Lake Lingo

Priority Lake Project: A multi-year, lake-rehabilitation effort funded by the DNR. Provides technical advice and cost-share incentives to watershed landowners for the purpose of mitigating nonpoint pollution to improve water quality.

Water Quality: The relative condition of water based on one or more evaluation parameters. Parameters may include such measures as clarity, color, nutrient content, dissolved oxygen concentration, acidity, temperature, and/or the presence of organic and inorganic contaminants.

Best Management Practices (BMPs): Engineered structures and management activities that eliminate or reduce the adverse environmental effects of nonpoint source pollution.

Rain Garden: A shallow, landscaped depression in a yard planted with native flowering plants and grasses. Designed to soak up rain water as it discharges from downspouts and off water-impervious surfaces.

Shoreline Buffer: A strip of dense vegetation running parallel to the shoreline that captures and filters runoff before it reaches the lake. Wide buffers planted with native trees, shrubs, grasses and forbs are best at removing pollutants, providing cover for wildlife, stabilizing eroding shorelines, and visually screening structures as seen from the water.

Carrying Capacity: A threshold that, when exceeded, leads to unacceptable conditions or consequences. Can be estimated in relation to development, boat traffic, pollution, or other factors.

Littoral Zone: The shallow, near-shore portion of a lake that receives sufficient sunlight to support rooted aquatic plant growth. The biologically rich littoral zone is home to most of the lake's flora and fauna, and is most susceptible to development pressure and recreational impacts.

Riodiversity: A multiplicity of different mutually dependent plant and animal species characteristic of a particular region or habitat. High biodiversity is generally indicative of a stable and balanced ecosystem.

Wetland: Defined in s. 23.32(1), Wis. Stats., as an area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which has soils indicative to wet conditions. Wetlands serve as important fishery and wildlife habitat, and are shown to moderate flooding and protect water quality.

Designated Sensitive Areas: Sites within and around a lake identified for their unique or threatened ecological value, particularly in terms of fish and wildlife habitat or capacity to influence water quality. Generally associated with valuable wetland and aquatic plant communities vital to fish spawning and lake health.

Shoreland Zoning: Land-use policies and associated permitting requirements that apply to development activities occurring within 1,000 feet of lakes and 300 feet of streams. Governs building setbacks, removal of shoreline vegetation, land grading, and other activities.

Conservation Easement: Customized legal agreement between a landowner and a qualified government agency or nongovernmental organization that permanently limits a property's uses in order to protect its conservation values. Often results in tax benefits without transferring title to the property or opening it to the public.

Mercury: A poisonous metallic element sometimes found as a contaminant in rainfall, particularly downwind of coal-burning power plants Mercury exposure poses serious health risks and is to blame for many fish-consumption advisories throughout Wisconsin and the U.S.

Lake Ripley Management District P.O. Box 22 Cambridge, WI 53523

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Manageme

District

n 1993, the Lake Ripley Management District was awarded a Priority Lake Grant from the Wisconsin Department of Natural Resources, with the potential of receiving up to one million dollars in total funding over the 10-year grant period. The District later received a three-year extension, continuing the program until the end of 2006. Through this program, the District has been able to provide technical and cost-sharing assistance to eligible landowners in the watershed for the

Over the years, our grant has been used to cost share 47 projects, and another eight are currently scheduled for next year. Already, 3,821 feet of eroding shoreline have been stabilized and restored through riprap or re-vegetation. An additional 685 feet of shoreline will be completed in 2005.

We were also able to repair 17,425 feet of eroding ditch banks through re-grading and seeding at the Long Sod Farms. Two other drainage ditches were plugged at our Lake District Preserve, diverting considerable runoff into wetlands that was once channeled directly to the lake. These efforts alone have reduced the amount of nonpoint pollution entering the lake by an estimated 75%.

Over 90% of the shoreline and drainage ditches identified have been addressed, resulting in a reduction of an estimated 1,103 tons of sediment from entering Lake Ripley each year. We have also protected or restored over 100 acres of wetlands vital to the good health of the lake.

As the program winds down to its closure in 2006, we would like to thank all those concerned citizens who have participated. Special thanks go out to Mr. and Mrs. Pat Long for their outstanding efforts in reshaping thousands of feet of drainage ditch. With citizen participation, this program has become a great success and a model for other programs throughout the state.

John Molinaro

Chair, Lake Ripley Management District

Why Rain Gardens?

magine Lake Ripley as it existed before the first European settlers arrived. Compared to today, the lake and surrounding landscape would have looked strikingly different. Absent were any of the houses, buildings, paved roads, manicured lawns, driveways, drainage ditches, or tilled farmland for which we are so familiar. Instead, we would have witnessed gently rolling oak savannas, expansive prairies, and vast marshlands that were characteristic of the region back then.

This earlier, unaltered landscape was ideal for sustaining clean lakes and moderating the hydrologic cycle. Rainfall was largely intercepted and absorbed by lush vegetation, or allowed to slowly infiltrate into permeable, non-compacted soils. Consequently, groundwater was continually replenished while the overland flow of stormwater runoff was naturally abated. Lake Ripley, in turn, would have been much cleaner and healthier. It was simply not subjected to the landscape manipulations and poor land-use practices typical of today's reality. In essence, the lake would have reflected the condition of its surrounding watershed at the time.

(Continued on next page)

Rain Gardens (cont.)

You may recall that a "watershed" is essentially a basin in which all land and water areas drain or flow toward a central collector, such as a stream, river, or lake at a lower elevation. The watershed boundary can be conceptualized as the rim of a bathtub, with the lake or stream outlet being located down at the tub's drain. Watersheds can be as small as only a few acres to hundreds of square miles in size. Lake Ripley's watershed is about eight square miles in size, and drains to an even larger watershed known as the Rock River Drainage Basin (which then drains to the Mississippi).

Everyone lives in a watershed. This means that the cumulative impact of our individual land-use decisions affects the water quality of our lakes and streams—for better or worse. This is the case regardless of the distance that may lie between your land and a downstream body of water.

You can think of your own lot as a tiny "sub"-watershed. Water that is not used by plants or allowed to infiltrate into the soil flows across the land surface. In doing so, it picks up whatever it can carry, including soil, fertilizers, pet waste, road salt, chemicals, spilled motor oil and other pollutants. Therefore, the way we collectively choose to live and use the land directly influences the quality of our local waterways. This is because lakes act as giant settling basins, and even small amounts of pollution can build up over time making conditions less safe for fish and swimmers alike.

As property owners, we can either be part of the problem or part of the solution. One simple, low-tech way to manage water and excess runoff before it becomes a problem is



to build a rain garden. Rain gardens are shallow depressions in your yard landscaped with native flowering plants and grasses. They are often positioned near a home's downspouts, and are designed to efficiently collect and infiltrate water. Aside from beautifying your yard and creating a small haven for backyard wildlife, rain gardens can reduce the incidence of flooding and standing water. More importantly. they are relatively easy and inexpensive to install.



Clockwise from left: (1) A rain garden strategically located near a downspout to capture rooflor discharge; (2) A small rain garden installed next to a commercial building to alleviate flooding and drainage problems; (3) A backyard rain garden also serving as a bird and butterfly sanctuary. Source: Wisconsin Rain Garden Educator's Kit, UWEX.

In order to promote the rain garden concept, the Lake Ripley Management District along with Cambridge High School's Advanced Biology Class and Environmental Club students are partnering with the Town of Oakland to install a rain garden at the new town hall. Lake District funding will be supplemented by a \$1,500 Youth Service-Learning Mini-Grant to pay for the demonstration project.

"I can think of no better opportunity for showcasing the benefits of rain gardens to the community. The garden should make the grounds more attractive while, at the same time, address stormwater concerns and reduce lawn-mowing expenses for the township. We are excited to be a part of this collaborative partnership," says Ed Grunden, local high school teacher and co-recipient of the \$1,500 mini grant.

To learn more about rain gardens and how to build them, call 877-947-7827 and request a copy of the publication titled Rain Gardens: A How-To Manual For Homeowners. The publication is available from both county UW-Extension offices and DNR Service

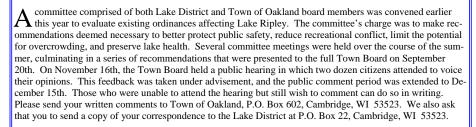


Centers. You can also call the Lake District office if you would like us to visit your property to offer advice for designing and installing your own garden. Cost-sharing assistance may also be available for larger projects meeting certain eligibility criteria.

Lake Ripley News Brief



COMMITTEE WORKS TO IMPROVE LAKE ORDINANCES



Below is a synopsis of the recommended actions that remain the subject of consideration. If the Town elects to pursue any of these proposals, additional hearings will be held before official ordinance changes are adopted.

- 1. PROPOSAL TO amend Oakland Town Ordinance No. 2 to: A) increase the fees for the public boat landing for all users other than Oakland property owners as allowed by state statute; B) designate as slow-no-wake all waters within 200 feet of shore; and C) pivot the existing buoy line in South (Marina) Bay so as to form an east-west line across the bay, thereby incorporating shallow water depths as slow-no-wake.
- 2. PROPOSAL TO amend Oakland Town Ordinance No. 42 to: A) include as mapped sensitive area, based on previously established definition, all of Vasby's Ditch and the inlet channel; B) prohibit, rather than require DNR permit approval for, new or expanded piers, wharves and swim rafts within designated sensitive areas; and C) prohibit new private and public boat access ramps on Lake Ripley.
- 3. PROPOSAL TO amend the Town of Oakland's Comprehensive Growth Plan to include a waterfront zoning definition consistent with Jefferson County Zoning Ordinance No. 11.04(f)(9), except for the following changes under Conditional Uses: minimum lot area of 1.0 acre for both sewered and unsewered lots; minimum width and depth of 200 feet; minimum building setback from the Ordinary High Water Mark of 75 feet; and maximum building height of one story or 15 feet.
- PROPOSAL TO adopt an ordinance that codifies into law all development guidelines set forth in the Town
 of Oakland's Comprehensive Growth Plan as adopted September 16, 1997, and otherwise amended.
- 5. PROPOAL TO adopt an anti-funneling ordinance to prevent new keyhole developments on Lake Ripley.
- PROPOSAL TO adopt an emergency slow-no-wake ordinance to take effect during periods of high water when such conditions threaten public health, safety, welfare or property.

The Committee also supports the continued employment of a seasonal, 35-hour-per-week, lake patrol officer to help enforce applicable lake rules and Town ordinances. To learn more about any particular recommendation, feel free to contact the Lake District office with your questions.







