treasures under pressure--
the future of northeastern
minnesota lakes

results of the 1998
public workshops

Cynthia A. Hagley, Glenn M. Kreag, Douglas A. Jensen,
and Keith A. Anderson

University of Minnesota Sea Grant Program

summary report
Acknowledgments

We wish to thank the many people who made this project a reality. Specifically, from the Minnesota Department of Natural Resources Region II (Northeast): Dan Retka from the Division of Waters, Denny Anderson from Fisheries, and Jim Weseloh from Regional Administration for initiation of the project. Much thanks to the Northeastern Minnesota Lakes Workshop Steering Committee for their help designing the project and to the many panelists, facilitators, speakers, and participants who helped to make it a success. Financial contributions made it possible to keep registration fees low, making the workshops accessible to all. Contributors included: Arrowhead Water Quality Team; Itasca Coalition of Lake Associations; Itasca County Water Plan Implementation Committee; Minnesota Board of Water and Soil Resources; Minnesota Department of Natural Resources, Region II and Office of Management and Budget Services; Minnesota Pollution Control Agency Environmental Outcomes Division; Minnesota Power; University of Minnesota’s Water Resources Center, Extension Service, and College of Natural Resources; University of Minnesota Duluth’s Center for Freshwater Research and Policy; Western Bank, N.A.; and the White Iron Chain of Lakes Association. Finally, we give thanks to Judy Zomerfelt, Debbie Kaminov, and the rest of the Sea Grant staff who worked tirelessly to make the project happen.

© Copyright 1999, State of Minnesota, Department of Natural Resources

Printed on recycled paper containing a minimum of 20% post-consumer waste and soy-based ink.
# TABLE OF CONTENTS

2 Background
2 Contents of This Report
2 Statewide Lakes Survey
2 Lakes Roundtable
2 Background
2 Format
3 Roundtable Results
3 Summary Remarks
4 Public Workshops
4 Background
4 Format
4 Workshop Results
4 Call for Involvement
4 Who to Contact

Fact Sheets
5 Fact Sheet 1: Northeastern Minnesota Lakes Roundtable Summary Results
7 Fact Sheet 2: Quality of Life and Recreation Issues Surrounding People’s Use and Enjoyment of Northeastern Minnesota Lakes
8 Fact Sheet 3: Economic Factors and Incentives Influencing Lakeshore Development
9 Fact Sheet 4: Water Quality and Habitat – Tradeoffs with Lakeshore Development
10 Fact Sheet 5: Responsibilities of Public and Private Entities in Lakeshore Management – Working Together Better

Appendix A: Roundtable and Workshop Information
A–1 Table 1: Northeastern Minnesota Lakes Steering Committee Members and Affiliations
A–1 Table 2: List of Sponsors
A–2 Table 3: Speakers, Facilitators, Recorders, Panelists, and Staff
A–3 Figure 1: Sample Agenda
A–4 Figure 2: Sample Worksheet

Appendix B: Detailed Results from the July Roundtable
B–1 Table 1: Water Surface Use
B–1 Table 2: Property Values and Economy
B–2 Table 3: Septic Systems
B–3 Table 4: Water Quality
B–4 Table 5: Education
B–5 Table 6: Planning and Zoning
B–6 Table 7: Inter-agency Coordination
B–7 Table 8: Balancing Individual Rights Versus Sustaining Quality
B–8 Table 9: Balancing Aquatic and Wildlife Needs with Human Demands

Appendix C: Detailed Results from the July Roundtable Afternoon Sessions
C–1 Table 1: State and Federal Government
C–2 Table 2: Lake Associations
C–3 Table 3: Business, Real Estate, and Others
C–4 Table 4: Local Government

D–1 Appendix D: Detailed Results from the September Workshop
D–2 Table 1: Duluth - Economic Factors and Incentives Influencing Lakeshore Development
D–2 Table 2: Grand Rapids - Economic Factors and Incentives Influencing Lakeshore Development
D–5 Table 3: Duluth - Water Quality and Habitat – Tradeoffs with Lakeshore Development
D–7 Table 4: Grand Rapids - Water Quality and Habitat – Tradeoffs with Lakeshore Development
D–8 Table 5: Duluth - Responsibilities of Public and Private Entities in Lakeshore Management – Working Together Better
D–9 Table 6: Grand Rapids - Responsibilities of Public and Private Entities in Lakeshore Management – Working Together Better
D–10 Table 7: Duluth - Quality of Life and Recreation Issues Surrounding People’s Use and Enjoyment of Northeastern Minnesota Lakes
D–11 Table 8: Grand Rapids - Quality of Life and Recreation Issues Surrounding People’s Use and Enjoyment of Northeastern Minnesota Lakes
Background

Northeastern Minnesota is blessed with beautiful, healthy lakes. When we think about taking care of northeastern Minnesota lakes for the future, we often think about maintaining their current high quality, rather than restoring them to the “way they used to be.” Despite their overall high quality, competing recreational interests, continued development, and threats to water and habitat quality are impacting many of our lakes. In addition, there is concern that agency funding and resources go preferentially to other regions of the state to restore already degraded lakes, rather than to northeastern Minnesota to prevent deterioration of its high quality lakes. To better define the issues and develop strategies for the future, the Minnesota Department of Natural Resources, Northeast Region (MN DNR, Region II) asked the University of Minnesota Sea Grant Program for help to learn more about public perceptions of the “health” of our lakes, now and in the future.

Minnesota Sea Grant and MN DNR, with the help of a regional steering committee (Table 1, Appendix A), developed a four-part process. The first three parts are completed and include:

• A statewide lakes survey – an opinion survey for Minnesota residents to share their views and concerns related to lakes and lakeshore issues.
• A roundtable discussion to define and frame key issues of concern related to managing northeastern Minnesota lakes. Participants at the roundtable were chosen to represent a diverse array of interest groups concerned with lake management.
• Public workshops to solicit potential solutions and ideas for action based on the issues identified at the roundtable.

The fourth and final step includes presenting the summarized results of the survey, roundtable, and workshops to additional people in the region, and to local and state government agencies and decision-makers.

Minnesota Sea Grant received broad financial support for this project (Appendix A, Table 2).

Content of This Report

This report summarizes two parts of the four-part process: the roundtable and public workshops. The roundtable took place on July 27, 1998, in Hibbing, MN, followed by the public workshops on September 11 and 12, 1998, in Duluth and Grand Rapids, MN. Results of the statewide lakes survey are reported separately, as described below.

Statewide Lakes Survey

The Minnesota Lakes Survey, a collaborative project with the MN DNR, was sent to 2,000 randomly-selected people statewide. The survey was designed to elicit citizens’ opinions about Minnesota’s lakes. The survey addressed values, uses, perceived conditions (past, current, and future), impacts, and proposed solutions. In addition to providing statewide results, differences among regions and by riparian property ownership status were identified. Survey results are contained in two versions of a separate document (Summary Report on Public Perceptions of the Impacts, Use, and Future of Minnesota Lakes). You may request a summary document (31 pp.) or a summary with complete data tables (89 pp.). Either can be obtained free of charge as printed documents from Minnesota Sea Grant (call 218–726–6191) or electronically from either the MN DNR Web site at www.dnr.state.mn.us or the Minnesota Sea Grant Web site at www.d.umn.edu/seagr/areas/water/survey.html.

Lakes Roundtable

Background

The regional steering committee selected 48 participants representing diverse groups interested in using and managing northeastern Minnesota lakes. Participants included:

• lakeshore property owners and lake association representatives,
• businesses (resorts, realtors, bankers, developers, and utilities),
• environmental and sporting groups,
• local government (county commissioners, township supervisors, county water planners, and planning and zoning officials), and
• state and federal resource management agencies (MN DNR, MN Pollution Control Agency, MN Board of Water and Soil Resources, USDA Forest Service, and the National Park Service).

Roundtable objectives included the following:

• represent an inclusive list of perspectives and interests,
• identify and understand problems and concerns related to the management and use of northeastern Minnesota lakes,
• help different interest groups see lake management challenges and concerns from the perspectives of other groups,
• articulate, clarify, and prioritize key issues,
• generate preliminary lists of alternative solutions for key issues that capitalize on the strengths of each organization while recognizing each group’s limitations, and
• lay the groundwork for the public workshops, held in September, 1998.

Format

The roundtable began with a short talk about cumulative impacts to lakes, given by Carl Richards, from the Natural Resources Research Institute. The talk was followed by facilitated small group sessions (see Appendix A, Table 3 for a list of speakers, facilitators, and recorders). In the morning, participants were assigned to one of four small groups, each containing representatives from most interest groups identified above. Participants were asked to brainstorm and then summarize lists of major issues important to all interest groups. From their consolidated lists they developed a “wish list,” for how they wanted those issues to be resolved in the future.

In the afternoon, participants were grouped differently. Participants joined one of four groups, selecting the
group that best fit their roles or perspectives.

Groups included:
- state or federal government,
- lakeshore property owners,
- county or township government, and
- business/other.

Each group selected the issue or issues most relevant to them to discuss in more detail. Groups discussed their role(s) in the issue(s), the limitations they faced in developing solutions, how they could better interact with other groups to resolve the issue, and potential solutions. The afternoon discussions did not follow a standard format and are not as easily summarized as the morning sessions. In the final session, everyone came together to share results and strategize next steps. All sessions throughout the day were videotaped, and a summary videotape was prepared with help from Itasca Community Television. The summary videotape was shown at the September workshops to help set the stage for working toward solutions.

**Roundtable Results**

The four small groups in the morning sessions had concerns related to the following:
- Water surface use
- Property values and economy
- Septic systems
- Water quality
- Education
- Planning and zoning
- Inter-agency coordination
- Balancing individual rights versus sustaining quality
- Balancing aquatic and wildlife needs with human demands

Each of these “issues” is listed in column one of the Northeastern Minnesota Lakes Roundtable Summary Results (Fact Sheet 1). After developing their lists of issues, participants were asked what they wanted northeastern Minnesota lakes to be like twenty years in the future in relation to the issues they identified. The resulting “wish lists,” found in column two of Fact Sheet 1, represent long term goals that the roundtable participants put forth. More detailed summaries of the morning sessions are contained in Appendix B, Tables 1–9.

In the afternoon, interest groups identified the issues they felt most qualified to help solve. These are indicated in the black bar below each boxed-in issue (Fact Sheet 1). More detailed information from the afternoon session is contained in Appendix C (Tables 1–4). The Roundtable Results Summary does not do justice to the complex discussions that contributed to these results. For a more detailed overview, look at the complete tables in Appendices B and C.

**Summary Remarks**

In the closing session and in the roundtable evaluations,
participants raised some important points that help provide a context for future efforts to manage lakes, whether in northeastern Minnesota or throughout the state. These include:

- Though there was great diversity of views present at the roundtable, there was much common interest in improving the way that resources are managed.
- It is important to identify and clarify what are lakeshore property owners’ responsibilities, non-owner lake user responsibilities, and what are public agency responsibilities.
- It is critical that we continue shoreland user and manager education.
- Information from the roundtable and workshops should be shared with county commissioners, legislators, and the Governor.
- Unless there is a leader, nothing will change. These things seldom go beyond first steps unless someone takes the lead and keeps the project moving. We need to identify the leader(s).

**Public Workshops**

**Background**

On September 11 and 12, 1998, nearly identical, daylong public workshops were held in Duluth and Grand Rapids, Minnesota. The workshops, *Treasures Under Pressure — The Future of Northeastern Minnesota Lakes*, focused on public perceptions of how development and human use are affecting the quality of lakes and quality of life in northeastern Minnesota. The workshop agenda for Duluth is included in Appendix A (Figure 1). A number of sponsors, our hard-working steering committee, and excellent speakers, panelists, facilitators, and staff helped make the workshops possible. These are listed in Appendix A (Table 3). A total of 210 people participated. They represented a broad spectrum of interest groups, including property owners, lake associations, county commissioners, township supervisors, planning and zoning officials, county water planners, real estate agents, bankers, developers, environmental groups, and state agencies, including the MN DNR, MN Board of Water and Soil Resources, MN Pollution Control Agency, and interested citizens.

**Format**

After listening to introductory comments and a plenary talk by Robert Korth (a lake specialist from the University of Wisconsin) and viewing the roundtable summary videotape, participants broke into working subgroups to discuss specific issues. Each participant was able to participate in two of the four subgroups. The topics for the subgroups, identified after compiling results from the July Lakes Roundtable, were:

1. **Quality of life and recreation issues surrounding people’s use and enjoyment of northeastern Minnesota lakes**
2. **Economic factors and incentives influencing lakeshore development**
3. **Water quality and habitat – tradeoffs with lakeshore development**
4. **Responsibilities of public and private entities in lakeshore management — working together better**

In each issue-based session, participants gathered in groups of 5–8 people and chose a specific action or set of actions to help solve the issue. Participants chose a recorder from among their group and completed a worksheet (Appendix A, Figure 2) that asked them:

- Describe a specific action or a set of related specific actions (strategy).
- Why is it important? Describe the benefits from this action(s).
- List any obstacles to this action(s).
- How can these obstacles be overcome?
- Who can take the lead?
- Who can help?

**Workshop Results**

Brief descriptions of the issues and a summary of the recommended actions generated by the workshop groups follow in the Public Workshop Summary Results (Fact Sheets 2–5). A compilation of all of the recommendations produced by the workshop participants is included as Tables 1–8 in Appendix D. Please pay particular attention to the fourth column *(How can these obstacles be overcome?)*. Many good and specific ideas can be found there that could not be included easily in the summary.

**Call for Involvement**

The statewide survey, roundtable, and workshops are just a starting point. These efforts help us identify concerns and possible solutions, but, to bring about change, people must build a broader consensus on these issues and find acceptable implementation strategies. This process in northeast Minnesota has been a local grassroots-led process and will benefit by continuing in that spirit. Similar issues are affecting shoreland throughout Minnesota. We hope the results of northeast Minnesota’s efforts will benefit other lake-rich areas of the state.

We invite you to become active with others who share concern about northeast Minnesota lakes or lakes in other parts of Minnesota. If you would like more information or wish to become involved in continuing to find ways to protect our lakes and shorelines while providing people the opportunity to enjoy them, contact:

**NORTHEAST MINNESOTA**

(Cook, Lake, St. Louis, Koochiching, Itasca, and Carlton Counties)

**Minnesota Sea Grant Program**

Cindy Hagley 218–726–8106
*Extension Educator, Water Quality*

Glenn Kreag 218–726–8714
*Extension Educator, Tourism and Natural Resources*

**Department of Natural Resources, Region II (Northeast Region)**

Dan Retka 218–327–4417
*Regional Hydrologist*

**STATEWIDE**

**Department of Natural Resources**

Jack Skrypek 651–296–0510
*Lakes Policy Director*
Northeastern Minnesota Lakes Roundtable Summary Results

**WATER SURFACE USE**
- Loss of the "lake experience" due to overuse and over-development
- Mechanized recreation conflicts
- Boating-related pollution

**Lake use should remain within sustainable limits**
- Education
- Enforcement
- Increased resources and better management
- Research and monitoring

**PROPERTY VALUES AND ECONOMY**
- Real estate costs are driving shoreland owners off their properties
- High lakeshore property taxes

**Shoreland property owners should not be forced to subdivide their properties for economic reasons**
- Shoreland easement program
- Tax and economic incentives for proper management of lakeshores
- Consider freezing current property tax rates until point of sale

**SEPTIC SYSTEMS**
- Lack of enforcement
- Failing systems
- Lack of alternatives
- Expense of upgrades

**Manage septic systems more effectively**
- Better code enforcement
- Economic incentives
- More research on alternatives
- More funding

**WATER QUALITY**
- Impacts from lake users
- Global inputs of airborne contaminants
- Lack of comprehensive information on lake health and lack of comprehensive monitoring
- Pollutants from watershed and stream inflows

**Maintain or improve water quality**
- Systematic way to monitor lake health
- Manage based on watersheds
- Better lake standards
- Develop models to predict future cumulative impacts
- Consider atmospheric contaminants

---

**RELEVANT TO**
- **LOCAL GOVERNMENT AND LAKE ASSOCIATIONS**
  - SEE APPENDIX B, TABLE 1

**RELEVANT TO**
- **STATE, FEDERAL, AND LOCAL GOVERNMENT, BUSINESS, REAL ESTATE, AND OTHER**
  - SEE APPENDIX B, TABLE 2

**RELEVANT TO**
- **LOCAL GOVERNMENT, BUSINESS, REAL ESTATE, AND OTHER**
  - SEE APPENDIX B, TABLE 3

**RELEVANT TO**
- **STATE AND FEDERAL GOVERNMENT, LAKE ASSOCIATIONS, BUSINESS, REAL ESTATE, AND OTHER**
  - SEE APPENDIX B, TABLE 4

---

5
<table>
<thead>
<tr>
<th>ISSUE</th>
<th>WISH LIST</th>
</tr>
</thead>
</table>
| **EDUCATION** | • How to reach people  
• Not enough resources  
• People don’t understand cumulative impacts |
| **Increase education** | • Simple, easy to use guidelines for lake owners and users  
• All people (multigenerational) should know how their choices impact lakes  
• Clear descriptions of rules and regulations  
• More resources  
• Educate public officials, not just property owners |
| **RELEVANT TO** | STATE, FEDERAL, AND LOCAL GOVERNMENT, LAKE ASSOCIATIONS, BUSINESS, REAL ESTATE, AND OTHER |
| **PLANNING AND ZONING** | • Differences of opinion about how to manage locally – how much development is too much?  
• Overpopulation of lakes  
• People aren’t following existing state and county guidelines  
• Too many variances  
• Lack of enforcement |
| **Improve planning and zoning** | • Simple tools or models to assess cumulative impacts of zoning decisions  
• Need better status and trends information about lake quality  
• More comprehensive planning  
• Mediate differences and work toward better cooperation |
| **RELEVANT TO** | LOCAL GOVERNMENT, BUSINESS, REAL ESTATE, AND OTHER |
| **INTER-AGENCY COORDINATION** | • Laws and regulations are complex and unclear  
• The waters and lands are managed by different agencies, leading to inconsistencies  
• Lack of scientific information for decision-makers to use in deciding land use issues  
• Lack of funds and incentives to make current shoreline management efforts work |
| **Improve inter-governmental coordination and public access to information** | • Clearinghouse and better coordination among agencies to prevent contradictions and public confusion  
• Consistent and reliable models for predicting development impacts  
• Look at outcomes of activities and how they impact resources overall, rather than emphasizing regulations controlling specific activities  
• Reduction in conflicts over development |
| **RELEVANT TO** | STATE, FEDERAL, AND LOCAL GOVERNMENT |
| **BALANCING INDIVIDUAL RIGHTS VERSUS SUSTAINING QUALITY** | • Overly restrictive rules and regulations for developing property  
• Balance between property owner rights, public use, and water management issues – overly restrictive? – not restrictive enough?  
• Exclusivity – I have my piece of lakeshore, keep others out |
| **Balance individual rights with the larger picture of common ownership of lake resources** | • Everyone needs to tread more lightly on our lands and waters  
• Identify the responsibility of lakeshore owners and the general public on these issues  
• Maintain local control as much as possible  
• Financial incentives |
| **RELEVANT TO** | STATE, FEDERAL, AND LOCAL GOVERNMENT, BUSINESS, REAL ESTATE, AND OTHER |
| **BALANCING AQUATIC AND WILDLIFE NEEDS WITH HUMAN DEMANDS** | • Lack of data and funding  
• Continuing loss of natural habitat  
• Spread of exotic species  
• Reduced fish and wildlife populations |
| **Balance ecological concerns with development concerns** | • Develop planning processes that recognize ecological concerns as well as human  
• Protect, maintain, and restore fish and wildlife populations while allowing sustainable development  
• Encourage more private land preservation  
• Consider lake classification as a means to find balance |
| **RELEVANT TO** | STATE AND FEDERAL GOVERNMENT, BUSINESS, REAL ESTATE, AND OTHER |
The Question

**How can we maintain the high quality of life at our lakeshores while balancing access and recreation opportunities?**

The Issues

Issues in this category are related to motorized watercraft, public access, effectiveness of enforcement programs, and impacts of new and existing development on aesthetic values of lakes.

Proposed Actions

Reduce Visual Impacts
- Encourage inventiveness – such as new dock designs or colors to reduce impacts, less obtrusive structures, sharing docks, etc.
- Create zoning to regulate shoreline structures
- Develop lake association agreements – use peer pressure to make changes

Reduce motorized recreation conflicts
- Manage surface water conflicts through water surface use zoning, reservation systems, etc.
- Provide special use areas – use-restrictions based on size of lake
- Limit motor size where appropriate
- Propose higher license fees and use the money for enforcement
- Increase fines for violations statewide
- Direct more media attention to the issue
- Require quieter personal watercraft (PWCs); develop noise standards for all watercraft
- Increase the tax on 2-stroke engines to encourage use of quieter, less polluting 4-stroke engines
- Increase the emphasis on, and requirements for, education

Lake Access Conflicts
- Regulate access times
- MN DNR access sites must have education and control officers to enforce regulations, monitor toilets and trash, maintain roads, etc.
- Create a volunteer corps to assist MN DNR
- Review the MN DNR access policy that requires road access to lakes; consider more walk-in and carry-in accesses; study public access with relation to lake carrying capacity
- Place legal restrictions on some lakes by township
- Coordinate between private and agency access issues – better communication and education between the MN DNR and the public

Education and Citizen Involvement
- Involve all interest groups in discussions and decisions (shoreland owners, recreationists, environmentalists, local, state, federal government); a communication and education process needs to be established
- Target user groups that come into conflict — acknowledge and discuss problems through group or roundtable meetings
- Include watercraft operating instructions, ethics, respect for others, and lake use impacts in educational programs (for youth in schools and adults)
- Build actions from the bottom up (through lake associations) – help them be more effective with respect to conflicts among users
- Encourage lake associations to establish voluntary rules for their own lakes – communicate with neighbors
- Ensure that everyone has a basic understanding of the rules

Additional Resources and Research
- Classify individual lakes based on current use, acreage, habitat, traditional uses, etc.
- Create an information clearinghouse that can help landowners protect land and reduce conflicts
- Conduct a recreational use survey to determine the carrying capacity of individual lakes
- Fund a study to determine where PWCs are appropriate or inappropriate and document impacts (peace and quiet, safety, environmental impacts)
The Question

What incentives or other changes could overcome economic factors that contribute to unsustainable lakeshore development?

The Issues
Issues identified in this category include high and increasing property values, taxes on lakeshore residences, and high costs of upgrading failing septic systems. Steadily increasing taxes are seen as forcing lower or fixed-income lake homeowners to sell their homes, resulting in a chain of potential impacts. These can include increases in buildings and impervious surfaces, higher use — through conversions of seasonal cabins to year around homes, landscape and shoreline alterations, and removal of native vegetation. High taxes are viewed as forcing owners with larger tracts of undeveloped lakeshore property to subdivide or sell, resulting in higher densities of homes and impacting water quality, fish and wildlife habitat, and aesthetics. Increased use of septic systems accompanying increased use of lakeshore property and the high costs of upgrading failing systems are contributing to water quality and economic problems.

Proposed Actions

Taxes
• Create a tax system that “thinks long term”
• Reduce taxes for lakeshore owners
• Slow escalation of taxes
• Cap property assessments until property is sold
• Provide tax incentives or benefits that help people retain their properties
• Develop land use policies to plan for sustainable growth
• Revise tax policies to favor sustainability and discourage unsustainability. Unlink property assessments from property valuation. Instead, base assessments or tax rebates on reduced impacts to the resource, using measurable indicators of sustainability, such as:
  ° Degree of vegetative clearing and alterations to the site, including lawns, impervious surfaces
  ° Preservation of native plant species
  ° Water and sewer volume
  ° Seasonal cabins versus year-around homes

Incentives and Research
• Provide incentives for retaining undeveloped shoreline, including large tracts of undeveloped private land
• Verify research showing that poor water quality and overdevelopment lowers shoreland value
• Base development on lake carrying capacity

Septic Systems
• Provide loans or grants for upgrading noncompliant septic systems
• Improve septic system inspection programs and enforcement of regulations – make them consistent across the region
• Require septic systems to be in compliance when property sells
• Encourage cluster septic systems
• Defer property taxes for land owners who improve their septic systems

Government or Community Action
• Shift more land to public ownership
• Control development through local planning and zoning, matching development to individual lake carrying capacity
• Limit lakeshore price and lakeshore development through deed restrictions or protective covenants
• Keep a local emphasis, encourage education, and support active lake associations
The Question

What new or improved tools and methods would best preserve or improve water quality and habitat along lakeshores in the face of new and existing development?

The Issues

Issues covered in this category include water quality impacts from failing septic systems, shoreland riparian management, lawn fertilization, maintenance of forested buffer strips, and maintaining or improving fish and wildlife habitat — including shoreland, near shore, and shallow water areas. How can a lake manager determine if development is causing irreparable damage to lake water quality?

Proposed Actions

Lake Assessment and Classification

- Reclassify lakes based on each lake’s sensitivity to development and the impacts of use on water quality and wildlife habitat
- Develop comprehensive criteria for a specific classification system for individual lakes (county responsibility)
- Identify carrying capacity for lakes through individual lake assessments, delineating watersheds, and developing lake management plans

Management and Planning

- Develop a watershed management plan, with the participation of all interest groups
- Improve local land use planning
- County should determine lake resource uses — keep local control
- All interest groups need to work together to identify priorities, goals, and targets

Habitat Improvement

- Prioritize, through environmental assessments, habitats needing protection that would enhance overall lake quality
- Place restrictions on the removal of vegetation and use of fertilizer
- Establish a “super shoreline” impact area, where controls are strongest (e.g., “no-mow” area)
- Keep undeveloped shoreline undeveloped
- Preserve, maintain, and restore shoreland vegetation, both terrestrial and aquatic
- Keep large blocks of riparian areas intact, restore degraded areas on each lake
- Pay for taking land out of economic development

Education, Enforcement, and Community Action

- Develop a land ethic program
- Educate lake users about impacts, especially new shoreland property owners
- Educate lakeshore property owners through lake associations, counties, and real estate agents – leading to support for regulatory revisions
- Encourage demonstration projects
- Encourage formation and proactivity of lake associations
- Create an information package that lists alternatives to standard development options, such as public utility districts, conservation easements, and financially feasible ways to not develop property
- Support and enforce existing laws and ordinances
- Provide one-stop shopping for educational and regulatory information
- Provide education about the impacts of failing septic systems, campgrounds, ice fishing, etc.
- Hold contractors accountable for ordinances
- Require periodic inspections of septic systems

Economic Incentives

- Provide a tax incentive to reestablish lakeshore vegetation
- Provide incentives to keep land undeveloped — financially feasible ways to not develop
- Provide property tax refund incentives
- Calculate tax based on impacts, then provide low-rate improvement loans
- Value shoreline by “green” aesthetics
- Work with the legislature to unlink tax assessments from property sale value – shift tax from property owners to user tax
- Develop an incentive-based funding program to improve septic systems through new technology, especially on undersized or difficult properties
- Provide low cost loans to upgrade septic systems
The Issues
In this session, participants considered the relative roles that state agencies, counties, other units of government, individuals, and businesses have in managing our lakes. Participants looked for ways to improve the communication and consistency among these groups to find innovative solutions to lakeshore management concerns.

Proposed Actions

Citizen Education and Involvement
- Encourage stakeholders to become involved, especially smaller groups, such as neighborhoods
- Educate citizens about how local government works and involve them in what is happening locally (e.g., variances)
- Build a grass roots communication network of watershed owners
- Help people to care about the resource – develop a positive sense of community
- Increase the number of local stakeholders, advocates, and lake associations
- Lake associations need communication with contacts throughout the watershed, with township and county boards, etc.
- Educate public officials first, then the general public
- Provide information about the cumulative impacts of individual landowner actions and the “whys” of laws and regulations
- Develop a marketing campaign – wherever you are, someone lives here – publicize the issues

Improved Coordination of Efforts
- Designate a government body to coordinate actions for managing lakes on a watershed basis
- Coordinate efforts among agencies; figure out who is responsible for what actions
- Streamline information and procedures
- Develop a list of contacts and determine who has enforcement responsibility
- Improve communication within government
- Encourage greater involvement and better teamwork among landowners, lake associations, and government
- Update land use plans
- More focus by local officials on environmental issues
- Dedicate an environmental lawyer at the local level
- Distinguish between problems (can be solved and brought to closure) and dilemmas (cannot be solved – must be managed). Find ways to solve the problems. At the same time, bring small groups together, including the opposition, in facilitated sessions to find compromises for the dilemmas

Enforcement
- Enforce existing laws locally – private citizens need to hold local officials accountable
- Create specific lake standards
- Agencies need to address land use impacts better by enforcing regulations and the permitting process
- Enforce and simplify current rules and regulations consistently
- Use citizen watch groups to discover problems

The Question
What are the roles and responsibilities of local government, state government, and private landowners for maintaining the quality of our lakes, and how can they work together better?
### TABLE 1

**NORTHEASTERN MINNESOTA LAKES STEERING COMMITTEE MEMBERS AND AFFILIATIONS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keith Anderson</td>
<td>Anderson Law Office</td>
</tr>
<tr>
<td>Heidi Bauman</td>
<td>Minnesota Pollution Control Agency</td>
</tr>
<tr>
<td>Paul Bolin</td>
<td>Arrowhead Regional Development Commission</td>
</tr>
<tr>
<td>Jim Dexter</td>
<td>Izaak Walton League</td>
</tr>
<tr>
<td>Cheryl Ekstrand</td>
<td>Messina and Associates, Inc./Better Homes and Gardens Realty</td>
</tr>
<tr>
<td>Ed Feiler</td>
<td>Minnesota Department of Natural Resources</td>
</tr>
<tr>
<td>Terry Greenside</td>
<td>Itasca County Planning and Zoning</td>
</tr>
<tr>
<td>Tom Houghtaling</td>
<td>Minnesota Power</td>
</tr>
<tr>
<td>Mary Ives</td>
<td>Itasca County Commissioner</td>
</tr>
<tr>
<td>Steve Lewis</td>
<td>Western National Bank</td>
</tr>
<tr>
<td>Rich Libby</td>
<td>Itasca Coalition of Lake Associations</td>
</tr>
<tr>
<td>Barb Liukkonen</td>
<td>Water Resources Center, University of Minnesota</td>
</tr>
<tr>
<td>Sonny Myers</td>
<td>Tribal 1854 Authority</td>
</tr>
<tr>
<td>Art Norton</td>
<td>Itasca County Water Planning</td>
</tr>
<tr>
<td>Dennis Parker</td>
<td>USDA Forest Service</td>
</tr>
<tr>
<td>Hal Rime</td>
<td>Shoreland property owner and former resort owner</td>
</tr>
<tr>
<td>John Schneider</td>
<td>Minnesota Sports Fishing Congress</td>
</tr>
<tr>
<td>Dan Steward</td>
<td>Minnesota Board of Water and Soil Resources</td>
</tr>
</tbody>
</table>

**Additional Assistance**

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrowhead Regional Development Commission</td>
<td></td>
</tr>
<tr>
<td>Northern Counties Land Use Coordinating Board</td>
<td></td>
</tr>
<tr>
<td>Denny Anderson</td>
<td>Minnesota Department of Natural Resources</td>
</tr>
<tr>
<td>Christy Buboltz</td>
<td>University of Minnesota, Koochiching County</td>
</tr>
<tr>
<td>Liz Prebich</td>
<td>St. Louis County Commissioner</td>
</tr>
<tr>
<td>Dan Retka</td>
<td>Minnesota Department of Natural Resources</td>
</tr>
<tr>
<td>Jim Weseloh</td>
<td>Minnesota Department of Natural Resources</td>
</tr>
</tbody>
</table>

### TABLE 2

**LIST OF SPONSORS**

- Arrowhead Water Quality Team
- Itasca Coalition of Lake Associations
- Itasca County Water Plan Implementation Committee
- MN Board of Water and Soil Resources
- MN Department of Natural Resources —
  - Region II
    - Office of Management and Budget Services
  - MN Pollution Control Agency Environmental Outcomes Division
    - Minnesota Power
    - University of Minnesota —
      - College of Natural Resources
        - Extension Service —
          - Environment and Natural Resources Specialization
          - Community Resources Specialization
    - Water Resources Center
      - Western Bank, N.A.
      - White Iron Chain of Lakes Association

**MAJOR SPONSORS LISTED IN BOLD**
### JULY ROUNDTABLE

**Speakers**
- Carl Richards, Natural Resources Research Institute

**Facilitators**
- Gary Cunningham, Humphrey Institute
- Glenn Kreag, Minnesota Sea Grant
- Dana Raines, University of Minnesota Extension Service
- Glenn Tobey, University of Minnesota Extension Service

**Recorders**
- Keith Anderson, Minnesota Sea Grant
- Cynthia Hagley, Minnesota Sea Grant
- Douglas Jensen, Minnesota Sea Grant
- Glenn Merrick, Lake Superior College

### SEPTEMBER WORKSHOPS

**Speakers**
- Keith Anderson, Minnesota Sea Grant
- Patty Burke, Director of Legislative and Regulatory Affairs, MN DNR
- Sam Cook, Outdoor Writer, *Duluth News-Tribune*
- Cynthia Hagley, Minnesota Sea Grant
- Robert Korth, Lake Specialist, University of Wisconsin, Stevens Point
- Glenn Kreag, Minnesota Sea Grant
- Clarence Turner, Coordinator, Environmental Indicators Initiative, MN DNR

**Facilitators**
- Elizabeth Carlson, MN DNR
- Thomas Wegner, University of Minnesota Extension Service
- Lucinda Johnson, Natural Resources Research Institute

**Panelists**
- Keith Anderson, Anderson Law Office
- Betty Baribeau, Culberts Missabe Appraisal Service
- Don Basista, Itasca County Water Patrol
- Bob Bruce, Minnesota Land Trust
- Gordon Butler, Pike Lake Association
- Harold Dziuk, Big Sandy Lake Association
- Scott Elkins, Land Stewardship Project
- Dennis Fink, St. Louis County Commissioner
- Mike Forsman, St. Louis County Commissioner
- Ted Gostomski, Sigurd Olson Environmental Institute
- David Gulsvig, Century 21 Realty
- Mark Johnson, St. Louis County Planning and Zoning
- Cheryl Larson, Schultz Lake Association
- Richard Lehtinen, Koochiching County Planning
- Jim Parson, Sissebakwet Lake Association
- Rod Pierce, MN DNR
- Jim Plummer, St. Louis County Planning and Zoning
- Donald St. Aubin, Shallow Lake Association
- Russ Schultz, MN DNR
- Phil Serrin, Cook County Coalition of Lake Associations
- Bob Whitmeyer, Ayres Associates

**Project Staff – Minnesota Sea Grant**
- Keith Anderson
- Cynthia Hagley
- Douglas Jensen
- Debbie Kaminov
- Glenn Kreag
- Denise Mills
- Connie Post
- Scott Robertson
- Marie Zhuikov
- Judy Zomerfelt
Duluth, Minnesota September 11, 1998

8:30 - 9:00  Registration
9:00 - 9:20  Welcome – Glenn Kreag – Minnesota Sea Grant
            Video highlights from the July 27 Northeastern Minnesota Lakes Roundtable
9:20 - 9:30  Legislative update – Patty Burke – Director of Legislative and Regulatory Affairs,
            MN DNR
9:30 - 9:45  Goals, plan for the day.  Cindy Hagley – Minnesota Sea Grant
9:45 - 10:30 Life on the edge, waterfront property - the way it was and the way it will be.
            Robert Korth, Lake Specialist, University of Wisconsin, Stevens Point

10:30 - 12:00  Morning concurrent sessions (M1 and M2)

M1  Economic factors and incentives influencing lakeshore development.  Facilitator – Tom Wegner
    Panelists:
    • Betty Baribeau - Culberts Missabe Appraisal Service
    • Mike Forsman - St. Louis County Commissioner
    • Phil Serrin - Cook County Coalition of Lake Associations

M2  Water quality and habitat - tradeoffs with lakeshore development.  Facilitator – Elizabeth Carlson
    Panelists:
    • Bob Whitmeyer - Ayres Associates
    • Keith Anderson - Attorney, Anderson Law Office
    • Ted Gostomski - Sigurd Olson Environmental Institute

12:00 - 1:00  Lunch with Sam Cook, Outdoor Writer, Duluth News-Tribune – What makes northeastern
              Minnesota lakes special?
1:00 - 1:30  Results of the Minnesota lakes survey:  what did we learn? Keith Anderson and Glenn Kreag,
            Minnesota Sea Grant

1:30 - 3:00  Afternoon concurrent sessions (A1 and A2)

A1  Responsibilities of public and private entities in lakeshore management.  Facilitator – Tom Wegner
    Panelists:
    • Gordon Butler - Pike Lake Association
    • Jim Plummer - St. Louis County Planning and Zoning
    • Russ Schultz - MN DNR

A2  Quality of life and recreation issues surrounding people’s use and enjoyment of northeastern
    Minnesota lakes.  Facilitator – Elizabeth Carlson
    Panelists:
    • Cheryl Larson - Schultz Lake Association
    • Mark Johnson - St. Louis County Planning and Zoning
    • Bob Bruce - Minnesota Land Trust

3:00 - 3:30  Conclusions and next steps.  Moderator – Elizabeth Carlson
3:30 - 4:30  Social hour – poolside

the future of northeastern minnesota lakes
### Action Item for:
**QUALITY OF LIFE AND RECREATION (A2)**

<table>
<thead>
<tr>
<th>Describe a specific action or a set of related specific actions (Strategy)</th>
<th>Why is it important? Describe the benefits from this action(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>List any obstacles to this action(s)</th>
<th>How can these obstacles be overcome?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Who can take the lead?</th>
<th>Who can help?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Detailed Results from the July Roundtable

### TABLE 1  WATER SURFACE USE

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Loss of the &quot;lake experience&quot; due to overuse and over-development</td>
<td>• Education</td>
</tr>
<tr>
<td></td>
<td>• Common courtesy – resort owners could help educate</td>
</tr>
<tr>
<td>• Mechanized recreation conflicts</td>
<td>• Enforcement</td>
</tr>
<tr>
<td>• Boat horsepower and size is increasing</td>
<td>• Effective enforcement of existing laws</td>
</tr>
<tr>
<td>• Conflicts between jet ski users and lake shore owners</td>
<td>• More enforcement</td>
</tr>
<tr>
<td>• How should lakes be managed for recreational use?</td>
<td>• Increased resources</td>
</tr>
<tr>
<td></td>
<td>• Consider raising boat license fees and returning money to lake management and enforcement</td>
</tr>
<tr>
<td></td>
<td>• Balanced management</td>
</tr>
<tr>
<td></td>
<td>• Provide for diverse recreational experiences</td>
</tr>
<tr>
<td></td>
<td>• Balance recreation with environment</td>
</tr>
<tr>
<td></td>
<td>• Minimize development for purely recreational purposes</td>
</tr>
<tr>
<td></td>
<td>• Sensible rules for managing recreational activity – need to manage for diverse needs as numbers of users increase</td>
</tr>
<tr>
<td>• Too many mechanized vehicles polluting lakes</td>
<td>• Research and monitoring</td>
</tr>
<tr>
<td></td>
<td>• Determine impact of motorized use on wildlife</td>
</tr>
<tr>
<td></td>
<td>• Monitor to learn effects of non-motorized and motorized uses of lakes</td>
</tr>
<tr>
<td></td>
<td>• How much public access should be developed?</td>
</tr>
<tr>
<td></td>
<td>• What kind? Where?</td>
</tr>
<tr>
<td></td>
<td>• Develop cleaner running motors and set guidelines for retiring inefficient dirty outboard motors</td>
</tr>
<tr>
<td></td>
<td>• Quieter, more environmentally friendly machines</td>
</tr>
</tbody>
</table>

### TABLE 2  PROPERTY VALUES AND ECONOMY

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Real estate costs get driven higher and shoreland owners can’t afford to keep their property</td>
<td>• Incentives</td>
</tr>
<tr>
<td>• Efforts to control density and development also tend to force property values up and price local citizens out of the market</td>
<td>• Tax incentives for preservation and appropriate development</td>
</tr>
<tr>
<td>• There are only four counties in the state that are affected by higher taxes because of public ownership, so it doesn’t get the attention of the legislature</td>
<td>• Doing the right thing on lakes has to make economic sense – especially for the long term</td>
</tr>
<tr>
<td>• How do we keep lakeshore from being just for the wealthy?</td>
<td>• No capital gains tax for sales resulting in the merger or consolidation of riparian land</td>
</tr>
<tr>
<td>• Relationship between shoreland values and restrictions on development</td>
<td>• Reduced taxes</td>
</tr>
<tr>
<td>• The dilemma of retaining ownership versus realizing development potential</td>
<td>• Put freeze on the base valuation for local people on lakes. When home is marketed, a percent would go back to the county</td>
</tr>
<tr>
<td>• The approach the state takes to taxing individual parcels causes problems</td>
<td>• Reduce property taxes</td>
</tr>
<tr>
<td>• What is a fair way to tax lakeshore owners?</td>
<td>• Less government ownership of property</td>
</tr>
<tr>
<td>• Lack of funds and incentives to make current shore-line management and protection efforts work</td>
<td>• Research and monitoring</td>
</tr>
<tr>
<td></td>
<td>• Can individual development impact to lakes be rated?</td>
</tr>
<tr>
<td></td>
<td>Can such a rating determine property tax rates?</td>
</tr>
<tr>
<td></td>
<td>• Monitor development trends – need a consistent method statewide</td>
</tr>
</tbody>
</table>
### TABLE 3  
**SEPTIC SYSTEMS**

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of enforcement</td>
<td>Better enforcement</td>
</tr>
<tr>
<td></td>
<td>· Need to have managed systems – enforce codes</td>
</tr>
<tr>
<td></td>
<td>· Enforce implementation of the best alternatives for each land type or use</td>
</tr>
<tr>
<td></td>
<td>· Can septic expansion areas be delineated on lots, as is done with wetlands?</td>
</tr>
<tr>
<td>Failing systems</td>
<td>Inspections</td>
</tr>
<tr>
<td></td>
<td>· Make well and septic system upgrades a condition of sale</td>
</tr>
<tr>
<td></td>
<td>· Identify and upgrade poor septic systems</td>
</tr>
<tr>
<td></td>
<td>· Education</td>
</tr>
<tr>
<td></td>
<td>· Educate lakeshore owners about septic systems</td>
</tr>
<tr>
<td></td>
<td>· How can citizens report known problems?</td>
</tr>
<tr>
<td>Lack of alternatives</td>
<td>Research and implementation of alternative systems</td>
</tr>
<tr>
<td></td>
<td>· Better techniques for sewer upgrades – faster development and implementation of septic technologies</td>
</tr>
<tr>
<td></td>
<td>· New experimental systems will make it possible to build on any type of property</td>
</tr>
<tr>
<td></td>
<td>· Research alternatives</td>
</tr>
<tr>
<td></td>
<td>· Need effective sewage/septic systems that are innovative</td>
</tr>
<tr>
<td>How can improvements to basic water and sewer service not cause additional strain to lakes by encouraging additional development?</td>
<td>Find ways to preserve water quality that do not increase development pressure – space required for septic systems provides a natural limit to lakeshore development, which is lost when you tie in to a sewage treatment system</td>
</tr>
<tr>
<td>Expense of upgrades</td>
<td>Financial incentives</td>
</tr>
<tr>
<td></td>
<td>· Create funding mechanisms to help shoreline owners and watershed residents implement effective, reasonable waste disposal systems</td>
</tr>
<tr>
<td></td>
<td>· Create financial incentives for septic system upgrades and/or maintenance, such as property tax reduction for compliance</td>
</tr>
<tr>
<td></td>
<td>· Funding needed from state and federal agencies</td>
</tr>
</tbody>
</table>
### Table 4: Water Quality

#### Issues

- Impacts from lake users
  - Golf course runoff – e.g., herbicides
  - Fertilizer runoff
  - Shoreline erosion
  - Aesthetic issues, such as littering
  - Failing septic tanks
  - Livestock
  - Development

- How can landowners most effectively be encouraged to minimize their impacts to the land?

- Water quality needs to be improved or maintained
  - Global inputs of airborne contaminants, such as mercury, from industrial sources outside the area, impacting fish and water quality. Education is not reaching them, but they are impacting us

- Lack of comprehensive information on health of lakes – making it hard to know if lake health is getting better or worse
  - What constitutes "good" water quality?

- Lack of comprehensive monitoring on lakes
  - We should monitor lakes, but who will pay for monitoring?

#### Solutions

- Enforcement
  - Enforce land use and shoreline regulations
  - Expand the Minnesota statute for littering to include the use of fertilizer in the shoreland impact zone
  - Inspections, enforcement, fines
  - Set standards (fishable, swimmable waters)

- Stewardship
  - Better waste management to reduce water quality impacts
  - Riparian zone BMPs and other means to reduce erosion

- Manage on a watershed basis
  - Keep lakes natural and unpolluted
  - Protect the water supply

- Research
  - How can we improve our ability to measure/monitor/determine trends relating to cumulative impacts? We currently have no systematic method. Need to measure more than water quality (e.g., fish health)
  - Need data to know how many lots a lake can stand before water quality is affected
  - Use water quality data to manage water resources – but keep it voluntary
  - Use models for predicting impacts of future developments

- Monitoring
  - Establish comprehensive reliable baseline water quality data on as many residential lakes as possible and measure changes over time
  - Increased reporting on water quality trends for a lake
  - Improve monitoring
  - Citizen water quality monitoring
### TABLE 5: EDUCATION

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>SOLUTIONS</th>
</tr>
</thead>
</table>
| • How do we reach people to educate them on all lake concerns?  
  · How to reach people who feel any group (government or local) is there to impose rather than help?  
  · New property owners don’t know laws about changing shorelines  
  · Metro area citizens moving to rural lake areas as permanent residents  
  · Who can teach new property owners good stewardship?  
  · Laws and regulations are unclear  
• Not enough resources for education | • Voluntary education programs  
  · Educate children and adults about good stewardship, water quality, the importance of watersheds  
  · Need property owner education on shoreland Best Management Practices (BMPs)  
  · Educate not only about people’s rights, but about the responsibilities that go along with those rights  
  · Discourage “Lake Minnetonka chic”  
  · Involve real estate agencies  
• Require training  
  · Require training in zoning law and principles for citizen commissions and boards – as well as elected officials  
  · People need to understand how their actions affect lakes – then they will do the right things because they want to  
  · Penalties that make people think before they act  
• Incentives  
  · Provide incentives to encourage “lakeshed” programs  
  · Encourage development of more lake associations as partners in management  
  · Increase membership in lake associations  
  · Encourage commitment to change  
  · We need to develop a common vision for our lakes  
| • Cumulative impacts  
  · People don’t understand how their individual decisions result in cumulative impacts to the lakes | • Educate the public about cumulative impacts  
  · Educate about nonpoint source pollution throughout the watershed  
  · Conduct short courses on the ecology of lakes  
| • Visitors to lakes don’t respect public areas | • Educate lake users in responsible use  
  · If 10% own shoreland property but nearly 100% use and enjoy lakes – need to involve 100% in protecting lakes  
  · Resort owners can help educate non-property owners  
| • Lack of understanding of the importance of riparian areas – vegetation in lake ecosystems – how altering vegetation can affect lakes | • Teach people how to re-vegetate shoreline |
### TABLE 6  PLANNING AND ZONING

#### ISSUES

- Differences of opinion about how to manage lakes locally
  - Too restrictive with zoning laws
  - Too quick to allow variances and allow too many of them
- Too many variances
- Lack of enforcement
- Local level planning
  - How much development is too much? When do we reach the point of diminishing returns and overall worth or value declines?
- Overpopulation of lakes
  - Impacts of non-lakeshore development on lakes
  - Congestion
  - Amount of development
  - Small lots with old, seasonal structures being converted to year-round, larger homes, changing the intensity of land use
- Lot sizes, setbacks, etc.
  - Substandard lots that don’t meet current statutes
  - Marginally buildable lots still being sold, which get variances and get built on
- Exclusivity issue – I have my piece of lakeshore, let’s not let anyone else in
  - If the size of lakeshore lots, the costs of development, and other regulatory issues are strengthened, will we have only wealthy citizens having the ability to live on a lake?
  - Density limits – unless based on defendable data, can be considered discrimination or a property-taking by limiting use of land

#### SOLUTIONS

- Need to mediate two lines of thinking and get people talking
- Lake population management should be a function of scientific data rather than emotion
- Enforcement
  - Stronger shoreline variance enforcement – must demonstrate a hardship
  - Control shoreland zoning variances based on potential impacts rather than straight fees
  - Enforce ordinances
  - Zoning board should maintain existing land use regulations and support land use guidelines
  - Implement and enforce zoning ordinances
  - Support the judicial system
  - Compliance is the important factor. Can be accomplished without increasing enforcement and regulation
- Local control
  - Comprehensive planning is needed at the local level
- Research
  - A simple consistent, and clear model should be developed to assess cumulative impacts of individual actions or zoning decisions
  - Design planning and zoning systems around watershed and ecosystem boundaries
  - Minimum lot sizes – determine what they should be
- Regulation
  - Make front footage larger to decrease the number of buildings permitted
  - Reduce development on lake shores
  - Incentives
    - Incentives for low density plotting
    - Encourage more voluntary private land preservation
- Keep small lots off shoreland
  - Reduce development of poor building sites, such as wetlands
  - Should wetland protection be the factor determining lot size?
- Allow for increased use – several rings around shoreline incorporating public access
## APPENDIX B
### Detailed Results from the July Roundtable

### Table 7
**INTER-AGENCY COORDINATION**

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>SOLUTIONS</th>
</tr>
</thead>
</table>
| - Laws and regulations are complex and unclear  
  - The waters and lands are being managed by different agencies, leading to inconsistencies | - Better public access to information  
  - Clearinghouse of regulatory and shoreland management information  
  - We need to streamline the permitting process at the local, county, state, and federal levels  
  - Join private and public interests and resources to come up with creative solutions  
  - Public hearing process vs. government control |
| - Lack of scientific information for decision-makers to use in deciding land-use issues | - Research  
  - Need to get better at extrapolating what we know about lake quality to other lakes, rather than studying each as entirely different. Save money for implementation  
  - Lake classification for management purposes – avoid "one size fits all" mentality  
  - Develop more detailed lake classification system – revisit idea  
  - Need to evaluate what has worked and what hasn’t worked with current shoreline management ordinances |
| - Who’s in charge? Hard to coordinate to take effective action  
  - Multiple layers of government administration of land and water (federal, state, county, and local)  
  - Too many different people/groups/agencies involved in lake management  
  - Coordination issues among lake associations, agencies, and lake users | - Better coordination of programs  
  - Better coordination that prevents contradictions or duplication of services among agencies  
  - More communication among diverse groups  
  - Focus more resources on building local capability to manage lakes  
  - Land use is implemented locally. Without strong local capability in land use, the rest of our efforts are futile  
  - Encourage decision-making at local, watershed level, rather than try to develop over-encompassing statewide or county-wide regulations  
  - State and local regulatory programs need to be developed in cooperation with locally-affected citizenry  
  - Failing septic systems, livestock, erosion, and development are the main land use threats to water quality and are all locally administered, so we should focus local efforts on these issues  
  - Tailor statewide programs and mandates into local management programs (perhaps lake by lake, or by watershed)  
  - The state can focus on research, water quality monitoring, fisheries, public access, etc. |
| - What role should public land managers take in lake management? | - Be sensitive to the fact that what is a problem in one area isn’t necessarily a universal problem  
  - Focus more resources on tangible on-the-ground results  
  - Enforcement – need to educate the judicial system – slaps on the wrist don’t help |
**TABLE 8**

**BALANCING INDIVIDUAL RIGHTS VERSUS SUSTAINING QUALITY**

<table>
<thead>
<tr>
<th>ISSUES</th>
</tr>
</thead>
</table>
| • Overly restrictive rules and regulations on private property development  
  - Does being taxed at the highest and best use of the land and then being subject to law changes prior to exercising the use constitute a “taking”?  
  • How do we balance property owner rights and water management issues?  
  - How can we convince shoreline owners to retain riparian filter areas?  
  - What should be done with homes built too close to lakes and roads that lead directly to lakes?  
  • How do we balance rights of landowners versus public use?  
  • People aren’t following existing guidelines established by state and county  
  • How do we control development?  
  - How do we accommodate developer needs and landowners’ desires for peace and quiet?  
  - Can society afford to start the regulation and enforcement that would be necessary to control effects of development? |
| SOLUTIONS |
| • Protect private property rights – agencies are overreaching  
  - Evaluate economic costs of environmentally-oriented regulations to ensure that large economic costs do not result in a negligible gain in water quality  
  • Should protect what we have rather than try to fix it once it is too late  
  - Maintain beauty of lakes  
  - Allow aesthetic and nonpolluting development of lakeshore property  
  - Improve aesthetics by using vegetation structure, placement, and color  
  - Aesthetic quality and qualitative guidelines in harmony with quantitative rules (setbacks, etc.). For example, visual quality scale – percent of improvements in clear view versus screened  
  • Protect riparian area filter zones, yet allow public and private access to shorelines and lakes  
  - To be fair, maybe we need to limit private development and increase public ownership and management in high pressure areas  
  • Voluntary approaches  
  - Easement programs to preserve lakeshore  
  - Encourage seasonal versus year-round riparian property use  
  - Provide tax breaks or other incentives for people using water quality and visual best management practices  
  - Develop housing to meet diverse demands  
  • Regulations  
  - We need good land use zoning that is enforceable to keep the “feel” of the northwoods  
  • Good land use plan  
  • What are other lake-rich states and countries doing? |
## TABLE 9  BALANCING AQUATIC AND WILDLIFE NEEDS WITH HUMAN DEMANDS

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Lack of data to make good decisions</td>
<td>• Research</td>
</tr>
<tr>
<td>· Stocking lakes brings in more people – how does this impact the lakes?</td>
<td>· Effects of stocking on lake use</td>
</tr>
<tr>
<td>· Wildlife and aesthetics need to be monitored. Lack of prioritization and funding</td>
<td>· Determine impact of motorized use on wildlife</td>
</tr>
<tr>
<td>• Continuing changes and loss of natural habitat because of development</td>
<td>· Consistent method for monitoring riparian habitat changes is needed and monitoring needs to be done</td>
</tr>
<tr>
<td>· Loss of vegetation and shoreline</td>
<td></td>
</tr>
<tr>
<td>· Effects of erosion on habitat</td>
<td></td>
</tr>
<tr>
<td>· Loss of aquatic vegetation caused by development and use</td>
<td></td>
</tr>
<tr>
<td>· Development of shoreland areas critical to fish and wildlife populations</td>
<td></td>
</tr>
<tr>
<td>· Loss of valuable wetlands on lakeshores</td>
<td></td>
</tr>
<tr>
<td>• Spread of exotic species, such as Eurasian watermilfoil</td>
<td>• Educate boaters about exotics</td>
</tr>
<tr>
<td>• Reduced fish and wildlife populations</td>
<td>• Maintain and improve fish and waterfowl populations</td>
</tr>
<tr>
<td></td>
<td>• Need effective enforcement, consistent management, and education</td>
</tr>
<tr>
<td>• Regulatory approaches</td>
<td></td>
</tr>
<tr>
<td>· Shoreland easements are needed as a tool to preserve sensitive sites from development</td>
<td></td>
</tr>
<tr>
<td>· Limit shoreline and nearshore development</td>
<td></td>
</tr>
<tr>
<td>· Compliance with vegetative screening in shoreland impact zone a prerequisite to building permits</td>
<td></td>
</tr>
<tr>
<td>· Allow public roads to have more aesthetically pleasing, but still safe design standards (e.g., slope clear zones, radius, etc.)</td>
<td></td>
</tr>
<tr>
<td>· Enforce land use and shoreline regulation violations</td>
<td></td>
</tr>
<tr>
<td>• Prevention and restoration</td>
<td></td>
</tr>
<tr>
<td>· Restore shoreland and wetland vegetation</td>
<td></td>
</tr>
<tr>
<td>· Improve/protect upstream riparian condition of tributaries and wetlands</td>
<td></td>
</tr>
<tr>
<td>· Keep trees on shoreline</td>
<td></td>
</tr>
<tr>
<td>· Maintain pristine character on lakes that are developed</td>
<td></td>
</tr>
<tr>
<td>GOAL</td>
<td>POTENTIAL SOLUTIONS</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| SYSTEMATIC WAY TO MONITOR LAKE HEALTH     | • Train lake associations to do the monitoring  
• Tap into existing volunteer programs (more secchi disk monitoring, more volunteer programs)  
• Develop protocols for volunteer efforts that look at the whole system  
• Environmental Indicators Initiative (LCMR project) | • Not enough resources  
• Quality control/data reliability  
• Need leadership in monitoring efforts  
• Sheer number of lakes  
• Monitoring must be simple |
| CONSISTENT & RELIABLE LAKE MANAGEMENT MODELS | • Research  
• Leadership at the state level  
• Providing information to local officials  
• Use models for educational purposes  
• Set standards  
• Help people with decisions  
• Should have a group of state/federal agencies sit down and talk about the issue  
• Lake classification | • Getting general public to "buy in" to the models  
• Resource variability (geologic diversity)  
• Information is complicated  
• Acceptance  
• Getting the information to the right people at the right time (local land use people) |
| BALANCE NEEDS OF PEOPLE WITH WILDLIFE     | • Help individuals and counties with planning tools  
• Allow both sides of debate (Roundtable)  
• Consider the cumulative impacts of each additional project  
• Education | • Case law – dealing with compensation  
• Property rights movement  
• Lack of time  
• Need to provide all the available information |
| EDUCATE THE PUBLIC                        | • In general, users want to maintain lake quality  
• County water plans lead to county board education  
• Educational programs, such as Project WET, MinnAqua  
• Internet  
• Become more involved in community | • Reaching the large percentage of people who are not active  
• There are so many lakes to deal with  
• Staff time |
| DEVELOP FINANCIAL INCENTIVES              | • Purchase development rights/fee title  
• State and federal lease lots – get money for habitat improvement  
• Low interest loans for septic systems  
• If people agree not to develop, lower their taxes  
• Cost sharing with all groups  
• Develop foundations  
• Tax rebates for installation of improvements or for following Best Management Practices  
• Reduce the rate of increase of property taxes | • General eligibility, tax increment financing  
• Who will pay? |

This group also believed they could assist in:  
• Encouraging voluntary compliance with shoreland regulations  
• Septic issues  
• Providing technical support to local officials  
• Protecting, maintaining, and restoring riparian habitat  
• Getting away from blanket rules and looking, instead, at outcomes of activities
### Table 2: Lake Associations – Identified Issues, Potential Solutions, and Associated Limitations

Lake associations believed they could assist in:
- Increasing education
- Maintaining or improving water quality

<table>
<thead>
<tr>
<th>GOAL</th>
<th>POTENTIAL SOLUTIONS</th>
<th>LIMITATIONS</th>
</tr>
</thead>
</table>
| **INCREASE EDUCATION**   | - Frequent meetings and activities, such as newsletters and meetings with elected officials  
- Invite influential people to meetings  
- Get information to non-members  
- Educate children through newsletters; sponsor or distribute existing materials for youth  
- Billboards at access points  
- Use media: (Public Service Announcements, radio interviews, or featured speakers at regular intervals)  
- Improve images of lake associations  
- Involve more people — educate property owners and lake users  
- Develop resource list for people regarding educational materials  
- Encourage collaboration  
- Simple, consistent guidelines for property owners  
- Share newsletters among lake associations  
- Link associations to local and state agencies  
- Assist in planning and zoning (variances)  
- Provide speakers for various forums, such as other lake associations or in schools  
- Develop web sites with hyperlinks to other county lake associations  
- Emphasize education over enforcement  
- Reduce conflicts among planning and zoning, townships, and lake associations | - Keeping attention of members  
- Reliance on volunteers  
- Hard to involve seasonal residents  
- Hard to reach backlot residents  
- Who is responsible?  
- Conflicts among interest groups |
| **MAINTAIN OR IMPROVE WATER QUALITY** | - Citizen monitoring, including lake levels, rainfall, water clarity and quality, loon counts, exotic species  
- Help to establish long term data-sets  
- Involve more political action — Coalitions of Lake Associations can have the power to influence policy  
- Be involved with lake management plans  
- Get involved in land use planning  
- Education through newsletters, print materials  
- Peer pressure  
- Instrumental leadership to initiate programming  
- Vision for future water quality — what are we working toward?  
- Need to protect water quality through greater communication and participation in managing wastewater by property owners  
- Encourage effective, meaningful enforcement with consistent follow-up | - Partial membership  
- Lack of funding  
- Lack of political power (statutory power)  
- Not all lakes have associations  
- Lack of a shared vision |
## Detailed Results from the July Roundtable Afternoon Sessions

### TABLE 3  BUSINESS, REAL ESTATE, AND OTHERS – IDENTIFIED ISSUES, POTENTIAL SOLUTIONS, AND ASSOCIATED LIMITATIONS

This group felt they could play an important role in decision-making, education, and water quality.

<table>
<thead>
<tr>
<th>GOAL</th>
<th>POTENTIAL SOLUTIONS</th>
<th>LIMITATIONS</th>
</tr>
</thead>
</table>
| DEVELOP A DECISION-MAKING PROCESS TO MAINTAIN AND RESTORE RIPARIAN HABITATS THAT CONSIDERS PLANT AND WILDLIFE NEEDS | • Tax incentives to protect natural resources  
• Tax based on how well natural resources have been protected  
• Capital gains tax waived for consolidating non-conforming lots  
• Put economic value on natural resource elements of a property | • Getting more people to care about the resource  
• If wildlife doesn’t impact the owner (warblers), then it is unlikely that most would care |
| EDUCATE PEOPLE, ESPECIALLY NEW LAKESHORE OWNERS, ABOUT THEIR IMPACTS ON & RESPONSIBILITY FOR NATURAL RESOURCES | • Need information in laymen’s terms  
• Best Management Practice (BMP) guidance should be available free to property owners  
• Need more and wider distribution of BMPs  
• Realtors could distribute BMPs to new buyers | • How to get more people to care about the resource  
• If wildlife doesn’t impact the owner (warblers), then it is unlikely that most would care |
| MAINTAIN WATER QUALITY – SOLVE THE SEPTIC ISSUES | • Set aside areas for septic systems  
• Community septic systems  
• Require septic certification for any property sale  
• Require better technology in septic systems (MPCA needs to update the regulations)  
• Septic systems rated on performance  
• Mitigate for economic forces responsible for increased pressure on lakes | • Determining limits/capacities of the resource  
• Balancing lakeshore owners’ use of lake with public access users (boating & fishing) to stay within the resource limits |
| BALANCE INDIVIDUAL RIGHT TO USE LAKES (BOATING) AND IMPACTS TO ALL LAKESHORE PROPERTY OWNERS | • Freeze tax level  
• Pay tax on sale of property  
• Ordinance provisions that more specifically address cumulative impacts.  
• Reduce lakeshore density through the platting process | |
Local government representatives believed they had the largest role to play in land use planning and regulation, education, reducing conflicts over development, changes in the tax code, and improvements in septic system management.

<table>
<thead>
<tr>
<th>GOAL</th>
<th>POTENTIAL SOLUTIONS</th>
<th>LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETTER LAND USE PLANNING &amp; REGULATION – BALANCE ECONOMY WITH ENVIRONMENT</td>
<td>• Coordinated and inclusive land use planning • Streamlined, consistent enforcement of current regulations • Need appropriate balance between voluntary incentives and regulations • Need for flexibility to reflect different needs regionally</td>
<td>• Voluntary compliance requires education</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>• Identify areas where development is likely to occur and focus planning on those areas • When economic development programs are pushed, should look at the larger impacts to the people who live and work in the area • Community discussions need to happen and priorities need to be articulated</td>
<td>• Ethic needs to change • Education has to convince people to bring out their wallets</td>
</tr>
<tr>
<td>WAYS TO REDUCE CONFLICTS OVER NEW DEVELOPMENTS</td>
<td>• Lock values when lake property bought until sold again • Tax breaks for good stewardship</td>
<td>• Documentation and data need to be available to make good decisions • Need to be proactive, not reactive (with respect to the rest of state and funding, too) • Need to clarify what level of water and shoreland quality we don’t want to go below – benchmark • Need database • Need lake classification scheme</td>
</tr>
<tr>
<td>CHANGES AND COMPRESSIONS IN TAX CODE</td>
<td>• Rather than having money available for use as direct loan, guarantee money at local financial institutions – leverage to 10–15x the value • Septic/erosion loan programs on the county level • Environmental Trust Fund (ETF) dollars could go to septic systems – Townships, counties, lake associations, state agencies could all work together to try to change how ETF money is spent and allow financing of septic improvements • Lobby for better technology and more options that are financeable • Partners – NRRI, University, Extension • Ways to reach people: • Separate mailers for educational information – marketing program for more isolated people • Public access TV • Public Service Announcements • Interns from University canvas a lake, giving out educational materials, etc. • Door to door inspections of septic systems on a lake</td>
<td>• Needs to be in the context of a larger land use plan • Lake County intercepts all land use permits and property transfers to get at septic systems, but remember, one size doesn’t fit all. Would never work in Itasca County • Big issue – past alternatives have been abandoned and changed after not very many years because it was found they didn’t work as well as it was thought they would • Issue – failing septic systems are often due to lack of education – Need community education – esp. for installer, inspector, and property owner. Need to educate visitors to area as well as landowners • Any solution has to be cost effective to get participation and reach people</td>
</tr>
</tbody>
</table>

Note: Koochiching is using Section 7001 rather than 7080, which has less restrictive criteria. Seems like it might work to draw in some fairly recalcitrant types because it could save people money.
Table 1: Duluth - Economic Factors and Incentives Influencing Lakeshore Development

Table 2: Grand Rapids - Economic Factors and Incentives Influencing Lakeshore Development

Table 3: Duluth - Water Quality and Habitat – Tradeoffs with Lakeshore Development

Table 4: Grand Rapids - Water Quality and Habitat – Tradeoffs with Lakeshore Development

Table 5: Duluth - Responsibilities of Public and Private Entities in Lakeshore Management – Working Together Better

Table 6: Grand Rapids - Responsibilities of Public and Private Entities in Lakeshore Management – Working Together Better

Table 7: Duluth - Quality of Life and Recreation Issues Surrounding People’s Use and Enjoyment of Northeastern Minnesota Lakes

Table 8: Grand Rapids - Quality of Life and Recreation Issues Surrounding People’s Use and Enjoyment of Northeastern Minnesota Lakes
<table>
<thead>
<tr>
<th>Tax reduction</th>
<th>Less parceling – owners would not be anxious to subdivide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cap assessments until point of sale</td>
<td>Seasonal cabins would remain</td>
</tr>
<tr>
<td>High public versus low private ownership of lands</td>
<td>Traditional/historical owners would retain ownership – Shift property taxes to private</td>
</tr>
<tr>
<td>Rate developments based on impacts: base tax and/or tax rebate rate on degree of &quot;non-impact&quot;</td>
<td>Rewards people who minimize impacts</td>
</tr>
<tr>
<td>Percent cleared, percent nonimpervious service</td>
<td>Less developed land is worth more under present system; taxes are high on underdeveloped lakeshore property (even if we charged landowner no taxes, incentive to sell would still be there because of high profit of selling)</td>
</tr>
<tr>
<td>Need to create tax system that &quot;thinks long term&quot;</td>
<td>Lack of clear, easy-to-understand conservation info – &quot;why should I be good&quot;?</td>
</tr>
<tr>
<td>Indirect economic impacts of having [high] quality lakes [should] be more of a factor in decision making</td>
<td>Stewardship ethic may not be as strong in new owners – or may be</td>
</tr>
<tr>
<td></td>
<td>Conservation measures do reduce property tax revenue – where could it be made up? Luxury, income, or sales tax?</td>
</tr>
<tr>
<td>Securing adequate funding for upgrading non-compliant septic systems</td>
<td>Counties rely on property tax as primary source of income – not sales tax receipts from tourism, etc.</td>
</tr>
<tr>
<td>Need for consistency across the region</td>
<td>Perception that public use of property is detrimental</td>
</tr>
<tr>
<td>Improve county septic system inspection and enforcement</td>
<td>Passion for green lawns</td>
</tr>
<tr>
<td>Seed money to help property owners fix system</td>
<td>Leading edge technology has not been certified, therefore less financing is available</td>
</tr>
<tr>
<td>Real estate sale must bring septic into compliance (Lake and Carlton counties have this program)</td>
<td>Not enough inspectors of septic systems</td>
</tr>
<tr>
<td>Property tax deferral for properties that improve septic</td>
<td>No reliable inventory of numbers of septic systems</td>
</tr>
<tr>
<td>Incentive for retention of undeveloped shoreline</td>
<td>County receives revenue from businesses providing support services – need to document</td>
</tr>
<tr>
<td>[Provide a percentage] of increased tax revenues allocated to lakeshore property to county to subsidize decreased taxes for open space landowners and cluster septic systems (1:1 match grant?)</td>
<td>Better analysis of spin off economic benefits</td>
</tr>
</tbody>
</table>

Table 1. Duluth - Economic Factors and Incentives Influencing Lakeshore Development

Facilitator: Tom Wegner
<table>
<thead>
<tr>
<th>Describe a specific action or a set of related specific actions (strategy)</th>
<th>Why is it important? Describe the benefits from this action(s)</th>
<th>List any obstacles to this action(s)</th>
<th>How can these obstacles be overcome?</th>
<th>Who can take the lead?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Long term lake protection  - Lake Associations take action  - Education</td>
<td>• Development is economically good for county  • Preservation of habitat is a long-range benefit to county</td>
<td>• Lack of trust of (DNR) government (DNR Fisheries bought it)  -Cannot pay above appraised value  -Takes too much time to get state money  • Money (Lack of)  • Lake associations don't have taxing ability  • How to get more people involved?  • Time! to protect lands  • Enforcement and zoning  • Politicians need tax base  • &quot;Individual rights&quot;</td>
<td>• Make land more valuable if preserved  • All real estate transactions need zoning information at point of sale  • Call all owners to get them involved</td>
<td>• Cooperation of lake association − 400+ members  • Gift or deed restriction on purchase  • Establish land preservation committee − 501.3c tax exempt to receive gifts  • Have own zoning plans  • Have many lake associations to help toward common goal</td>
</tr>
<tr>
<td>• Revise current tax policies to favor sustainable land use and discourage unsustainable land use  - Develop appropriate land use policies to plan for sustainable growth</td>
<td>• Current system stresses environment. Goal of revised system would reward environmental uses of land and maintain socio-economic mix  • More federal and state government compensation to counties and local government</td>
<td>• Government &quot;pie&quot; is one size  • Independent thinkers and general move toward non-community structure</td>
<td>• Develop and implement real solutions  • Ongoing assessment of benefits to avoid throwing money away</td>
<td>• State agencies charged with water resource protection and tax policy-makers need to work together  - DNR, PCA, etc., work with legislature to revise state tax policies for lakeshore owners</td>
</tr>
<tr>
<td>• Balance wants and needs of permanent and seasonal/new residents  - Write to local and state units of government  - Use lake associations  - Attempt to overcome the attitude [&quot;outsider&quot; versus &quot;insider&quot;]  - Has to be communication  - Changing tax base − slow [down] tax escalation  - Limitations on price/size of lakeshore development (deeds, protective covenants)  - [Keep a] local emphasis [while] at the same time educating local representatives of seasonal [users]</td>
<td>• Bring up issues  • Develop community  • Eliminate taxation without representation  • Preserve aesthetics  • Provide guidelines [for] (protection of environment)</td>
<td>• Overcoming status quo  • Infringement on rights  • Lack of associations</td>
<td>• Change voting status  • Increasing awareness of accountability of actions  • Education  • Encourage lake associations</td>
<td>• Lake associations  • Grass roots interest</td>
</tr>
</tbody>
</table>

**Note:** The table includes strategies for long-term lake protection, revising current tax policies, and addressing balance wants and needs of permanent and seasonal/new residents. Each strategy is accompanied by reasons for its importance, obstacles, and how to overcome them, along with suggestions for who can take the lead and who can help.
<table>
<thead>
<tr>
<th>Describe a specific action or a set of related specific actions (strategy)</th>
<th>Why is it important? Describe the benefits from this action(s)</th>
<th>List any obstacles to this action(s)</th>
<th>How can these obstacles be overcome?</th>
<th>Who can take the lead?</th>
<th>Who can help?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Control development through planning and zoning</td>
<td>• Control development density</td>
<td>• Enforcement of regulations</td>
<td>• Comprehensive planning (e.g., Northern Counties Land Use Coordinating Board)</td>
<td>• County</td>
<td>• State</td>
</tr>
<tr>
<td></td>
<td>• Matches development to individual lake carrying capacity</td>
<td>• Understanding “sustainability” for individual lakes</td>
<td>• Through easements</td>
<td>• Townships</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The whole idea of planning, especially for people who have lived in the area for a long time</td>
<td>• Through zoning or developing different parts of the lakes differently</td>
<td>• Individuals through their local govt.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Tool for evaluating the economic impact vs. lake maintenance (water quality, habitat)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Individually examine impacts of potential developments, to create development parameters based on [the] lake’s characteristics [or] “carrying capacity”</td>
<td>• Maintain property value, water quality, and quality of life</td>
<td>• Need an inventory of developable lakeshore – both public &amp; private</td>
<td>• SWCD project, or water plan task force project</td>
<td>• Comprehensive land use planners</td>
<td>• Lake associations</td>
</tr>
<tr>
<td></td>
<td>• (Develop responsibly to balance economic benefits of lot development and tourism)</td>
<td>• Greed of landowners</td>
<td>• Bemidji State University study weighing long-range tax impacts from various land uses</td>
<td>• Local water planning task force</td>
<td>• State natural resource protection agency technical staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Tax pressures on landowners</td>
<td>• Computer modeling</td>
<td>• County board and planning and zoning</td>
<td>• LGUs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Definition of “carrying capacity” – [and] “sustainability” – to yield parameters on development</td>
<td>• Local water planning task force, stakeholders, counties, etc.</td>
<td>• Pull together simplified “curriculum” for buyers</td>
<td>• Technical college staff, interns, university staff</td>
</tr>
<tr>
<td>• [Find ways] to maintain large tracts of private land on lakes</td>
<td>• Keep owners from being forced to sell or subdivide, and maintain pristine quality of lakes</td>
<td>• How to hold taxes down</td>
<td>• Use of:</td>
<td>• Association of Minnesota Counties</td>
<td>• Association of Minnesota Counties</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Program for comprehensive planning for different types of lakes</td>
<td>- Conservation easements</td>
<td>• Legislature</td>
<td>• Legislature</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Lakes with large public ownership should have ability to promote development</td>
<td>- Property tax freezes – Proposition 13</td>
<td>• Lake associations</td>
<td>• Lake associations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• On lakes with little or no public lands, have incentives available to allow property owners to retain their land</td>
<td>- Income tax incentives</td>
<td>• County commissioners</td>
<td>• County commissioners</td>
</tr>
<tr>
<td>• Tax incentives or benefits that help people retain their properties</td>
<td>• Development may be slowed due to people being able to retain their properties</td>
<td>• Economics</td>
<td>• Use of:</td>
<td>• Lakeshore property owners</td>
<td>• Legislators</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Services – county expenses</td>
<td>- Services – county expenses</td>
<td>• Lake associations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Reduced tax revenue to counties</td>
<td>- Reduced tax revenue to counties</td>
<td>• Coalitions of Lake Associations</td>
<td></td>
</tr>
<tr>
<td>Describe a specific action or a set of related specific actions (strategy)</td>
<td>Why is it important? Describe the benefits from this action(s)</td>
<td>List any obstacles to this action(s)</td>
<td>How can these obstacles be overcome?</td>
<td>Who can take the lead?</td>
<td>Who can help?</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Local land use planning</strong></td>
<td>• Plan is all-inclusive (soils, water quality, habitat) • Important for quality of life, health, transportation • Community-making process</td>
<td>• [Existing] Plans are “not living” – sit on shelves and are not used • Seasonal users [are] hard to contact • City values brought north to the country (light, water use, waste disposal) • Population – number of people coming here [is too high]</td>
<td>• Education at every level (property owners, zoning administrators, realtors)</td>
<td>• Lake associations • Townships</td>
<td>• Lake associations and COLAs • Extension • Soil and Water Districts • Citizens (how we vote)</td>
</tr>
<tr>
<td><strong>Develop a watershed management plan</strong></td>
<td>• Actions</td>
<td>• Apathy</td>
<td>• Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Develop an information package that lists alternatives to standard development, such as:</strong></td>
<td>• This will help reduce impact on habitat by encouraging lower development density as people realize that good alternatives are available</td>
<td>• Folks who will object to standard methods, e.g., • - Tax assessors • - Developers/owners who might lose money • - Difficulty disseminating information • Resistance to imposition from above</td>
<td>• Find good methods of implementation that don’t interfere too much economically, then explain them clearly • Pamphlets, articles, web pages • Must be local dissemination – county level</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Keeping undeveloped shoreland undeveloped</strong></td>
<td>• Less nutrients into lake • More pristine, natural • Keep near-shore, energy-rich area intact</td>
<td>• Need for tax dollars – local level • Individual thinks he can do whatever he wants on his land • Desire to make money • Concept of what lakeshore should look like • Ignorance – don’t know the plants they already have • Not caring to learn</td>
<td>• Landowners should know options for conservation easements • Incentives to keep land intact • Education of landowners • Quit mowing • Change peoples’ attitudes • Learning vegetation – aquatic plants and shoreline plants</td>
<td>• Property owners • Lakeshore management agencies • Lake associations • Educators • County commissioners – stop giving variances</td>
<td>• County and state agencies</td>
</tr>
<tr>
<td><strong>To minimize loss of lakeshore habitat:</strong></td>
<td>• Preserve and maintain water quality, fisheries, habitat, and aesthetics</td>
<td>• Apathy • Lack of vision (future impact) • Resistance to change • Educate • Unorganized lake associations and property owners</td>
<td>• Empowerment • Need leadership from [someone]</td>
<td>• Lake associations (COLAs) • Government organizations (local) • Religious bodies</td>
<td></td>
</tr>
<tr>
<td><strong>Preserve, maintain, restore natural shoreland vegetation, both terrestrial and aquatic</strong></td>
<td>• Water quality benefits • Fish &amp; wildlife habitat • Erosion protection and shoreland stabilization/soil conservation • Endangered/threatened flora • Water quality/quantity • Ecology of lake environment</td>
<td>• Perceptions: • - New people moving into area • - Cultural ideas (i.e., lawn aesthetic) • - Public perception • - [Lack of] funding for restoration</td>
<td>• Education • Financial incentives • Technical info available • Tax incentives • Marketing campaign: • - Peer pressure • - Recognition for those doing it right</td>
<td>• Elected Officials • DNR • MPCA • Counties • Extension • Homeowners • Developers • Nonprofits • USFS EPA • Timber – international</td>
<td></td>
</tr>
<tr>
<td><strong>Septic system upgrades</strong></td>
<td>• Water quality benefits • Fish &amp; wildlife habitat • Erosion protection and shoreland stabilization/soil conservation • Endangered/threatened flora • Water quality/quantity • Ecology of lake environment</td>
<td>• Lack of: • - Options, research, technology alternatives • - Monitoring • - Funding • [Chapter] 7080 • Money goes to municipal systems</td>
<td>• Schedule to get upgraded • Monitoring • Funding options • Making available &amp; approving alternatives • Explain available technology • [Chapter] 7080 changes • More help rural</td>
<td>• MPCA • Universities • Counties</td>
<td></td>
</tr>
<tr>
<td><strong>Habitat prioritization to protect, enhance</strong></td>
<td>• Fish and wildlife habitat improvement and protection</td>
<td>• Development density • Landowner rights • Increasing demand for lakeshore property • Tax-base</td>
<td>• Environmental assessments • Financial incentives for protection – tax breaks • Regulatory actions • Pay for taking land out of economic development • State augment/supplement [local tax] loss – e.g., LCMR money</td>
<td>• Cooperative effort – internal cooperation</td>
<td></td>
</tr>
<tr>
<td><strong>Gather all interests together (land owners and government agencies) and identify priorities, goals, targets</strong></td>
<td>• Educate all interests, describe desired future conditions, review scientific data, and actions needed to achieve goal</td>
<td>• Hard to gather together all interests • Hard to gather conclusive data • Finances for projects</td>
<td>• Good cooperative leadership from agencies and associations • Keep attention maintained on the goals/targets</td>
<td>• Local property owners or local government agencies</td>
<td>• Everybody</td>
</tr>
<tr>
<td>Describe a specific action or a set of related specific actions (strategy)</td>
<td>Why is it important? Describe the benefits from this action(s)</td>
<td>List any obstacles to this action(s)</td>
<td>How can these obstacles be overcome?</td>
<td>Who can take the lead?</td>
<td>Who can help?</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>• Develop an incentive program to provide money for people to improve their septic systems by using new technologies on undersized lots or difficult situations</td>
<td>• Reduced nutrients to lake</td>
<td>• Where will the money come from?</td>
<td>• PCA needs to oversee that cities/counties are doing their job in proper rule enforcement</td>
<td>• The U of M can develop new technologies</td>
<td>• Individual owners who will take responsibility</td>
</tr>
<tr>
<td>• Require periodic inspections of existing systems based on the life span of the system</td>
<td></td>
<td>• No consistency in enforcement</td>
<td>• Increase education to lake owners about effects of poor systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Goal: aesthetics – keeping or maintaining</td>
<td>• Receive input from owners</td>
<td>• Different values, cultures, needs, and desires</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Encourage formation and proactivity of lakeshore associations</td>
<td>• Develop group strategies for solving</td>
<td>• Codes broadly defined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Integrate needs/goals of owners</td>
<td>• Nature of laws of aesthetics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Peer pressure influence</td>
<td>• Difficult to measure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Greater sense of community ownership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Enhanced/maintained aesthetics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Economic incentives (i.e., tax based on impact, low rate improvement loans, etc.)</td>
<td>• Maintain or improve lake water quality</td>
<td>• Class issues (i.e., wealth vs. moderate to low income persons)</td>
<td>• Strong lake associations</td>
<td>• Collaborative effort with:</td>
<td>• Local and state agencies for technical and funding help</td>
</tr>
<tr>
<td>• Grass roots education aimed at landowners – collaborative effort of lake association, county, realtors (e.g., a county pamphlet that landowners sign off they’ve received – it identifies strategies to reduce impact, buffer zones, etc. – realtors give out to new landowners)</td>
<td></td>
<td>• Getting people to read literature that is available</td>
<td>• Involvement in larger group, e.g., MLA, COLAs</td>
<td>• County</td>
<td></td>
</tr>
<tr>
<td>• Education might include water based canvas, a demonstration/model home that people can visit and get information, youth education</td>
<td>• Not enough personnel</td>
<td>• Generating a consensus/common motivation</td>
<td>• Involvement in &quot;lake advocate program&quot;</td>
<td>• Lake association</td>
<td></td>
</tr>
<tr>
<td>• Education and enforcement of existing laws and ordinances</td>
<td>• Regulations</td>
<td>• Slowly</td>
<td>• Increase grass roots political pressure</td>
<td>• Individual landowners</td>
<td></td>
</tr>
<tr>
<td>• Local control</td>
<td>• Land ethic: -Educate public on proper use of land</td>
<td>• Deliberately</td>
<td>• Work together</td>
<td>• Realtors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Local control: -Lakes are unique and can’t be managed from a distance -Give people who use the property the right to decide use</td>
<td></td>
<td>• Education and involvement of elected officials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Develop land ethic program</td>
<td>• Regulations</td>
<td></td>
<td>• Strong lake associations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• [Educate new shoreland property owners about what is good for lake]</td>
<td>• Perception – bringing city to lake</td>
<td>• Involvement in larger group, e.g., MLA, COLAs</td>
<td>• Immediate stakeholders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Keep large blocks of riparian areas intact, restore those degraded [areas] on each lake</td>
<td>• Maintain bio-diversity</td>
<td>• Perception – bringing city to lake</td>
<td>• Lake shore owners</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Reduce ignorance of how ecosystems function</td>
<td>[What is considered] poor [lawn] maintenance in [the] city is probably good for lake</td>
<td>• Tax incentives</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Many city people are] bringing [standards]</td>
<td>• Recognition for [the] right thing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Cooperative effort starts at [state government agencies] and legislature, and must filter down through counties to the landowner with the shovel in his hand</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Those of us being paid to protect the resource should take the lead developing [help] needed at the lake</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe a specific action or a set of related specific actions</td>
<td>Why is it important? Describe the benefits from this action(s)</td>
<td>List any obstacles to this action(s)</td>
<td>How can these obstacles be overcome?</td>
<td>Who can take the lead?</td>
<td>Who can help?</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------------</td>
<td>-----------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>• Establish a “super-shoreline impact area” – the closest area to shoreline - Width dependent on landscape and soil, set by zoning &amp; lake classification - Fertilizer misuse a particular problem - Need restrictions regarding removal of vegetation and fertilizer use</td>
<td>• (Shoreline) is the area of highest diversity of plant and animal life • Increase value of property on lake • Improve water quality • Aesthetic value of lake maintained</td>
<td>• Resistance to giving up the bluegrass lawn • Cost of restoration • “My property – my decision” mentality • Conspicuous consumption – flaunt your wealth • Many and diverse agencies to assist – confusing to citizens • Inertia – tendency to leave things as they are (cleared long ago)</td>
<td>• Materials &amp; personal contact by lake association • Tax incentive – deduct the costs of restoration for one to two years (county would benefit long term as value would increase) • Free or reduced [cost for] trees and shrubs • Demonstration of effective shoreline landscaping • Develop ethic to appreciate shoreline as it is • “One stop shopping” for regulation and education • No grandfathering! • “No-mow area”</td>
<td>• U of M Extension – has personnel and expertise • County – to regulate – county is responsible for zoning and most local [regulations] • Lake associations – to educate</td>
<td>• DNR • MPCA • Duck hunters, people who fish, and associated organizations • Realtors (regarding education and rulings)</td>
</tr>
<tr>
<td>• [Reduce] adverse impacts of nutrients on water quality and habitat [from]: - Septics - Campgrounds - Ice fishing</td>
<td>• Septics – enforcing existing laws and lake classification • Campgrounds – local cleanup if governing body doesn’t • Ice fishing: - Educating users on impact - Resort owners supply “Porta-potties”</td>
<td>• Lack of enforcement • Local zoning compliance • Cost</td>
<td>• Taxpayer breaks: - Low cost loans to upgrade existing septic systems - Tax credit on property assessment for upgrading - Adequate government funding: - Contractors – held accountable to ordinances - Enforcement – zoning depts., planning and zoning, compliance officer, county attorney, county board</td>
<td>• Lake association • Land owners</td>
<td>• Public Service Announcements – DNR • County board</td>
</tr>
<tr>
<td>• Lake classification based on lake sensitivity [relative] to water quality and wildlife habitat</td>
<td>• Treat lakes differently to sustain water quality and habitat</td>
<td>• Current use • Landowner rights • Tax base • Enforcement</td>
<td>• Tax incentive, payment in lieu • [Tax] breaks, rebates of property taxes • Support with dedicated taxes</td>
<td>• Lake associations • Technical assistance from agency people</td>
<td>• Legislature</td>
</tr>
<tr>
<td>• Develop comprehensive criteria for a more specific classification system for individual lakes (county development responsibility)</td>
<td>• Improve or sustain water quality and habitat by defining degree of development</td>
<td>• Lack of organization and coordination of public agencies • Lack of funding</td>
<td>• Form active lake associations • Legislative support and direction</td>
<td>• SWCD at county level</td>
<td>• Citizen groups • Lake associations • Tourism organizations • Sportsman organizations • Non-partisan groups (Universities, local schools, etc.)</td>
</tr>
<tr>
<td>• Identify carrying capacity - Individual lake assessment - Master plan - Watershed definition</td>
<td>• Know where you are – to assist with identifying where you want to go</td>
<td>• Time • Money • Watershed definition (scale) • Ownership variability • Standards specificity inappropriate for variable conditions • Individual agendas • Detached decision making</td>
<td>• Cooperation of organizations • Review existing organizations and combine the best of all • Checks and balances</td>
<td>• Local (planning, implementation)</td>
<td>• State (policy, information)</td>
</tr>
<tr>
<td>• Value of shoreline is determined by “green” aesthetics - Shift tax from property owners to user tax - Incentive to re-establish lakeshore vegetation (bluffs) – certified as “green” - County as a specific entity should determine what the lake resources should be used for - Legislature unlink assessments to sale value – this will protect water quality due to less infringement from numbers of people</td>
<td>• Water quality is of prime economic importance (to remain clean) • Preventing the degradation of lake quality will keep economic values good – watershed [wide] - If lake industry is run as a business, a capital outlay has to be put back into the resource to continue it to be sustainable</td>
<td>• Public apathy • County finds tax structure accommodating to its budget • Seasonal residents do not have a voice in the county govt. • Alternative source to revenue</td>
<td>• Educated citizenry • Stronger lake associations • Incentives to find special grants from foundations, etc. to protect water quality and shoreline resources</td>
<td>• Local government • Lobbyist to state legislature • Get these proposals to the governor’s initiative</td>
<td>• Ordinary citizens • Lake associations • Local governing bodies • DNR • Educational • Internet</td>
</tr>
</tbody>
</table>

Table 4. Grand Rapids - Water Quality and Habitat – Tradeoffs with Lakeshore Development Facilitator: Lucinda Johnson
<table>
<thead>
<tr>
<th>Describe a specific action or a set of related specific actions (strategy)</th>
<th>Why is it important? Describe the benefits from this action(s)</th>
<th>List any obstacles to this action(s)</th>
<th>How can these obstacles be overcome?</th>
<th>Who can take the lead?</th>
<th>Who can help?</th>
</tr>
</thead>
<tbody>
<tr>
<td>We need enforcement of present regulations and rules. Some level of government should be in charge of coordinated actions of managing lake on a watershed basis.</td>
<td>Improved water quality. Aesthetics improve. Development proceeds on planned, designated basis.</td>
<td>Too complicated rules and regulations now. Too many levels of government. Township government is one level that perhaps needs to be revised and modernized (archaic). Apathy and low citizen involvement – and sometimes it becomes seasonal vs. year round resident conflict.</td>
<td>Simplify rules and regulations. Publicity on problems. More novel public outreach methods. Getting people involved in smaller groups – i.e., neighborhoods. Improving communication between levels of government. Give everyone a copy of zoning and planning that pertains to their property area.</td>
<td>Local government officials. Citizens.</td>
<td>Realtors. Government officials.</td>
</tr>
<tr>
<td>Distinguish between problem and dilemma - Problems can be solved, [brought to] closure. - Dilemmas can only be managed (e.g.; jet ski rights and privileges – of both parties; or pre-existing cabin setbacks). - Start with small groups and invite opposition. - Help facilitate. - Find technical advice.</td>
<td>State can differentiate between it being a problem or a dilemma. Resolution/problem can be dealt with.</td>
<td>Difficult to realize “big picture” (e.g., anglers have specific set of values). People’s property owner rights. Public access vs. shoreline owners – have different goals. Some people don’t like to “join” groups.</td>
<td>Go to meetings – invite state agencies to lake association meetings. Establish partnerships. Educate agencies as to needs of local groups. State agencies need to educate landowners. Be a loud single voice or visit a large group.</td>
<td>Shoreline owners need to take lead. Passionate, dedicated people.</td>
<td>All other agencies.</td>
</tr>
<tr>
<td>Coordinate efforts among agencies. Figure out who is responsible for what actions. Come up with a list of contacts. Determine who has enforcement. Updated land use plan.</td>
<td>Catch things early. Can address things as they come up. Will then know who is responsible for what actions.</td>
<td>People may not want to work with others if they call in enforcement. Trust between individuals when conflicts exist. Those that follow the zoning ordinances get hassles, those that don’t, just do it. Willingness to enforce. Power struggles between agencies and staff over who is responsible. Landowner must accept responsibility. How to reach high population of non-residents.</td>
<td>Incentives to do things right. Create a flyer with contact numbers. Web pages. Work it out within the counties together as a team.</td>
<td>BWSR. Individuals like Larry Moon. Empowered citizens. Local officials. Counties.</td>
<td>DNR. Anyone with a Web site. MPCA. Coastal Zone Management.</td>
</tr>
<tr>
<td><strong>Describe a specific action or a set of related specific actions (strategy)</strong></td>
<td><strong>Why is it important? Describe the benefits from this action(s)</strong></td>
<td><strong>List any obstacles to this action(s)</strong></td>
<td><strong>How can these obstacles be overcome?</strong></td>
<td><strong>Who can take the lead?</strong></td>
<td><strong>Who can help?</strong></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Streamline information and procedures - Step forward/be heard - Educate public officials first and [then the] public - Specific lake standards (based on 10 years) MPCA criteria (guide lines)</td>
<td>• Result in better “quality” of lakes • Happier constituency and more understanding citizens</td>
<td>• Not wanting to “step on toes” • Departments getting “beat up” • Too many agencies involved? (checks and balances) • Lack of financial aid</td>
<td>• Locally led, but with info from knowledgeable agencies • Lake associations can take lead in being facilitators for local units of govt. and state agencies</td>
<td>• Lake associations</td>
<td>• Technical agencies • MPCA – DNR • Local agencies</td>
</tr>
<tr>
<td>More focus on environmental issues [by] elected officials (county commissioners) • Citizens – more involved in what’s going on – e.g., variance processes • Local enforcement of existing laws – private citizens holding their local officials accountable – support them</td>
<td>Maintain water quality</td>
<td>• Pro-landowner approach of local officials • Lack of personnel and responsibility at the local level - Local (county) [level] doesn’t have enough personnel and doesn’t want to prosecute [violations] especially [in] “out county” areas - [There is a] lack of enforcement – no people checking - Who is accountable when things go wrong? • Money [Lack of] • Not a priority with many people – apathy</td>
<td>• Better written regulations – easy to read for general public • Dedicated environmental lawyer at county level • Dedicate money – [e.g.,] hunting, fishing licenses – to this • Money for low interest loans for septs, improvements</td>
<td>• Lake associations → citizen groups → go to officials • Zoning → send notice to township about development → feedback to zoning → sit in on hearing • [When needed, take issue] to next level</td>
<td>• People – voting for county officials – hold them accountable for environmental issues • Lake associations – pressure on commissioners</td>
</tr>
<tr>
<td>Agencies [should] do a better job of addressing land use impacts on lakes by enforcing regulations and permitting process</td>
<td>Regulations protect the environment by doing what they are intended to do</td>
<td>• Impacts local politics • Landowner rights • Attitudes in general</td>
<td>• When a county does not seem to function in [the] protection of environmental resources by enforcing regulations, legal help should be provided to take problems to court – either county attorney or attorney general • For major impacts – State Review Board group is needed, after the county [level actions] to be sure action is not capricious • [Help people] understand the regulations and the natural resource</td>
<td>• Grouping of agency people and citizens</td>
<td>• Lake associations</td>
</tr>
<tr>
<td>A pipeline of names for support – build a grass roots communication network of watershed owners • Local enforcement and administration is not consistently administered</td>
<td>• Able to provide educational ideas to force grass roots govt. info[to] enforcing the statutes that are in place to obtain increased water quality and habitat, economy</td>
<td>• Local units of government system – more opportunities to fail • Money to sue • Attitudes • Apathy • Decision bodies that respond to economic considerations only – not resource</td>
<td>• Good legal council • Education</td>
<td>• Lake association and other citizen groups</td>
<td>• Local government and agencies • Educational institutions</td>
</tr>
<tr>
<td>Describe a specific action or a set of related specific actions (strategy)</td>
<td>Why is it important? Describe the benefits from this action(s)</td>
<td>List any obstacles to this action(s)</td>
<td>How can these obstacles be overcome?</td>
<td>Who can take the lead?</td>
<td>Who can help?</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>
| • Build from bottom up (i.e., lake association) | • Buy-in to rules vs. enforcement  
• Peer pressure  
• Expertise from all levels of government | • Education at all levels  
• Money  
• How to balance social, environmental, and economic interests | • Money to educate  
• Generate more money | • Citizens  
• Media  
• Governor’s round tables with legislative action | • Bureaucracies willing and able to help |
| • Making lake associations more effective with respect to conflicts among users  
• Target user groups that come into conflict  
• Acknowledge the problem by groups/roundtable meetings  
• Create clearinghouse of information that can help landowners to simply protect land and reduce conflicts | • Inform/educate different user groups that come into conflict  
• Reduce user conflicts | • Small organizations [not] functioning  
• Tension between groups  
• Money | • Trust  
• Understanding of other’s opinions | • Lake associations  
• Minnesota Lakes Association | • DNR  
• Nonprofit groups  
• Government entities |
| • Encouraging lake associations to establish voluntary rules for their own lakes – post rules at access sites or in lake association newsletter | • Allow for consideration of differing dynamics on [different] lake[s]  
• Community building | • Size of some lakes prevents the possibility of getting everyone together | • Form smaller groups around the lake with representatives to the larger organization | • Lake associations  
• Property owners | • Local law enforcement  
• DNR |
| • Recreational use surveys to determine carrying capacity  
• Water surface use zoning  
• Reservation systems  
• Regulations  
• Education – self policing  
• Operation licensing  
• Noise standards for watercraft  
• Increase tax on two stroke engines to have quieter and less polluting four stroke engines | | • Regulation  
- Different uses at different times | | | |
| • The DNR public access policy should be revisited  
- Look at options for access  
- Lake classifications should be based on current use and acreage, habitat, traditional uses, etc.  
- Carrying capacity needs to be revisited  
- Coordination should be done between private and agency access issues  
- Communication and education process needs to be established | • To reduce use conflicts on lakes  
• Quality of environment leads to quality of life  
• Represents the problem:  
- Broad-stroking [blanket] regulations create problems | • User groups resisting – such as powered watercraft user  
• DNR may not be inclined to do this  
• Public education is problematic, since whose policy and perspective is promoted [by public education] and to whom | • Legislate initiatives  
• One-on-one lobbying with DNR staff members  
• DNR programs for schools [and the] public [such as]  
- how to operate watercraft  
- ethics  
- use  
- respect for others | • Minnesota Power  
• Arne Carlson’s legacy [the “lakes initiative”]  
• DNR  
• Lake associations | • User groups  
• Watercraft manufacturers  
• School organizations |
| • Regulate access times  
• Legal restrictions on some lakes by townships  
• Communicate with neighbors  
• DNR accesses must have education and control officers monitor toilets, trash, maintain roads, enforce regulations, etc.  
• Get volunteers | • No jet skis at all anymore  
• Inspect and prevent spread of exotics  
• Enforce laws [to] reduce pollution and trash | • Money  
• [Lack of] legal authority of volunteers | • [Use] college students [to] educate the people  
• Insert information brochures in all property tax statements | • DNR enforcement officers:  
- Agencies could pool money to coordinate an advertising campaign, [produce] educational materials, and empower [DNR enforcement officers] to enforce anywhere and anytime | |
| • Limiting noise pollution – all boats | • Improving quality of life | • Lack of compliance | • Education  
• Signage  
• State advertising  
• Peer pressure  
• Lake mediation board | • Lake association | • DNR |
Table 8. Grand Rapids - Quality of Life and Recreation Issues Surrounding People’s Use and Enjoyment of Northeastern Minnesota Lakes  
Facilitator: Lucinda Johnson  

<table>
<thead>
<tr>
<th>Describe a specific action or a set of related specific actions (strategy)</th>
<th>Why is it important? Describe the benefits from this action(s)</th>
<th>List any obstacles to this action(s)</th>
<th>How can these obstacles be overcome?</th>
<th>Who can take the lead?</th>
<th>Who can help?</th>
</tr>
</thead>
</table>
| **Problem:**  
- Visual impact of docks, canopies and boat lifts, satellite dishes, yard lights, diving rafts  
- Action:  
  - Surface zoning to regulate the above to minimize impact  
  - Increased [house] numbers on lake (include #’s on lake, not only [for] 1st tier homes, but 2nd and 3rd tier backlots) |  
  - Better aesthetics  
  - More natural look  
  - Safety possibly |  
  - Already own it  
  - Manufacturers reluctant to change  
  - Personal expression  
  - Some people like this! Beacon to guide them home  
  - Protection – yard light |  
  - Lake association can set covenant by agreement of all  
  - Contacting manufacturers to change colors and sizes  
  - County board/zoning committee can set rules  
  - Peer pressure  
  - Encourage inventiveness – new products to solve problems  
  - Sharing dock space |  
  - Lake association  
  - County zoning  
  - County board  
  - MN legislature |  
  - Realtors and [Lake] associations |
| **To resolve the conflict between motorized uses on lakes and the desires for quiet for fishing and passive recreation** |  
  - Lack of enforcement  
  - Lack of education  
  - Insufficient restrictions on where unrestricted uses can occur |  
  - Higher license fees and use the money for increased enforcement  
  - Increased emphasis and requirements for education  
  - Increased fines, penalties, including [use restrictions based on] size of lakes – would need to do this statewide  
  - Publicity – media |  
  - Lake associations  
  - Boat and water safety officers |  
  - Lake associations  
  - Lake shore owners  
  - Environmental groups |  
  - Research Studies, i.e., Rutgers University study on [effects of] disturbance on nesting birds |
| **Study to determine where jet skis are appropriate and inappropriate** |  
  - To arrive at a balance of quality of serene lake living versus regulated jet ski usage  
  - Effects of jet skis on wildlife and water quality |  
  - Jet ski industry  
  - Jet ski owners  
  - Jet ski dealers  
  - Governmental apathy (DNR-regulatory, county board, enforcement agencies)  
  - Public non-involvement  
  - Political expenditure – legislature |  
  - Get the public involved – i.e., informed  
  - Activate lake associations  
  - Get elected officials to listen to constituency  
  - Value economics vs. environment |  
  - Lake associations  
  - Lake shore owners  
  - Environmental groups |  
  - Lake associations  
  - Lake shore owners  
  - Environmental groups |
| **Minimize and manage surface water use conflicts**  
- Provide special use areas  
- Encourage manufacturers to decrease noise levels on jet skis  
- Limit motor size in certain places |  
  - Less conflicts  
  - Peace and quiet  
  - Create places for everyone to pursue their recreational choice |  
  - Compliance  
  - Enforcement  
  - Funding |  
  - Raise taxes  
  - Self regulation  
  - Education |  
  - Lake associations  
  - Local government, i.e., townships [and] county |  
  - People  
  - Agencies  
  - Lake users  
  - Manufacturers (options for quieter [products]) |