

Lake Management Plan for the Cullen Lakes

Goal 1: Maintain or improve the current water quality of the Cullen Lakes.

Objective A: Continue to monitor trends in the water quality of each lake.

Actions:

1. Annually, test for total phosphorus and chlorophyll a in January and March and once a month April through October.
2. Weekly, April through October, and once in January and in March, take Secchi disk transparency readings.
3. Plot results to detect trends.

Objective B: By October of 2002, increase owner compliance with recommended maintenance and use of lakeshore sewage treatment systems.

Actions:

1. Annually, educate owners on the recommended use and maintenance of septic systems.
2. Annually, encourage owners to keep records of the design and maintenance of their septic system.

Objective C: By 2004, increase the percentage of lakeshore sewage treatment systems that are in compliance with county and city ordinances.

Actions:

1. By the spring of 2001, research county and city records and identify the systems that are in compliance.
2. By the fall of 2001, investigate the availability of government agency programs and funds related to bringing all lakeshore property sewage treatment systems into compliance.
3. By the fall of 2002, provide owners with information on cluster systems and other sewage treatment alternatives for use where appropriate.

Objective D: Identify possible sources of pollutants in the lakes from sources other than septic systems.

Actions:

1. By 2001, analyze available data such as aerial photographs for areas of lake contamination.
2. By 2002, begin to "ground-truth" data obtained in Action 1.
3. By 2002, identify and analyze wetland discharge into the lakes.
4. By 2002, analyze stream discharge into and out of each lake.

Goal 2: Maintain an aquatic plant community of sufficient abundance to support fish and wildlife, to protect shorelines and lake bottoms from wave action, and to improve water quality.

Objective A: Maintain a healthy, well-balanced aquatic plant community while controlling vegetation which interferes with the reasonable access to and use of the water.

Actions:

1. Starting in 2000, annually, educate lakeshore owners on the value of aquatic plants, the proper and/or legal methods of their removal, and possible ramifications of altering the plant community.
2. By the summer of 2001, educate lakeshore owners on aquatic vegetation that naturally occurs in each lake.
3. By the spring of 2001, confer with DNR Fisheries to set up a program to monitor changes in the abundance of aquatic vegetation.
4. By the summer of 2001, enlist and train association members to conduct a monitoring program.
5. No later than 2004, assess the need for an aquatic plant management plan.

Objective B: Control increases in the amount of algae.

Actions:

1. Starting the spring of 2001, monitor changes in algal density at several locations on each lake according to the methods in Chapter 3, EPA Volunteer Lake Monitoring: A Methods Manual.
2. By October of 2002, research and identify the sources and/or causes of excessive nutrients in the water which support the growth of algae.
3. When data is available, assess the need and ability to take actions to decrease the algal community.

Goal 3: Control and prevent infestations of exotic species in order to protect native plant and animal habitats and the lakes' ability to support recreational activities.

Objective A: Control the growth and spread of purple loosestrife.

Actions:

1. Annually, educate lakeshore property owners on identification of purple loosestrife and their responsibility for its control.
2. Continue to provide a program of assistance to property owners for controlling purple loosestrife.
3. By 2001, assess and amend, as needed, the current policy on the Association's role in helping property owners meet their responsibility for controlling purple loosestrife.

Objective B: By the fall of 2001, establish a program to monitor the lakes for the presence of exotic species other than purple loosestrife.

Actions:

1. By the summer of 2001, enlist and train property owners from each lake to regularly monitor the lakes for the presence of exotic species.
2. By the summer of 2001, assess the need to contract with a specialist in exotics to survey the lakes a minimum of once a year for the presence of Eurasian watermilfoil.
3. Within 6 months of the observation of a "new" exotic species, develop a plan

to eliminate, control, or decrease the species.

Goal 4: Enhance the recreational use, safety and enjoyment of the lakes' water surfaces while protecting them as natural resources.

Objective A: Minimize the environmental impact of motorized watercraft on the lakes.

Actions:

- 1. Annually, provide lake property owners with a review of and update on watercraft ordinances and regulations.**
- 2. Annually, educate lake property owners on lake-friendly usage of motorized watercraft.**
- 3. By the fall of 2001, research the possibility of establishing controls for water surface use on the Cullen Lakes.**
 - a. If feasibility is established, survey property owners in the spring of 2002 for support of an ordinance on the use of motorized watercraft on the Cullen Lakes.**
 - b. Within 6 months of obtaining property owner support, assign a committee of property owners and other stakeholders to develop an ordinance.**
 - c. Prior to formal approval of the proposed ordinance by the Association membership and its submission to the DNR Boat and Water Safety and appropriate government unit(s), conduct informational meetings for the membership and interested parties.**

Goal 5: Maintain or improve the natural fish population of each lake

Objective A: Provide lake property owners with information that will enable them to set reasonable expectations for the current and future quality of fishing on the Cullen Lakes.

Actions:

- 1. Beginning in 2000, annually publish a newsletter article reviewing the most recent DNR Lake Survey results on fish spawning conditions and test netting results for each lake.**
- 2. Annually, educate property owners on Catch-and-Release.**
- 3. By the fall of 2001, research the effectiveness of posting Catch-and-Release signs at public accesses.**

Objective B: By 2002, develop a fish management program to protect and/or restore native fish habitats and populations.

Actions:

- 1. By 2001, assign a committee to work with DNR Fisheries in developing a fish management program, which could include:**

- *habitat protection and improvement,**
- *experimental fishing regulations, and/or**
- *stocking.**

Goal 6: Promote responsible and sustainable land development in order to protect the lakes and their environs.

Objective A: By the spring of 2003, establish a proactive position on the development of shoreland.

Actions:

1. By the fall of 2000, appoint a committee whose responsibility will be to act as liaisons with city, township, and county Planning and Zoning Commissions concerning shoreland ordinances, rezoning requests, development proposals, and variance requests.
2. By the fall of 2000, identify shoreland (wetlands, bluffs, non-conforming lots, etc.) that is unsuitable or marginally suitable for development.
3. By the fall of 2000, identify shoreland parcels with 200+ feet of lakeshore on Lower and Middle Cullen and 300+ feet on Upper Cullen.
4. By the fall of 2002, establish a plan for the acquisition of shoreland that is suitable or marginally suitable for development.

Objective B: By the fall of 2001, establish a proactive position on the protection of shoreland through the use of vehicles such as conservation easements.

Actions:

1. By the fall of 2000, appoint a committee of Association members whose responsibility will be to inform and encourage shoreland owners to protect their properties for future generations and to assist the owners in executing their commitment.
2. By the fall of 2001, contact all property owners identified in Objective A, Actions 2 and 3 for the purpose stated in Action 1 above.

Objective C: By 2005, establish a proactive position on the development and use of land within the watershed.

Actions:

1. By the spring of 2002, determine what data is needed to effectively monitor land use and development within the watershed.
2. By the fall of 2003, collect the needed data.
3. By 2005, develop a plan for monitoring land use and development and for encouraging land and business owners to be involved in the preservation of the lakes and their environs.
4. By 2005, establish a plan for the acquisition of land within the watershed whose use or development could adversely affect the water quality of the lakes.

Goal 7: Commit to programs to educate and inform Cullen Lakes property owners, Association members, and the public on topics related to the preservation of the quality of the lakes and their environs.

Objective A: Continue to educate shoreland owners on their responsibility to preserve the quality of natural resources.

Actions:

1. Continue to use a quarterly newsletter as the principle medium to educate the membership on Best Management Practices.

2. At least once every 5 years, conduct surveys of property owners to profile shoreland owners' understanding of and need for shoreland management.

3. As needed, update and revise *Managing Your Shoreland: A Guide for Lakeshore Owners*.

Objective B: At least once every year inform Association members of Board and committee actions taken to meet the Association's goals and objectives.

Actions:

1. Provide Association members with written reports of Board and committee activities.

2. Annually, publish the water quality test results in the newsletter.

Objective C: On a timely basis, provide information to Association members on current issues that could affect the future of the Cullen Lakes.

Actions:

1. As needed, send special mailings and other communications to members to keep them informed on current critical issues.

Objective D. Beginning in 2000, schedule at least one special membership meeting and/or educational workshop/seminar each year.

Actions:

1. As needed, conduct a meeting to provide information on projects such as the Lake Management Plan or a fish management program.

2. Starting in 2001, conduct an annual environmental workshop for Association members.

Goal 8: Review and, when necessary, revise the Association's organizational structure to ensure attainment of its goals and objectives.

Objective A: By 2005, encourage residents of the Cullen Lakes watershed to become members of the Association.

Actions:

1. By the fall of 2000, change the name of the Association to reflect a broader base.

2. Publish an article in local newspapers which informs the public of the changes implemented in Action 1.

3. By 2005, establish a plan to recruit watershed residents as members.

Objective B: By the fall of 2002, ensure that the Association's committee structure can support the goals and objectives of this plan.

Actions:

1. By the fall of 2000, analyze the current committee structure and make changes needed to accomplish the goals and objectives adopted by the Association.

2. By the summer of 2001, assign specific responsibilities to each committee.

3. By the fall of 2001, recruit non-board members to chair or serve on standing and special committees.

4. By the fall of 2002, define in writing each standing committee's role and

responsibilities and the working relationships between committees.

Objective C: Continue to obtain necessary financing for the Association's general operations and projects through dues increases, grants, fund drives, and gifts.

Actions:

- 1. Starting in 2000, annually assess the need for an increase in dues.**
- 2. By the spring of 2002, establish a policy on the use of membership fund drives to finance special projects.**
- 3. By the fall of 2002, develop programs to encourage donations in the form of memorials, etc.**

Goal 9: Establish a proactive position in the planning for the future of the Cullen Lakes.

Objective A: Evaluate and modify the Lake Management Plan (LMP) on a regular basis.

Actions:

- 1. At least once a year, evaluate the current data base and the need for additional data to meet current goals and objectives.**
- 2. At least once a year, review the LMP to determine if any actions need to be modified.**
- 3. At least once each year, report the progress towards meeting the goals and objectives of the LMP to the membership.**
- 4. Every 5 years, conduct a survey of the membership to use as a basis for making changes to the LMP.**
- 5. Every 5 years, analyze trends to determine what modifications are needed to the plan.**