

**Lake Superior Basin
Review Comments on Water Plan 2000**

Submitted March 3, 2000

Water Plan 2000

Lake Superior Basin Review Process

Introduction:

As part of the overall strategy to integrate water policy in Minnesota, state agency staff with responsibilities in the Lake Superior Basin agreed to participate in an inter-agency project team to help solicit comments and ideas on the Water Plan 2000 Public Review Draft. The participants undertook this task with the understanding that they were to solicit comments and ideas that were not only common to the state as whole, but that reflected the unique cultural and natural resource characteristics of the Lake Superior Basin. The Lake Superior Basin Project Team that championed this process involved state agency staff identified at the September 20, 1999 Camp Ripley session, as well as others. Comments were also provided by, and reviewed by, the Lake Superior Basin Programmatic Work Group (PWG). The PWG is a relatively new group of government practitioners created to assist with development of the Lake Superior Basin Plan.

Review and Public Comment Process:

Because of timing and organization necessity, the review strategy for Water Plan 2000 in the Lake Superior Basin relied almost exclusively on informal channels of communication. Members of the PWG were asked to comment at two open meetings and to solicit comments and responses on the Public Review Draft within their respective organizations. Since there were so few comments received outside of the PWG meetings, it was difficult to say how many members followed through with the internal review request. Email was adopted as another complementary strategy to reach large numbers of interested parties and groups. An email message was distributed on February 9, 2000, to a large distribution list of potentially interested stakeholders. This message, which is attached to the report, asked recipients to forward the message to others and to review and comment on the Water Plan 2000 Public Review Draft. This solicitation generated considerable interest, including several extensive commentaries on the Public Review Draft (see attached comment messages).

Next Steps:

Since the Lake Superior Basin Plan was just getting underway when the Water Plan 2000 process was unveiled, it is obvious that comments presented to date only provide an overview or snap-shot of key issues in the Lake Superior Basin. Water Plan 2000 was a good starting point to discuss these issues. However, the basin plan is a more appropriate vehicle to address water resources issues that relate to specific watersheds, lakes, streams, rivers, and wetlands. The PWG and Lake Superior Basin Project Team will have to shift its attention to this micro-scale analysis in order to meet the Lake Superior Basin Plan target completion date of December 2001. Since the Lake Superior Basin Plan is envisioned as an organic process, it would be extremely helpful if the flexibility existed to add new ideas and comments to Water Plan 2000 in the future. These periodic updates and linkages will make Water Plan 2000 and the Lake Superior Basin Plan complementary and useful to policy makers, practitioners, and citizens.

It also goes without saying that the continued financial support of key environmental protection and natural resource programs are crucial to the success of Water Plan 2000 and the Lake Superior Basin Plan. Many of these core programs provide the indicator data called for by Water Plan 2000, and are the key tools used to remedy and protect water resources

**Comments on the Minnesota Water Plan 2000 Public Review Draft
Lake Superior Basin
2/25/00**

The following are comments solicited from the participants in the Lake Superior Basin Planning process. Comments were solicited from a large e-mail and standard mailing list of stakeholders in the basin, including state and federal agencies, county and local governments, and citizen groups.

There was one **New Goal** recommended: **Minnesotans will participate in the stewardship of the waters of the state**

Rationale: Citizen involvement with our water resources will help the public understand the issues and the solutions to protecting and restoring our waters. It will also lead to political support for what needs to be done.

The **Objective** under this goal is: Having citizens actively involved with the monitoring and management of our water resources and their watersheds.

Rationale: Citizen involvement can add monitoring data and other information on water resources status that would be impossible to gather with the limited staff and funding of management agencies.

Indicators for this new objective could be:

- Number of lake and river associations doing water monitoring

Rationale: Would provide a relative number to citizen involvement with state waters

- Participation in environmental education monitoring programs (such as river watch).

Rationale: Would provide a number for citizens seeking knowledge about environmental issues, water monitoring technique and how the aquatic resources function

- Number of revegetation and riparian area management plans filed through Minnesota Extension Service, NRCS, BWSR, and SWCDs

Rationale: Would provide a number for citizens working on land management solutions to water quality issues

- Number of people in MPCA's citizen monitoring program

Rationale: This is a new program that is standardized to provide useable data, involve citizens and monitor more waters than would be possible without this program

New indicators recommended for the existing objectives:

For Objective A: "Protect and improve water quality in streams", add as indicators:

- Any cold water fish species that have existed or did exist in streams after November 28, 1975

Rationale: Cold water species existence in a water body after November 28, 1975 constitutes an "existing use" mandated by the Clean Water Act Antidegradation Policy, Section 131.12(a)(1) for protection by the states. Using species such as brook trout, brown trout, rainbow trout where they have existed will tell us if we are succeeding in protecting the integrity of cold water streams, thereby protecting existing uses.

- Add temperature as an indicator for streams

Rationale: Temperature is a good indicator of oxygen solubility, as well as being related to stream forest canopy cover and increased impervious surface in the watershed. For cold water fisheries it can indicate when stress is occurring before fish populations are lost.

- Add expanded fish advisories as an indicator of bio-accumulative toxins
More streams and testing for more of these toxins

Rationale: Fish advisories reflect health risks and general toxin levels of mercury, PCBs, and dioxin in state waters. Other toxic substances such as toxaphene may need to be looked at as well. The advisories are the most reasonable, cost-effective way to get a handle on these relative toxin levels.

- Percentage of land conversion in the shoreland impact zone

Rationale: This indicator would provide a general barometer of river health as changes occur to the shoreland impact zone. For instance, changes in forest canopy can have a ripple effect on water temperature, erosion, and sediment loads. Farming this zone can lead to nutrient and pesticides reaching the water. Developments add impervious surfaces and fertilized lawns. Shorelines cleared of trees reduce leaves and downed trees that are important to fish habitat.

- Indices of fish tumors where data for comparison is available

Rationale: Fish tumors may indicate exposure of fish and wildlife to carcinogens. Humans using the same waters or consuming fish from them may also be exposed.

For Objective B: “Protect and improve lake water quality”, add as indicators:

- Any cold water fish species that have existed or did exist in lakes after November 28, 1975

Rationale: Cold water species existence in a water body after November 28, 1975 constitutes an “existing use” mandated by the Clean Water Act Antidegradation Policy, Section 131.12(a)(1) for protection by the states. Using species such as lake trout, splake, brook trout, brown trout, rainbow trout, where they have existed will tell us if we are succeeding in protecting the integrity of cold water lakes to protect these existing uses.

- Total phosphorus

Rationale: We need more than secchi disc readings because they may be influenced by many factors including natural pigments like tannins. Phosphorus is a limiting factor for algal growth.

- Expanded fish advisories as an indicator of bio-accumulative toxins
More lakes and testing for more of these toxins

Rationale: Fish advisories reflect health risks and general toxin levels of mercury, PCBs, and dioxin in state waters. They are the most reasonable, cost-effective way to get a handle on these relative toxin levels

- Percentage of land conversion in the shoreland impact zone

Rationale: This indicator would provide a general barometer of river health as changes occur to the shoreland impact zone. For instance, changes in forest canopy can have a ripple effect on water

temperature, erosion, and sediment loads. Farming this zone can lead to nutrient and pesticides reaching the water. Developments add impervious surfaces and fertilized lawns. Shorelines cleared of trees reduce leaves and downed trees in the water that add to fish habitat. Lake vegetation cleared for swimming beaches and boat access also reduces fish habitat.

- Indices of fish tumors where data for comparison is available

Rationale: Fish tumors may indicate exposure to carcinogens of fish and wildlife as well as humans.

- Septic system compliance trends

Rationale: Septic compliance is crucial to maintaining good water quality in Minnesota lakes

- Number of waste water permit violations

Rationale: This is still a regular occurrence even today from public utilities and private businesses. These need to be accounted for as private citizens are for their septic systems.

For Objective C: “Prevent degradation of ground-water quality and reduce concentrations of contaminants. *Measure levels of pollutants in ground water*”:

- Remove Atrazine as an indicator for the Lake Superior Basin

Rationale: Atrazine is not used in the basin due to the lack of row crop agriculture and would be a waste of resources in this area.

Change Objective E to read:

- Maintain flow of rivers and streams within recorded natural range of variation

Rationale: We need to make the variations distinguishable between natural and anthropogenic influences.

- Indicator 14 should read “Trends in stream flow from anthropogenic influences”

Rationale: Again, we need to make the variations distinguishable between natural and anthropogenic influences.

- Add an indicator for lake level due to anthropogenic influence

Rationale: This would provide a warning for damaging influences of too much irrigation, lawn watering, municipal water use, or export of waters to other regions of the country.

For Objective F: “Maintain the quality and diversity of Minnesota’s lakes and wetlands while acknowledging regional variation”, change indicator 15:

- Indicator 15 should be changed to read: “Changes in wetland acres, type and function”

Rationale: This will provide a better understanding of the impacts of the changes from wetland drainage and replacement. Because wetland function is extremely difficult to ascertain on an individual basis, status could be identified by broad categories such as pristine, disturbed, and destroyed.

For Objective G: “Ensure that aquatic environments have conditions suitable for the maintenance of healthy self-sustaining communities of plants and animals”, add as indicators:

- Percentage of land conversion in the shoreland impact zone

Rationale: This indicator would provide a general barometer of river health as changes occur to the shoreland impact zone. For instance, changes in forest canopy can have a ripple effect on water temperature, erosion, and sediment loads. Farming this zone can lead to nutrient and pesticides reaching the water. Developments add impervious surfaces and fertilized lawns. Shorelines cleared of trees reduce leaves and downed trees in the water that add to fish habitat. Lake vegetation cleared for swimming beaches and boat access reduces fish habitat.

- Wild rice would be a good indicator of a self sustaining aquatic plant community

Rationale: Due to declining abundance of wild rice, remaining and reestablished stands could be a useful indicator of lake and watershed health. Water fluctuations during the summer floating leaf stage of the plant probably have the largest negative impact on this rice. Impervious surface, ditching, and wetlands drainage all contribute to increased water level fluctuations in lakes.

For Objective H: “Limit introduction and spread of exotic species”, add as indicators:

- All significant exotic species

Rationale: There are many species that have strong impacts on state waters. In the Lake Superior Basin they include purple loosestrife, ruffe, round goby, spiny water fleas, and rusty crayfish.

For Objective I: “Provide appropriate access to water recreation sites”, add as indicators:

- Number of public swimming beaches

Rationale: It is an appropriate indicator of a different type of recreational access not covered so far.

- Number of resorts operating on our waters

Rationale: Resorts provide access to water recreation.

- Use state Public Recreation Information Maps (PRIM) for a recreation access indicator

Rationale: This is an existing source of information that can be compared with each map update.

For Objective J: “Improve or maintain the quality of water recreation”, add as indicators:

- Indicator 28 should add type of craft used when doing this “boater satisfaction” survey

Rationale: This addition will provide a more comprehensive understanding of the diverse opportunities and satisfaction levels of various boaters. Speedboats, canoes, fishing boats, kayaks, sailboats, and jet-skis are vastly different craft with different owner expectations.

- Property owner satisfaction with their lake experience

Rationale: Property owners may not be covered in the other categories. Property owners are also important users and have a significant influence on water resources.

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