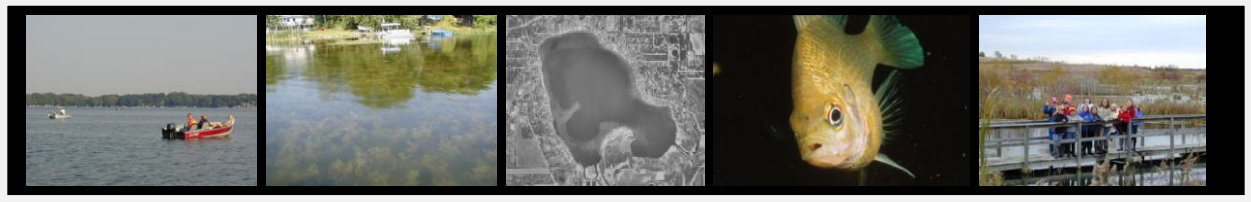
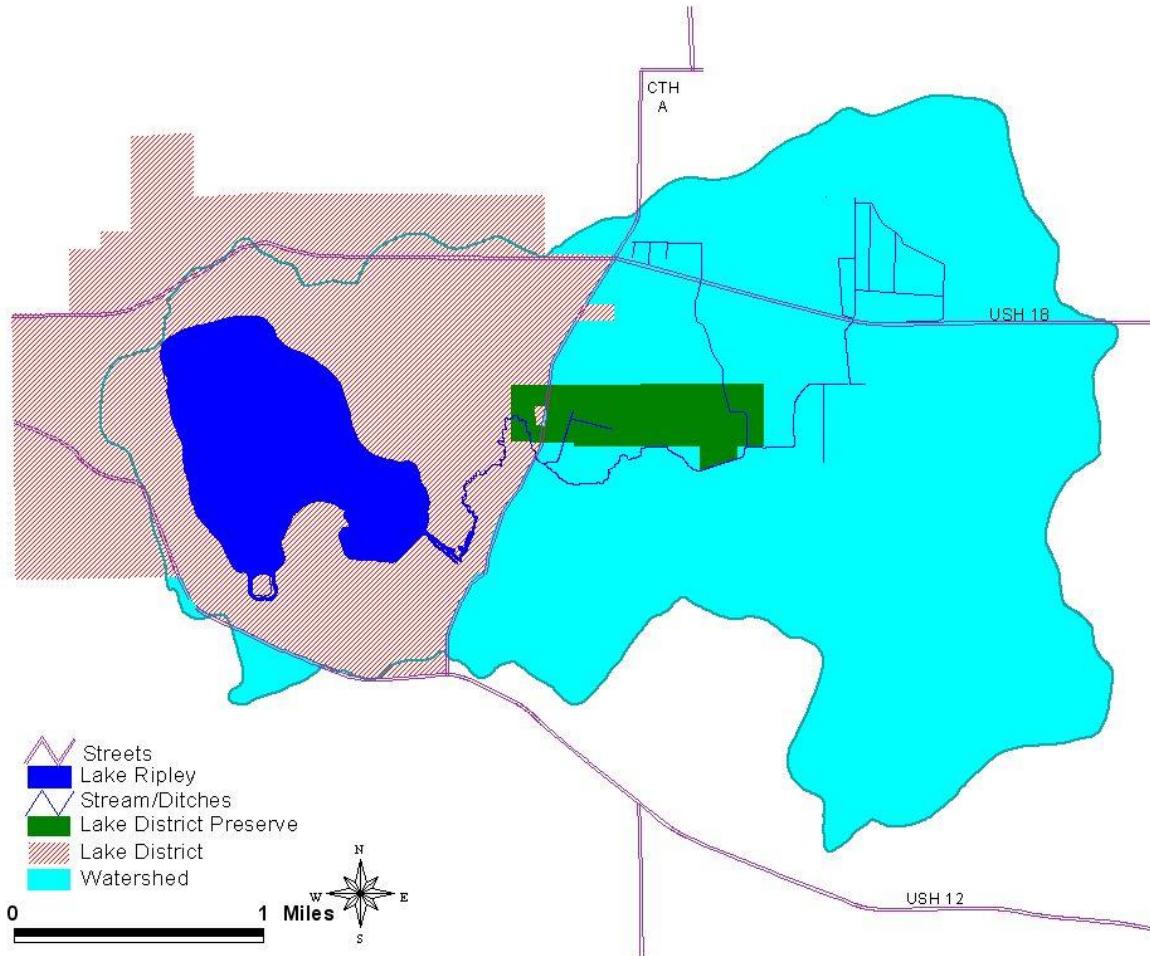


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# LAKE RIPLEY MANAGEMENT PLAN



Rev. 2009

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**Lake Ripley Management Plan  
(Rev. 2009)**

AREA OF INTEREST: Lake Ripley Management District/Lake Ripley Watershed  
(Town of Oakland, Jefferson County, Wisconsin)

MANAGEMENT UNIT: Lake Ripley Management District  
N4450 County Road A  
Cambridge, WI 53523  
phone: (608) 423-4537  
e-mail: ripley@charterinternet.com  
website: www.lakeripley.org

2009 BOARD OF DIRECTORS: John Molinaro, Chair  
Mike Sabella, Treasurer  
Jane Jacobsen-Brown, Secretary  
Dennis McCarthy, Commissioner  
Georgia Gomez-Ibanez, Commissioner  
Gene Kapsner, Town of Oakland Appointee  
Walt Christensen, Jefferson County Appointee

PLAN AUTHOR: Paul Dearlove, Lake Manager  
Lake Ripley Management District

PLAN APPROVAL DATE: [\[Insert Board resolution number and date\]](#)

\_\_\_\_\_  
John Molinaro, Chair  
Lake Ripley Management District

\_\_\_\_\_  
Date

\_\_\_\_\_  
Gene Kapsner, Chair  
Town of Oakland

\_\_\_\_\_  
Date

\_\_\_\_\_  
Mark Watkins, Director  
Jefferson County Land & Water Conservation Dept.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Susan Graham, Lake Management Coordinator  
Wisconsin Department of Natural Resources

\_\_\_\_\_  
Date

*Funded through the Wisconsin Lake Planning Grant Program*

## **Plan Completion Schedule (DRAFT)**

- 2008:**
- Extract sediment core for lab analysis
  - Gather, organize and evaluate all available data on lake/watershed
  - Begin investigating applicable management tools
  - Produce rough and preliminary draft of Plan
- Jan 2009:**
- Submit draft table of contents, management goals, tracking indicators, targets, status of prior planning recommendations, and a proposed completion schedule for review and comment prior to 1/17
  - Provide overview and solicit input at meeting
- Feb 2009:**
- Produce and distribute Ripples with announcements about the planning process, public hearing date, and instructions on how to participate
  - Perform pollutant-loading/lake-response modeling and identify data gaps
- Mar 2009:**
- Submit Lake District Preserve improvement plan and fisheries report for Board review and comment prior to 3/21
  - Present overview and solicit input at meeting
- Apr 2009:**
- Submit aquatic plant report and management plan for Board review and comment prior to 4/18
  - Present overview and solicit input at meeting
- May 2009:**
- Begin conducting field surveys to verify land-use practices, document shore/ditch conditions, etc.
  - Fine tune pollutant-loading and lake-response scenario modeling
  - If available, submit sediment core results, historic water quality findings, and modeling output for Board review and comment prior to 5/16
  - Present overview and solicit input at meeting
- Jun 2009:**
- Submit overall problem diagnosis, proposed recommendations, and implementation timeline for Board review and comment prior to 6/20
  - Present overview and solicit input at meeting
- Jul – Aug 2009:**
- Reserve time for budget and Annual Meeting preparation
  - Submit all major Plan components for Board review and comment prior to 7/18
- Sep 2009:**
- Prepare for and hold public hearing to present draft plan and accept public comments
  - Submit draft plan to DNR for review
- Oct – Dec 2009:**
- Incorporate necessary changes and finalize Plan document
  - Copy and distribute
  - Close out grant

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## STRATEGIC VISION, GOALS, INDICATORS AND TARGETS

### Our Mission

The Lake Ripley Management District seeks to preserve and enhance Lake Ripley's ground and surface water quality, its fish and wildlife habitats and communities, and its general ecological health, while ensuring safe, balanced and sustainable opportunities for public use of the lake.

### A Practical Vision for the Future

We envision Lake Ripley as a clean and naturally scenic water body that enhances regional property values, opportunities for outdoor recreation, and local quality of life. A healthy aquatic plant community and high-quality shoreland habitats support an ecosystem that is rich in native fish and wildlife.

Shared recreation occurs in a manner that equitably balances the competing demands and expectations found among diverse user groups. The mix of lake uses is compatible with the general public interest, identified community priorities, and the lake's estimated physical and ecological carrying capacities.

The watershed that supplies surface water to the lake contains high-functioning wetlands and protected environmental corridors that help safeguard water quality and general lake health. Development and associated land-use practices incorporate effective conservation measures that control soil erosion, preserve wetlands and groundwater-recharge areas, and minimize adverse impacts to the lake.

Local residents, property owners, government entities and other stakeholders are aware of Lake Ripley's economic, recreational and cultural value to the community. The public maintains a vested interest in the lake's long-term protection and rehabilitation, and is committed to making the necessary clean-water and pollution-control investments for the benefit of future generations. There is broad understanding and support of ongoing management designed to address problems and threats through cost-effective action.

### Goal #1: Clean, clear water

- Objectives:
- Reduce the delivery of pollutants to the lake, especially phosphorus and sediment originating from the outlying watershed
  - Minimize lakebed disturbances that contribute to the re-suspension of bottom sediment and mobilization of phosphorus into the water column
  - Protect and restore groundwater-recharge zones, wetlands and shoreland buffers that improve the quantity and quality of runoff

- Indicators:
1. Water clarity  
Target: Secchi-depth clarity  $\geq 6.5$  ft (summer average)
  2. Trophic state index (TSI)  
Targets: TSI  $< 50$ ; Total phosphorus  $< 24.0$   $\mu\text{g/l}$ ; Chlorophyll-*a*  $< 7.3$   $\mu\text{g/l}$

3. *Escherichia coli* (*E. coli*) bacteria levels

Target: < 235 cfu/100 ml (or no beach warnings or closings)

4. Watershed land use

Targets: Retain rural and agricultural land uses outside the watershed's urban service boundary (east of CTH A) to facilitate groundwater recharge; establish or preserve native vegetative buffers along shoreline, stream and drainage ditch corridors; protect and restore remaining wetland acreage; increase agricultural acreage employing conservation farming practices and nutrient-management planning; increase number of rain gardens and use of rain barrels in residential areas; plug or repair eroding drainage ditches that connect to the inlet;  
[specific sediment/phosphorus reduction targets based on modeling;  
specific BMP targets]

**Goal #2: Thriving, native aquatic life**

Objectives:

- Protect or restore fish and wildlife habitat found in and around the lake
- Reduce the potential for the introduction and spread of invasive species
- Manage existing biological communities (plants, fish, etc.) in a manner that supports identified management goals and priorities

Indicators:

1. Aquatic plants

Targets: No loss of native species richness; Eurasian milfoil and other exotics comprise small and decreasing fraction of overall plant community; preservation or expansion of existing bulrush and lily pad beds; no further fragmentation or disturbance of Critical Habitat Areas (such as by the placement of new or expanded piers, docking stations, rafts, plant screens, or sand beaches)

2. Fish

Targets: No loss of native species richness; documented presence of the earlier inventoried lake chubsucker (*Erimyzon sucetta*), least darter (*Etheostoma microperca*) and pugnose shiner (*Notropis anogenus*)—listed as Wisconsin Special Concern or Threatened Species; carp represent small and decreasing fraction of the overall fish population; stable and proportional size-frequency distributions of resident sport fish populations; increase number of permitted tree-drops used as shallow water structural habitat; increase number of trees at the shoreline for future recruitment of coarse woody habitat; maintain water quality conditions suitable for survival of previously inventoried sensitive fish species

3. Wetlands

Targets: No further loss of existing wetland acreage; existing wetlands are protected and restored to fullest functional value; wetland acreage and

function are returned (when feasible) to areas subjected to past hydrologic manipulation

**Goal #3: Safe, fair and responsible lake use**

- Objectives:
- Minimize user conflicts by balancing competing recreational demands
  - Promote recreational uses and intensities that are compatible with the lake’s estimated physical and ecological capacities

- Indicators:
1. Public access  
Target: Current level of public access is maintained with no expansion or increase in the number of public boat-access facilities
  2. Pier development  
Targets: Pier sizes, densities and number of mooring spaces meet Wisconsin DNR standards; no further pier development—except for the repair, maintenance or replacement of existing piers—in designated “Critical Habitat Areas” (formerly “Sensitive Areas”)
  3. Boating densities  
Target: Boating does not exceed estimated carrying-capacity thresholds
  4. Law enforcement  
Target: Lake rules are enforced through regular weekday and weekend Town police patrols during the boating season, with emphasis on peak lake-use periods
  5. Public survey input  
Target: Opinion survey results reflect favorable reviews regarding overall recreational atmosphere (i.e., fairness of rules, perceived compliance levels, degree of crowding, etc.)

**Goal #4: Effective, responsible management action**

- Objectives:
- Management actions advance planning goals
  - Management programs are appropriately targeted and cost-effective as set forth in approved planning guidance
  - Monitoring is routinely conducted to evaluate progress
  - Resources are sufficient to implement planned management actions

- Indicators:
1. Management-planning directives  
Target: Plan recommendations are regularly reviewed, implemented and updated
  2. Lake District operating budget  
Target: Budget provides for sufficient resources to implement approved

management activities

3. Public survey input

Target: Realistic management expectations are maintained, and programs are viewed as addressing community priorities

4. Monitoring data archives

Targets: Shoreline videotaping every few years to document shore condition; census of piers, boat lifts, rafts and moored watercraft performed once per year; documentation of on-lake boat counts and lake-use observations during each boating season; Secchi depth measurements taken at least twice per month (May-September); basic water chemistry (total phosphorus, chlorophyll-*a*, etc.) evaluated at least three times per year (after spring turnover, during mid-summer stratification, and after fall turnover); invasive species data collected as per Wisconsin DNR guidance; documentation of cost-shared conservation measures and estimated pollutant reductions as completed; aquatic plant inventories every 4-6 years; annual weed harvesting reports; public opinion solicitations at least every five years

**Goal #5: A well-informed and engaged citizenry**

Objectives:

- Maintain open lines of communication with District constituents, watershed property owners, and affected stakeholders using diverse media outlets
- Actively solicit community participation and involvement in rehabilitation efforts

Indicators:

1. Outreach tools

Targets: Minimum of 3 Ripples newsletters are disseminated per year; E-mail bulletins used as appropriate to distribute time-sensitive information; at least quarterly updating of the LRMD website; at least quarterly mailing of Welcome Wagon informational packets to new property owners; timely posting and publishing of all meeting agendas and proposed budgets; Board meetings and public hearings are well publicized and aired on local cable TV; an informational boat tour is offered each year for the benefit of Town of Oakland Board members; community events (watershed tours, lake fairs, litter cleanups, etc.) are used to educate and engage citizen volunteers

2. Public survey input

Target: Opinion survey results give favorable reviews for quality of outreach materials and effectiveness of communication strategies

3. Volunteer/landowner participation

Targets: Mechanisms are in place for attracting and retaining volunteers to support ongoing programs; a critical mass of targeted landowners adopt

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recommended conservation measures when offered cost sharing and technical guidance; school groups are solicited to participate in service-learning projects

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**MANAGEMENT PRIORITIES AND EXPECTATIONS**

**4-1 STATUS OF PRIOR MANAGEMENT RECOMMENDATIONS**

**Legend**

- Completed
- ▣ Ongoing with dedicated management program
- Not Completed or unknown status (as of Plan date)

Below is a listing of prior management recommendations and their implementation status (see above legend). Recommendations are listed under the appropriate planning documents from which they were derived. Latest publication dates are referenced in parentheses. Most of these earlier planning recommendations have since been acted upon, or are and will remain the target of ongoing management action.

Lake Ripley Management Plan (2001)

- Expand slow-no-wake zones to better incorporate shallow, near-shore areas
- Develop emergency slow-no-wake policy addressing extreme flooding and high-water events
- ▣ Continue selective mechanical harvesting of milfoil; regularly update plant management plan
- Determine extent of in-lake nutrient recycling from anoxic sediment phosphorus release
- ▣ Continue sport fishery enhancement programs through habitat protection, carp removal and limited fish stocking
- ▣ Continue intensive, long-term water quality monitoring program
- Ensure proper lake-rule postings at all public access points
- Raise public launch fee in accordance with State regulations to acquire additional funds for site maintenance and upkeep
- Adopt local ordinance that prohibits the feeding of waterfowl, and implement other nuisance waterfowl-control strategies
- Complete 13-year Lake Ripley Priority Lake Project (a state-funded, pollution-abatement program)
- ▣ Encourage the use of no-phosphorus fertilizers within 200 feet of the lake
- Propose shoreland zoning modification that regulates the type and placement of high-intensity lighting on piers, boathouses and shorelines
- ▣ Continue implementation of an intensive information and education campaign
- ▣ Continue to acquire and/or establish voluntary land-preservation agreements (conservation easements) on critical wetland properties throughout the Lake Ripley watershed
- ▣ Continue public education and wetland/prairie restoration activities at the Lake District Preserve
- ▣ Continue to track public and private funding opportunities at the local, state and federal levels. Submit grant applications whenever appropriate to obtain support for both new and ongoing management efforts
- ▣ Continue litter cleanup projects to remove debris from area waterways and shorelines

- Support the continued funding of a summer lake patrol officer to maintain an enforcement presence on weekends and holidays throughout the boating season
- Continue implementation of the volunteer “Lake Watch” program to compliment law enforcement efforts

Nonpoint Source Control Plan for the Lake Ripley Priority Lake Project (1998rev)

- Reduce overall sediment delivered to Lake Ripley by 50% of inventoried load
- Reduce overall phosphorus load by 30% (achieved through the above sediment reductions)
- Maintain Trophic State Index below 50 (variable status)
- Protect ecologically-sensitive areas in and around the lake
- Prevent further wetland loss or disturbance; protect wetland acres east of the lake as well as stream/lakeside buffer areas; increase total number of wetland acres through restoration measures
- Preserve natural shoreline areas as water quality buffers and wildlife refuges; enhance developed shoreline areas by planting native vegetation to serve as buffers
- Reestablish native aquatic plant communities, where feasible
- Protect the Lake Ripley largemouth bass fishery, aquatic diversity and endangered resources within the lake and watershed
- Protect groundwater resources; maintain groundwater contribution to the hydrologic budget by not changing groundwater-infiltration areas

Lake Ripley Aquatic Plant Management Plan (2002)

- Recognize the value of a diverse, native aquatic plant community and ecologically-significant “sensitive areas” prior to implementing any type of management program
- Focus control efforts on non-native, invasive species like Eurasian water-milfoil, while protecting native plant beds needed for water quality and habitat purposes
- Work to understand and address the root causes of excessive, symptomatic weed growth
- Use targeted mechanical harvesting as the primary weed-control strategy, with cutting intensity dictated by the specific habitat and recreational requirements of a particular location
- Focus mechanical harvesting on managing dense, monotypic stands of Eurasian water-milfoil just prior to or following canopy formation at the water surface. Priority control areas include high-traffic boating lanes and around weed-choked public access points.
- Employ strategies that are compatible with mechanical harvesting as warranted, and particularly in areas that are otherwise inaccessible to mechanical harvesting equipment
- Use boating ordinances to divide the lake into distinct recreational user zones to support multiple, mutually-exclusive activities
- Increase management effectiveness by implementing strategies at specific times and in specific locations, depending on spatial and seasonal variations in plant growth, fish and wildlife behavior, recreational use of the water, and other factors
- Inform the public of the goals, objectives and limitations of aquatic plant management, and the responsibilities of lakefront property owners
- Conduct an aquatic plant inventory at least every several years for monitoring purposes, and adjust management approaches as appropriate