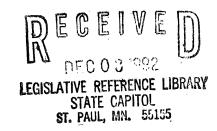
MINNESOTA FISHING ROUNDTABLE

RECOMMENDATIONS TOWARD IMPLEMENTATION



MINNESOTA DEPARTMENT OF NATURAL RESOURCES

December 13 and 14, 1991

Facilitated by
Minnesota Department of Administration
Management Analysis Division

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OVERVIEW

The Minnesota Fishing Roundtable was designed by the Department of Natural Resources as a mechanism for involving relevant, representative stakeholders in a consensus-based dialogue on the factors affecting fishing quality in Minnesota and to determine new strategies to deal with them. When it was convened in January 1991, participants identified a 10-year vision for improving fishing quality in Minnesota, named the obstacles to ensuring quality fishing in the 1990s and stated new or expanded strategies to take in the next five years.

Regional meetings

In March and April 1991, the department conducted eight additional meetings in each of its regional centers to include other interested anglers in the dialogue and strategy identification process.

Second roundtable

Participants at the second Minnesota Fishing Roundtable Dec. 13 and 14, 1991, developed recommendations for implementing strategies identified in the initial roundtable meeting.

The second roundtable focused on the 10-year vision area of "Individual Waters Management" and on developing recommendations for implementation of the related five-year strategies of "Enlightened Fisheries Management:" "Habitat Improvement and Protection" and "New Values Education." These were areas given priority by the participants of the eight regional meetings. Summary charts of the 10-Year Vision, Obstacles, and Strategies are in Appendix A.

Participants

Participants in the first roundtable were selected to represent a cross section of anglers and angling modes with varying economic, political and social perspectives on quality fishing in Minnesota. Many participants from the first meeting attended the second meeting, and several new participants, including regional fisheries managers, were invited to broaden the dialogue. Participants are listed in Appendix B.

Implementation

The Fish and Wildlife Division of the Department of Natural Resources is currently completing revisions to its strategic plan. The Fisheries Section intends to use the products from these sessions to inform and guide section strategies and action plans.

Roundtable questionnaire

Participants of the second Minnesota Fishing Roundtable were surveyed to help determine the focus for each strategy area. Results of the questionnaire were distributed to participants for reference at the meeting and can be found in appendix C.

Enlightened fisheries management

The first day included two sessions focused on developing recommendations for the strategy "Enlightened Fisheries Management." The first session focused on factors DNR managers should consider and use in determining fisheries management objectives for a specific lake or stream. The second session focused on how to most effectively use special regulations to improve and protect quality fishing in Minnesota.

Team process

Participants met in four teams to generate many ideas and to then select for discussion those ideas they saw as most workable for further development of recommendations. All teams discussed and recommended approaches for each focus area, which were then ranked in terms of importance.

New values education and improved fishing habitat

The second day two teams each worked on "New Values Education" and "Improved Fishing Habitat." The focus was on identifying strategies that would give the most results for the investment. Teams shared their results with the larger group but did not have time to rank them.

The product

Thirty-one recommendations were developed for three major strategy areas. These are documented on the following pages.

Throughout the process the group worked to discern its consensus. At the close of the first day, participants discussed the need for early involvement and communication in the special regulations process, and the need to develop ways to resolve conflict, to involve all DNR stakeholders, and to have a very good process for special regulations with demonstrated results. All participants acknowledged the many perspectives that must be addressed. They also counseled a thorough and cautious approach to implementation. The conflict of interest between commercial and recreational users was identified as an unresolved issue.

Closing reflection

At the close of the second day the participants summarized their experience. They cited accomplishments in the area of a better working relationship among groups and with the DNR, and felt they had created a base for further expansion of the dialogue to more anglers. The group felt that the DNR was becoming more responsive to its constituents. Some next steps were suggested: using the group present to help with the next phase of implementation, establishing time lines, working with the legislative process for funding, setting priorities within the recommendations, forming smaller committees to assist with implementation, working through regional managers, and creating partnerships to help deal with economic issues. Participants felt that there was a level of consensus regarding allocation and special regulations, and that there were surprising similarities of interest. Sharing the results with others was seen as an important next step. For a more detailed account of the closing reflections, see Appendix D.

Minnesota Fishing Roundtable Recommendations Toward Implementation

December 13 Morning

Focus Question

What factors should DNR managers consider and use in determining fisheries management objectives for a specific lake or stream?

December 13 Morning Team Lists

RED

1,1

- 1. Feiler
- 2. Wingate
- 3. Holschlag
- 4. Stanius
- 5. Maas
- 6. Dimich
- 7. Schranck
- 8. Haseman
- 9. Hirsch
- 10. Broberg

GREEN

- 1. Anderson
- 2. Gunsbury
- 3. Halloran
- 4. Heywood
- 5. Fabbro
- 6. Skrypek
- 7. Gosse
- 8. Haugsted
- 9. Velin
- 10. Dyer

BLUE

- 1. Smith
- 2. Ewart
- 3. Shodeen
- 4. Newburg
- 5. Schneider
- 6. Schultz
- 7. Johnson
- 8. Lindner
- 9. Zentner10. Schupp
- 11. Fellegy

BLACK

- 1. O'Brien
- 2. Sparlin
- 3. Orvalla
- 4. Strand
- 5. DeVries
- 6. Payer
- 7. Ras
- 8. Holmes
- 9. Goeschel
- 10. Adelman
- 11. Larson

December 13 Morning

Enlightened Fisheries Management: Factors in Allocation

Roundtable participants developed recommendations in 12 areas. After hearing all recommendations generated by teams, participants indicated preferences by voting for the ones that were most important to them. Each participant could vote for three.

- I. Angler demands (20)
- II. Biological potential (28)
- III. Status of the resources (1)
- IV. What species are appropriate (1)
- V. Appropriate regulations to attain objectives (8)
- VI. Long-term sustainability (6) (no documentation)
- VII. Manage for optimum complement of species
- VIII. Diverse management objectives for diverse interests (8)
- IX. Maximize use of resources as far as habitat allows (4)
- X. A mechanism for applying allocation (2)
- XI. Comprehensive lake and stream management plan with teeth (10)
- XII. Process for determining objectives on a water body (15)

The specific recommendations are on the following pages.

December 13 Morning — Red Team

I.

In the area of:

Enlightened Fisheries Management: Allocation

We recommend:

Angler demands be considered in resource allocation

Implementation steps: (approaches/actions that would implement the recommendation):

- 1. Educate public on comprehensive water management
- 2. DNR solicit and value public ideas
- 3. Implementation through communication of all media (local and state), sportsmen club advocates, local associations, opponents of regulation

Main strengths/weaknesses:

Strengths:

- 1. Gives anglers what they want
- 2. Diversity and quantity of ideas
- 3. Satisfied anglers
- 4. Support for future management goals

Ways to overcome weaknesses:

Conflict resolution with anglers, minority anglers, fishing industry and the resource

Intent of this recommendation:

To increase angler satisfaction

Benefits of this recommendation:

Satisfies anglers through diversity of opportunity and increases the credibility of fisheries managers

Working team:

Schranck, Wingate, Stanius

П.

In the area of:

Enlightened Fisheries Management: Allocation

We recommend:

Optimizing individual lake and stream management by managing based on biological potential

Implementation steps (approaches/actions that would implement the recommendation):

- 1. Education system
- 2. Intensify data collection
- 3. Utilize GIS system as part of data base
- 4. Strengthen IRM approach on a watershed basis both within and outside DNR
- 5. Increase the utilization of data from other sources

Main strengths/weaknesses:

Strength:

Use an an education point, optimize production, can set an obtainable goal, justify special regulations

Weaknesses:

Political and social problems, expensive, disbelief

Ways to overcome weaknesses:

An education system

Ш.

In the area of:

Enlightened Fisheries Management: Allocation

We recommend:

Status on condition of the resource be a determining factor in allocation

Implementation steps (approaches/actions that would implement the recommendation):

- 1. Ensure good inventory of each lake and stream
- 2. Take a watershed approach
- 3. Set up a good lake and stream classification system
- 4. Disseminate information to managers and constituents
- 5. Provide protection or improvement to resource as needed
- 6. Provide opportunity for public input

Major strengths/weaknesses:

Strengths:

Facilities protection of resource, gives public a chance to make informed decisions, establishes credibility

Weaknesses:

May conflict with public demand, limited financial resource

Ways to overcome weaknesses:

- 1. Funding
- 2. Education

Working team:

Broberg, Dimich, Hirsch

December 13 Morning — Black Team

IV.

In the area of:

Enlightened Fisheries Management: Allocation

We recommend:

That what species are appropriate for the lake and stream be a major consideration in determining fisheries management objectives for a specific lake or stream

Implementation steps (approaches/actions that would implement the recommendation):

Need information on: historical species, habitat degradation, maintenance and improvement, public desire, conflicting interests, costs

Actions:

- 1. Management plan
- 2. Management evaluation
- 3. Angler education

Main strengths/weaknesses:

Strengths:

Economically viable, sustainable, living with Mother Nature, educational, public involvement, suitability

Weaknesses:

Conflict with public demand, public perception, diversity of fishing opportunities

Ways to overcome weaknesses:

Education, involvement, success

Intent of this recommendation:

Enhanced fisheries management

Benefits of this recommendation:

Sustainable, holistic approach including biological and social factors, economical

Working team:

Holmes, Adelman, Strand, Ras, O'Brien

· V.

In the area of:

Enlightened Fisheries Management: Allocation

We recommend:

Lake-specific regulations appropriate to attain management objectives

Implementation steps (approaches/actions that would implement the recommendation):

Cal.

- 1. Catch and release, education public and private
- 2. Forced compliance
- 3. Stop limits
- 4. Maintain and improve fishery (long- and short-term)
- 5. Increase fish size
- 6. Special regulations
- 7. Assess habitat conditions
- 8. Protect vital forage

Main strengths/weaknesses:

Public awareness and understanding

Intent of this recommendation:

Improve fishing quality

Benefits of this recommendation:

Bigger fish, more fish, improved habitat, improved experience

Working team:

Larson et al.

December 13 Morning — Blue Team

VII.

In the area of:

Enlightened Fisheries Management: Allocation

We recommend:

Biological considerations based on sound data, manage waters for optimum complement of species

Implementation steps (approaches/actions that would implement the recommendation):

- 1. Increase frequency of surveys
- 2. Understand the interdependence among species (fish live in a community)
- 3. Allow flexible management on a lake-by-lake basis
- 4. Anticipate and respond to problems in timely and effective manner (act instead of react)

Main strengths/weaknesses:

Weakness:

Will cost more than the current program

Benefits of this recommendation:

Maximum angler opportunities and streamlined management

Working team:

Fellegy, Lindner, Schupp

VIII.

In the area of:

Enhanced Fisheries Management: Allocation

We recommend:

Diverse management objectives for diverse angler interests (social considerations)

Implementation steps (approaches/actions that would implement the recommendation):

- 1. Determine angler interests
- 2. Education for ethics, etiquette on water, realistic expectations, compliance, catch and release
- 3. Adequate funding and personnel
- 4. Implement a lot at once to avoid favoritism and to promote angler education
- 5. Public input before implementation

Main strengths/weaknesses:

Strength:

Greater variety of fishing experiences

Weakness:

Local resistance

Ways to overcome weaknesses:

- 1. Education for ethics, etiquette on water, realistic expectations, compliance, catch and release
- 2. Implement a lot at once to avoid favoritism and to promote angler education
- 3. Public input before implementation

Intent of this recommendation:

More quality fishing and greater variety (angler interest and biological reality)

Benefit of this recommendation:

Reorientation of angler values away from "meat" fishing towards quality fishing

Working team:

Newburg, Schneider, Ewart

IX.

In the area of:

Enlightened Fisheries Management: Allocation

We recommend:

Environmental resource management to maximize the use of resources that are available to us (people, money, etc.) insofar as the habitat allows

Implementation steps (approaches/actions that would implement the recommendation):

- 1. Include local government (e.g., land-use controls)
- 2. Maintain up-to-date data
 - a. determine holding capacity of a lake or stream (balanced fish population)
 - b. determine trends (e.g., deteriorating habitat)
 - c. direct efforts, proper direction
 - d. strengthen the role of field resource managers
- 3. Public education
 - a. advise of success and failures (credibility at stake)
 - b. two-way communication

Main strengths/weaknesses:

Funding — need to priortize funding and find money, possibly RIM

Benefit of this recommendation:

Higher quality aquatic environment

Working team:

Shodeen, Johnson, Schultz

December 13 Morning — Green Team

X.

In the area of:

Enlightened Fisheries Management: Allocation

We recommend:

A statewide "congress" body that screens proposals based on weighing biological and political factors

Implementation steps (approaches/actions that would implement the recommendation):

- 1. Regional bodies (subdivisions) that integrate within main body
- 2. Involve cross section of users
- 3. Stress two-way communication

Main strengths/weaknesses:

Strengths:

Grassroots communication, remove political burden from DNR, obvious contact points

Weaknesses:

Getting representative membership, cost, potential for special-interest dominance

Intent of this recommendation:

Provide a conduit for enlightened management between public and DNR

Benefits of this recommendation:

Stimulate evaluation and facilitation

Working team:

Haugsted, Halloran, Anderson, Dyer

XI.

In the area of:

Enlightened Fisheries Management: Allocation

We recommend:

Comprehensive lake and stream management plans (not just fish management) with real teeth to enforce

Implementation steps (approaches/actions that would implement the recommendation):

- 1. Leadership and coordination (local water plan model)
- 2. Classify based on biology, economics, land use, surface use
- 3. Convene all stakeholders on horizontal (across agencies) and vertical (local, regional, state)

Main strengths/weaknesses:

Strengths:

Objective data, consensus process

Weaknesses:

Enforcement at all levels

Ways to overcome weakness:

Need leadership and support

Intent of this recommendation:

Share concerns and mutually develop objectives

Benefits of this recommendation:

Respect for resource and process

Working team:

Skrypek, Velin, Fabbro

XII.

In the area of:

Enlightened Fisheries Management: Allocation

We recommend:

A process for determining objectives on a water body

Implementation steps: (approaches/actions that would implement the recommendation)

- 1. Biologists evaluate biological data to determine what can be done and what are most effective alternatives
- 2. Present alternatives for public input and discuss option
- 3. Attempt to reach consensus with groups
- 4. Resolution "congress" or comprehensive plan

Main strengths/weaknesses:

Strengths:

Good biological input to allocation decision, vehicle for education

Weakness:

People don't or won't accept biological data

Ways to overcome weakness:

Openness and explanation of analysis

Intent of this recommendation:

Combine biological limits with public wants

Benefit of this recommendation:

Decisions based on biology with public input

Working team:

Gunsbury, Heywood, Gosse

Minnesota Fishing Roundtable Recommendations Toward Implementation

December 13 Afternoon

Focus Question

How do we use special regulations more effectively to improve and protect quality fishing?

December 13 Afternoon — Team lists

	RED		BLUE
1.	Feiler	1.	Wingate
2.	Stanius	2.	Maas
3.	Broberg	3.	Holschlag
4.	Schupp	4.	Schneider
5.	Fellegy	5.	Schultz
6.	Zentner	6.	Anderson
7.	Goeschel	7.	Fabbro
8.	O'Brien	8.	Halloran
9.	Dyer	9.	Holmes
10.	Payer	10.	Haugsted
	GREEN		BLACK
1.	GREEN Hirsch	1.	BLACK Schrank
1. 2.		1. 2.	
	Hirsch	= -	Schrank
2.	Hirsch Dimich	2.	Schrank Newburg
2. 3.	Hirsch Dimich Shodeen	2. 3.	Schrank Newburg Ewart
2. 3. 4.	Hirsch Dimich Shodeen Johnson	2. 3. 4.	Schrank Newburg Ewart Lindner
2. 3. 4. 5.	Hirsch Dimich Shodeen Johnson Heywood	2. 3. 4. 5.	Schrank Newburg Ewart Lindner Skrypek
2. 3. 4. 5. 6. 7. 8.	Hirsch Dimich Shodeen Johnson Heywood Velin	2. 3. 4. 5. 6.	Schrank Newburg Ewart Lindner Skrypek Gosse
2. 3. 4. 5. 6. 7. 8. 9.	Hirsch Dimich Shodeen Johnson Heywood Velin Gunsbury	2. 3. 4. 5. 6. 7. 8. 9.	Schrank Newburg Ewart Lindner Skrypek Gosse Strand
2. 3. 4. 5. 6. 7. 8.	Hirsch Dimich Shodeen Johnson Heywood Velin Gunsbury DeVries	2. 3. 4. 5. 6. 7.	Schrank Newburg Ewart Lindner Skrypek Gosse Strand Adelman

December 13 Afternoon

1.

Enlightened Fisheries Management: Special Regulation

Roundtable participants developed recommendations in 10 areas. After hearing all recommendations generated by teams, participants indicated preferences by voting for the ones that were most important to them. Each participant could vote for three.

- I. A set of triggers for possible implementation (7)
- II. Steps to go from experimental to special regulations (1)
- III. Allocation of particular types of angling (3)
- IV. DNR collect baseline data and document the need for special regulations (12)
- V. Five-step approach to develop special regulations (2)
- VI. Promoting compliance (4)
- VII. Recommendations reflect biological realities (22)
- VIII. Regional planning process (4)
 - IX. Use accurate, unbiased information (2)
 - X. Implement Dec. 2 process

The specific recommendations are on the following pages.

December 13 Afternoon — Blue Team

I.

In the area of:

Enlightened Fisheries Management: Special Regulations

We recommend:

Implementing experimental special regulations with a set of "triggers" for possible implementation

Implementation steps:

- 1. Agency responds to problem (internal recognition)
- 2. Problem defined by someone bringing it to the agency
- 3. Public desire for change in type/quality of fishing
- 4. Presence of problem exotics
- 5. Take advantage of what other states have done
- 6. Protect unique resources

Intent of this recommendation:

Allow various sectors to propose regulations

Benefit of this recommendation:

Covers all reasons we could think to implement special regulations

Working team:

Blue Team

П.

In the area of:

Enlightened Fisheries Management: Special Regulations

We recommend:

Steps to move from experimental regulations to special regulations

E

Implementation steps:

- 1. Through study and evaluation of experimental regulation results
- 2. Get public input in order to ensure compliance
- 3. Target watershed rather than specific lake (also similar waters)
- 4. Check on "cost effectiveness"

Main strengths/weaknesses:

Strength:

If experimental regulations "prove out," the public will support

Intent of this recommendation:

To improve transition

Benefit of this recommendation:

Will help get programs "on line"

Working team:

Holmes, Maas, and Schneider

Ш.

In the area of:

Enlightened Fisheries Management: Special Regulations

We recommend:

Allocating particular types of angling experience

Implementation steps:

- 1. Take regional, local, and statewide interests and input into account in the decision-making process
- 2. Protect unique resources
- 3. Public dissemination of relevant information (agency and private sector)
- 4. Cite specific examples of success and needs; they need to be publicized

Main strengths/weaknesses:

Strength:

Accountability

Weakness:

Slow process

Intent of this recommendation:

Provide the most fishing for the most people and other opportunities for specific groups

Benefit of this recommendation:

More satisfied anglers

Working team:

Haugsted, Skrypek, Schneider, Fabbro, Holschlag, Maas, Holmes, and Anderson

December 13 Afternoon — Green Team

IV.

 $l \sim 1$

In the area of:

Enlightened Fisheries Management: Special Regulations

We recommend:

The DNR should collect baseline data and also use information from other sources, if available, and the DNR should also document the need for special regulations and define specific goals and objectives to be met

Implementation steps:

- 1. Discuss options to meet goals and objectives with public
- 2. Choose specific goals and objectives and document in writing
- 3. Develop evaluation plan including timetable for completion of experiment and informing public of results
- 4. Allow vehicle for public initiation of proposals

Main strengths/weaknesses:

Strengths:

Common starting point, allows multiple options, increases chances for success, and shows concern for public

Weaknesses:

Potential for unrealistic goals, disproportionate input from special-interest groups, lengthens response time

Ways to overcome weaknesses:

Constant communications with public and increased communication with local groups and unaffiliated anglers

Intent of this recommendation:

Facilitate orderly and reasonable implementation of special regulations with general public acceptance

Benefits of this recommendation:

Public acceptance and compliance; allows for good evaluation

Working team:

Johnson, Dimich, and Hirsch

V.

In the area of:

Enlightened Fisheries Management: Special Regulations

We recommend:

Developing, informing and evaluating the following five-step process based on desire of community and anglers regarding a local body of water

Implementation steps:

- 1. Explain plan at a public meeting with balanced, targeted recruitment to get a common start (including time frame)
- 2. On a regular (annual) basis develop a standard approach and format to limit confusion
- 3. Provide results, conclusions, and recommendations throughout process to build credibility
- 4. Explain, promote and apply positive aspects to reinforce creditability
- 5. Use broad stakeholders throughout: local community, user groups, legislators, and landowners

Working team:

Velin, Heywood, Larson

VI.

In the area of:

Enlightened Fisheries Management: special regulation

We recommend:

Promoting compliance: attempt and evaluate an expanded effort to inform anglers in order to achieve compliance

E

Implementation steps:

- 1. Use volunteers, videos, graphics, singing, media, and maps to communicate special regulations
- 2. Implement
 - a. on waters where noncompliance has been documented and quantified
 - b. as part of an orientation package on new waters
- 3. Implementers are DNR, other enforcement officers, support groups
- 4. Plan for promoting compliance should be developed when defining goals and objectives at beginning

Intent of this recommendation:

To avoid failure of special regulations due to lack of compliance

Working team:

Raas, Shodeen, Haseman, Gunsbury

December 13 Afternoon — Black Team

VII.

In the area of:

Enlightened Fisheries Management: Special Regulations

We recommend:

Regulations should reflect biological realities

Implementation steps:

- 1. Capacity of body of water to produce and sustain species of fish
- 2. Biological characteristics of species
- 3. Alternative management objectives
- 4. Special regulations to achieve each objective
- 5. Evaluation protocol with sunset date
- 6. Do this on regional basis

Main strengths/weaknesses:

Strengths:

Realistic and informative

Weaknesses:

Expensive and time consuming

Ways to overcome weaknesses:

Priortize with existing data and shift DNR commitment of personnel

Intent of this recommendation:

Provide biological basis for public policy decision

Benefit of this recommendation:

Quality fishing

Working team:

Gosse, Orvalla, Smith, Alexander, Ewart

VIII.

In the area of:

Enlightened Fisheries Management: Special Regulations

We recommend:

A regional planning approach incorporating social, political, and economical concerns

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Implementation steps:

- 1. Communicate to people within region the *choices* of fishing opportunities that would be achieved by special regulations
- 2. Incorporate their input to accommodate as many concerns as possible
- 3. Get as many of interested parties and elected officials as possible to sign on

Main strengths/weaknesses:

Strength:

Involvement of the people affected

Weakness:

Vocal minority attempt to cause conflict that will be political

Ways to overcome weaknesses:

Involvement from the beginning though a regional approach

Intent of this recommendation:

To get special regulations through consensus

Benefit of this recommendation:

Appropriate regulations that benefit the public

Working team:

Strand, Lindner, Wingate, Adelman

December 13 Afternoon — Red Team

IX.

In the area of:

Enlightened Fisheries Management: Special Regulations

We recommend:

Special regulations should be based on accurate, unbiased information to generate sound biological decisions and acceptable social and political outcomes

Implementation steps:

- 1. Collection of scientific data by scientists
- 2. Collection of sociological data by sociologists
- 3. Unbiased interpretation what are the facts? and what are limitations of data?
- 4. Reporting of data to managers
- 5. Reporting of data to the public
- 6. Accessibility of data
- 7. Standardized
- 8. Accountability (rigorous internal and public review)

Main strengths/weaknesses:

Strengths:

Foundation for goals and objectives, attempted to eliminate bias

Weaknesses:

Data incomplete, selective reporting, expensive, asking the right social questions

Intent of this recommendation:

Increase angler satisfaction and project resource

Benefit of this recommendation:

It assumes protection, flexibility, education, and enforcement

Working team:

Stanius, Fellegy, Schupp, Broberg

X.

In the area of:

Enlightened Fisheries Management: Special Regulations

We recommend:

Implementing the proposed process for proposing, implementation and evaluating regulations of Dec. 2, 1991

1

Implementation step (approaches/actions that would implement the recommendation:

After submission of a proposal to DNR, said proposal must be submitted to the area fisheries headquarters for review by an ad hoc committee consisting of various user groups such as fishing groups, lakes associations, local officials and other interested parties. The resulting recommendation will then continue through the process.

Main strengths/weaknesses:

Strength:

Expose conflict early on

Weakness:

Need to develop time frame early on for ad-hoc committees; couldn't resolve issue of oversight of DNR internal review committee

Ways to overcome weaknesses:

Develop time frames for ad hoc committees

Benefit of this recommendation:

Expose conflict early on

Working team:

Feiler, Goeschel, Dyer, O'Brien, Payer

Minnesota Fishing Roundtable Recommendations Toward Implementation

December 14 Morning

Focus Questions

What should be done to improve fish habitat that best supports long-term quality fishing?

What specifically should Fisheries and the angling community do to implement these improvements?

December 14 Morning Team Lists

RED

- 1. Feiler
- 2. Smith
- 3. Schranck
- 4. Dyer
- 5. Sparlin
- 6. Skrypek
- 7. Maas
- 8. Gunsbury
- 9. Gosse
- 10. Orvalla

BLACK

- 1. Fabbro
- 2. Wingate
- 3. Johnson
- 4. Dimich
- 5. Anderson
- 6. Ewart
- 7. Halloran
- 8. Heywood
- 9. Holschlag
- 10. Schneider

BLUE

- 1. Zentner
- 2. Adelman
- 3. Payer
- 4. Larson
- 5. Shodeen
- 6. Fellegy
- 7. Hirsch
- 8. Ras
- 9. Haseman
- 10. O'Brien
- 11. Lindner

GREEN

- 1. Velin
- 2. Newburg
- 3. Haugsted
- 4. Holmes
- 5. Broberg
- 6. Goeschel
- 7. Strand
- 8. Stanius
- 9. Schupp
- 10. Schultz

December 14 Morning

Enlightened Fisheries Management: Habitat Improvement and Protection

Roundtable participants developed recommendations in six areas. Participants did not rank these recommendations.

- I. Work with local governments
- II. Provide watershed management leadership
- III. Education be used to promote awareness
- IV. Anglers become more active on land-use issues
- V. Continue efforts on proven programs
- VI. Eliminate destruction of existing habitat

The specific recommendations are on the following pages.

December 14 Morning — Black Team

I.

In the area of:

Enlightened Fisheries Management: Habitat Improvement and Protection

We recommend:

Working with local governments

Implementation steps:

- 1. Develop working relationship with staff (DNR, PCA, AG and local government)
- 2. Educate them to needs; long-range environmental needs
 - a. expand advocate program, create non-government network
 - b. regional local level
 - c. bring all units of government together give into process
- 3. Cost sharing to achieve goal
 - a. prioritize money
- 4. Evaluate successes and failures, build on successes

Main strengths/weaknesses:

Strengths:

Local involvement, builds consensus, better communication and trust

Weaknesses:

Time consuming, turf and regulatory conflicts

Intent of this recommendation is:

To provide direction for environmental improvement

Benefit of this recommendation:

Once consensus exists, long-range goals are achievable

Working team:

Johnson, Wingate, Halloran

Π.

In the area of:

Enlightened Fisheries Management: Habitat Improvement and Protection

We recommend:

Providing watershed management leadership for coordination through a watershed coordinator

-

Implementation steps:

- 1. Commit development funding for water management
- 2. Concentrate more efforts on headwaters
- 3. More education raises awareness document and publicize problems in general terms
- 4. Demonstration projects support, fund, and implement
- 5. Identify problems to address such as: flooding, cattle, pollution, agriculture, urban, private, aquiculture enrichment, logging, sedimentation, temperatures, water level fluctuations, hydro dam manipulations, human activities

Main strengths/weaknesses:

Strength:

Potentially powerful

Weakness:

New and not well defined notion

Ways to overcome the weakness:

Identification of problems

Intent of this recommendation:

Make water management real

Benefit of this recommendation:

Higher quality environment

Working team:

Heywood, Anderson, Ewart

Ш.

In the area of:

Enlightened Fisheries Management: Habitat Improvement and Protection

We recommend:

That education be used to make public and riparian owners aware of the need to protect and improve lake and stream habitat

Implementation steps:

- 1. Produce pamphlet as an educational aid made available to lake association, riparian owner, etc., on how to maintain and protect habitat to educate the public on importance of habitat (weeds, etc.) to the fishery resource
- 2. Provide information on "how to restore habitat" (weeds, etc.) where it has been destroyed
- 3. Secure funding for the above

Main strengths/weaknesses:

Strength:

Public concern for the resource

Weakness:

Lack of funding and enforcement

Ways to overcome weakness:

Education through media, pamphlets

The intent of this recommendation is:

To raise or reinforce public awareness so that habitat will be protected, improved, and restored

Working team:

Dimich, Fabbro, Schneider

December 14 Morning — Green Team

IV.

In the area of:

Enlightened Fisheries Management: Habitat Improvement and Protection

We recommend:

That anglers become more active on land-use issues and fisheries more aggressive on interagency action

Education:

Anglers interact with (lake association, lakeshore, towns, urban and suburban) landowners to emphasize benefits of conservation such as farming, CRP cover crops, and grazing control

Publicize importance of land habitat to fish habitat — billboards on land adjacent to lakes and streams that affect fish success

Promote minimum tillage practices

Regulation:

Fisheries interact with SCS on conservation plans to advocate actions that benefit fish habitats

Anglers interact with local land-use authorities to control Non-point sources of pollution Anglers advocate erosion control at the surface (soil loss ordinance)

Implementation steps:

- 1. Fisheries help landowners plant cover and trees
- 2. Fisheries coordinate works in watershed with other agencies (CWPPhII, Board of Water & Soil Resource, Department of Health [on septic tanks]

Main strengths/weaknesses:

Strength:

Peer pressure

Weakness:

One bad user

Ways to overcome weakness:

Incentives and aggressive actions

Intent of this recommendation:

To make fish groups more active in land-use issues

Benefit of this recommendation:

Fish habitat relies on good land habitat

Working team:

Velin, Holmes, Broberg

V.

In the area of:

Enlightened Fisheries Management: Habitat Improvement and Protection

We recommend:

Continued efforts on proven programs and focus on broader, basic issues

Implementation steps:

- 1. Continue existing water rehabilitation programs
- 2. Expand to deal with basic problems, not just symptoms
- 3. Broaden experimental waters authority for holistic lake management
- 4. Increase labor for stream improvement
- 5. Coordinate public/private partnerships for stream and lake improvement
- 6. Long-range planning for in-stream flow and water level management
- 7. Coordinate all governmental units relating to water control projects
- 8. Coordinate efforts to mitigate impact of exotics

Main strengths/weaknesses:

Strengths:

Adopt-a-River Program, funding, state-of-the-art is good

Weaknesses:

Rehabilitation without watershed control is a Band-aid approach, public education is lacking, in-stream flow applicability is misunderstood

Ways to overcome weaknesses:

Coordinate all governmental units relating to water control projects Coordinate efforts to mitigate impact of exotics

Working team:

Schupp, Haugsted, Stanius, Strand

VI.

In the area of:

Enlightened Fisheries Management: Habitat Improvement and Protection

We recommend:

Eliminating destruction of existing habitat by riparian owners

Implementation steps:

- 1. Support all existing programs
- 2. Encourage lake associations to address their specific lakes' problems and programs to insure quality habitat for future years

E

- 3. Replace destroyed habitat as restitution (no net loss)
- 4. Education
 - a. existing DNR pamphlets to lake associations
 - b. at regional DNR and public input meetings (pamphlets)
- 5. Coordinate all chemical treatments of aquatic vegetation with DNR and the public

Main strengths/weaknesses:

Strength:

Trend toward awareness

Weakness:

Enforcement and owners-users' indifference

Ways to overcome weaknesses:

Education, teeth in existing programs

Intent of this recommendation:

As close to no-net-loss of habitat as possible

Benefits of this recommendation:

Cleaner water and improved aquatic populations

Working team:

Goeschel, Neuberg, Schultz

Minnesota Fishing Roundtable Recommendations Toward Implementation

December 14 Morning

Focus Questions

Which education strategies will give the most results for the investment?

What specifically should Fisheries and the angling/fishery community do to implement these?

December 14 Morning

Enlightened Fisheries Management: New Values Education

Roundtable participants developed recommendations in five areas. Participants did not rank these recommendations.

- I. Focus on youth
- II. Adult angler re-education
- III. Use of mass media
- IV. Identifying target groups
- V. Evaluate, improve and empower current programs

The specific recommendations are on the following pages.

December 14 Morning — Red Team

I.

In the area of:

Enlightened Fisheries Management: New Values Education

We recommend:

A focus on youth: Expose youth in public schools to fishing

Implementation steps:

1. Roundtable to develop curriculum

2. Pilot programs for outstate and metro

3. Work toward legislative mandate to expose to fishing with required environmental education program

4. Utilize private-sector resources through development and implementation, volunteers and industry

5. DNR catalyst to convene

Main strengths/weaknesses:

Strengths:

Reach all youths — not hit and miss, continued economic strength, better quality fish and fishing experience, brings diverse groups together into partnerships

Weaknesses:

Time to implement, resistance toward fishing education, apathy of fishing public

Ways to overcome the weaknesses:

Promote benefits of fishing to DNR and economy and communicate that we are environmentally concerned

Benefits of this recommendation:

Money to DNR continues or increases, money to Minnesota economy, environmentally concerned group

Working team:

Maas, O'Brien, Goeschel, Dyer, Feiler

П.

In the area of:

Enlightened Fisheries Management: New Values Education

We recommend:

Adult angler re-education through development of improved distribution system for education materials and emphasis on cost-effective methods of education

Implementation steps:

- 1. Provide permanent manual to writers, media personalities, guides, seminar presenters, manufacturers, and fishing club leaders that identifies recipient's role and sources of educational material to form a partnership to educate the public
- 2. Stress fish population/management dynamics, lake ecology/angler ethics
- 3. Identify partnership participants (fishing/angler community)
- 4. Pilot effort to test materials and distribution network
- 5. Orientation strategy

Main strengths/weaknesses:

Strengths:

Economical — stakeholder involvement, utilizes people resource

Weaknesses:

Time consuming, requires strong coordination — voluntary commitment may diminish

How to overcome weaknesses:

- 1. Consistent good materials
- 2. Continuing public relations
- 3. Report successes
- 4. Constant evaluation and reporting to partners
- 5. Research other programs (outside Minnesota)

Working team:

Ginsbury, Smith, Skrypek, Schranck

December 14 Morning — Blue Team

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In the area of:

Enlightened Fisheries Management: New Values Education

We recommend:

Use of mass media (TV, radio, and print) through coordination of efforts (message) by all media, greater use of media to get message to general public, and a DNR weekly TV show (70 percent casual angler or non-angler)

Implementation steps:

What:

- 1. TV, radio, and print; coordinate effort to get out the same message at the same time (networking)
- 2. 30-second commercials and public input shows
- 3. TV show, issues, roundtables, education and timetables

Why:

- 1. Repetitions of message will emphasize importance of targeted issues and values
- 2. Reach and educate general angler and public
- 3. Inform dedicated, casual, non-anglers

When:

- 1. Annual meeting to schedule and coordinate messages to be conveyed by participating groups
- 2. Funding, as soon as possible

Where:

1. Local, regional (statewide), national

Who:

- 1. Participants of media groups
- 2. Production, sponsors, DNR, and legislature, manufacturers, support groups, LCMR, cooperative external services, and national shows taking up issues
- 3. DNR coordinated with sponsors

Main strengths/weaknesses:

Strength:

Large-audience public service announcements are relatively inexpensive

Intent of this recommendation:

- 1. Emphasize major and targeted issues and education
- 2. Reach large audience
- 3. Advertise awareness of other programs

Benefits of this recommendation:

Informed and educated public will tend to make right decisions, reach large group quickly, sponsoring groups working more closely together

E

Working team:

Adelman, Shodeen, Larson

IV.

In the area of:

Enlightened Fisheries Management: New Values Education

We recommend:

Identifying target groups (fishing and non-fishing) — veteran anglers, novices, riparian owners, water interests, legislature — and focus accordingly

Implementation steps:

- 1. Educate general public on benefits of a healthy fishery
- 2. Target groups not normally reached such as single parents and landowners
- 3. Work with youth, sporting, and environmentalist groups
- 4. Work with legislature through increasing demand
- 5. Work with resort and tackle industry in partnerships
- 6. Attempt programs K-12

Main strengths/weaknesses:

Strengths:

Availability of multi-media opportunities; enlightened and creative people; tapping into resort industry, tackle, etc.; converting latent to actualized active; make public aware of cost of legislature underfunding

Weaknesses:

K-12 difficult, must priortize, fisheries and fishing groups have limited resources

Ways to overcome weaknesses:

Tap good sources, such as the resort and tackle industries

Intent of this recommendation:

To broaden support and foster responsibility and cost awareness

Benefits of this recommendation:

Intelligent and respectful use of the resource and improved fishery

Working team:

Zentner, Lindner, Fellegy

v.

In the area of:

Enlightened Fisheries Management: New Values Education

We recommend:

Evaluating, improving, and empowering current programs

Implementation steps:

- 1. Support, promote and expand MinnAqua program
- 2. Evaluate effectiveness and potential of MinnAqua, Aquatic Wild, and other current programs

E

- 3. Expand outreach of programs
- 4. Improve coordination with others involved and interested in education

Main strengths/weaknesses:

Strengths:

MinnAqua and improved outreach programs

Weaknesses:

Many programs want school and education time and cooperation

Intent of this recommendation:

To promote and improve stewardship of fishing resource

Benefits of this recommendation:

Voluntary compliance, fishing quality, basis for informed decisions

Working team:

Haseman, Hirsch, Ras, Payer

Appendix A

Ten-year Vision,
Obstacle, Strategy Charts

Fishing Roundtable TEN-YEAR VISION Department of Natural Resources Fish and Wildlife Division January 25 and 26, 1991									
Quality Angling Experience			Quality Habitat Quality Fisheries Management						
COMPLIANCE		MAXIMIZED QUALITY FISHING C.	ENHANCED OPPORTUNITY TO FISH D.	ENVIRON- MENTAL AND ETHICAL EDUCATION E.	HEALTHY AQUATIC HABITAT F.	INDIVIDUAL WATERS MANAGEMENT G.	ADEQUATE FUNDING H.	1	LIMIT CONFLICT BETWEEN USERS J.
Clear, Enforceable Regulations 1.		High Catch Rate 8.	Improved and Expanded Water Access	Youth Outreach Education Programs	Effective Watershed Management Practices	Sound, Total- species Management	Improve Resource Base 26.	Roles and Responsibil- ities Assigned	Management for Multiple Use
Improved Voluntary Compliance 2.	5. Diversified	Broad Size Ranges 9.	Improved and Expanded Types of Access	Well-rounded Education Supporting	Areas	Refine	State Advertising Promotion 27.	Program Coordination 31.	Organized Fishing Event Discussions
More and Better- trained Personnel	Opportun- ities to Fish 6.	Trophy Fish Contact Opportuni- ties 10.	Better Access Locations	Maintenance of Fishing Environment	Maintain Resource Integrity 21.		Expanded Economic Support 28.	Cooperation Across Disciplines (DNR and Others)	Commercial and Sport Fisheries Conflict Resolution
Intensified Law Enforcement 4.	Quality Experience Emphasis	Pleasing Fishing Settings	Improved Handicapped Accessibi- lity	Redirect Anglers to Broader Use	Air and Water Quality Improvement 22.	Sociological Effects of	Adequate DNR License Fees 29.	Innovation and Risk Taking Encourage- ment 33.	Conflict Management Between Fishing Groups

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Fishing Round Fish and Wild	table life Division	OBSTA	OBSTACLES Department of Natural Resou January 25 and 26,		ural Resources 5 and 26, 1991
IFLICTS AND NTROL IN RESOURCE ALLOCATION AND MANAGEMENT I.	ANGLER AND DEPARTMENT PERCEPTION OF	LACK OF COMPLI- ANCE DUE TO MINIMAL ANGLER UNDERSTANDING & PERCEPTION III.	INADEQUATE SOURCES AND LOSING FUNDING TO OTHER INTERESTS IV	INEFFECTIVE ENFORCEMENT	INADEQUATE FISHING WATERS MANAGEMENT AND INFORMATION VI.
Conflicting values and perceptions	Roughfish image is poor	Compliance, no positive benefits	Lack of funds	Catch-and- release enforcement	Unused field staff input
Commitment to partnership absent	Biological productivity	Unaware of full damages	Perception: only anglers pay	Lack of visible enforcement	Public doesn't believe DNR
Autonomous attitude	Walleye as health food	Financial cost	Lack of DNR personnel	public	Increased DNR responsibil- ities
Non-economic values unquantified	River fish considered unsafe	Regulations not acceptable	Misspent money	Nuisance regulations	Unreliable data collection
Sport fishing low priority	Overfishing northerns	Cost of fishing licenses	Loss of economy of scale	Inconsistency of enforcement	Not enough manpower
Regulations not uniformly applied	Other species promotion	Anglers not well organized	Economic climate	Increased complexity	Little lake- specific information
Sound management meeded		React rather than act	Diversion of funds	Simplifi- cation of regulations	Lack of information spp
profits m resource	Past history	Need organized grassroots	Program funds	Educate local authorities	Lack of confidence
Management trade offs	Image of walleye is king	Expectation exceeds resource	Complex revenue-seeking process	Appropriate regulation	Danger of re- creating wheel
Deplete the fishery	Promote species at ex- pense of other	Lack of willingness	Restrictions on DNR funding	Regulations book	Invading non- native species
No common data base	Financial priorities for I. and E.	Failure to lead boldly	Game/fish funds raids	Local authority and input	Input from other users
change	Tourism emphasizes walleye	Enforcement officers need P.R. education	Donations go to other causes		
Jonflicting border regulations	Many defini- tions of qual- ity fishing	"Let's pick on DNR"	Duplication of effort		
jurisdiction	Public education needed	Hesitancy to regulate some users		_	
Outnumbered anglers			•		
Other resource users' rights					
iding Esponsibility					

1,1

Media focus on user

Fishing Roundta Fish and Wildl	able ife Division	OBSTACLES (cont'd) Department of Natural Reso January 25 and 26,			iral Resources 5 and 26, 1991	
OBTAINING ACCESS	ECONOMICS OUTWEIGH RESOURCE	LOCAL PROPERTY OWNERS' COOPERATION	HARVEST MENTALITY		NO SYSTEM FOR EDUCATION	COST OF LICENSES
VII.	VIII.	IX.		Х.	XI.	XII.
Slob anglers	Profit vs. resource	Uninformed lakeshore owners	Too many meat anglers		No system for education	Higher fee, less license purchasers
Appropriate access	1	Resistance by owners	Only big limit counts		Competition from other interests	Cost up, sales down
Lack of suitable sites	Greed or ignorance	Local opposition	Harvest mentality		Organization of materials	Demographics, single-parent families
Anti-fishing sentiment	Barge traffic destruction	Impact on local economy	Catch-and- kill-limits mentality		Marketing	License fee too small
Costly sites	Maintain status quo	Bad communication	Long-term policies		Lack education to comply	License sale decline
Radical special-inter- est groups		Excessive environmental destruction				
Insensitivity towards handicapped	Non-point pollution		•			
Piers in wrong places		•				
Lack of public access						

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STRATEGIES

Department of Natural Resources January 25 and 26, 1991

SECURE RESOURCE BASE FOR THE FUTURE

A. HABITAT IMPROVEMENT AND PROTECTION	B. ENLIGHTENED FISHERIES MANAGEMENT	C. EXPANDED FUNDING	D. QUALITY INFORMATION FOR DECISION MAKING
 Address major problems Work with programs which give priority to riparian lands Make community industry pollution penalties hurt Major support of R.I.M. 	 Explore new fisheries management techniques License fees commensurate with impact Individual lake/stream management plan Emphasize wide variety of fish in Minnesota 	3. Realistic process for license fee adjustments	Shared data-base information Improve data processing Require license return for information retrieval

IMPROVED COMMUNICATION AND COOPERATION

E. P.R. SYSTEM THAT MAXIMIZES VISIBILITY	F. DNR/ANGLER INTERACTIONS IMPROVEMENT	G. PARTNERSHIPS TO IMPROVE ANGLING
 Build credibility Creative public relations thrust Increase information dissemination to local groups Strong public relations program within DNR 	 Constant regular interchange More public input DNR encourage and ask for help/support 	 Work with other groups on common issues Organize anglers for a unified voice Limit the conflict Create and organize local groups

INCREASED ANGLER OPPORTUNITY AND RESPONSIBILITY

H. ACCESSIBILITY AND EXPANSION PROMOTION	I. NEW VALUES EDUCATION	J. ENFORCEMENT VALUE MAXIMIZATION
 Inform people of accessibility Solicit local property owner leadership Access program and guideline Rules for developing and maintaining accesses Legislative message supporting access rights 	 Educate anglers Basic aquatic education Educate public Environmental education for schools Create vehicles to get kids fishing 	 Use volunteers Inform public on the values of regulation Simplify regulations and eliminate nuisance regulations Stronger enforcement presence Training and education of officers

Appendix B

Participants

PARTICIPANTS

Ira Adelman
Department of Fisheries & Wildlife
200 Hodson Hall
1980 Folwell Avenue
St. Paul, MN 55108

Dennis Anderson DNR Fisheries 1201 East Highway 2 Grand Rapids, MN 55744

Jeffrey Broberg 1648 3rd Avenue Southeast Rochester, MN 55972

Bob Devries 7213 Major Avenue North Brooklyn Center, MN 55429

Rod Dimich 2750 North Bass Lake Grand Rapids, MN 55744

Rick Dyer 6070 Brand Circle Excelsior, MN 55331

Dave Ewart 237 Butternut Avenue Red Wing, MN 55066

Bob Fabbro 110 North 6th Avenue East Duluth, MN 55805

Ed Feiler DNR Fisheries 1601 Minnesota Drive Brainerd, MN 56401 Joe Fellegy Route 1, Box 149A Aitkin, MN 56431

Roger Goeschel 600 Chateau Circle Burnsville, MN 55337

Jeff Gosse USFWS-Fisheries & Federal Aid Federal Building, Fort Snelling Twin Cities, MN 55111

Alan Gunsbury Quarterdeck Resort 1588 Quarterdeck Road West County Rd. 77, West Side Gull Lake Brainerd, MN 56401

Jim Halloran 47 Ojibwa Road Brainerd, MN 56401

Leo Haseman DNR Enforcement Division 500 Lafayette Road St. Paul, MN 55155-4047

Mel Haugsted Route 2, Box 18 Preston, MN 55965

Mark Heywood DNR Fisheries P.O. Box 7427 Rochester, MN 55903

Steve Hirsch
DNR Fisheries
500 Lafayette Road
St. Paul, MN 55155-4012

Roger Holmes
DNR Fish and Wildlife Division
500 Lafayette Road
St. Paul, MN 55155-4020

Tim Holschlag 2309 Grand Street Northeast Minneapolis, MN 55418

Representative Virgil Johnson Route 2, Box 88 Caledonia, MN 55921

Gary Larson 4450 Arthur Place Northeast Minneapolis, MN 55421

Ron Lindner IN-FISHERMAN Box 999 651 Edgewood Drive Brainerd, MN 56401

Al Maas Summit Avenue Box 353 Walker, MN 56484

Don O'Brien P.O. Box 23 Nisswa, MN

Lanny Orvalla Lund Boat Company P.O. Box 248 New York Mills, MN 56567

Ron Payer DNR Fisheries 500 Lafayette Road St. Paul, MN 55155-4012

Leroy Ras 306 Fingal Drive Alexandria, MN 56308 Frank Schneider 159 Lafond St. Paul, MN 55103

Bob Schranck Outdoor News 3410 Winnetka Avenue North Minneapolis, MN 55427

Lynn Schultz 1515 Somerset Road Fergus Falls, MN 56537

Dennis Schupp DNR Fisheries 1601 Minnesota Drive, Box 648 Brainerd, MN 56401

Duane Shodeen DNR Fisheries 1200 Warner Road St. Paul, MN 55106

Jack Skrypek
DNR Fisheries
500 Lafayette Road
St. Paul, MN 55155-4012

Sybil Smith
Fins Publications
3075 Woodbridge Street
Roseville, MN 55113

Scott Sparlin SW Minnesota Anglers 810 3rd North Street New Ulm, MN 56073

Representative Brad Stanius Room 315 State Office Building St. Paul, MN 55155

Bob Strand
DNR Fisheries
2115 Birchmont Beach Road Northeast
Bemidji, MN 56601

John Velin Legislative Commission on Minnesota Resources Room 65 State Office Building St. Paul, MN 55155

Jack Wingate
DNR Fisheries
500 Lafayette Road
St. Paul, MN 55155-4012

Dave Zentner 722 First Bank Place Duluth, MN 55802

Appendix C

Minnesota Fishing Roundtable

Preliminary Participant Questionnaire

Regarding Enlightened Fisheries Management

Special Regulations

- 1. What do you think are the biological, social and political factors that support the implementation of special fishing regulations?
 - a. Biological to improve fishing quality, primarily by increasing fish size or improving population structure, improve health of fish community
 - Social/political improved fishing quality provides more opportunity for satisfied anglers; benefitting Minnesota economically, by improving awareness of the value of resources and generate public concern for protecting resources
 - b. Biological lakes/fisheries need them
 - Social not acceptable on "my lake"
 - Political politics comes in when DNR does inadequate job of involving public in explaining regulations or specific regulation planning, implementation and termination
 - c. Biological all lakes and streams are different, standard regulations cannot optimize resource quality; pressures from increased use and habitat decline have had negative impacts
 - Social/political some anglers want additional angling opportunity provided by special regulations
 - d. Biological human impacts on natural conditions need human applied discipline to offset/correct impact
 - Social humans are greedy, but can "buy in" to a selfless goal if they know that a substantial majority of others cooperate and the regulations could work well to obtain a special objective
 - Political policy makers need to hear from constituents about the special objectives
 - e. Biological Attempts to get "quality" fishing might require special regulations
 - Social "Meal hogs," kill every catch, requires "catch and release" or "slot limits"
 - Political freshmen will accept special regulations if they are convinced they will work

f. Trout: (1) diverse streams, (2) diverse species/strains of fish, (3) diverse angler interests, (4) there are many anglers, and (5) no stream can be all things to all anglers and no angler will find what he/she wants on all streams

E

- g. There is a great wealth of information supporting sound biological special regulations. Sociologically, there is a great outcry for additional special regulations and quality fishing. Unfortunately, the political process has become involved in micromanaging special regulations and there doesn't appear to be universal support.
- h. Biologically, enactment of less consumptive regulations makes sense. On many waters, the present intensive harvest regulations are not biologically sound and it is impossible to sustain quality fish populations.

Socially, new regulations also make sense. A growing number of anglers no longer measure their enjoyment solely in pounds of dead fish, but rather enjoy the opportunity to catch (and release) greater numbers of larger fish.

Minnesota has been losing angler tourism to other states and Canada; if we improved fishing through regulations and increased fishing revenues, politicians and general citizenry would be happy.

- i. Demands for increased quality of fish will require either limited entry or restricted harvest of some type; special regulations have the best chance of succeeding in appropriate biological circumstances.
- j. Biological way to improve (shorten) time between bites, way to produce more quality (larger) fish
 Social special interest groups (e.g., fly fishing only), see need to meet their quality and quantity
 Political most constituents support, time has come to implement
- k. The biological factors and regulations should carry the majority of the clout and stick to their guns.
- Biological management must be progressive and be ready to make changes (e.g., ban spearing, size or slot limits, catch and release, etc.) in order to keep up with pressures applied by society (pollution, more anglers, better anglers, exotic weed introductions). Apparently, the only way we are comfortable making these changes is to spend 5-10 years with special regulations on individual lakes.
- m. None! Well planned statewide or regional fishing regulations can provide adequate protection for Minnesota fish stocks. Allowing anglers to use traditional fishing methods and to harvest reasonable amounts of game fishes will not adversely affect the size structure of game fish populations in Minnesota.
- n. With better utilization of fishery resource and better awareness of value of resource

and politically working together, we will all gain.

- o. Only biological factors should be considered social and political factors will serve to destroy any meaningful work.
- p. Biological factors the over-harvest or under-harvest of a particular species of fish, i.e., limits. The method of harvest, for example, spearing vs. angling for northern pike. Seasons relating to the harvest of fish. Trophy lakes are selections as a function of biological factors. Promiscuous fishing or complete harvest of a winterkill lake. Fishing pressure supports the biological implementation of fishing regulations. Exotic species introduction and control support the implementation of fishing regulations.

Social factors that support the implementation of fishing regulations — tradition of fishing.

Political factors that support the implementation of fishing regulations the influence of sportsmen's fish angling groups, such as Bass, Muskies, Inc., etc.; geographic areas of the state, local interest in bodies of water, and special interest groups.

- q. Spearing has had a long tradition in Minnesota. Several other states have now addedthis to their seasons. I believe it has no effect on quality northern pike waters. If this question applies to slot limits and the spearing issue: (1) Slot limits work keep them up (this alone can enhance any body of water) and (2) spearing issues have political and social impact. Spearing is not a detriment. Slot limits can be applied as well as size limitations.
- r. Over-exploitation of larger fish; increased fishing pressure and desire for diversified angling

Most anglers perceive that special regulations work, even when they may not make a biological difference.

- s. Biological over-harvest, degrading habitat, etc. Social those to do (perceived)

 Political won votes
- t. Biological heavy fishing pressure has caused smaller fish, poorer quality
 Social anglers are becoming more supportive of special regulations
 Political special-interest groups are beginning to support, even demand, special regulations
- u. Condition of fish population, awareness and sportsman implementation of laws, legislators, understanding and monetary support
- v. Biologically, sport fish populations face two distinct problems. First, changes in quality and quantity of available fish habitat are occurring at an increased rate.

Second, angler pressure and sophistication continue to increase. Socially, today's angler has become increasingly aware of the pressures exerted on sport fish populations. This awareness has created an environment of understanding and willingness on the part of the angler to support and accept regulations specific to a particular body of water. In an age of local involvement in decision making, the political atmosphere appears amenable to processes which utilize all sources to improve angling.

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w. The basic questions should be: Who or what benefits by designating a body of water or geographic area as eligible for special regulations? Does the resource benefit or is the benefit only to those who use a resource in a particular way? The use of special regulations is not a panacea. One questions whether fishing managers do not have the means, desire, experience or ability to manage our waters to satisfy each special interest or to even attempt to satisfy every notion of what constitutes a quality fishing experience.

The protection of desirable fish populations and the most desirable individual fish or the depletion of less desirable fish populations and least desirable individual fishes requires an acceptable value judgment and a clear indication that a proposed regulation will have the desired effect. The decision of what constitutes a desirable fish, worthy of protection, is guaranteed to create conflicts with those individuals or groups that do not hold the same values. These decisions are not biological considerations. Based on biology or ecology, can we justify an administrative order that defines a certain size as more desirable than a fish 2" smaller?

A conflict in values among user groups will surely occur if waters are managed to generate trophy specimens of what some anglers consider a most desirable fish. The prohibition of harvest for non-trophy individuals will be contrary to the desires or values of some of the adjoining landowners, locals, the average fisherman who simply wants to fish or to the fisherman who wants to eat a fish. The protection of waters to generate a trophy population is not a biological decision but is a socio-political justification for special regulations catering to a select notion of what constitutes a quality fishing experience. Special regulation protection to create trophy fishery will have biological consequences but is not a biological justification.

Biological — a biological approach to special regulations requires a staff of 300 employees to perform a detailed assessment of historic data, existing conditions, an evaluation of anticipated future trends in nearby land use and an anticipation of future resource utilization for each of the 5,483 lakes, 623 trout streams and innumerable rivers. Complete assessment is a necessary first step to evaluating specific needs and the proposed development of specific management plans. The current data research program is not adequate to provide the necessary information to make informed decisions based on biology and an expectation that an adequate assessment can be performed with the available resources is unrealistic.

Biological justification for the implementation of special regulations presupposes that

the managers are able to identify that a problem exists, that the problem(s) prevent the maintenance of a health population of desirable fish, that the issue cannot be solved by expunging the problem (e.g., pollution), and the problem could be expected to be remedied by the prohibitions or actions of anglers and other water resource users whose activities could be modified with special regulations. (This is a tall order for a limited organization in charge of a vast natural resource.)

Special regulations, if implemented and monitored properly, could be used to protect a biological system and create a sanctuary for desirable fish. Special regulation programs might be used to protect a fish population if biological evidence suggests the occurrence of a crash in the population due to natural events, degradation of habitat, pollution or over-harvest. The goal should be to allow a depleted population to recover or maintain a desirable level by limiting the impact of harvest while the root problems are addressed and corrected or mitigated.

Special regulations might reasonably be used to protect the breeding age classes of desirable fish, to encourage the quickened removal of overpopulated and stunted populations or to remove less desirable species, and used as a means of limiting the input costs for maintaining a quality fishery, i.e., protect the breeding areas or breeding population in an effort to reduce stocking requirements.

Political/social — the needs and desires of landowners and local fishermen are neglected in the special regulation process, causing these individuals to seek remedies with their elected officials. The DNR appears to be acting on behalf of the consumers who use the resource but neglects the stewards and owners of the land.

- x. The regulations must be considered at certain times according to a certain body of water's special needs. Lakes with high degrees of reproduction can be dealt with differently. If large fish are prevalent, but not in numbers, then certain size regulations should be implemented. Three-year experimentations would at least be well received as opposed to long lasting or permanent ones.
- y. Biological need to maintain fisheries. Social political sympathy by fishing constituencies that special regulations work and success stories from around North America and world.
- z. Biological factors that support this are limited there are some, certainly, but far less than most would perceive. Social and political factors are prevalent, some are valid, many are Band-aid approaches, some "getting on the band wagon." Resource protection with net gain of target species/lake, etc., based on biological. Fact is valid. Also, interests of the public, interest groups, etc., that also have merit are realistic.

Added question: Factors that detract from the use of special regulations:

a. '1. Special regulations have been used to create sanctuaries for anglers who hold a very narrow vision of what constitutes a quality fishing experience. They are commonly implemented at the expense of anglers who hold a less demanding vision.

- 2. Special regulations have a tendency to be exclusive and generate or heighten user group conflicts, e.g., artificial only, catch and release only, special tournament fishing regulations, seining allowed, spearing prohibited, etc. Advocates contend that special regulations create "enhanced opportunity," a distortion of the concept of opportunity and a euphemism for excluding certain activities for the perceived benefit of a minority.
- 3. Special regulations create a confusing and discouraging regulatory environment where massive regulation books can be vexing, unintelligible or unavailable; if regulation booklets are not readily available or are misplaced it becomes difficult for even the most astute fisherman to plan a fishing trip to an unfamiliar area.
- 4. Implementation of special regulations places additional responsibilities on an organization managing abundant water resources with limited human resources, limited capital resources and shrinking financial resources. What will be required of new managers? Can the existing managers possibly have enough time to research, propose, advance and administrate a wide variety of new regulations when we cannot even evaluate if the current programs are satisfactory?
- 5. Special regulations create a enforcement problems. When every body of water has a special regulation every body of water needs special enforcement.
- 6. The current process of proposing and implementing special regulations does not involve, and tends to ignore, the landowners, local residents and anyone else who is removed from the regulatory and administrative process. The law requires the DNR to hold a public meeting and that the subject, time and place be announced in the legal section of the official local paper. Who reads the legals for fishing news?
- 7. Special-interest watchdogs who can influence the administration tend to stay tuned to proposed changes and garner influence at the earliest stages of a proposal. Common, non-affiliated anglers, local landowners, local businessmen and many other interested parties do not have the opportunity to influence the early direction of a proposal. The public is not invited until the proposal has been approved by a chain of managers and administrators and the special regulation proposal has developed a higher form.
- 8. Fisheries managers in charge of proposing and advancing special regulations have been criticized for avoiding contact with those who do not hold their enthusiasm

for the proposal. Fisheries administrators who become advocates are defensive of their positions, are uninterested in hearing detractions and work to suppress criticisms that might derail a proposal. Advocates lose sight of their role as public servants.

9. By the time proposed special regulations reach the stage of public meetings, the managers who are charged with the task have too much time and effort invested in the success of a proposal to make a balanced evaluation based on merit alone. In a bureaucracy, special regulations open to public scrutiny become a vested interest to the entire organization. Any retreat from a sanctioned proposal, for any reason, will be viewed as a failure for the organization and can be detrimental to the advocate's career path.

2. What process steps should be followed by the DNR and others to apply special regulations?

- a. Plan and evaluate after implementation, provide diversity and take risks, follow regulations process recently established.
- b. Coordinating action is the responsibility of DNR, but they typically are inadequate in dealing with the public. They will listen to one supportive special interest group and not bother with several other groups that are affected.
- c. Collection of baseline data, discussion with anglers regarding the proposal of regulations, evaluation of regulations, report on success or lack of successes.
- d. DNR should reallocate some existing effort and staff, then make people aware of what they did. Also, inform people of the need for the regulations and above all implement in as simple a manner as possible starting slow and small and proceeding, only with proof.
- e. Decide if special regulations are needed, then how and what to implement. Set an "end date," monitor and survey results in the interim.
- f. Implement regulations in large batches. This will demonstrate variety in DNR objective. The appearance of favoritism will be avoided no one will feel left out or singled out for special restrictions. The purpose of varied regulations will be more apparent to anglers and will help spread out fishing pressures.
- g. Better communication. Find a way to deal with vocal, single issue minorities; a good process is now in place.
- h. Get out there and educate anglers, politicians and fishing industry on the value of better fishing through better regulations. DNR itself must start to do this, not rely solely on fishing industry sources (many of whom are tied to old maximum harvest

interests).

Enacting more progressive regulations is 15% biology, 85% politics. DNR has totally neglected this 85%. For DNR to best educate people about the value and potential of better regulations, it should first reeducate its "old school" maximum harvest managers and biologists.

F

- i. Solicit peer and public review of proposals with good pre-data, evaluation plan, experiment "end time." Decide whether to drop, alter, or continue special regulations as permanent regulations always maintaining communication with angling public.
- j. Set up goals (objectives), set up timelines to evaluate, improve communication with public, e.g., regulation, tell everyone what was found, either remove regulation or make it permanent.
- k. First of all, the intent needs to be in the best interest of the body of water. If there is a problem, the DNR needs to control the local media and enlist the help of conservation clubs, such as Izaak Walton and others, to back the regulation but it had better be done in the right spirit.
- 1. Obviously, for political reasons the public needs to think it's being consulted so some type of public meeting needs to be employed. The DNR should have the expertise to make these decisions. Politicians, unrealistic as it may be, should have very little or no real decision-making powers regarding special regulations.
- m. None! The great majority of anglers in this state do not want a fishing rules book which is several inches thick. Neither will conservation officers enforce special rules which most people perceive to be nuisance regulations. But local anglers will support more restrictive regional or statewide fishing regulations if needed.
- n. Define needs based on resource availability and potential followed by orientation and marketing of special regulations.
- o. Weigh in the impact on the fisheries period!
- p. The current process that DNR follows regarding public hearings provides a fair and open assessment of the special regulations for individual lakes, rivers or species of fish.
- q. If we want to attempt to grow bigger northerns for example, we could use a tag system, e.g., 1 over 30" for the year for fisherman and spearer, from certain bodies of water.
- r. A needs assessment and public review.

- s. Process steps should remain as it is.
- t. Research the literature, study the resource and its users, in-house discussions, public meetings, implement if studies and social needs approval show that it may be possible to improve the resource, must ask if it is really necessary or appropriate.
- u. DNR: Confer with anglers, determine popularity of regulation ideas, determine biological implications, hold public informational and input meetings. Others: Be informed to act in the interests of the resource.
- v. Regulations should be formulated with sensitivity towards fishery and fisherman he must understand the virtue of the regulations.
- w. An internal process exists within the Section of Fisheries when a biologist wishes to propose a special/experimental regulation. The process involves considerable discussion and both pre- and post-regulation evaluation, including population modeling. It is subject to close scrutiny for adequacy and appropriateness by a peer committee prior to the mandatory public review process. The initial proposal, be it the result of angler request, or not. A formal process for dealing with significant angler-initiated special/experimental regulation proposals may be necessary.
- x. The proposal, review, approval and administration of special regulations should allow for general public input at the earliest stages of discussion. Currently the investigation of the desirability of special regulations on a water body is an internal matter within the DNR that does not meet public scrutiny until the proposal is solidified and the public process does not begin until the proposal has been "cooked and dried."

If individual waters are to be designated for special regulations, the targeted waters should be publicly identified in the earliest stages of a proposal. The proposed special regulation waters should be publicly posted at all reasonable access points at least one fishing season or one year before a public hearing. Posting should identify: (1) the perceived need and the desired result, inviting the public to comment on the desirability of special regulations and possible approaches that can be taken to achieve the goal; (2) water-side posting should identify contacts at the regional and state level, identify the deadline for receiving pre-meeting comments, identify the proposed location and date of a public hearing and identify the proposed date that final action will be taken; and (3) proposed special regulations should also be detailed in the regulations booklet at least one season before anticipated administrative action.

For general special regulations targeting classes of waters, an assessment of water class designation should be made available for general public review at least one season before proposed special regulations are posted on the waters. Again proposed special regulation designation should be posted at access points at least one season before a public meeting and administrative action.

y. Put the special regulations to a public meeting in the area to be implemented, and let

the public know in advance the significant positives that can be realized by special regulations. Tourism can't always stand in the way of progress, but experimental regulations must be livable for all concerned.

- z. DNR initially evaluate resource status and needs; share with fishing, public and legislature; engage in discussions with various constituencies and be sure to include landowners and local government; final plan.
- aa. Special regulations should be put in place where needed and acceptable, based on information already available, and should remain in place unless circumstances change. Experimental regulations should be tried when acceptable, with stated objective, trial period specified with evaluations built in. This process would result in special regulations adoption (if warranted) or discarded if not successful.

Allocation of Fishery Resources

- 1. What should be the basis for making allocation decisions (e.g., angler demand, lake and stream classification, natural habitat, other)?
 - a. Protection of the resources. Do not become driven by minority constituent groups. Properly evaluate what most anglers desire, provide diversity and expand efforts towards individual groups based upon their desires.
 - b. Fishery survival is key element unless it is put and take, or put, grow and take in which case harvest and allocation are the driving forces.
 - c. Allocation decisions are often best left to political process.
 - d. Natural habitat capacity inform people of the human problem of four times more anglers on the habitat, especially the human impact of increasing technology applied to a static resource.
 - e. Best bang for the buck; what lakes can produce best of certain species, more accurate surveys, and fishing pressure.
 - f. Angler interests, potential(s), of various stream and species combinations, need for local and regional balance, compatibility and incompatibility of angler interests on specific streams
 - g. 1st priority biological what can the resource support?

 2nd priority sociological what do people want? A good case can be made for switching these priorities.
 - h. Angler demand, based on anglers first being fully informed about what is biologically possible for a given body of water. Today; many anglers do not know that many

Minnesota waters could produce more bigger fish if catch and release regulations were enacted.

- i. What a lake can produce with some management. Allocation should be based on the overall interests of the statewide constituency in mind with concern for local opinions. Need for good communication lines.
- j. Resource ability to support a certain level (quantity or quality) of harvest. Social and political factors are secondary to the first.
- k. Natural habitat and chronic problems with particular lakes and rivers, but fish habitat is the single most important issue to the future of Minnesota fishing.
- 1. Availability and accessibility have to be considered first. Dollars and angling hours on the lake make economic sense. Allocations should be based purely on demand (i.e., walleye stocking in lakes is much more conducive to bass, pan fish or northern reproduction). State anglers want walleyes, but if we were to concentrate on those efforts "walleye lakes," the resource would be much better served.
- m. It should not be the business of appointed state bureaucrats to allocate resources because they cannot be removed by the voters in cases when they choose to dance with the special interests. Social regulations do not belong in fishing. No single person is better than any other person as long as everyone pays the same license fee.
- n. Balance of practical economic needs, resource availability based on potential values of natural resource from both short-term, mid-term and long-range perspective and mix thereof (that is practical and manageable with funding that is available).
- o. As much open use that a fishery can sustain, but still retain quality.
- p. The basis for allocating decisions should be biological that is, natural habitat or preservation or control of individual species. The next basis would be based on not only angler demand but best use of lake, stream or river.
- q. Each area fishing manager should have the major decision-making ability to manage waters and fisheries in his or her area, based on such concerns as size limits, habitat, etc.
- r. The resource itself. Can it be maintained over a long period of time?
- s. A number of factors should be used. The first is: How will the fish population respond? Is it (special regulation) accepted by the anglers? Number of lakes or streams under similar regulations?
- t. Quantity and quality of fish populations, angling pressures, lake and stream location and access.

u. Allocation — "who gets the fish" by definition is a social-political decision. If allocation means how many fish can be taken, then decisions need to be made on biological basis and should be left to DNR professionals.

- v. The ability of the fishery to support species allocated and number of fishermen.
- w. Surely the decision to allocate resources has to include biological considerations such as lake or stream type, available habitat, and the ability of the population to sustain such allocation. It is simply impossible to make rational, professional fish management decisions without including that as a base.

Within the basic biological framework on which to base decisions must also be a process in which the needs and desires of anglers are clearly known. Certain allocation demands of anglers simply cannot be met due to biological limitations. However, in many cases it is possible to accommodate specific angler-generated desires within the biological capabilities of a fish population. Regardless of the specific biological abilities of any fish resource, the social aspects, i.e., angler needs/desires, must be known in order to assist in making informed decisions.

x. What should be the basis for making allocation decisions? An adequate understanding and detailed factual knowledge of the resources and the various users should be the foundation for allocation decisions. Biological, ecological, physical and ownership attributes and requirements of the water resources should be used to make a primary classification. Socio-political demands of user groups should be a secondary consideration.

There are three primary allocation considerations:

- 1. Classification of resources based on the collection and maintenance of an adequately detailed data base concerning water and fisheries resources and angler demand. The data base should be computerized, readily accessible and periodically published.
- 2. Education of the public with an emphasis on providing users with information that could influence patterns of use. Anglers seeking quality fishing will make informed, voluntary decisions to modify their behavior if they are provided with adequate, trustworthy information. For example, if DNR published statistics detailing fishing pressure on individual waters an angler might avoid heavily fished waters.
- 3. Funding should be channeled to protect and maintain resources that currently provide quality fishing. Maintenance and protection programs will demand a multidisciplinary approach including: enforcement resources, adequate support of rearing and stocking programs, habitat protection (enforcement and education).

Secondary allocation considerations should be given to:

- 1. Preventing degradation of existing habitat
- 2. Improving or enhancing marginal habitat to upgrade the resource

Allocation decisions should not be made based on the demands of special interests or the call for equality in management decisions. One hears the argument that 20-40% of trout anglers fish exclusively with fly and artificial lures, so equity demands that 20-40% of the streams should be designated for their exclusive use. Allocation based on desired use will result in turf wars by user groups who all want preferred consideration or exclusive access to the most desirable waters. If allocation is to be determined by user factions how will the DNR decide which groups will be favored and how far do you extend the favored treatment?

- y. Angler demand is important but not totally the main concern. The future must be realized by all, for selfishness now will lead to elimination if we are not careful. With the siltation problem that has occurred in the last 25 years, spawning habitat has almost ceased to exist on certain bodies of water. Although a major undertaking has to take place to even try and accomplish such a project, if started and continued there is that chance that it will save many threatened lakes for the future.
- z. Lake and stream classification and natural habitat, angler interest.
- aa. What is "best management practice" what is impact on resource? Who will benefit or be harmed, at what cost? What is already available to the group or in the area diversity reasonableness of the demand? What is likely level of support and compliance with the decision?
- 2. What criteria should DNR managers use to determine the fisheries management objectives for a specific lake or stream segment?
 - a. Angler need (demands), capability of the resource (what can it produce?) health of resource (quality)
 - b. Work with interested users of particular resource, not just local or single interest group.
 - c. Objectives should be achievable, complementary and consistent with management of similar waters, help to diversify angling opportunities and most important, should afford adequate protection of the resource.
 - d. 1) Health of habitat, 2) adequacy of public access, 3) invest only in strength areas, i.e., don't try to create a fishery where corrections are not strongly favorable.
 - e. What can lake support? How can "quality" best be achieved? More accurate survey may be needed and is protection of some species needed?
 - f. What do anglers want? What is this stream capable of providing? What else is available in the area? Wild trout are preferable to stocked trout.

- g. Biological criteria and sociological criteria.
- h. What knowledgeable and informed anglers want and support.
- i. Natural potential of the lake biological community, structure, size, proximity to people (pressure), desires of (through consensus) angling public.

- j. 1. Look at what stream/lake is capable of producing (biology)
 - 2. Seek public input of wants and needs
 - 3. Propose management scenario using input and biology
 - 4. Provide proposal for public comment and modification
 - 5. Implement final proposal
 - 6. Evaluate
- k. The focus needs to be switched towards the environment and away from the user. I realize this is difficult in an age of high-tech fishing and powerful pro fishermen with hidden agendas, but we may lose the whole works if we do not get the pendulum swinging the other direction.
- 1. 1. Availability of structural reproductive habitat
 - 2. Availability of appropriate forage predator-prey relationships
 - 3. Anticipated angler-hours of pressure
 - 4. Accessibility
 - 5. Carrying capacity of the lake in pounds/acre (e.g., shallow fertile lake compared to Canadian Shield lake)
- m. It should begin with a good fisheries survey of a lake or stream, conducted by a well-trained and ambitious fisheries specialist, one who has many years of field experience and knows what fishing is all about to most anglers. The data collected by such a person should lead to a good fish management plan, providing it has the approval of local sportsmen, and the riparian owners also, where they are paying taxes on the bed of a stream.
- n. Based on needs predicated by use that best safely utilizes natural resource.
- o. If possible (or as much as possible), manage stream (easement) lake on a case-by-case, or at least type-by-type basis.
- p. The management objective should be the best biological use for the specific body of water. Management objectives can include access to anglers and increase the number of catchable fish.
- q. Use by the public and number of fish per acre, etc.
- r. Is the targeted species in the lake or stream capable of reaching the objective?

- s. Quantity and quality of habitat by species, use and location.
- t. The DNR should stick to biology. That is, make decisions on the basis of lake or stream productivity, habitat and health of the ecosystem.
- u. History of fish development and a good spread of accessible land and lakes of difficult accessibility.
- v. 1. Lake classification
 - 2. Angler use
 - 3. Angler desires
 - 4. Water quality
 - 5. Fish population structure
 - 6. Lake development
 - 7. Watershed size, development and use
 - 8. Historical perspectives and changes
 - 9. Factors limiting the management of various species
- w. Biological data collected from ecological surveys, fish population studies, waterside observations, creel census and angler survey response.

The DNR should designate biologists trained in fisheries, population ecology, habitat evaluation and population analysis to collect, process and evaluate the scientific data on the resource but should remove these scientists from conducting or evaluation of angler attitude surveys.

Angler attitude surveys, like any measurement of public opinion, should be conducted by professionals trained in the field of poll taking. Invariably, when biologists devise, conduct and evaluate angler attitude surveys they interject their professional bias into the questions and the results and draw invalid or questionable conclusions based on leading or misleading questions, poor sampling techniques or skewed responses. If fisheries management is to take into account angler attitudes and attempt to modify angler behavior the fisheries biologists should stick to the fish and let the social scientists gauge the public pulse.

The failure of fisheries biologists to effectively evaluate angler attitudes will invariably have political consequences when disgruntled anglers go to their elected officials and demand accountability from the Fisheries administrators.

- x. Usage, specific needs, and not political pressures should be the measure of concern. Increased management will only lend to the future survival of a particular system. We need to throw politics and egos out the window and work with the public in a better trusting way.
- y. Current situation; problems and limiting factors; determine capacity to produce each species; public perception; and DNR address best management practices.

z. All biological factors — (can it work?); limiting factors; interests of clientele; what is available — already; economic considerations; cost and efficiency; trade-offs.

E

Habitat Improvement and Protection

The strategies from the first roundtable suggest that attacking the major threats to quality habitat is a key approach in this area.

1. What do you think are the major threats to quality fishing habitat?

- a. Poor watershed management (non-point pollution (septic), agricultural runoff, pesticide, metals, vegetation removal, shoreline development, drainage).
- b. Lack of lake management and development/pollution are threats. Cost is threat factor for rehabilitation.
- c. Agricultural practices, development and point/non-point source pollution (including air pollution).
- d. Non-point source pollution: septic, vegetation loss, erosion, impervious surface additions without offsetting runoff controls/storage
- e. 1. Deterioration of quality habitat by chemicals.
 - 2. Developers killing all weeds in front of property.
 - 3. Failure to keep waters clear.
 - 4. Fertilizing lawns and farmlands.
 - 5. Erosion.
- f. Trout streams in Southeastern Minnesota:
 - 1. flooding
 - 2. livestock
 - 3. interaction of a and b.
 - 4. development
- g. Development, pollution and agricultural practices.
- h. For lakes creeping "development" of lake and surrounding watershed. No strong protection of lakeshore or regulation of use of lake itself (for example, allowing large motors to destroy shoreline bulrushes). Must set limits on motor size, amount and type of shore development, etc., if serious about protecting lakes.

For rivers in southern and western Minnesota, intensive agriculture has destroyed or badly degraded many rivers. Agricultural industry is only potentially polluting industry to operate with no effective environmental regulations. (PCA, DNR must not always be overruled by state Department of Agriculture.)

i. Watershed mismanagement, pollution and shoreline development.

j. Division of waters. Poor agriculture practices, e.g., runoff, feedlots, herbicides, drainage of wetlands, etc. Non-point source pollution. Change in watershed characteristics. Aquaculture — disease, escapes, etc.

E

- k. Lakeshore and riverbank development, city storm sewers, industrial waste, farming techniques for both grain and livestock.
- 1. Septic tanks, overcrowding at cabins and condos (destroying spawning habitat), overall pollution or water clarity reduction to a point where deep vegetation can't grow. As a fisherman, not a water skier or swimmer, my experience with milfoil (example, Lake Minnetonka) has been positive. Just have to learn new ways to fish it. Great cover for most species.
- m. Water pollution, over-grazing of stream banks, construction in riparian zones, floods and impounded streams are major threats to quality fish habitat. A more recent threat is the continued erosion of public support from landowners and local anglers to protect fish habitat. More and more of these people are asking why they should care what happens to the streams and the fish when their bait-fishing friends and neighbors have been kicked out by DNR via their special, mandatory artificial lures regulations.
- n. Lack of education as to best way to save and enhance resources.
- o. 1. Destruction of spawning and rearing areas
 - 2. Weed control without regard to the impact on fish
 - 3. Shoreline development
 - 4. Over-harvest
 - 5. Non-balanced harvest
- p. Major threats to fishing habitat are acid rain, introduction of exotic species, runoff from agricultural and metro areas, human pollution from inadequate septic systems, erosion and eutrophication.
- q. Milfoil, mussels and rough fish, such as carp.
- r. Development, zebra mussel, and eurasian milfoil.
- s. Overdevelopment too many homes and cabins. Poor land use in the watershed.
- t. 1. Point and non-point pollution in the watershed: apathy, don't give a rip!, out of sight, out of mind; and don't use the resources.
 - 2. Shoreland development: overdevelopment, poor development and non-fishing developer.
- u. 1. Shoreline development (in Northern Minnesota this is primarily by cabin and homeowners).

- 2. Watershed abuse: road building, logging, inappropriate farming methods, wetlands loss, pollution, etc.
- v. 1. Commercial netting
 - 2. Zebra Mussels
 - 3. Milfoil
 - 4. Fishing pressure
- w. 1. Non-point source pollution from both the immediately riparian lakeshore and upstream watershed sources
 - 2. Lack of comprehensive watershed management involving all areas and levels of interest
 - 3. Lack of public information and knowledge about the intricacies of limnology, fish biology, lake ecology, aquatic vegetation, etc.
 - 4. Point source pollution
 - 5. Increasing development, especially on marginal building sites and also on smaller water bodies
 - 6. Lack of strong local controls of shoreland development ordinances and lack of state oversight of local programs
 - 7. Internal (DNR) procedures/policies which do not allow managers to adequately protect resource values. Fish managers, for instance, are not supposed to address cumulative impacts of a proposed project, even though, time and again, such impacts have led to serious losses of habitat values.
 - 8. Lack of knowledge as to the effects of various development methods on resource values.
- x. 1. Poor surface water and groundwater management or more specifically the failure to deal with point source emissions (waste water treatment) and the failure to control practices that lead to non-point source pollution.
 - a. Private septic systems
 - b. Public waste water treatment
 - c. Agricultural runoff: unrestricted cattle grazing, cultivation of highly erodible land, overuse of nitrogen fertilizers
 - d. Airborne emissions entering the hydrologic cycle
 - 2. Encroaching development
 - 3. Exotic species (milfoil, purple loosestrife, etc.)
 - 4. Overuse
- y. Situation, which is caused by not only aging, but also caused by recreational over-use

and over development of shorelines, and development of condominium projects that cause major over-usage on our lakes.

Pollution lends to the overall future and management of our lakes and rivers. There must be cooperation between users and the DNR to promote proper maintaining of our resources and hold the violators directly responsible for their actions.

- z. Land use conversion in watershed (drainage, etc.); pollution (point source and atmospheric).
- aa. Agricultural practices and industry have long been identified as major threats, and still are. However, this is changing too development, etc. Must be recognized as major threats too even though loss, hence impact, occurs in small doses and impacts are not large scale and dramatic in short time frame. Net effects are no less important even though slow to reach problem proportions. Our society and regulatory agencies are ill-equipped to comprehend and effectively deal with "cumulative impacts."

New Values Education

The first roundtable identified several program-specific strategies related to educating anglers and the public with new values:

- •Educate anglers regarding catch and release, diversity of species, appropriate ethical behavior
- •Develop a fishing program similar to hunter education
- •Write the ethical code of conduct on the fishing license
- •Promote total outdoor experience rather than just catching fish; emphasize fishing as a sport and not just a "meat harvest"
- •Need for basic aquatic education; empower current aquatic education program
- •Use volunteers to educate public on cost of licenses, need and values
- •Focus on environmental education in schools with an implementation strategy that
- Create vehicles to get kids fishing, such as Big Brother fishing programs

1. Can you suggest new values education strategies in addition to these?

- a. Present aquatic education is not qualified nor staffed nor apparently interested in developing the biggest resource available the sportsman club —they want to reinvent the wheel. We need aquatic/fishery education delivered to current users not just tomorrow's users.
 - Current "fishery education" is fragmented within DNR vis-a-vis catch and release, Minnesota aqua, boat safety, etc.
- b. Add to Use volunteers to educate public on cost of licenses, need and values "pays for staff only"
- c. DNR should make recommendations to anglers on seasonal limits. Should be based on region of state, species of fish and sometimes on individual body of water.
- d. A higher priority within DNR to work and talk with local sportsman clubs.
- e. Looks good.
- f. Promote an outdoor ethic leave better than found it, other means to expose youngsters to the sport of fishing, educate anglers on fish management (lake can only produce so much).
- g. Use fishing as an introduction to the entire environment focus on "fun" first. Make users out of environmentally conscious people who are now non-users, which will then change the peer group, and past perceptions of fishermen as a whole. Many non-user parents have kids that would love to fish but are discouraged because parents

don't realize holistic approach.

h. Some type of positive reinforcement for released fish. Catch-and-release state records (?), which may be difficult. Encourage (recipes, expert chef recommendations, etc.) to keep and eat one- to two-poind walleyes, half- to quarter-pound bass, because they taste better, fry up better, on and on...

E

- i. Keep it simple graphic based on teamwork education and by setting example from earliest age possible. We could spend pages on this discussion.
- j. Strategies must involve a coordinated approach.
- k. It is the fish management planners and some of the elitist anglers from the large urban centers who need new values education in the worst way. Some of the "high priests of angling" have already flunked their courses on this subject. Private landowners have been made aware of their selfish plans and, rightfully so, the property owners are doing their own allocation of stream resources. Consequently, these "big time" recreation seekers are being left on the outside while the ordinary folks still have access. Lesson No. 1 on this subject is "Don't tell the local people how they should fish."
- 1. The DNR is in no position to compete with the highly polished commercial publications available to anglers, e.g., the "In-Fisherman." We may make major gains if the DNR could join forces with such organizations. DNR field staff is not equipped to do this job and they probably shouldn't be. There is a need for additional staff to do this work. If such staff is developed, it (they) must stay in tune to what is happening at the field level.
- m. Educate anglers on the relationship of fish populations by species and their habitat.
- n. No.
- o. Teach hunting and fishing ethics in environmental education classes in high school.
- p. Harvesting of smaller fish for consumption, i.e., a health hazard of contaminants in larger fish.
- q. Expand on above very well stated.
- r. Utilize additional youth organizations, such as Boy Scouts and Girl Scouts, to educate anglers, expand the Lake Advocacy Program statewide.
- s. A program to encourage voluntary acceptance of new values by providing pertinent information to the public.

The DNR should contract out with public relations specialists in each region and

provide them with exciting information to keep the public better informed, more knowledgeable and receptive on fisheries issues and DNR programs and agendas. There is not a frequent enough effort to feed stories to the media, yet local newspaper columnists, reporters, TV and radio personalities happily report interesting stories. Small town weekly newspapers faithfully publish extension articles and news released every week.

For example, if the DNR published specific information on harvest rates for individual waters along with educational material on the effectiveness of catch and release practices, anglers might use their knowledge to modify their fishing goals or techniques. If harvest rates or fishing pressure statistics were annually published or posted at major access points anglers could make intelligent decisions about their conduct and may change their value. Or techniques. Such an effort to educate may diminish the need for the implementation of special regulations.

t. Go into the schools and instruct young people in the rights and wrongs of proper management. Encourage them to get involved in projects to conserve our natural resources, and continue to drive the point home.

Interact with sportsmen's groups and draw their knowledge instead of not trusting them or not believing that they possess the knowledge to comprehend the existing problems. The DNR can work a lot closer with resort owners and professional guides that many times have more additional information than existing surveys. Don't let them dictate management, but utilize their information to assist.

We have to all lower our egos a little and work together in the next 10 years. If many of the things that I have mentioned are not looked at, then there will never be a solution to many of these problems.

- u. Include environment education in fishing education above; include ethics in fishing education above.
- v. Develop energy and funding on a few important concepts and projects that are important and have high probability of success. Successful demonstration will be of value to all and will create acceptance (buy-in) to what we are attempting.

Appendix D

Closing Reflection

CLOSING REFLECTION

Movie montage—plots, story-lines, themes, etc., memorable moments

- Lots of different agendas yet a common focus on education, special regulations, allocation
- "Muskie in at lake"; ideas regarding pamphlet, etc.
- This location lent itself to after-hours hobnobbing
- Public input and biological basis: two key values
- Goal-oriented occasion
- Goal to be part of group of activities, innovators

What is needed to move forward? Next steps? What have we accomplished?

- We created a base for further expansion
- Better working relationship diverse groups
- Good to hear what DNR is saying
- Some things can be done almost immediately and some long term we need to sort out and get information to people as soon as possible
- Next round of roundtable process needs focus on private sector and what it can do in partnership with government
- Utilize pipelines that are here and set time frames, establish timelines
- We need work on legislative refunding
- Assess, look at priorities
- Prioritize proposals DNR sift through material
- Proposal for new management programs
- Form some smaller committees to work on implementation of the product from this consultation
- Expand this group: county people, etc.
- Create partnerships to help deal with economic crunch (e.g., a speaker's bureau)
- Create a document from this work with an executive summary
- Funnel recommendations through regional managers to implement with local groups
- Catalogue skills available though this group
- Now an article in the paper would be timely highlighting this event and key themes

How to move forward?

- Pick a project and push it through possible pilot project
- Customers in notebook
- Results on timeline: economic constraints the biennial budget process imposes are "givens"; there are some things that can be done that don't cost money

Next roundtable — what focus?

- Get something done pick a project
- Look at biological priorities of DNR
- Cite specific projects
- Focus on assorted responsibilities and specific projects
- Look at DNR long-range plan and evaluate
- Report from DNR on implementation

What did we accomplish here?

• Developed a working plan for improving the fishing potential in Minnesota

- Had a lot of dialogue
- Removed barriers
- Generated good ideas regarding habitat
- There was a level of consensus regarding allocation and special regulations
- Built basis for "hatching" new efforts

How can we help others "own" what we did?

- Lay out our work and tell the story
- Share the surprising similarities of interest
- Public/private dialogue; share the importance of this
- There is no more of a propensity to negotiate than to be stiff necked
- Want an outline that can be used with resort owners and elicit their "signing on"