge Menu	Lake and Human Benefits	Relative Cost	Time-Effort	I'll take this Challenge	I Took this Challenge
What width of your shoreline has been altered for lake access, view, recreation, other?	About 30 feet	More than 40 feet		A Small Footprint - Others Can Live With: Reduce this area to a smaller size by restoring native plants.	80 percent of wildlife in MN depends upon a shoreland of native plants for their survival.	0 - \$\$	Moderate		
Within this area: a. Describe the number of trees/shrubs.	A few	None		Soft Armor Your Shore: Plant native trees, shrubs, grasses and grass-like plants along your shoreline. –or– Soften Your Hard Armor: Install native plants in existing rock rip-rap.	Deep roots of native plants resist ice and wave action and prevent your shore from washing into the lake. Native plants also filter soil and pollutants from rainwater run-off.	\$ - \$\$	Moderate		
b. What part is covered by lawn or sand blanket?	About three quarters	All or nearly all				\$ - \$\$	Moderate		
c. What part is mowed or weed-whipped?	Most	All		Bye-Bye Geese: Stop mowing and whipping. Geese avoid tall plants where predators may be lurking.	1.5 pounds of poop per goose per day will not land on your lawn and wash into the lake.	0	None		
d. What hard surfaces exist (circle all that exist)	Boat(s) Sidewalk Dirt path Other?	Road Building Patio		Stop the Drop: Remove unnecessary hard surfaces (e.g., road, sidewalk, boat) and replant or install pervious surfaces, berms, and other tricks-of-the-trade to capture rainwater.	Reduce rainwater run-off (carrying soil, nutrients and other pollutants) entering the lake by over 80%.	\$ - \$\$	Moderate		
e. Is there a fire ring?		Yes		Ring around the Rosie: Move fires and fire rings away from the lake (25 to 50 feet is recommended).	Reduce the phosphorous- and nitrogen-rich ashes carried into the lake by rainwater and wind.	0	Some		
f. What portion has an ice ridge?	Entire/Part - Ice ridge breeched	Entire – ice ridge resloped		No Water Over This Dam: Leave ice ridges in place to capture rainwater and the pollutants it carries.	An ice ridge across your entire shoreline can capture and filter up to 100% of soil and nutrients in rainwater run-off.	0	None		
g. What length of shoreline is eroding?	About 30 feet	More than 40 feet		Shore Up Your Shore: Consult with your local shoreland expert to determine which erosion control method is suited to your shore. (Permit may be required.)	For a 100-ft lot, this can prevent an average of 360 pounds of soil per year from washing into the lake, 90 pounds of algae in the lake, AND protect your real estate, too!	\$ - \$\$\$	Some to Great		

Closer to Home 50 feet landward of the high water mark (excluding the shoreline area)			⇒	Closer to Home Challenge Menu	Lake and Human Benefits	Relative Cost	Time- Effort	I'll take this Challenge	I Took this Challenge
What average width of this upland area has been altered for access, recreation, view, other?	About 30 feet	More than 40 feet	⇒	A Small Footprint - Others Can Live With: Reduce this area to a smaller shoe size by restoring native plants.	80 percent of wildlife in MN depends upon a shoreland of native plants for their survival.	0 - \$\$\$	None to Great		
Within this area: a. Describe the number of trees.	A few	None	⇒	Johnny Appleseed; Create your own living legend by planting native trees.	For a 100-ft lot, replacing lawn with a 50-ft "forested" buffer will prevent 80 pounds of soil per year from washing into the lake and will reduce algae in the lake by 70 pounds. A "forested" buffer provides food, shelter and nesting sites for songbirds and other wildlife.	\$ - \$\$	Moderate		
b. Describe the number of shrubs.	A few	None	⇒	Shrubs for Wildlife: Plant native shrubs. They prevent erosion and provide habitat for critters.		\$ - \$\$	Moderate		
c. What part is covered by lawn?	About three quarters	All	⇒	Super Filter: Plant native grasses and grass-like plants. They filter run-off and prevent erosion.		\$\$ - \$\$\$	Moderate to Great		
d. What part is mowed or weed-whipped?	Most	All	⇒	The Great No Mow-Let It Grow! Stop mowing and allow upland plants to grow back. – or – Set Your Sights High: Raise the blade on your mower to 3 inches.	Taller grasses and flowers will better filter rainwater run-off from your property. A higher lawn will also better tolerate stress and limit weeds.	No Mow saves you \$300/acre/yr High blade costs \$0	None		
e. Note if there is erosion or runoff related to the following (circle all that apply):	Sidewalk Path Steps	Road Building Patio/Deck Wall	⇒	Get with the Flow: Install rain barrels, rain gardens, water bars, berms, or other tricks-of-the-trade to capture or redirect rainwater coming off hard surfaces and allow it to filter into the soil.	Reduce rainwater run-off (carrying soil, nutrients and other pollutants) entering the lake by over 80%.	\$ - \$\$\$	Some to Great		

Extra Credit Challenges	Circle those that interest you				I'll take this Challenge	I Took this Challenge
Pass It On!	Help a neighbor with a Challenge Project (plant a filter, make a berm, survey for frogs)	Tell a neighbor about the Lake Challenge	Tell several neighbors about the Lake Challenge – host a boat tour or back yard party	Start a "Welcome Aboard" program for new lake neighbors – tell them about the Lake Challenge		
Family Fun	Shoreland Scientist: See what's in your rainwater run-off! A fun science project for all ages! <i>Equipment and training needed. Time: 15 min following each rain event.</i>	Fish Count: How many fish consider your shoreline as home? Of special interest to young anglers! <i>Training needed. Time: 1 hour per year</i>	Frog and Toad Count: The "canaries in the coal mine" of shoreland health. Learn their calls and see how many live along your shore. Kids love it! <i>Training needed. Time: 1 hour per year</i>	Other ideas? Please describe!		



Contacts for shoreland programs and advice:

Soil and Water Conservation Dist: www.itascaswcd.org

Itasca Waters: www.itascawaters.org

County Environmental Services: www.co.itasca.mn.us

Stewardship Award Program: nels0885@umn.edu

Notes: