Minnesota Department of Natural Resources

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Fisheries Research Unit
1601 Minnesota Drive
Brainerd MN 56401-3971 USA

24 October 1997

LCMR
100 Constitution Ave
Room 65
St Paul MN 55155-1201

OCT 27 1997

9(a)

Dear Sir:

Enclosed are five (5) copies of the final report for the following project:

ML 1995, Chapter 220, Sec. 19, Subd. 9(a)
Experimental Fishing Regulations

Please contact me if you have any questions regarding this report or the project.

Sincerely,

Timothy J. Goeman

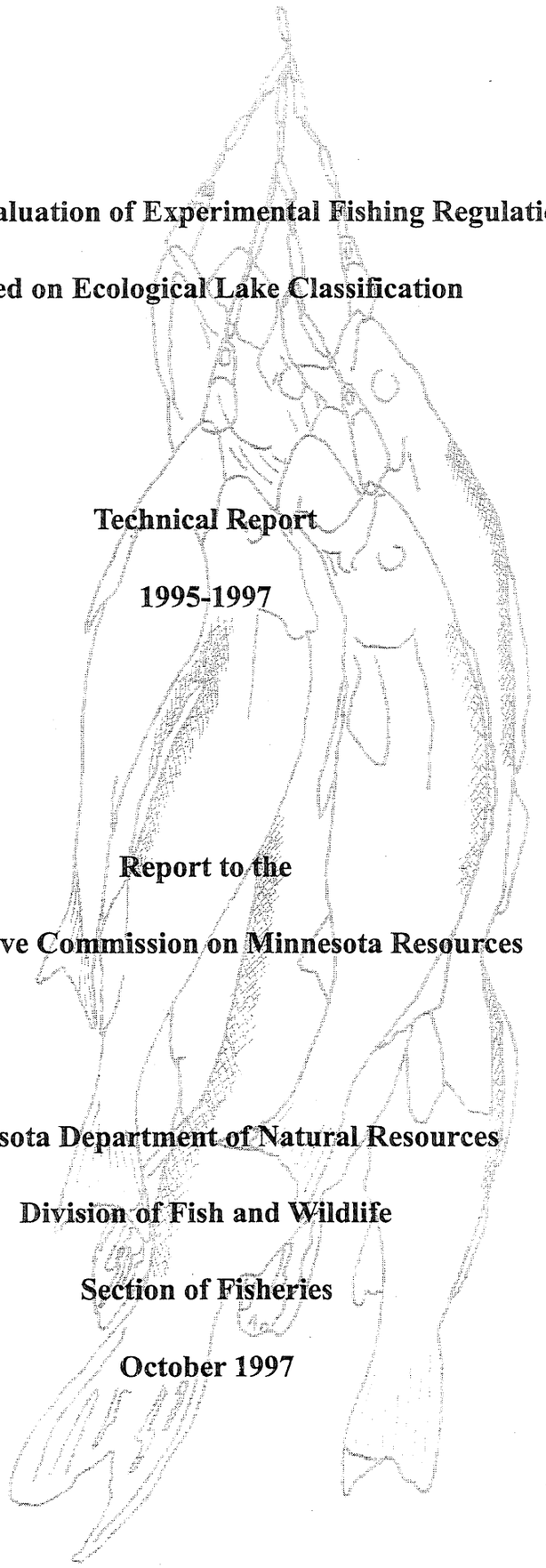
Timothy J. Goeman
Project Manager

Enclosures (5)

c: Bill Becker, DNR Planning

Statewide Evaluation of Experimental Fishing Regulations

Based on Ecological Lake Classification



Technical Report

1995-1997

Report to the

Legislative Commission on Minnesota Resources

Minnesota Department of Natural Resources

Division of Fish and Wildlife

Section of Fisheries

October 1997

Date of Report: July 1, 1997

LCMR Work Program Update 1995

I. Program Title and Project Number: Statewide Experimental Fishing Regulations C19.

Program Manager: Timothy J. Goeman
Agency Affiliation: MN Department of Natural Resources
Mail Address: 1601 Minnesota Drive, Brainerd MN 56401
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e-mail: tim.goeman@dnr.state.mn.us

A. Legal Citation: ML95, Chp. 220, Sec. 19, Subd. 9. (a).
Total biennial LCMR appropriation: $650,000
Balance (estimate): $15,000

Appropriation Language: This appropriation is from the future resources fund to the commissioner of natural resources for baseline data collection to evaluate experimental fishing regulations. This project must be completed and final products delivered by December 31, 1997, and the appropriation is available until that date.

B. Status of Match Requirement: N/A

II. Project Summary: A decline in overall fish size in many Minnesota waters can be attributed to angler harvest and habitat degradation. Anglers, however, want larger fish. Special regulations are not presently available for accomplishing these goals. This project initiates the statewide comprehensive evaluation of experimental fishing regulations to increase fish size in selected lakes. Lake selection will be governed by the existing ecological classification of Minnesota lakes. This approach will ultimately allow the broad application of results across the state as various regulation options prove effective. This two-year project will allow baseline data collection for designing custom experimental fishing regulations that will effectively alter angler harvest and result in improved fishing quality. Target species are walleye, largemouth bass, smallmouth bass, northern pike, and black crappie. Baseline data collection will include creel surveys and intensified fisheries sampling to provide data for designing effective regulations.

III. Six Month Work Program Update Summary: All scheduled creel surveys were completed on study lakes during the 1996-1997 fishing season. Appropriate sampling was completed for all target species on all study lakes during 1995-1997. For 10 study lakes, experimental fishing regulations were implemented in May 1996. An additional 24 lakes were placed

under special management status with experimental fishing regulations in early 1997.

IV. Statement of Objectives:

A. Characterize fish harvest using creel surveys.
Summary: Conduct 8 two-year creel surveys and 3 one-year creel surveys to document the angler harvest and the present status of the fishery on selected lakes.

B. Document the status of fish populations through intensified fisheries sampling.
Summary: Conduct intensified sampling of target fish populations in selected lakes to determine critical population parameters. This sampling may include netting and electrofishing according to established DNR procedures.

Time line for Completion of Objectives:

	5/95	9/96	1/97	5/97	9/97	12/97
Objective A - Creel surveys	**********	**********	**********			
Objective B - Fisheries sampling	**********		**********			

V. Objectives/Outcome:

A. Title of Objective/Outcome: Characterize fish harvest using creel surveys:

A.1. Activity: Collect creel data by interviewing anglers.

A.1.a. Context within the project: Creel surveys are necessary to quantify angler catch and characteristics of the angler catch on the lakes targeted for experimental fishing regulations. These pre-regulation data will be used to establish the baseline for specifying objectives of the experimental fishing regulations and also to develop specific, meaningful regulation options.

A.1.b. Methods: The creel surveys will be complete or incomplete trip surveys (see appended Table 1) conducted under the standard sampling procedures established and used by the MN Department of Natural Resources (MDNR), Section of Fisheries.

A.1.c. Materials: Equipment purchases for conducting the creel surveys will include five (5) boat-motor-trailer packages ($5,500 each). Fleet costs for the creel surveys will be about $30,000. This equipment will be used to continue evaluation of experimental fishing regulations after the biennium and through the useful life of the equipment.

A.1.d. Budget
Total Biennial LCMR Budget:$300,000
LCMR Balance:$0

A.1.e. Time line:	5/95	9/96	12/96	5/97	9/97	12/97
Creel data	**********		**********			

Creel data will be collected from May through September during both years where open water creel are scheduled. In other lakes, data will also be collected during the ice fishing season.

A.1.f. Work Program Update: Open-water and winter creel surveys have been completed on appropriate study lakes in 1995-1997. Needed equipment was purchased as specified above and seasonal creel clerks were hired to accomplish the creel surveys. All activities related to the creel surveys have been completed.

A.2. Activity: Analyze creel data.

A.2.a. Context within the project: Raw data from angler interviews will be summarized so annual harvest and angler behavior can be quantified.
With this information in hand, specific experimental regulation options can

be formulated. Two years of data are preferable to account for variations due to climatic and biotic factors.

A.2.b. Methods: Analyses will be accomplished using standard methodology developed by the MDNR Section of Fisheries, including software applications developed for this purpose.

A.2.c. Materials: Five (5) computers with software will be purchased for storage and analysis of creel data ($5000 per unit). One laser printer will be purchased for $1500. Purchase of computer equipment is typically more cost-effective than renting, since rental for a two-year period would approximate the purchase price and life of the equipment. After two years, all equipment will be used in the on-going evaluation of experimental fishing regulations through the useful life of the equipment.

A.2.d. Budget
Total Biennial LCMR Budget: $100,000
LCMR Balance: $0

A.2.e. Time line:	5/95	9/95	12/95	5/96	9/96	12/96
Creel summaries			*****			*****

Summaries of the raw creel data will characterize annual harvest and angler characteristics.

A.2.f. Work program update: Creel data analyses have been completed for all lakes creeled during the two years of the project. Field data has been computerized as the creel surveys were conducted, following an error-checking procedure. Computers and software were purchased as specified above.

A.3. Activity: Write detailed creel reports.

A.3.a. Context within the project: Written creel reports document the summarized data and also interpret the results so valid fisheries management decisions can be made.

A.3.b. Methods: MDNR Section of Fisheries creel reports follow a format which gives an introductory background, specifies analytical methods, presents results, and then discusses important results in light of management objectives and management alternatives.

A.3.c. Materials: None.

A.3.d. Budget
Total Biennial LCMR Budget: $50,000
LCMR Balance: $5000

A.3.e. Time line: 6/95 12/95 6/96 12/96

Creel Reports ** **

Approved creel reports for all lakes have been completed for use by fisheries managers, biologists, and the public. These reports were especially valuable in selecting appropriate experimental fishing regulations for the study lakes.

A.3.f. Work Program Update: Lake-specific creel reports were completed after final data analyses for the project lakes.

B. Title of Objective/Outcome: Document the status of fish populations through intensified sampling.

B.1. Activity: Collect and analyze fish data.

B.1.a. Context within the project: Intensified sampling of fish populations beyond typical monitoring will provide valuable data on age and size structure, growth, and other critical population parameters. These data will be collected along with creel data on some lakes, and will be collected exclusively on other lakes to provide necessary baseline data.

B.1.b. Methods: Fisheries sampling will be accomplished using standard netting or electrofishing techniques according to MDNR standardized sampling procedures, depending on target species and unique characteristics of individual lakes.

B.1.c. Materials: Equipment purchases will include one (1) 5000 watt portable generator for electrofishing ($2500), five (5) outboard motors ($2500 each), two (2) boat trailers ($1500 each), one (1) boat-trailer package ($4000), and standard sampling nets ($5000). This equipment is typically not available for rental due to necessary modifications, commercial use, or availability. These items will be used in the continuing evaluations of experimental fishing regulations after the biennium through the useful life of the equipment. Fleet management costs for this activity will be about $12,500 each year ($25,000 total).

B.1.d. Budget
Total Biennial LCMR Budget:$175,000
LCMR Balance:$5000

B.1.e. Time line: 5/95 10/95 5/96 10/96 6/97

Intensified sampling ********** **********

The product from this activity will be thorough summaries of fish population data for target species from selected lakes across Minnesota (see appended Tables 2 and 3) that have been included in the project. These summaries will include age and size structure

information, growth data, and details on other relevant population parameters pertinent to selecting the appropriate experimental regulations.

B.1.f. Work Program Update: All scheduled fisheries sampling was conducted for all study lakes, and specified equipment was purchased.

B.2. Activity: Interpret and document fisheries data from intensified sampling.

B.2.a. Context within the project: Data summaries from activity B.1. will be interpreted and discussed in a report format so valid use can be made of the findings, especially as the results relate to experimental fishing regulations.

B.2.b. Methods: Data will be presented in standard fisheries tabular format with appropriate discussion of all relevant population parameters.

B.2.c. Materials: None.

B.2.d. Budget
Total Biennial LCMR Budget: $25,000
LCMR Balance: $5000

B.2.e. Time line: 12/95 2/96 12/96 4/97

Fisheries Reports ******* ********

Reports that summarize and discuss the results of intensified fisheries sampling on all study lakes will be compiled for use by fisheries managers, biologists, and the angling public.

B.2.f. Work Program Update: Data analysis has been completed. All data has being pooled in a central repository in Brainerd. These data were used to propose meaningful experimental regulations and, in the future, will function to determine the efficacy of these fishing regulation changes.

VI. Evaluation: Obtaining two years of accurate creel data for the target lakes and two years of data from intensive fisheries sampling on specified lakes will indicate successful project results. Data will then be used by fisheries managers and biologists to select appropriate experimental fishing regulations. Additionally, these data will be used to demonstrate to interested anglers the potential benefits of various regulation options, and the rationale behind these options.

VII. Context within field: Experimental fishing regulations are becoming increasingly important as fisheries management tools as fishing pressure increases on a finite aquatic resource. Minnesota anglers have a keen interest in experimental fishing regulations to improve fishing quality. Evaluation of specific regulations has lagged behind this demand and interest because appropriate evaluation is expensive and time-consuming. This project allows the MDNR to take the lead in a comprehensive, scientifically-valid evaluation of several specific experimental fishing regulations. This is possible because these LCMR dollars allow intensified efforts to fill existing data gaps. These results will be useful in fisheries management throughout Minnesota and North America.

VIII. Budget context: Experimental fishing regulations have become a MDNR Section of Fisheries priority. The Section expended $50,000 during FY93 and FY94 under research project 602 in planning and conducting preliminary work on experimental fishing regulations. These monies are from the game and fish fund. Starting with FY95, the Section of Fisheries will expend $250,000 each year on activities related to this project, including start up funds for creel surveys from May-June 1995, permanent, classified salary costs related to the project, and related equipment and operational costs. These expenditures will allow more lakes to be included in the project and more intense sampling to occur. These dollars are game and fish fund dollars. During FY94 and FY95, the Section used Iron Range Resources and Rehabilitation Board dollars to gather baseline data for some experimental waters in northeast and east-central MN. This expenditure has totaled approximately $40,000 per year.

IX. Dissemination: Results of the two years of pre-regulation data collection resulted in numerous individual creel reports on individual lakes. Additionally, other fisheries sampling yielded data for effective modeling of regulations. All of this information was assembled in MDNR staff reports and was also incorporated into the MDNR Statewide Fisheries Database.

X. Time: Pre-regulation data collection was completed within two years, with the final creel reports and fisheries population summaries completed by the end of December 1997. Appropriate experimental fishing regulations were implemented by May 1997. Regulations will remain in place for at least five (5) years. Creel surveys will again be conducted at the end of this time period to determine ultimate success or failure of the individual experimental regulations. Costs for the post-regulation surveys will approximate the costs for the baseline data, adjusted for inflation.

XI. Cooperation: Numerous project cooperators are listed below:

	% time Obj.. A	% time Obj. B
Tim Goeman, Biologist, Proj.. Mgr..	40	40
Paul Radomski, Biologist	35	35
Farrell Bandow, Biologist	20	20
Dean Beck, Area Fisheries Supv.	10	10
Arlin Schalekamp, Area Fisheries Supv.	5	5
Dennis Ernst, Area Fisheries Supv.	5	5
Harlan Fierstine, Area Fisheries Supv.	10	10
Kit Nelson, Area Fisheries Supv.	5	5
Doug Kingsley, Area Fisheries Supv.	10	10
Roger Hugill, Area Fisheries Supv.	10	10
Paul Glander, Area Fisheries Supv.	5	5
Lee Sundmark, Area Fisheries Supv.	5	5
Gary Barnhard, Area Fisheries Supv.	5	5
Jim Lilienthal, Area Fisheries Supv.	10	10
Joe Geis, Area Fisheries Supv.	5	5
Hugh Valiant, Area Fisheries Supv.	5	5
Dave Friedl, Area Fisheries Supv.	5	5
Paul Diedrich, Area Fisheries Supv.	5	5
Bruce Gilbertson, Area Fisheries Supv.	5	5
Dave Zapetillo, Area Fisheries Supv.	5	5
Steve Persons, Area Fisheries Supv.	10	10

XII. Reporting Requirements: Semi-annual six-month work program update reports will be submitted not later than January 1, 1996, July 1, 1996, January 1, 1997, July 1, 1997, and a final six-month work program update and final report by December 31, 1997.

XIII. Required Attachment:

1. Qualifications: see attached (page 13)

2. Project Staffing Summary: see attached (page 14)

Table 1. LCMR creel surveys for evaluation of experimental regulations.

Lakes	No. of years[1]	Year-round (y/n)
1. Green-S. Lindstrom-Chisago	2 (95-96)	y
2. Lac Qui Parle	1 (95)	n
3. Big Stone	1 (95)	n
4. Pine Mountain-Ten Mile	2 (95-96)	n
5. Spider-L. Mantrap	2 (95-96)	n
6. Osakis-Bergen	1 (96)	y
7. N. Lida-S. Lida	2 (95-96)	y
8. Green-Calhoun	2 (95-96)	y
9. Minnewaska-Rachel	2 (95-96)	y
10. Devil's Track-Pike	2 (95-96)	n
11. Sturgeon-Island	1 (95)	y
12. Farm Island[2]		

[1] Where a single year is specified for a creel survey, in all cases a second year is funded from game and fish funds.

[2] Farm Island creel is funded from IRRRB.

Table 2. All study lakes by management area and role (05/12/95).

Area	Lake Name (ID #)	Lake Class	Role/Species
120	Big Moose (04-011)	25	Ref/BLC,LMB
130	Detroit (03-381)	22	Ref/WAE,NOP
140	South Lida (56-747)	25	Reg/BLC
140	North Lida (56-747)	22	Ref/WAE,NOP
140	West Silent (56-519)	23	Ref/LMB
140	East Battle (56-138)	22	Reg/NOP
140	Star (56-385)	22	Ref/NOP
150	Rachel (21-160)	27	Reg/NOP
150	Burgen (21-049)	31	Reg/NOP
150	Vermont (21-073)(?)	25	Reg/LMB
150	Pocket (21-140)	34	Ref/LMB
150	Andrews (21-085)	27	Ref/WAE,Reg/NOP
150	Minnewaska (61-130)	27	Reg/WAE
150	Osakis (77-215)	22	Reg/WAE
150	Maple (21-079)	25	Ref/BLC,LMB
160	Spider (29-117)	25	Reg/BLC;Ref/LMB
160	Little Mantrap (29-313)	25	Reg/LMB;Ref/BLC
170	Portage (11-476)	23	Reg/LMB,SMB
170	Pine Mountain (11-141)	22	Reg/WAE
170	Moccasin (11-296)	32	Reg/LMB;Ref/BLC
170	Ten Mile (11-413)	22	Ref/WAE,Reg/NOP

230	Bearhead (69-254)	7	Reg/LMB
230	Eagle's Nest 3 (69-285-3)	5	Reg/LMB
230	Eagle's Nest 1&2 (69-285)	5	Ref/LMB
240	Two Island (16-156)	16	Reg/SMB
240	Pike (16-252)	1	Reg/SMB
240	Hungry Jack (16-227)	3	Reg/SMB
240	Flour (16-147)	3	Reg/SMB
250	Blackduck (69-842)	5	Ref/LMB
250	Pelican (69-841)	7	Ref/LMB
310	Farm Island (01-159)	22	Reg/WAE
320	Blackhoof (18-117)	31	Ref/LMB,NOP
330	Green (13-041)	27	Reg/BLC;Ref/NOP
330	South Lindstrom (13-028)	24	Reg/LMB
330	Chisago (13-012)	34	Reg/LMB
330	Sturgeon (58-067)	27	Reg/NOP
340	Limestone (86-163)	24	Ref/LMB
350	Pierz-Fish (49-024)	31	Reg/LMB
350	Moose (77-026)	31	Reg/LMB
350	Mound (77-007)	25	Ref/LMB,BLC
350	Big Swan (77-023)	27	Ref/WAE;Reg/NOP
350	Big Birch (77-084)	22	Reg/NOP
410	Stahls (47-104)	24	Ref/LMB
410	Erie (47-064)	24	Ref/LMB
420	Lac Qui Parle (37-046)	41	Reg/WAE
420	Big Stone (06-152)	41	Reg/WAE
420	Traverse (78-025)	41	Ref/WAE
430	Green (34-079)	27	Reg/NOP,SMB
430	Long (34-066)	25	Reg/LMB
430	Big Kandiyohi (34-086)	41	Ref/WAE
440	Clear (81-014)	24	Reg/LMB
610	Jane (82-104)	24	Reg/LMB
610	Turtle (62-061)	24	Reg/LMB
620	Stieger (10-045)	24	Reg/LMB
620	Minnewashta (10-009)	24	Reg/LMB
494′	Ann (10-012)	24	Reg/LMB
494′	Bavaria (10-019)	24	Reg/LMB
494′	Pierson (10-053)	24	Ref/LMB
494′	Zumbra (10-041)	24	Ref/LMB

codes: Three digit numbers for DNR Fisheries Management Areas are unique for each area with the first digit representing DNR Regions. "Reg" denotes a lake selected for an experimental regulation, "Ref" denotes a reference water (no regulation projected). Species: LMB=largemouth bass, SMB=smallmouth bass, WAE=walleye, NOP=northern pike, BLC=black crappie. ′=Waterville Research Unit Study lakes.

Table 3. Study lakes by species, role, DNR Management Area, and Lake Class.

Walleye			
	Regulation:	Minnewaska (150)	27
		Osakis (150)	22
		Farm Island (310)	22
		Pine Mountain (170)	22
		Big Stone (420)	41
		Lac Qui Parle (420)	41
	Reference:	Detroit (130)	22
		N Lida (140)	22
		Ten Mile (170)	22
		Andrews (150)	27
		Big Toad (130)	27
		Big Swan (350)	27
		Traverse (420)	41
		Big Kandiyohi (430)	41
Black Crappie			
	Regulation:	S Lida (140)	25
		Spider (160)	25
		Green (330)	27
	Reference:	Big Moose (120)	25
		Maple (150)	25
		L Mantrap (160)	25
		Mound (350)	25
Largemouth Bass			
	Regulation:	Eagle's Nest 3 (230)	5
		Bearhead (230)	7
		Portage (170)	23
		S Lindstrom (330)	24
		Clear (440)	24
		Jane (610)	24
		Turtle (610)	24
		Stieger (620)	24
		Minnewashta (620)	24
		Ann (494)	24
		Bavaria (494)	24
		Vermont (150)	25
		L Mantrap (160)	25
		Long (430)	25
		Moose (350)	31
		Pierz-Fish (350)	31
		Moccasin (170)	32
		Chisago (330)	34

	Reference:	Eagle's Nest 1&2 (230)	5
		Pelican (250)	7
		West Silent (140)	23
		Limestone (340)	24
		Stahls (410)	24
		Erie (410)	24
		Pierson (494)	24
		Zumbra (494)	24
		Big Moose (120)	25
		Maple (150)	25
		Spider (160)	25
		Mound (350)	25
		Black Hoof (392)	31
		Pocket (150)	34
Smallmouth bass			
	Regulation:	Portage (170)	23
		Two Island (240)	16
		Pike (240)	1
		Hungry Jack (240)	3
		Flour (240)	3
		Green (430)	22
	Reference:	E Bearskin (240)	3
		Hatch (210)	23
Northern pike			
	Regulation:	East Battle (140)	22
		Rachel (150)	27
		Burgen (150)	31
		Ten Mile (170)	22
		Sturgeon (330)	27
		Big Birch (350)	22
		Big Swan (350)	27
		Green (430)	22
		Andrews (150)	27
	Reference:	Detroit (130)	22
		Star (140)	22
		N Lida (140)	22
		Osakis (150)	22
		Washburn (392)	22
		Big Toad (130)	27
		Minnewaska (150)	27
		Green (330)	27
		Julia (291)	31
		French (291)	31
		Blackhoof (392)	31

Timothy J. Goeman

Tim Goeman is a Senior Fisheries Research Biologist with the Minnesota Department of Natural Resources stationed in Brainerd. He has been a part of the Fisheries Research Unit of the Section of Fisheries since 1986, holding his present position since 1988. His research interests focus on coolwater fish community interactions and development of management tools for improving fish population size structures.

Tim earned B.S. and M.S. degrees from the University of Wisconsin in 1978 and 1981, respectively. He has work experience with the Wisconsin Department of Natural Resources, a private environmental consulting firm, and the Minnesota Pollution Control Agency. He is chair of the DNR long range planning committee for special fishing regulations and has chaired a committee on special fishing regulations for the North-Central Division of the American Fisheries Society--an international professional society. He is also lead author on a position statement on special fishing regulations that the Society will publish in the coming year. Tim has given presentations on many aspects of fishing regulations to numerous professional and lay groups in several nearby states and throughout Minnesota.

Publications

Goeman, T.J. 1983. Freshwater drum spawning and fecundity in the Upper Mississippi River. Proceedings of the Iowa Academy of Science 90(4):132-133.

Goeman, T.J. and J.C. Thiel. 1984. A simple weir box for measuring flow rates during entrainment sampling. The Progressive Fish-Culturist 46(2):147-148.

Goeman, T.J., D.R Helms, and R.C. Heidinger. 1984. Comparison of otolith and scale age determinations for freshwater drum from the Mississippi River. Proceedings of the Iowa Academy of Science 91(2):49-51.

Goeman, T.J. 1984. Fish survival at a cooling water intake designed to minimize mortality. The Progressive Fish-Culturist 46(4):279-281.

Goeman, T.J. 1991. Walleye morality during a live-release tournament on Mille Lacs, Minnesota. North American Journal of Fisheries Management 11:57-61.

Goeman, T.J., P.D. Spencer, and R.B. Pierce. 1993. Effectiveness of liberalized bag limits as management tools for altering northern pike population size structure. North American Journal of Fisheries Management 13:621-624.

Goeman, T.J. and numerous coauthors. *In press.* Special fishing regulations for managing freshwater sport fisheries. Fisheries (Bethesda).

Goeman, T.J. and P.D. Spencer. 1992. Fish community responses to manipulation of northern pike and yellow perch densities in a Minnesota centrarchid lake. Minnesota Department of Natural Resources Section of Fisheries Investigational Report Number 416.

Goeman, T.J., D.W. Anderson, and D.H. Schupp. 1990. Fish community responses to manipulation of yellow perch and walleye abundance. Minnesota Department of Natural Resources Section of Fisheries Investigational Report Number 404.

Project Staffing Summary

DNR fisheries management stations at Walker, Park Rapids, and Detroit Lakes anticipate using permanent, classified Fisheries Specialists and Technicians to accomplish project activities. Collectively, this work will total no more than 400 hours for each of the two years of the biennium. Temporary laborers will be hired to accomplish the spawn-taking hatchery, and survey duties these permanent, classified individuals would have completed if they were not diverted to work on the LCMR project. We project paying salary costs for these classified positions from LCMR funds, up to 400 hours for each year of the biennium, but only when temporary laborers are "filling in behind" these classified employees--that is, accomplishing the work they otherwise would have done. When temporary labor is used in this way, DNR will pay temporary labor costs.

This approach makes use of the experience and expertise of permanent staff and results in the most efficient use of staff time and LCMR dollars.

Legislative Commission on Minnesota Resources

100 CONSTITUTION AVENUE / ROOM 65 / STATE OFFICE BUILDING • ST. PAUL, MINNESOTA 55155-1201 • (612) 296-2406

JOHN R. VELIN
Director

DATE: October 12, 1994

TO: 1995 LCMR Project Managers

FROM: John Velin

SUBJECT: LCMR 1995 Project Employee Summary

Please complete the form at the bottom of this memo and return it as an attachment with your November 30th workprogram submission. List each position to be paid for from your 1995 project, the name of the employee (if known), the percent of time on an annual basis, and indicate whether the position is classified or unclassified (this column to be used by state agencies only). Be sure to identify each position for your LCMR project. We have copied a continuation of the form on the back side of this memo if needed.

Project Manager: Timothy J. Goeman Telephone #: (218) 828-2246

Project Title: Statewide Expermental Fishing Regulations Project #: C19

Position Title and Employer	**Employee Name** (if known)	**% of Time Working Per Year on 2-yr Project**	**Classified or Unclassified** (for state agencies only)
Sample Administrative Asst. for LCMR	***Sample*** John Doe	***Sample*** 40% = 1st year 30% = 2nd year	***Sample*** Unclassified Unclassified
NR Spec Int-Fisheries Research Biol for DNR 3 Positions	?	100% = 1st year 100% = 2nd year	Unclassified Unclassified
NR Fisheries Census Clerk for DNR 8 Positions	?	100% = 1st year 100% = 2nd year	Unclassified Unclassified
NR Fisheries Census Clerk for DNR 3 Positions	?	100% = 1st year -0- = 2nd year	Unclassified - - -
NR Fisheries Census Clerk for DNR 1 Position	?	-0- = 1st year 100% = 2nd year	- - - Unclassified
Laborer or Student Intern/Student Worker for DNR 10 Positions	?	100% = 1st year 100% = 2nd year	Unclassified Unclassified

ADDENDUM: Statewide Experimental Fishing Regulations C19

LCMR Work Program 1995 (January 25, 1995)

(218)828-2246

13 March 1995

To: LCMR Staff

From: Tim Goeman, Project Manager Tim Goeman

Subject: LCMR 1995 Project Employee Summary: Statewide Experimental Fishing Regulations C19

I request the following information be added to the project employee summary, dated January 25, 1995.

DNR fisheries management stations at Walker, Park Rapids, and Detroit Lakes anticipate using permanent, classified Fisheries Specialists and Technicians to accomplish project activities. Collectively, this work will total no more than 400 hours for each of the two years in the biennium. Temporary laborers will be hired to accomplish the spawn-taking, hatchery, and survey duties these permanent, classified individuals would have completed if they were not diverted to work on the LCMR project. If approved, we project paying salary costs for these classified positions from LCMR funds, up to 400 hours for each year of the biennium, but only when temporary laborers are "filling in behind" these classified employees--that is, accomplishing the work they would otherwise have done. When temporary labor is used in this way, DNR will pay temporary labor costs.

The reason for this approach is to use classified staff in the most efficient way. These classified personnel have the expertise to independently carry out the necessary spring sampling, while temporary employees would not have the capability to accomplish required tasks independently and efficiently.

Please contact me if a need exists to discuss this further.

Detailed Budget/Schedule - C19
Statewide Experimental Fishing Regulations

A. Characterize fish harvest using creel surveys

A.1. Collect creel data
Year 1; 6 open-water creels, 4 year-round creels ($120,000)
Year 2; 3 open-water creels, 5 year-round creels ($153,000)
Open-water creel run from mid-May through September; year-round creels run from mid-May through the end of ice fishing, except as ice is forming in November.
Total creel cost: $273,000

A.1.c. Material costs
Four (5) boat-motor-trailer packages ($5500 each)
Total cost: $27,500

A.2. Analyze creel data
Complete analysis of each creel as it is completed for each year.

A.2.c. Material costs
Five (5) personal computers with software ($5000 each) and one laser printer for $1500
Total cost: $26,500

A.3. Creel reports
Complete a creel report for each of the study lakes for each year of the project.

B. Document the status of fish populations through intensified sampling

B.1.c. Material costs
Nets ($5000)
One (1) 5000 watt generator ($2500)
Five (5) outboard motors ($2500 each)
Two (2) boat trailers ($1500 each)
One (1) boat-trailer package ($4000)
Fleet costs: $25,000
Total cost: $52,000

B.2. Interpret and document fisheries data
Summarize fish population data in annual reports for each lake.

COST SUMMARY:

3 unclassified project biologists for 2 years:	$214,000
Creel survey costs for 2 years:	$273,000
Fleet costs for 2 years:	$ 25,000
Seasonal labor costs for 2 years:	$ 25,000
Supplies and equipment costs for 2 years:	$113,000
TOTAL PROJECT COST:	$650,000